



Ivanti Neurons for MDM 97 Administrator Guide

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About Ivanti Neurons for MDM

A modern approach to mobile security, Ivanti Neurons for MDM provides unified endpoint management (UEM) solutions in a highly scalable, secure, and easy to update infrastructure that supports millions of devices around the world.

- Instant updates: Get automatic software and security updates and access to the new features the moment they become available.
- On-demand scalability: Scale your deployment as business needs change without having to worry about capacity planning.
- Minimize hardware costs: By eliminating the need to maintain on-premise hardware, cloud-based services require zero footprint to manage.
- High up-time and high availability.
- Maximize existing investments: Re-allocate IT resources from hardware maintenance to more strategic tasks that add value to the business.

You can view the summaries of "[New features summary](#)" on [page 6](#) available in this release.

New features summary

This section provides summaries of new features and enhancements that are available in this release. References to documentation describing these features and enhancements are also provided, when available.

["General features and enhancements" below](#)

["Android features" below](#)

["iOS, macOS, and tvOS features" on the next page](#)

["Windows features" on the next page](#)

["New features summary" above](#)

["Mobile Threat Defense features" on the next page](#)

General features and enhancements

- **Added a new attribute in the rule builder:** Starting with this release, the attributes **IMEI** and **IMEI2** are added to the rule builders of **Advanced Search > Devices, Device Groups, Distribution Filters, and Spaces**.
- **Support to view SCIM Token updates:** Any changes made to the SCIM Token can now be viewed under the Audit Trials section. For more information, see ["User Provisioning-Azure Active Directory" on page 1151](#)

Android features

- **Improved device cleanup settings:** Starting with this release, you can manage **Delete Wipe Pending Devices** for Android Managed Device with Work Profile, Work Managed Device, or Work Profile on Company Owned Devices. For more information, see ["Device Cleanup Settings" on page 1070](#).

- **Enhanced configuration settings for Android 13.0+ devices:** Starting with this release, Ivanti Neurons for MDM prevent users from sharing Wi-Fi configurations set by the administrators. For more information, see "[Lockdown & Kiosk: Android Enterprise](#)" on page 571.
- **Adding an app to the App Catalog:** The administrator's approval is no longer required to add a new app to the App Catalog. For more information, see "[App Catalog](#)" on page 286.

iOS, macOS, and tvOS features

- **New prefix(authsrv) added in service dropdown for Associated Domains configuration:** Ivanti now provides the ability to add domain URL with a prefix authsrv which is required by Okta. This was not supported by Apple.
- **Skip Enable Lockdown Mode and Skip Wallpaper selection restrictions added:** Two new restrictions Skip Enable Lockdown Mode and Skip Wallpaper selection added for macOS (DEP). For more information, see "[Device Enrollment](#)" on page 1177.
- **Global Proxy configuration in now available for macOS:** With Global Proxy Configuration users can now configure macOS devices to forward HTTP traffic to a proxy server for network access and security purposes.

Windows features

- **New option added to stop the Windows app version downgrade:** In the installed App Configuration tab, under the Device Installation Configuration section, a new option "Do not require specific app version" option is added to prevent the Windows apps from downgrading to a lower version. For more information, see "[App Configuration](#)" on page 333.

Mobile Threat Defense features

Mobile Threat Defense (MTD) protects managed devices from mobile threats and vulnerabilities affecting device, network, and applications. For information on MTD-related features, as applicable for the current release, see the Mobile Threat Defense Solution Guide for your platform, available under the MOBILE THREAT DEFENSE section on the Ivanti [Product Documentation](#) page.



Each version of the MTD guide contains all Mobile Threat Defense features that are currently fully tested and available for use on both server and client environments. Because of the gap between server and client releases, new versions of the MTD guide are made available with the final release in the series when the features are fully functional.

Getting Started

This section provides setup and usage overviews of features that require interaction across the Ivanti Neurons for MDM portal. This section contains the following topics:

- "Solution Overview" below
 - "Key features" on the next page
 - "Architecture diagram" on page 10
 - "Ivanti Neurons for MDM applications" on page 11
 - "Roles" on page 12
 - "Getting started" on page 12
- "Setting preferred language in a browser" on page 14
- "Unified navigation interface for Ivanti Neurons for MDM and Access" on page 15
- "Device Admin (DA) mode to manage Android devices - deprecated" on page 15

Solution Overview

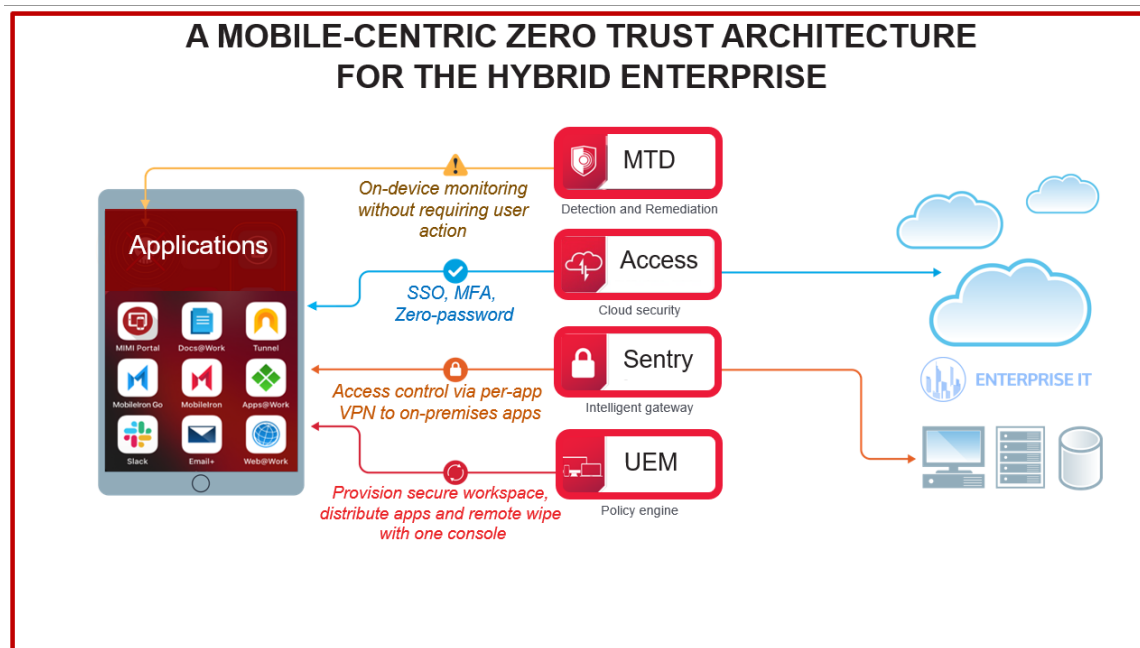
Continuous access to business data on mobile devices and other endpoints outside the corporate network requires a dedicated focus on security. To keep up with current security needs, enterprises need to consider how they can:

- Provision endpoints such as mobile phones and laptops
- Grant access based on a set of imperative data
- Protect data at rest and in motion
- Enforce measures as required

The Ivanti solution to this modern problem meets all the challenges. You can monitor endpoints and trigger adaptive policies to remediate threats, quarantine devices, and maintain compliance. Together, the following components help your organization realize the mobile-centric zero trust framework:

- **Ivanti Neurons for MDM** - Helps you create a secure workspace on any device with apps, configurations, and policies for the user based on their role. Users get easy and secure access to the resources they need for their productivity
- **Sentry** - An in-line intelligent gateway that helps your secure access to on-premise resources
- **Access** – Helps you verify the user, device, app, network type, and presence of threats. The adaptive access control check is the basis of the zero-trust model. Access provides single sign-on and security on the cloud
- **Mobile Threat Defense** - The combination of Ivanti Neurons for MDM and Mobile Threat Defense (MTD) protects data on-device and on-the-network with state-of-the-art encryption and threat monitoring to detect device, network, and app-level attacks

The following illustration shows the solution overview:



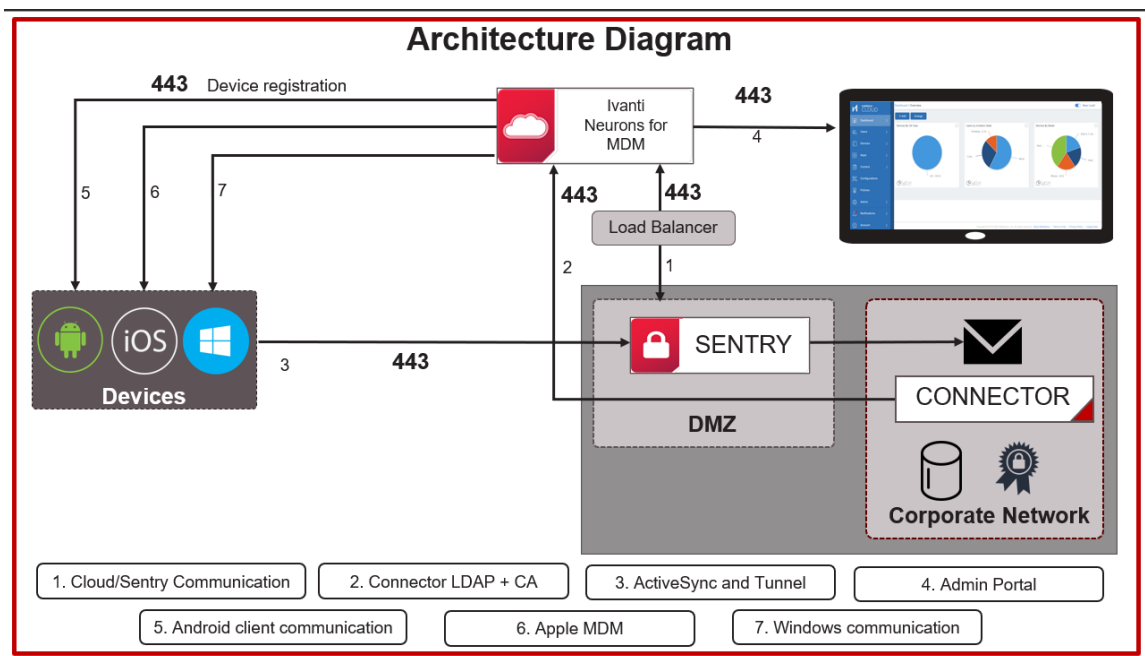
Key features

The Ivanti Neurons for MDM platform provides the fundamental visibility and IT controls needed to secure, manage, and monitor any corporate or employee-owned mobile device or desktop that accesses business-critical data. Ivanti Neurons for MDM platform allows organizations to secure a vast range of employee devices being used within the organization while managing the entire life cycle of the device including:

- Policy configuration management and enforcement
- Application distribution and management
- Script management and distribution for desktop devices
- Device actions
- Access control and multifactor authentication
- Threat detection and remediation

Architecture diagram

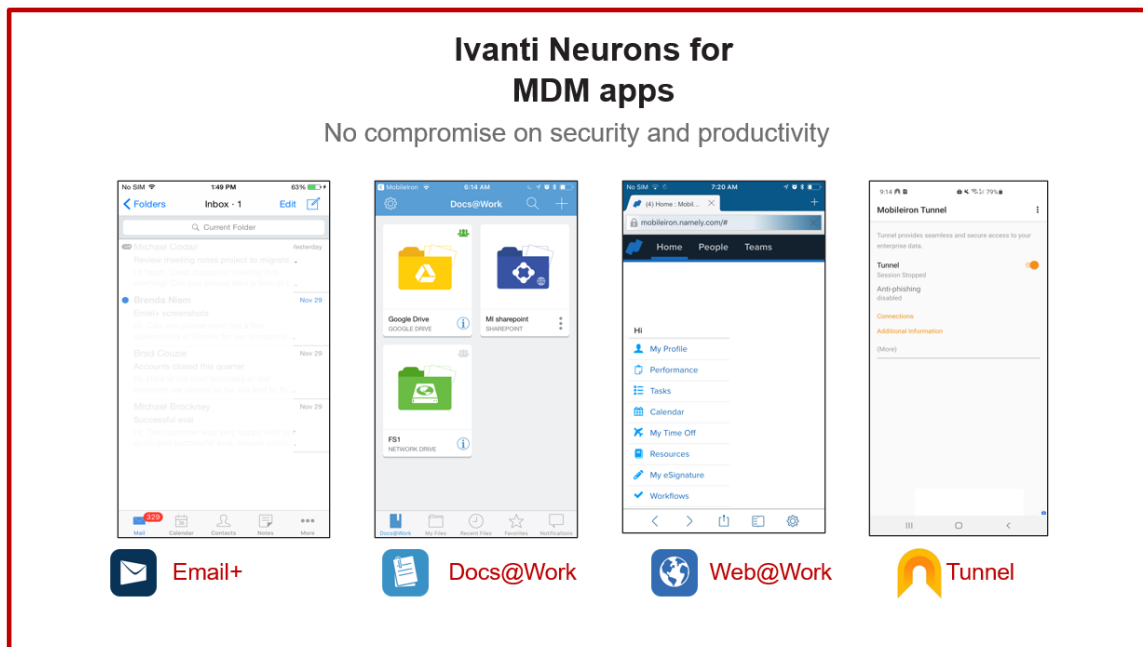
The following diagram shows the architectural overview of the Ivanti Neurons for MDM UEM platform:



Ivanti Neurons for MDM applications

- **App Catalog** – The App Catalog is a customizable enterprise app storefront. IT administrators can directly publish private or in-house apps to their end-users devices. The App Catalog can also be combined with Apple Volume Purchase Program to facilitate a secure distribution of mobile apps on iOS devices. Further Ivanti can harness the capabilities found in iOS managed apps and Android Enterprise. This allows for easy configuration within the Ivanti Neurons for MDM UEM platform of app-level settings and security policies for both advanced app security functions.
- **Email+** - A cross-platform to secure PIM application for iOS and Android. Email+ provides secure email, calendar, contacts, and tasks on corporate-owned and personal devices by communicating with an ActiveSync server in your enterprise.
- **Docs@Work** - Allows users to access, create, edit, markup, and share content securely from repositories such as Microsoft Share Point, and cloud services such as Box and Dropbox. This is important so users can maximize productivity on the go.
- **Web@Work** - Is a secure browser that allows enterprise users to securely access web content in their corporate intranet. Using Web@Work you can limit access to enterprise data to authorized users. When Web@Work is deployed in conjunction with App Tunnel, you secure the enterprise data in motion. With Web@Work users can access internal web resources quickly and easily.

The following image shows the Ivanti Neurons for MDM applications:



Roles

Administrator - As an Enterprise Administrator, you are responsible for the following tasks:

- Provide enterprise users with seamless and secure access to workspace emails, applications, configurations, and connectivity such as Wi-Fi and VPN.
- Separate personal data from business data on employee devices so that business data does not leak into the personal apps and personal data is not inadvertently accessed by IT.

User – As an Enterprise User, you can seamlessly access business applications and personal data from secure modern mobile devices, desktops, and cloud services. For more information about the various tasks that you can perform as a user, see "[Users](#)" on page 76. and "[Roles Management](#)" on page 1080.

Getting started

If you are a registered new user, follow the steps provided in this section to quickly get onboarded to the Ivanti Neurons for MDM services.

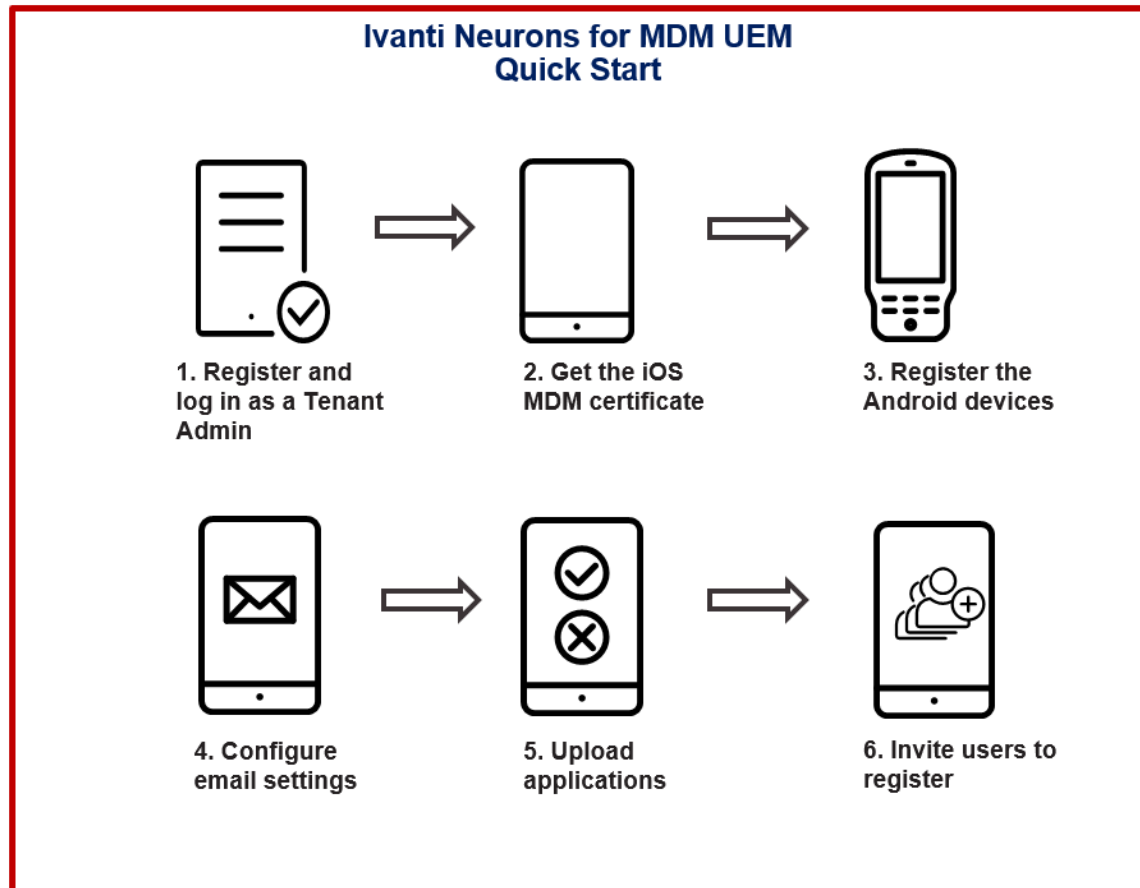
After you subscribe to the Ivanti Neurons for MDM platform, Ivanti creates a Ivanti Neurons for MDM tenant for you. You receive an email to the registered email address and the email contains a PDF with the following information about the tenant created for your enterprise:

- Information about the software bundle you purchased
- The URL and super admin login credentials of the tenant
- How to access Support Community and FAQs for Ivanti Neurons for MDM
- Where to access technical documentation and download the software



Ivanti, Inc does not provide software keys. By logging into your Ivanti Neurons for MDM tenant with the Super Admin credentials and accepting the terms of service, you activate the Ivanti Neurons for MDM product.

The following diagram depicts the steps to get started with Ivanti Neurons for MDM:



Procedure

1. Click the URL provided in the tenant registration email. The password reset prompt appears.
2. Change your password.
3. Log in to the tenant account using the ID and password. The Welcome wizard appears.
4. Complete the details in the **Welcome** form, accept the terms and agreement, and click **Continue**.
5. To install iOS MDM certificate, see "[Install MDM Certificate](#)" on page 1202.



If you want to manage your iOS devices at a later point in time, you can skip the iOS MDM certificate installation. Then the wizard prompts you to register the Android devices of your enterprise. Skipping the iOS MDM certificate installation means iOS devices will not be able to register. Users will see a message stating that iOS device enrollment has not been enabled.

6. To register the Android devices in Android Enterprise (AE) mode, see "[Managed Google Play Accounts \(Android Enterprise Accounts\)](#)" on page 1282. The wizard then prompts you to setup email accounts.



If you want to manage your Android devices at a later point in time, you can skip the Android managed Google Play account enrollment. Skipping the Managed Google Play Account enrollment will not allow you to register Android enterprise devices. Android devices can still be registered with Device Admin, but key features such as Managed Google Play, and App Configuration will not be available for use.

7. To configure the email settings and ActiveSync, see "[Exchange Configuration](#)" on page 735 and "[Email Configuration](#)" on page 731.
8. Click **Continue**. The pass code creation prompt appears.
9. Select a pass code type and click **Continue**.
10. Select the applications you want to upload and click **Continue**.
11. Specify the email addresses of the users and click **Continue**. The users will receive an email to register their mobile devices. A summary of the configuration is displayed.
12. Click **Finished**. The Dashboard page is displayed.
13. To explore further, do the following:
 - Go to **Users**. All the invited users are listed.
 - Go to **Apps**. All the applications that you uploaded are listed.
 - Go to **Configurations**. All the configurations that you pushed during registration are listed.

For more information about the various tasks that you can perform as an administrator, see the "[Admin](#)" on page 1062 section.

Setting preferred language in a browser

If a user has set their browser language as one which is not supported, the user can set en_US (English, United States) as the default language for the portal.

To set language preference for Safari browser running on macOS 10.15+ devices, users can set the preferred language as follows:

1. On the macOS device, go to **System Preference**.
2. Go to **Language and Region > General**.
3. Set **en_US** (or any other language option) as the **Preferred Language**.

Unified navigation interface for Ivanti Neurons for MDM and Access

For new customers in some clusters, Access is available as a unified navigation interface with Ivanti Neurons for MDM. Log in with your Ivanti Neurons for MDM administrator credentials. The Access options are available in the left navigation pane as a separate tab. Visit [Product Documentation](#) and click Access for more information about Access and how to set up Access.

The unified navigation interface includes the following features:

- Unified log in for both Ivanti Neurons for MDM and Access.
- Product picker in the left navigation pane to switch between Ivanti Neurons for MDM and Access products.
- Product selection memory: upon the first log in, Ivanti Neurons for MDM admin portal appears. Upon subsequent log ins, Ivanti Neurons for MDM or Access appears, mirroring the product selected upon first log in.
- Left navigation pane for both Ivanti Neurons for MDM and Access.
- Unified account settings pane with links to options such as Upgrade Options, Documentation, Support Portal, Change Password, and Sign Out.

Device Admin (DA) mode to manage Android devices - deprecated

Device Admin (DA) mode of managing Android devices is being deprecated in phased manner from Ivanti Neurons for MDM 78 onwards.

Any new users with a new tenant created on Ivanti Neurons for MDM 78, will not be able to register any devices (Android 6 and later) in DA mode. Any new tenants that need to enable DA registration for Android 6 to Android 9 must contact Ivanti Support.

- Android 10 and later devices will continue to be blocked from registering to DA mode.
- For existing users (with or without existing DA deployments), there are no changes in terms of managing the existing DA devices (Android 6 to Android 11). However, on upgrading to Ivanti Neurons for MDM 78, any newly registered devices running Android 10+ on existing tenants will also not be allowed to run in DA mode. Such existing tenants would only be able to enroll devices from Android 6 to Android 9 versions in DA mode.
- If any users are planning to migrate DA devices from a Core instance to the Ivanti Neurons for MDM R78, ensure that Android Enterprise is enabled and at least one system configuration is distributed to the target set: PO, DO, or COPE before triggering the migration. This step is essential to prevent the retirement of devices post migration.

DA registration type	Existing tenant (upgraded to 78)	New tenant
New DA registration of device with OS >=10	Not Allowed	Not allowed
New DA registration of device with OS < 10	Allowed	Not allowed
Existing DA devices with OS >= 10	Will remain active	NA
Existing DA devices with OS < 10	Will remain active	NA
Migrated DA devices with OS >= 10	Will Retire	Will Retire
Migrated DA devices with OS < 10	Will remain active	Will Retire

Configuring macOS devices

This is an overview topic that provides a list of common procedures and other content related to configuring macOS devices in Ivanti Neurons for MDM. You can access all the macOS topics in the *Ivanti Neurons for MDM Administrator Guide*.

Contents

- ["Registering devices" below](#)
- ["Configuring user invitation template" below](#)
- ["Setting up Zero Sign-on features" on the next page](#)
- ["Setting up Mobile@Work for macOS client" on the next page](#)
- ["Setting up macOS shell scripts " on the next page](#)
- ["Setting up macOS configurations" on page 19](#)
- ["Setting up macOS policies" on page 20](#)
- ["Verifying reports and other information" on page 20](#)

Registering devices

Most users start by registering a device. You can use any of the following approaches to start the registration process:

- Send an invitation to one or more end users (iReg registration). For more information, see the *macOS Device Registration* topic in the [Device registration](#) section.
- [Device Enrollment](#) and [User Enrollment with Apple Business Manager](#)

For more information, see [Device registration](#).

Configuring user invitation template

You can brand the end user email invitation to make its appearance more familiar to your end users. For more information, see [Branding Email Templates](#).

You can customize the device registration process with names and logos that your users will recognize. For more information, see [User Branding](#).

For more information, see [Configuring and Using Registration Confirmation Emails](#).

Setting up Zero Sign-on features

For Zero Sign-on related documentation, see Zero Sign-on with Access in the *Access Guide*.

For zero-touch automated enrollment, see the [User settings](#) topic, Configuring the settings for new device registrations section, Step 13.

Setting up Mobile@Work for macOS client

Mobile@Work for macOS app provides:

- Scripting capabilities on macOS devices
- App Catalog for end users
- Push notifications
- User onboarding (welcome/status) screen for automated device enrollment registrations

Before pushing Mobile@Work to the end users, ensure that "[Mobile@Work for macOS](#)" on page 629 is created and is set to be distributed to the target macOS devices.

You can enable user onboarding for macOS devices during the automated [Device Enrollment](#) process. As soon as the Device Enrollment is completed, Mobile@Work for macOS is pushed to the device along with the profiles, configurations, and apps.

Setting up macOS shell scripts

Ivanti Neurons for MDM allows you to create your own macOS shell scripts, which you can then upload to Ivanti Neurons for MDM and run on managed macOS devices. You can configure the scripts using the Mobile@Work for macOS Script configuration. Mobile@Work for macOS returns the script execution results to Ivanti Neurons for MDM, which are shown in the device logs. You can check the device logs from the device details page of the macOS device, in the **Logs** tab. For more information about creating, uploading, and managing the scripts repository, see [All Scripts](#).

Before you can run shell scripts on macOS devices, ensure that the users have the Mobile@Work for macOS app running on their devices and have a Mobile@Work for macOS configuration pushed to their

devices. Scripts can be run once or on a recurring basis. Scripting on Ivanti Neurons for MDM also allows administrators to collect information from a device and then be stored in Ivanti Neurons for MDM as a custom attribute. For example, if you need to know Java version on a macOS device, you can collect this information and store it on a per-device-basis in a custom device attribute. For more information, see *Creating a Mobile@Work for macOS Script Configuration* in [Mobile@Work for macOS](#).

Setting up macOS configurations

[Configurations](#) are collections of settings that you send to devices. For example, you can use configurations to automatically set up VPN settings and passcode requirements on these devices. Use the **Configurations** page to select, set up, and distribute configurations. There are many [types of configurations](#) available. In the [page](#), you can view a list of available macOS configurations, including the following configurations:

- [Wi-Fi](#)
- [Passcode](#)
- [VPN](#)
- [Encrypted DNS](#)
- [FileVault 2](#)
- [FileVault Recovery Key](#)
- [macOS Firewall](#)
- [macOS Restrictions](#)
- [macOS AppStore Restrictions](#)
- [macOS Finder Settings](#)
- [macOS Kernel Extension Policy](#)
- [Active Directory \(macOS\)](#)
- [Office 365 Auto Account Creation \(macOS\)](#)

You can use [custom configurations](#) to import and distribute a predefined configuration file.

Setting up macOS policies

[Policies](#) define requirements for devices, as well as what will happen if a device does not comply with requirements. Each policy consists of a rule and a compliance action (what happens if the rule is violated). Use the **Policies** page to select, set up, and distribute policies. Data Protection/Encryption Disabled and [Allowed apps](#) are macOS-related policies. You can use [Custom Policies](#) to create a custom policy based on device and user attributes, section criteria, values, and compliance actions you specify.

Distributing macOS apps

Ivanti Neurons for MDM supports macOS [apps](#) distribution via Apple's MDM protocol and using the Mobile@Work app. Administrators can choose to use one or both of the following approaches:

- Apple's MDM protocol - Administrators can upload only specific PKG formats (distribution format) as in-house apps and can also distribute apps from Mac App Store (Apple's Apps and Books licensing support is included). However, this approach does not allow administrators to distribute DMG and other PKG formats.
- Mobile@Work for macOS app - As a way to distribute apps to users, administrators can use MobileIron Packager (MIP) app to convert any PKG, DMG or .app files to an MIP file. Upload the MIP file into Ivanti Neurons for MDM as an in-house app.



You can download Ivanti Neurons for MDM Mac Packager utility from MobileIron software downloads.

Administrators can use Mobile@Work to distribute in-house apps that are in the DMG, PKG or .app format. For apps that are only available in the Mac App Store, administrators can continue to use Apple's native MDM capabilities, which includes Apple Apps and Book licenses capabilities.

Verifying reports and other information

The [Dashboard](#) shows important statistics about registered devices and users. Each section on the dashboard is called a widget.

You can verify additional information as follows:

- Review notifications - Go to the **Dashboard > Notifications** page (or click the bell icon (top right)) to review notifications and take actions where necessary.

-
- Reports - Go to the **Dashboard > Reports** page to access the data in your Unified endpoint management (UEM) system.
 - Audit Trails - Go to the **Dashboard > Audit Trails** page to access the chronological set of records that capture activities performed on all entities within Ivanti Neurons for MDM. To enable this feature, go to the **Admin > Infrastructure > Audit Trails** page and click **Enable Audit Trails**.
 - [App Insights](#) - Go to the **Dashboard > App Insights** page to view and analyze the app distribution and other app details.

Configuring and using registration confirmation emails

Administrators can configure and trigger emails to users after they have completed registration. This email can contain, for example, additional instructions for users after having successfully registered. Administrators can enable sending of this email during user invitation.

The process:

- **Configuring the feature:**
 - Configure the email template.

The English email template looks like this by default, but you can revise it to better suit your purposes by following the instructions at ["Customizing an email template" on page 1325](#) in ["Branding Email Templates" on page 1323](#):

Completed: `#{productBrandName}` registration for your device

Congratulations! Your device is now registered for mobile access with `#{productBrandName}`.

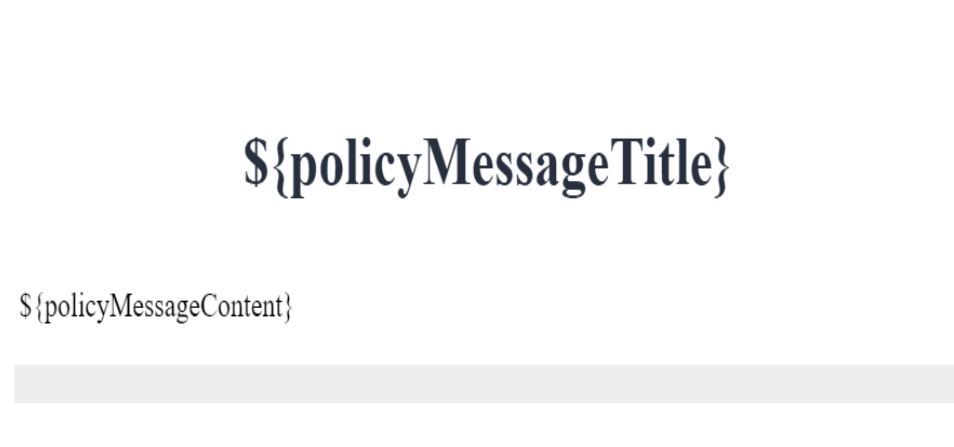
- Turn on the registration confirmation email. See ["Configuring User Registration Confirmation emails" on page 99](#) in ["User Settings" on page 87](#).
- **Using the feature:**
 - Send the user the invitation to register, as described in ["Inviting Users" on page 141](#). When the user successfully registers, Ivanti Neurons for MDM will send that user the registration confirmation email.

Configuring and using policy compliance notification emails

Administrators can wrap in a policy compliance notification email template the emails sent by the Custom and Allowed Apps policies' send email actions to users whose devices have fallen out of compliance. The following process describes the configuration:

- **Configuring the feature:**
 - **Configure the email template.**

The English email template looks like this by default, but you can revise it to better suit your purposes by following the instructions at ["Customizing an email template" on page 1325](#) in ["Branding Email Templates" on page 1323](#):



- **Turn on the policy compliance notification template.** This template works in conjunction with the message you craft using the Custom and Allowed Apps policies' send email actions. Ivanti Neurons for MDM inserts the information you specify in those email actions into the policy compliance notification template. You can turn on the policy compliance email template when you create or edit a Custom or Allowed Apps policy. For more information about instructions on enabling the policy compliance notification template for a Custom policy or Allowed apps policy, see ["Adding a custom policy" on page 1008](#) and ["Creating an Allowed Apps policy" on page 1048](#) respectively.

- **Using the feature:**


- When a device falls out of compliance with a Custom or Allowed apps policy with the policy notification template enabled, Ivanti Neurons for MDM sends the device owner an email, first wrapping the email in the policy notification template. Your interaction with the feature is to configure it as summarized above, whereas Ivanti Neurons for MDM itself uses the feature.

On-demand features

Ivanti Neurons for MDM includes certain on-demand features that are disabled by default. Such features may have some impact on performance and may not yet be fully ready for deployment in production.

Administrators can contact [Support](#) if they are interested in enabling one or more on-demand features on their tenant(s) devices that are disabled by default.

The following table includes the list of documented on-demand features:

Feature	Description	Platform(s)	License
Windows 10 features	Features applicable to Windows 10 devices.	Windows 10	<ul style="list-style-type: none"> • Legacy: Gold • Current: Secure EUM <p>See "Packages" on page 1340 for more information about legacy and current offerings.</p>
App catalog URL copy to clipboard	<p>Provides the ability for the administrators to copy the app catalog URL to clipboard for apps. This URL can be distributed to the users via email. If the user clicks the link from a registered device, the app catalog with the app will be opened in the browser, where the user can choose to install the app.</p> <hr/> <p> The administrators are responsible for restricting the distribution of this URL to the intended users.</p> <hr/>	<ul style="list-style-type: none"> • iOS • macOS 	NA (Tenant specific)

Feature	Description	Platform(s)	License
Set up a web clip as an app	Set up a web clip as an app in the app catalog to make the web application available in the app catalog for the users. The web clip can be defined as a configuration, but a configuration can only be pushed by the admin. Users can choose to install the web application on their devices or opt out, whereas users have no option to opt out of a web clip configuration.	iOS	NA (Tenant specific)
Turn on registration of Allowlisted devices	Allow device registration based on Allowlisted serial numbers in Users > User Settings > Default Device Registration Setting.	<ul style="list-style-type: none"> • iOS • macOS 	NA (Tenant specific)
Certificate based authentication	Certificate based authentication feature allows administrators to log in using digital certificates and a tenant specified hostname or a vanity host name. This authentication setting can be configured using the Vanity Host configuration under the Admin tab.	This feature is not platform-specific.	NA (Tenant specific) This feature is only available on NA3 cluster environments, and only if enabled by Support.

Feature	Description	Platform(s)	License
Create a dedicated devices configuration (corporate-owned single-use, or COSU)	Administrators can configure dedicated devices that can be used for a specific purpose using Android enterprise using the Dedicated devices (corporate-owned single-use, or COSU configuration). The COSU configuration is distributed to Work Managed Devices (Device Owner mode) to provide only one app available to users in Kiosk mode.	Android Enterprise	Silver
Dashboard inactivity period	By default, the dashboard inactivity period is set to 15 days. This can be updated based on the tenant needs and to a maximum of 30 days. If you need a longer inactivity period, contact the Support team.	This feature is not platform-specific.	

Preparing for Android Enterprise device support

This section describes the minimum network requirements for Android Enterprise devices. Android devices generally do not require you to open inbound ports on the firewall in order to function correctly. However, there are a number of outbound connections that administrators need to be aware of when setting up their network environments for Android Enterprise devices.

The list of network changes provided in the following table is not exhaustive and may change. It covers known endpoints for current and past versions of enterprise management API and GMS apps.



In addition to the ports listed in the following table, Android Enterprise devices require access to Ivanti Neurons for MDM.

The following table lists the requirements for Android Enterprise devices:

Destination Host	Ports	Purpose
play.google.com android.com google-analytics.com googleusercontent.com gstatic.com *.gvt1.com *.ggpht.com dl.google.com android.clients.google.com	TCP/443 TCP, UDP/5528-5230	Google Play and updates (APKs, app logos, etc.) gstatic.com, googleusercontent.com - contains User Generated Content (for example, app icons in the store) *.gvt.com, *.ggpht, dl.google.com, android.clients.google.com - Download apps and updates, PlayStore APIs
*googleapis.com	TCP/443	UEM/Google APIs/PlayStore APIs
accounts.google.com	TCP/443	Authentication
fcm.googleapis.com fcm-xmpp.googleapis.com	TCP/443, 5228-5230	Firebase Cloud Messaging (for example, Find My Device, UEM Console <-> DPC communication, like pushing configs)
pki.google.com clients1.google.com	TCP/443	Certificate Revocation
clients[2...6]. google.com	TCP/443	Domains shared by various Google backend services such as crash reporting, Chrome Bookmark Sync, time sync (tlsdate), and many others.

Google does not provide specific IPs, so you should allow your firewall to accept outgoing connections to all IP addresses contained in the IP block listed in Google's ASN of 15169 listed here http://bgp.he.net/AS15169#_prefixes.



IPs of Google peers and edge nodes are not listed in the AS15169 blocks. See <https://peering.google.com/> for more information about Google's Edge Network.

Dashboard

The dashboard shows important statistics about registered devices and users. Each section on the dashboard is called a widget. For each widget, you define:

- the category of data displayed (such as devices or users)
- how the data is grouped (such as by OS build version or model)
- how the data is filtered (such as displaying only iOS devices or display by OS build version)
- how the data is displayed (such as the pie chart or bar chart)

This section contains the following topics:

- ["Working with Widgets" on page 33](#)
- ["App Insights" on page 48](#)
- ["Using Scheduled Reports" on page 54](#)
- ["Using Custom Reports" on page 65](#)

Working with Widgets

This section contains the following topics:

- ["Adding a widget" below](#)
- ["Arranging the widgets" on the next page](#)
- ["Editing a widget" on the next page](#)
- ["Reviewing notifications" on the next page](#)
- ["Reports" on page 36](#)
- ["Audit Trails" on page 37](#)

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- the category of data displayed (such as devices or users)
- how the data is grouped (such as by OS version or model)
- how the data is filtered (such as displaying only iOS devices)
- how the data is displayed (such as the pie chart or bar chart)

Adding a widget

1. Click **Add** (upper right).
2. Assign a name to the widget.
3. Select a data category.
4. Complete the filtering options as they display.
5. Select the default display type (pie chart, bar chart, line graph).
6. Click **Done**.

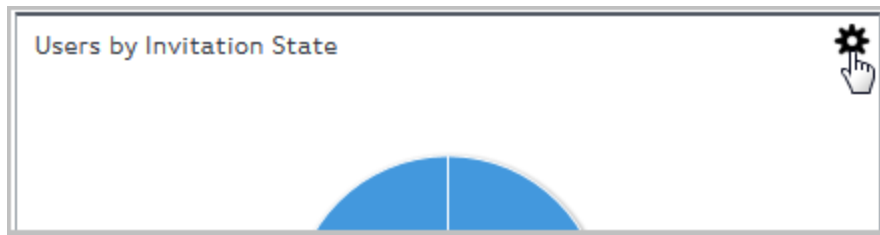
Arranging the widgets

Widgets always display three to a row. However, you can change the order in which the widgets are displayed:

1. Click **Arrange** (upper right).
2. Drag the boxes into the order in which the widgets should appear.
3. Click **OK**.

Editing a widget

1. Click the settings icon for the widget (upper right).



2. Select **Edit**.
3. Make your changes.
4. Click **Done**.

Reviewing notifications

Click the bell icon (top right) or go to **Dashboard > Notifications** page to review notifications and take actions where necessary based on the following criteria:

- Component Type
 - APP
 - LDAP
 - AAD
 - Device Allowlist

-
- Apps and Books
 - iOS
 - Android
 - Tenant
 - CA
 - Connector
 - Device Enrollment Server Token
 - Notification Type
 - Expiration
 - Data Sync
 - Usage Limit
 - Admin Action
 - Server Authentication Error
 - Validation Error
 - Status Change
 - Severity
 - Cleared
 - Information
 - Critical
 - Warning

Admins can select the APP component to quickly review all app-specific notifications on the Notifications page and also in the bell notification section. If there are new permissions to be accepted for Google Play apps, then the admins can accept them upon clicking the notifications rather than visiting each app page to review and accept the permissions.



Ivanti Neurons for MDM customers/tenants will get the Android Go app approval notifications even though the Android Go app is not imported into the App Catalog.

Reviewing user password expiration and ID change notifications

Admins can review the upcoming password expiration in the **Notifications** page. They are also notified of the password expirations from two weeks to one day in advance, including links to CSV report files containing the list of corresponding users. After the password expires, notifications will no longer be generated.

Admins can also review a notification that lists the users whose IDs (UIDs) were detected to have changed during the last LDAP sync.

Clearing a notification

You can manually clear these notifications of any severity whenever required from the **Notifications** page.

1. In the **Notifications** page, click on the icon in the **Actions** column for the notification you wish to clear. The **Confirm Clear Notification** window is displayed.
2. Click **Clear Notification**. When cleared, the status of notification changes to **Cleared** in the **Status** column.



The total count of the notifications that are cleared are displayed in the **Notifications** page.

Reports

On the **Dashboard > Reports** page, you can access the data in your Unified endpoint management (UEM) system. For example, administrators can add information such as Device Space Name and Device Custom Attributes to reports using the corresponding filter option while creating Devices and Blocked Devices reports. Accordingly, these reports have columns for Device Space Name and Device Custom Attributes respectively. Custom Device Attributes are available under filtering options while creating a report. Administrators can pick from the list of custom device attribute keys used for devices and select the available operators.

Starting with Ivanti Neurons for MDM 76, the operators for all the report templates have standard operators. The operators of the following templates are standardized in this release:

- Dashboard > Reports > Create Report

The following is the workflow of a report:

-
1. Choose - select from a predefined report template.
 2. Define Scope - set the period of time for report data.
 3. Set Details - name and customize your report.
 4. Run or schedule - run the report immediately or create a schedule.
 5. Share - specify who will receive your report.

Related topics:

- [Dashboard > Reports \(Scheduled\)](#)
- [Dashboard > Reports \(Custom\)](#)

Quick Search: Navigate to the Reports tab. The quick search field lets you search from the following columns, it lets you search even if you include space or special characters:

- NAME
- DESCRIPTION
- TEMPLATE NAME

Audit Trails

Audit Trails is a chronological set of records which captures activities performed on all entities within Ivanti Neurons for MDM - by all actors including administrators, end-users and by various components of the system itself. Starting with Ivanti Neurons for MDM release 80, Audit Trails is enabled by default for all tenants. The tenant can opt-in or out of Device Check-in Audit Trails. For the tenants that were enabled with Audit Trails prior to R80, the check-in events stay enabled. For all other tenants' devices, the check-in trails are disabled. When you re-register an Android device, the Audit Trails page displays the currently registered device status as Re-Registration Device Action performed and the previous entry as Retired Device Action performed. For more information, see "[Device Registration \(iOS, macOS, and Android\)](#)" on [page 205](#).

The following activities are tracked:

- Adding, retiring, wiping, deleting, and updating devices
- Force Check-in on devices
- Changing device ownership

-
- Creating, updating, and deleting user setting (Device Registration, Device Limit, and Terms of Service settings)
 - Locking and unlocking devices
 - Creating, editing, deleting and prioritizing configurations
 - Creating, editing, and deleting policies
 - Changes in the distribution group of configurations.
 - Creating, editing, and deleting a user (does not include LDAP user creation).
 - Creating, editing, and deleting a user group.
 - Creating, editing, and deleting distribution filters.
 - Creating, editing, and deleting LDAP server.
 - Synchronizing with LDAP server in the following scenarios:
 - LDAP Sync Start
 - LDAP Sync Success
 - LDAP Sync Discard (occurs when the number of users deletion exceeds the configured threshold value).
 - LDAP Sync Partial Discard (occurs when there are failed entries during sync)
 - LDAP Server added
 - LDAP Server edited
 - LDAP Server deleted
 - LDAP Server Sync started
 - LDAP Server Sync failed
 - LDAP Server Sync completed
 - Creating, editing, and deleting apps.
 - Creating, editing, and deleting app configurations.

-
- Creating, editing, and deleting [scripts](#).
 - Deleting Admin LDAP entity.
 - Modifying LDAP preferences.
 - Uploading LDAP certificate.
 - Application icon change.

Enabling Audit Trails

You need to turn on the Audit Trails feature to capture activities performed within Ivanti Neurons for MDM.

1. Select **Admin > Infrastructure > Audit Trails**. The **Audit Trails** page is displayed.
2. Click **Enable Audit Trails**. The **Enable Audit Trails?** window is displayed to confirm your action to enable Audit Trails.
3. In the **Enable Audit Trails?** window, click **Enable Audit Trails**.




You will not be able to disable the Audit Trails feature after you enable it. To disable, contact support.

4. In the **Export Audit Trails** field, slide the toggle bar to **ON** to configure the export of Audit Trails. Audit Trails export is used to export and upload all the Audit Trails information to a specific server location. The Audit Trails export is performed through SSH File Transfer Protocol (SFTP). The server should be accessible from the default port. Users can configure Audit Trails export settings to get archives of Audit Trails automatically uploaded to a specific location on a daily basis. For more information, see [Exporting Audit Trails](#).

Viewing Audit Trail activities

You can view the tracked activities in the **Audit Trails** page under **Dashboard**. If a row item extends beyond the default column width and is hidden due to the column border, an ellipsis is displayed, and when you mouse-over on the ellipsis the complete row item is displayed as a tooltip.

The following details are displayed in this view:

Column name	Description
Name	<p>Name of the device or the name of the user setting. For example, for device activities, it displays the device name. Clicking the hyperlink navigates to the activity details page.</p> <hr/> <p> If there is a user associated with the device, the device owner user name is also displayed under the device name.</p> <hr/> <p>Clicking the Go to Device link icon next to the name of the device to navigates to the device details page. In the Device Details page, you can click on the Go to Audit Trails hyperlink to view the activity details page for Audit Trails.</p>
Type	<p>Type of activity that is triggered.</p> <p>Example: 'Account' for a login activity.</p>
Category	<p>The category of the activity.</p> <p>Example: Config, Policy.</p>
Last Activity	<p>The activity that was last performed.</p> <p>Example: Create, Delete.</p>
Last User	<p>The user who performed the activity.</p>
Performed At	<p>The date and time of the performed activity is visible in only 24 hour format.</p>

Activity details view

The Activity Details View (inner layer) is accessed by clicking on the link under the **Name** column in the Entities View and it lists all historical activity trails concerning that entity. The following details are displayed in this view. If a row item extends beyond the default column width and is hidden due to the

column border, an ellipsis is displayed, and when you mouse-over on the ellipsis the complete row item is displayed as a tooltip.

Column name	Description
Time of Action	The duration lapsed from the time the action was performed.
Activity	Describes the specific action performed. Example: App added to App Catalog.
Performed By	The user who performed the activity.
Changes - Before & After	Click the icon to view the Audit Trail comparison details in the Audit Trails Changes - Before & After window.



The following details appear in the **Audit Trails Changes - Before & After** window.


Column name	Description
Attribute	Displays the name of the modified attribute. Example: createdAt .
Before	Attribute values before the action was performed.
After	Attribute values after the action was performed.

Using the **Customize columns** setting icon displayed on top right of the column header, you can select or unselect the checkbox for the relevant column name to display/hide the columns in the list view.

Filtering Audit Trail activities

Using the **Filters** option you can filter and view the list of Audit Trail activities. The following are the available filtering options:

Filtering Options	Description
Filter by Date Range	<p>Select the date range from the Start Date and End Date fields. When the range is selected, the list of Audit Trail activities performed within the selected date range are listed. This filter option is available in any of the view options (Grouped or Expanded).</p> <hr/> <p> Only a maximum of 15 days is allowed to be selected as the date range with the end date as the current date.</p> <hr/>
Category (Applicable only in Expanded View)	<p>Select the category from the following options:</p> <ul style="list-style-type: none"> • Policy • Device Management • User Management • User Setting Management • LDAP • Config • Admin Portal Access • App Management • Azure Device Compliance <hr/> <p> The Category column is hidden by default in expanded view.</p> <hr/>

Filtering Options	Description
<p>Type</p> <p>(Applicable only in Expanded View)</p>	<p>Select the following Entity type options:</p> <ul style="list-style-type: none"> • Account • Device • Registration Auth • Device Limit • Terms of service • Compliance Report <hr/> <p> The Type column is hidden by default in expanded view.</p>
<p>Activity</p> <p>(Applicable only in Expanded View)</p>	<p>Select the specific activities you wish to view. The following are the options:</p> <ul style="list-style-type: none"> • Delete • Distribution Update • Force Checkin • Clear config Error • Retire • Login • Update • Update Owner • Wipe • Lock • Update Intune Compliance

Filtering Options	Description
Name (Applicable only in Expanded View)	Filter by the name of the device or the name of the user setting.
Performed By	Filters by the users who performed the action.
Status	Filters by the login status. The following are the options: <ul style="list-style-type: none"> • Success • Failure

 The order of display is based on the time when the activity was performed.

Using the **Customize columns** setting icon appearing on the top right of the column header, you can select or unselect the checkbox against the relevant column name to show/hide the columns in the list view.

By default, the pages lists 50 activities are listed in the page. If there are more than 50 activities, you can click **Next** button at the bottom of the page to view more activities. Alternatively, you can also click the relevant display option in the **Show** field located at the bottom of the page. For example, click **100** to display the list of most recent 100 activities.

Searching for Audit Trail activities

Using the Search field, you can find and view the list of Audit Trail activities based on the keyword entered. Currently, when you perform a quick search the whole string is indexed including the property names. Starting with Ivanti Neurons for MDM 76, only property values are indexed. Users need not provide details keys present under the details column while performing quick search. The keyword entered can be the values applicable to any of the following columns:

- **Activity** (device name or the user name)
- **Type**
- **Category**

-
- **Performed By**
 - **Details**

 The values in the Activity column are not searchable.

The displayed result will also include the Audit Trail activities having any part of the column values matching with the entered keyword.

Using Advanced Search for Audit Trails

You can use the Advanced Search option to search for audit trails based on rules to identify and view the activities with specific criteria. The rule options can be nested together using the ANY (OR) or ALL (AND) options. You can use the following attributes to perform the search:

- **Activity**
- **Category**
- **Created At**
- **Performed By**
- **Performed On**
- **Status**
- **Type**

The activities matching the rules are displayed below the section. The rules can be constructed using the following operators:

- begins with
- ends with
- contains
- does not contain
- does not begin with
- does not end with

-
- is less than
 - is greater than
 - is in range
 - is equal to
 - is not equal to

Procedure

1. From the Audit Trails page, click the **Advanced Search** link.
2. Click **Any** if the activities need to match at least one of the rules, or Click **All** if the activities need to match all the rules.
3. Select the attribute and the relevant operators to create a rule that defines the search criteria.
4. (Optional) Click **+** to create additional rules, if needed.
5. (Optional) Click **Save** to save the query.
6. Click **Search**. The list of audit trail activities matching the search criteria are displayed on the page.
7. (Optional) You can also delete the saved query.

Exporting Audit Trails to a CSV file

You can export the Audit Trail records using the Export to CSV option from the Audit Trails page.

Procedure

1. Go to **Dashboard > Audit Trails**.
2. Click the **Actions** drop-down menu and select **Export to CSV** option. Alternatively, you can filter by date range before you select the Export to CSV option.
A pop-up message appears that the export report would take some time to process. Wait for the request to complete before you submit another request.
3. Click **Download**. You will receive an email containing a link to download the report.
4. (Optional) Click **Delete** to delete the report.

If you cannot see the **Dashboard** page, it might be that you do not have the required permissions. You need one of the following [roles](#):

- System Management
- System Read Only

App Insights

This section contains the following topics:

- ["Viewing app distribution" on the next page](#)
- ["Viewing app details" on the next page](#)
- ["Adding single app distribution charts" on page 50](#)
- ["Adding a unmanaged iOS apps chart" on page 51](#)
- ["Adding top 10 installed managed apps" on page 52](#)
- ["Adding top 5 rated in-house apps" on page 53](#)

App Insights is a feature in the Dashboard that helps you to view and analyze the following app distribution:

- In-house app distribution requiring installation
- Public app distribution requiring installation
- Unmanaged iOS apps
- Top10 installed managed apps
- Top 5 Rated In-House Apps

Analysis of top 5 apps requiring installation: These are In-House or Public apps that have been distributed to a large number of users but have proportionately low installation rates. The Unmanaged iOS apps chart provides information on the unmanaged apps on devices. You will have the ability to see the list of unmanaged apps, on what devices they are installed, and take action to convert the app to a managed app. These are the app distributions that require an administrator's attention or action to improve the distribution. These charts represent the devices that already have the app installed. The doughnut chart provides a high-level overview of the distribution of public and in-house apps which not only helps in analyzing the number of devices requiring app installation, but also allows you to further drill down to get more app specific information by clicking on a specific region of the chart. Additionally, you can also add a single distribution chart that represent a version specific distribution for a single app.



The dashboard only shows information about devices that are checked in the last 15 days.

Viewing app distribution

In the **Apps** page under **Dashboard**, you can view the following charts:

- In-house app distribution requiring install
- Public app distribution requiring install
- Unmanaged iOS apps

The charts for 5 in-house apps, 5 public and Unmanaged iOS apps are displayed by default. The graphs are ordered left to right starting with the app with the highest uninstalled rate.

The doughnut charts display 2 colors to represent the installation status. The blue color represents the number of devices where the app is installed. The red color represents the number of devices that requires installation. The count of devices are displayed if you hover over each color region.

You can delete a chart by clicking the delete option on top right corner of the chart.

Viewing app details

The center of the doughnut chart also displays the number of devices that requires installation. Example: 750/1000 which means 750 out of 1000 devices requires installation.

The doughnut charts display 3 colors to represent the distribution of the app.

- The blue color represents represents the number of devices where the app is installed. Clicking the blue region in the chart navigates to the **Devices** page. In the **Devices** page, the **App Version** column displays the installed app version and the date when the app was installed.



You can also view devices based on the installed app versions by selecting the options from the **Versions** section in the left panel.

- The red color represents the number of devices requiring app installation. Clicking the red region in the chart navigates to the **Devices** page. In the **Devices** page, you can view devices that requires installation of the app.

An app icon is displayed in the center of the chart. When the icon is clicked, it navigates to the app details page under **Apps > App Catalog**.

In this page, click the **Devices with App installed** tab to view the list of devices for the selected app.

Click the **Devices without App installed** tab to view the list of devices not installed for the selected app.

Adding single app distribution charts

You can add a single distribution doughnut charts for a specific version of an app in the Apps page. The red color represents the list of eligible devices that should have the app installed. These charts graphically represent the following details of the distribution of apps:

- Devices installed with a specified version of the app
- Devices installed with other versions of the app
- Devices that are not installed with the app

Procedure

1. Click **+Add** in the **Apps** page. The **Add App Chart** window is displayed.
2. In the **Chart type** drop-down list select **Single App Distribution**.
3. Select the checkbox for the list of apps for which you wish to view the single app distribution chart.



You can alternatively, search for a specific app by typing the app name in the Search for Apps field.

4. Click **Add Chart**. The single app distribution charts are displayed in the Apps page.



You can select a maximum of 9 apps from the list.

The center of the chart displays the number of devices that are installed with the specified app version.

Example: 5/10 which indicates that 5 out of 10 devices are installed with the specified app version.

The doughnut charts displays 3 colors to represent the distribution of the app.

-
- The green color represents the number of devices where the specific version of the app is installed. Clicking the green region in the chart navigates to the **Devices** page that displays the list of devices installed with the specified version of the app. You can also view devices based on other installed app versions by selecting the options from the **AppVersion** section in the left panel.
 - The light green color represents the number of devices where other versions of the app is installed. Clicking the light green region in the chart navigates to the **Devices** page that displays the list of devices installed with other versions of the app. You can also view devices based on other installed app versions by selecting the version options from the **AppVersion** section in the left panel.
 - The red color represents the number of devices where the app is not installed. The count of devices are displayed if you hover over each color region. Clicking the red region in the chart navigates to the **Devices** page where you can view the devices that are not installed with the app. The left panel also displays the date from when the app is available in the app catalog.

An app icon is displayed in the center of the chart. When the icon is clicked, it navigates to the app details page under **Apps > App Catalog**. In this page, click the **Devices with App installed** tab to view the list of devices for the selected app. Click the **Devices without App installed** tab to view the list of devices not installed for the selected app.

You can delete a chart, by clicking the delete option on top right corner of the chart.

Adding a unmanaged iOS apps chart

You can identify and view the list of unmanaged apps by adding the unmanaged iOS apps chart to the Apps page. This chart appears automatically when an administrator adds an unmanaged iOS app to the catalog. The administrator can delete or add this chart as needed.

Procedure

1. Click **+Add** in the **Apps** page. The **Add App Chart** window is displayed.
2. In the **Chart type** drop-down list select **Unmanaged iOS Apps**.
3. Click **Add Chart**. The unmanaged iOS apps chart is displayed in the **Apps** page.

The chart displays the number of apps in the app catalog that are unmanaged. The bottom of the chart displays 3 columns with the following details:

- **Devices with unmanaged iOS apps** - Indicates the number of unmanaged iOS apps. Click the link to view the list of devices with unmanaged apps in the Devices with unmanaged iOS apps window.

-
- **Total apps in app catalog** - Displays the total number of apps available in the app catalog.
 - **Unmanaged iOS apps (%)** - indicates the unmanaged iOS apps in percentage.

If an app is already installed from iTunes App Store, you can convert the app and its data to a managed app. To convert such app to a managed app:

1. Click the number link in the **Devices with unmanaged iOS apps column**. The **Unmanaged iOS apps** window is displayed.
2. Select one or more unmanaged apps from the list and click on the number link under unmanaged iOS apps. The selected apps will be converted to managed apps and the status will be updated in the next device check-in.



You can export the data on the unmanaged apps in CSV format by clicking the **Export to CSV** link.

Adding top 10 installed managed apps

You can identify and view the list of top 10 installed managed apps using a Top 10 Installed Managed Apps chart in the Apps page. The administrator can delete or add this chart as and when required.

By default, Top 10 installed managed apps chart is available in **Apps** page. If the chart is deleted, the Admin can add it from the **Apps** page.

Procedure

1. Click **+Add** in the **Apps** page. The **Add App Chart** window is displayed.
2. In the **Chart type** drop-down list select **Top 10 Installed Managed Apps**.
3. Click **Add Chart**. The Top 10 Installed Managed Apps chart is displayed in the **Apps** page.

You can view the top 10 installed managed apps based on the category selected under the **Show** drop-down list. The available categories are:

- **All Apps** (selected by default)
- **In-House Apps**
- **Public Apps**

Each bar in the chart is displayed in represent each specific app and the name of the app is also displayed. Hover over each bar to view the platform (Android, iOS or Windows) and the number of devices installed with the app.

Clicking the bar of a specific app navigates to the **Devices** page that displays the details of the device(s) installed with the app. The left panel in the Devices page indicates the number of devices installed with the app. Clicking the X button in the left panel navigates back to the **Apps** page in Dashboard.

You can delete the chart by clicking the delete option on the top right corner of the chart.

Adding top 5 rated in-house apps

You can identify and view the list of top 5 rated In-house apps using the Top 5 Rated In-house Apps chart in the Apps page. The administrator can delete or add this chart as and when required.

By default, the Top 5 Rated In-house apps chart is available in **Apps** page. If the chart is deleted, the Admin can add it from the **Apps** page.

Procedure

1. Click **+Add** in the **Apps** page. The **Add App Chart** window is displayed.
2. In the **Chart type** drop-down list select **Top 5 Rated In-house Apps**.
3. Click **Add Chart**. The Top 5 Rated In-house Apps chart is displayed in the **Apps** page.

This chart represent the data via a logo for the App, with the star rating for that App. The star rating is represented by star images, along with the integer representation (maximum rating as 5). The number of users who have rated the App is also displayed.



The number of ratings for an app is not just devices restricted to that administrator and space but its is based on ratings from all users of the app. The rating is the average of all the ratings for that app given by different users who viewed that app from Apps@Work on their registered devices.

Clicking the specific app navigates to the **App details** page that displays specific details of the app.

You can delete the chart by clicking the delete option on the top right corner of the chart.

Using Scheduled Reports

License: Silver

The Scheduled Reports feature enables you to schedule and generate reports on various metrics with pre-packaged templates ready to use. You must have the System Administrator or the System Read Only role to access this feature. You can currently create a maximum of 40 reports.



The Policy Violations report might have multiple records for the same device if the device has multiple Tunnel instances created for it. This is applicable for both Standard reports as well as Custom reports.

Generating a Report

You can schedule and generate a report.

Procedure

1. Go to **Dashboard > Reports**.
2. Click **Create a report** to display the Choose a Report Template page.
3. Choose a template for your report from the options you have configured.
 - **Blocked Devices** - Report on devices currently blocked access by Sentry.
 - **Devices** - Report on devices from all partitions in your system.
 - **Policy Violations** - Report on policy violations in your system.
 - **Users** - Report on users in your system
 - **User Password Expiry Status** - Report on password expiry status of the users in your system.
 - **Most Installed Apps** - Report on all applications in your system, sorted on the number of times each application has been installed.
 - **Unmanaged Apps** - Report on the unmanaged applications in your system.
 - **All Applications** - Report on all applications in devices managed by you.

4. Click **Next**.

The **Report Details** page is displayed.

- Enter a **Report Name**.
- (Optional) Enter a **Description** for the report.

Select the **Event Range** from the following options:

For existing reports:

- **All Events**
- **Previous Day**
- **Previous Week**
- **Previous Month**
- **Previous Range** - Displays the report that was created using the range slider from the previous release of Ivanti Neurons for MDM administrative portal. If the administrator selects and saves any one of the above options for a report, the Previous Range option will not be displayed. The range value is visible on the Report Summary page.

For new reports:

- **All Events**
- **Previous Day**
- **Previous Week**
- **Previous Month**

5. Click **Next**. The Report Data page is displayed.

6. Click **Customize Columns** to add, remove, or reorder columns in the **Report Columns** section. Alternatively, click the column name to remove the added column.

7. (Optional) Use the **Select all columns** check box to select all the displayed columns in the list.

-
8. Click **Restore Defaults** to revert to the previously generated columns. To revert to the columns without any customizations, you can choose one of the templates from the **Choose a Report Template** page.
 9. Create filters based on specific rules in the **Advance Filter** section.



All filter options are not available for all reports. For more information about the list of available filters, see the ["Filters" on the next page](#) topic below this procedure.



The following new hardware attributes are available for Windows devices when creating Reports - BitLocker Encryption, OS Edition, System Version, Motherboard Manufacturer, Motherboard Product, Motherboard Status, BIOS Manufacturer, BIOS Version, Hard Drive Partitions, Optical Drive Type, CPU Name, and CPU Status.

10. (Optional) you click the + icon to add another rule or click the **Add Group** icon to add another group of rules.
11. Click **Next**. The Report Schedule page is displayed.
12. Select *one* of the following formats for downloading the report:
 - CSV
 - PDF
 - **CSV and PDF**

For PDF report files, up to 10 columns are allowed. In the Report Charts section, two types of charts that will be included in the PDF reports are displayed.

All Applications report supports only the CSV format.

-
13. Click **Auto Schedule** to setup a report to run automatically by setting up the recurrence. Alternatively, click **Manual** to run the report once and it will be sent in an email.
 - Select *one* of the **Recurring Report** options:
 - **Daily**
 - **Weekly**
 - **Monthly**
 - **Previous Schedule** - For existing reports
 - Select the **Start Date** and the **End Date** (Optional).
 14. Click **Next**. The Report Distribution page is displayed. Select the recipients of the report.
 15. (Optional) add external email IDs by clicking the **Add External Email** link.
 16. Click **Done**. The **Report Distribution Summary** appears.
 17. (Optional) click **Edit** to modify your report.
 18. Click **Save**.
 19. Click the download icon to select the format of the report. An email containing a **Download Report** button to download the report is sent to the recipients of the report.

Filters

Rule Options	Description
Activation Lock Enabled	Rules based on activation lock enabled as Yes or No . Rule Example: 'Activation Lock Enabled is equal to Yes'.
App Tunnel Status	Rule for app tunnel status as BLOCK or ALLOW . Rule Example: 'App Tunnel Status is equal to Block'.

Rule Options	Description
Battery level	<p>Value of the battery level of the device.</p> <p>Rule Example: 'Battery Level is equal to 1080'</p> <p>The value entered for the battery level should be in seconds.</p>
Client Last Checkin	<p>Rule based on client last checkin within the date range.</p> <p>Rule Example: 'Client Last Checkin is in range 04/02/2019 06:00:00,04/05/2019 17:00:00'.</p>
Compliance State	<p>Rule based on compliance state as Yes or No.</p> <p>Rule Example: 'Compliance State is equal to Yes'.</p>
Current Country Name	<p>Enter the current country name.</p> <p>Rule Example: 'Compliance State is equal to France'.</p>
Current MCC	<p>Rule based on current Mobile Country Code.</p> <p>Rule Example: 'Current MCC is equal to 410'.</p>
Current MNC	<p>Rule based on current Mobile Network Code.</p> <p>Rule Example: 'Current MNC is equal to 06'.</p>
Device Enrollment Enabled	<p>Rule based on Device Enrollment enabled as Yes or No.</p> <p>Rule Example: 'Device Enrollment</p>

Rule Options	Description
	Enabled is equal to Yes'
Enrolled in Device Enrollment	<p>Rule based on Enrolled in Device Enrollment as Yes or No.</p> <p>Rule Example: 'Enrolled in Device Enrollment is equal to Yes'</p>
Data Protection	<p>Indicates whether the data protection is enabled on the device. Possible values are Yes or No.</p> <p>Rule Example: 'Data Protection is equal to Yes'.</p>
Data Roaming Enabled	<p>Rule based on data roaming enabled as Yes or No.</p> <p>Rule Example: 'Data Roaming Enabled is equal to Yes'</p>
Device Block Status	<p>Rule based on device block status.</p> <p>Rule Example: 'Device Block Status is equal to Block'</p>
Device ID	<p>Rule for a specific Device ID or a within a range of Device IDs.</p> <p>Rule Example: 'Device ID is greater than 45'. x</p>
Home MCC	<p>Rule based on home Mobile Country Code.</p> <p>Rule Example: 'Home MCC is equal to 310'.</p>

Rule Options	Description
Home MNC	<p>Rule based on home Mobile Network Code.</p> <p>Rule Example: 'Home MNC is equal to 510'.</p>
IMEI	<p>Rule for a specific IMEI value.</p> <p>Rule Example: 'IMEI begins with 9900'</p>
Invite State	<p>Select any of the following Invite State options:</p> <ul style="list-style-type: none"> • None • Pending • Expired • Completed <p>Rule Example: 'Invite State is equal to Pending'.</p>
Locator Service Enabled	<p>Rule based on Locator service enabled as Yes or No.</p> <p>Rule Example: 'Locator Service Enabled is equal to Yes'</p>
Quarantine Status	<p>Rule based on Locator service enabled as Yes or No.</p> <p>Rule Example: 'Quarantine Status is equal to Yes'</p>
Registered At	<p>Rule to select the date and time range</p>

Rule Options	Description
	<p>from when the device was registered.</p> <p>Rule Example: 'Registered At is in range 10/03/2017 09:00:00,10/20/2017 17:00:00'.</p>
Roaming	<p>Rule based on roaming as Yes or No.</p> <p>Rule Example: 'Roaming is equal to Yes'</p>
Status	<p>Select any of the following Invite Status options:</p> <ul style="list-style-type: none"> • Active • Retire Pending • Retire Sent • Retired • Retire Canceled • Wipe Pending • Wipe Sent • Wiped • Wipe canceled <p>Rule Example: 'Status is equal to Retire Pending'.</p>
Voice Roaming Enabled	<p>Rule based on voice roaming enabled as Yes or No.</p> <p>Rule Example: 'Voice Roaming Enabled is equal to Yes'</p>
Wifi Mac Address	<p>Enter a specific Mac address value.</p> <p>Rule Example: 'Wifi Mac Address is not</p>

Rule Options	Description
	equal to 00-14-22-01-23-45'.
iCloud Backup Enabled	Rule based on iCloud Backup enabled as Yes or No . Rule Example: 'iCloud Backup Enabled is equal to Yes'
iTunes Store Account Activation Status	Rule based on iTunes Store Account Activation Status as Yes or No . Rule Example: 'iTunes Store Account Activation Status is not equal to No'.
Platform Type	Applicable for All Applications report.
Source	Applicable for All Applications report.
Custom Attributes	Applicable for All Applications report.
Managed	Applicable for All Applications and Most Used Applications report.
App Identifier	Is default for All Applications report.
Meid	Applicable for Unmanaged Apps report.

Performing Actions on a Report from the Scheduled Reports page

You can perform various actions from the Scheduled Reports page.

Procedure

1. Go to **Dashboard > Reports**.
2. In the **My Scheduled Reports** page, click the **Actions** drop-down menu, and select one of the following options:

Actions Options	Action Performed
View	Lets you view the report.
Edit	Lets you edit the report. The report also lets you view the range that was selected in the last release as Previous Range.
Run Now	Runs the report.
Download CSV	Downloads the report in CSV format.
Download PDF	Downloads the report in PDF format.
Delete	Deletes the report.

Viewing report details

You can view the report details and perform some actions on the created report.

Procedure

1. Go to **Dashboard > Reports**.
2. In the **My Scheduled Reports** page, click the report name to view the report details. The report

page opens.

3. You can view the Report Summary and Report History on this page.

Related topics:

- To assign a custom role to a user, see [Assigning Roles](#).
- See [User Roles](#) for a list of default roles.
- ["Roles Management" on page 1080](#)
- ["Using Custom Reports" on page 65](#)

Using Custom Reports

License: Gold

The custom reports feature enables you to customize and generate reports on various metrics with templates ready to use. You must have the System Administrator or the System Read Only role to access this feature. You can currently create a maximum of 40 reports.

This section contains the following topics:

["Generating a report" below](#)

["Performing Actions on a Report" on page 73](#)

["Viewing report details" on page 74](#)

Generating a report

You can schedule and generate a report from the Ivanti Neurons for MDM administrative portal.

Procedure

1. Go to **Dashboard > Reports**.
2. Click **Create a report** to display the Choose a Report Template page.

-
3. Choose a template for your report from the options you have configured.
 - **Blocked Devices** - Report on devices currently blocked access by Sentry.
 - **Devices** - Report on devices from all partitions in your system.
 - **Policy Violations** - Report on policy violations in your system.
 - **Users** - Report on users in your system
 - **User Password Expiry Status** - Report on password expiry status of the users in your system.
 - **Most Installed Apps** - Report on all applications in your system, sorted on the number of times each application has been installed.
 - **Unmanaged Apps** - Report on the unmanaged applications in your system.
 - **All Applications** - Report on all applications in devices managed by you.
 4. Click **Next**. The Report Details page is displayed.
 5. Enter a **Report Name**.
 6. (Optional) Enter a **Description** for the report.
 7. Select the **Event Range** from the following options:
For existing reports:
 - **All Events**
 - **Previous Day**
 - **Previous Week**
 - **Previous Month**
 - **Previous Range** - Displays the report that was created using the range slider from the previous release of Ivanti Neurons for MDM administrative portal. If the administrator selects and saves any one of the above options for a report, the Previous Range option will not be displayed. The range value is visible on the Report Summary page.

For new reports:

-
- **All Events**
 - **Previous Day**
 - **Previous Week**
 - **Previous Month**

8. Click **Next**. The Report Data page is displayed.
9. Click **Customize** to generate a custom report:



In the **Dashboard > Reports** page, the Template Name column will display "custom" in brackets to indicate that the report is customized.

10. Click **Customize Columns** to add, remove, or reorder columns in the **Report Columns** section. Alternatively, click the column name to remove the added column.
11. (Optional) Use the **Select all columns** check box to select all the displayed columns in the list.
12. Click **Restore Defaults** to revert to the previously generated columns. To revert to the columns without any customizations, you can choose one of the templates from the **Choose a Report Template** page. The default columns are indicated with a lock icon.
13. Create filters based on specific rules in the **Advance Filter** section.



All filter options are not available for all reports. For more information about the list of available filters, see the ["Filters" on page 69](#) topic below this procedure.



The following new hardware attributes are available for Windows devices when creating Reports - BitLocker Encryption, OS Edition, System Version, Motherboard Manufacturer, Motherboard Product, Motherboard Status, BIOS Manufacturer, BIOS Version, Hard Drive Partitions, Optical Drive Type, CPU Name, and CPU Status.

14. (Optional) you click the **+** icon to add another rule or click the **Add Group** icon to add another group of rules.
15. Click **Next**. The Report Schedule page is displayed.
16. Select *one* of the following formats for downloading the report:

-
- **CSV**
 - **PDF**
 - **CSV and PDF**

For PDF report files, up to 10 columns are allowed. In the Report Charts section, the two types of charts that will be included in the PDF reports are displayed.

All Applications report supports only the CSV format.

17. Click **Auto Schedule** to setup a report to run automatically by setting up the recurrence. Alternatively, click **Manual** to run the report once and it will be sent in an email.
 - Select *one* of the **Recurring Report** options:
 - **Daily**
 - **Weekly**
 - **Monthly**
 - **Previous Schedule** - For existing reports
 - Select the **Start Date** and the **End Date** (Optional).



The Run Now option will generate a one-time report. You can use the same template to generate scheduled reports. In the **Dashboard > Reports** page, the Frequency and Next Scheduled columns will display Unscheduled status for these reports.

18. Click **Next**. The Report Distribution page is displayed. Select the recipients of the report.
19. (Optional) add external email IDs by clicking the **Add External Email** link.
20. Click **Done**. The **Report DistributionSummary** appears.
21. (Optional) click **Edit** to modify your report.
22. Click **Save**.
23. Click the download icon to select the format of the report. An email containing a **Download Report** button to download the report is sent to the recipients of the report.

Filters

Rule Options	Description
Activation Lock Enabled	Rules based on activation lock enabled as Yes or No . Rule Example: 'Activation Lock Enabled is equal to Yes'.
App Tunnel Status	Rule for app tunnel status as BLOCK or ALLOW . Rule Example: 'App Tunnel Status is equal to Block'.
Battery level	Value of the battery level of the device. Rule Example: 'Battery Level is equal to 1080' The value entered for the battery level should be in seconds.
Client Last Checkin	Rule based on client last checkin within the date range. Rule Example: 'Client Last Checkin is in range 04/02/2019 06:00:00,04/05/2019 17:00:00'.
Compliance State	Rule based on compliance state as Yes or No . Rule Example: 'Compliance State is equal to Yes'.
Current Country Name	Enter the current country name. Rule Example: 'Compliance State is equal to France'.
Current MCC	Rule based on current Mobile Country Code. Rule Example: 'Current MCC is equal to 410'.

Rule Options	Description
Current MNC	<p>Rule based on current Mobile Network Code.</p> <p>Rule Example: 'Current MNC is equal to 06'.</p>
Device Enrollment Enabled	<p>Rule based on Device Enrollment enabled as Yes or No.</p> <p>Rule Example: 'Device Enrollment Enabled is equal to Yes'</p>
Enrolled in Device Enrollment	<p>Rule based on Enrolled in Device Enrollment as Yes or No.</p> <p>Rule Example: 'Enrolled in Device Enrollment is equal to Yes'</p>
Data Protection	<p>Indicates whether the data protection is enabled on the device. Possible values are Yes or No.</p> <p>Rule Example: 'Data Protection is equal to Yes'.</p>
Data Roaming Enabled	<p>Rule based on data roaming enabled as Yes or No.</p> <p>Rule Example: 'Data Roaming Enabled is equal to Yes'</p>
Device Block Status	<p>Rule based on device block status.</p> <p>Rule Example: 'Device Block Status is equal to Block'</p>
Device ID	<p>Rule for a specific Device ID or a within a range of Device IDs.</p> <p>Rule Example: 'Device ID is greater than 45'. x</p>
Home MCC	<p>Rule based on home Mobile Country Code.</p> <p>Rule Example: 'Home MCC is equal to 310'.</p>

Rule Options	Description
Home MNC	Rule based on home Mobile Network Code. Rule Example: 'Home MNC is equal to 510'.
IMEI	Rule for a specific IMEI value. Rule Example: 'IMEI begins with 9900'
Invite State	Select any of the following Invite State options: <ul style="list-style-type: none"> • None • Pending • Expired • Completed Rule Example: 'Invite State is equal to Pending'.
Locator Service Enabled	Rule based on Locator service enabled as Yes or No . Rule Example: 'Locator Service Enabled is equal to Yes'
Quarantine Status	Rule based on Locator service enabled as Yes or No . Rule Example: 'Quarantine Status is equal to Yes'
Registered At	Rule to select the date and time range from when the device was registered. Rule Example: 'Registered At is in range 10/03/2017 09:00:00,10/20/2017 17:00:00'.
Roaming	Rule based on roaming as Yes or No . Rule Example: 'Roaming is equal to Yes'

Rule Options	Description
Status	<p>Select any of the following Invite Status options:</p> <ul style="list-style-type: none"> • Active • Retire Pending • Retire Sent • Retired • Retire Canceled • Wipe Pending • Wipe Sent • Wiped • Wipe canceled <p>Rule Example: 'Status is equal to Retire Pending'.</p>
Voice Roaming Enabled	<p>Rule based on voice roaming enabled as Yes or No.</p> <p>Rule Example: 'Voice Roaming Enabled is equal to Yes'</p>
Wifi Mac Address	<p>Enter a specific Mac address value.</p> <p>Rule Example: 'Wifi Mac Address is not equal to 00-14-22-01-23-45'.</p>
iCloud Backup Enabled	<p>Rule based on iCloud Backup enabled as Yes or No.</p> <p>Rule Example: 'iCloud Backup Enabled is equal to Yes'</p>
iTunes Store Account Activation	<p>Rule based on iTunes Store Account Activation Status as Yes or No.</p>

Rule Options	Description
Status	Rule Example: 'iTunes Store Account Activation Status is not equal to No'.
Platform Type	Applicable for All Applications report.
Source	Applicable for All Applications report.
Custom Attributes	Applicable for All Applications report.
Managed	Applicable for All Applications and Most Used Applications report.
App Identifier	Is default for All Applications report.
Meid	Applicable for Unmanaged Apps report.

Performing Actions on a Report

You can perform various actions from the Scheduled Reports page.

Procedure

-
1. Go to **Dashboard > Reports**.
 2. In the **My Scheduled Reports** page, click the **Actions** drop-down menu, and select one of the following options:

Actions Options	Action Performed
View	Lets you view the report.
Edit	Lets you edit the report.
Run Now	Runs the report.
Download CSV	Downloads the report in CSV format.
Download PDF	Downloads the report in PDF format.
Delete	Deletes the report.

Viewing report details

You can view the report details and perform some actions on the created report.

Procedure

1. Go to **Dashboard > Reports**.
2. In the **My Scheduled Reports** page, click the report name to view the report details. The report

page opens.

3. Select one of the following options

Actions Options	Action Performed
Toggle	Lets you enable or disable the report.
Run Now	Runs the report.
View	Lets you view the report details. Use the Actions drop-down menu to perform any of the following tasks: <ul style="list-style-type: none">• Disable• Download latest CSV/PDF (based on the type of report selected be it CSV, PDF, or CSV & PDF, its shows the Download option)• History• Delete
Delete	Deletes the report.

Related topics:

- To assign a custom role to a user, see [Assigning Roles](#).
- See [User Roles](#) for a list of default roles.
- ["Roles Management" on page 1080](#)
- ["Using Scheduled Reports" on page 54](#)

Users

Before you invite someone to register mobile devices, you need to create a user entry for that person. You also need to create a user for anyone who will use Ivanti Neurons for MDM to help manage devices or publish content (administrators).

This section contains the following topics:

- ["User Groups" on page 83](#)
- ["User Settings" on page 87](#)
- ["User Branding" on page 103](#)
- ["User Enrollment with Apple Business Manager" on page 105](#)
- ["Account driven User Enrollment" on page 117](#)
- ["User Licenses" on page 119](#)
- ["Managing Users" on page 120](#)

Adding Users

This section contains the following topics:

- ["Adding Users" above](#)
- [" Adding multiple users" on page 79](#)
- ["Adding multiple users by uploading a file" on page 79](#)
- [" Adding an administrator" on page 80](#)
- [" Nobody user" on page 81](#)
- [" Viewing the device registration PIN information" on page 81](#)

You can add a single user or several users at a time. Once you have added many users, you might want to [filter](#) the display to show only the ones you are interested in.

Other things you can do with users in this page include:

- [assign](#) to/ [remove](#) from a user group
- [send a message](#)
- [invite to register](#)
- [assign roles](#)
- [change a password](#)
- [delete](#)

All Device owner profiles are assigned a device account. Device accounts do not have any restrictions in the number of devices assigned to it. Work profiles (employee owned) are assigned user accounts.

Adding a user

Procedure

1. Go to **Users**.
2. Click **+ Add** (top right).

-
3. Select **Single User**.
 4. Complete the form with the user's information:
 - Email Address
 - First Name
 - Last Name



The Username field displays the email address you entered. In most cases, you should not edit this default. For more information, see [When to Edit a Username](#)

- Display Name



If you want to change the display name for this user, edit the default text in the **Display Name** field.

5. If you want to assign a password, enter it in the **Password** and **Confirm Password** fields.
 - If you assign a password, you need to communicate it to the user for device registration.
 - If you do not assign a password, the user will need to create a password during device registration.
6. Select **Locale** from the drop-down list.
7. Enter **Managed Apple ID**. You can include "appleid" as a subdomain for Managed Apple ID to avoid any conflicts with existing Apple IDs. For example, user@appleid.yourdomain.com. The subdomain has to be a valid verified subdomain on Apple Business Manager.



The account cannot be updated with a different Managed Apple ID if there is an active User Enrolled device with the current account's Managed Apple ID.

8. (Optional) Assign one or more user groups. Managed Apple ID cannot be updated when there is a device with status "Active" and "Retire Pending."
9. If you want to set up other features before inviting this user, clear the **Send this invitation now** option. Otherwise, the invitation email will be sent when you click **Done**.
10. Click **Done** to add the user.

For Android devices, Device accounts are designed for single-use managed devices where a single local service account can be used to enroll a large number of devices. While creating a new user, the Android

enterprise device Account available under **Admin > Google > Android Enterprise** must be enabled. Device Accounts are enabled by default (Instead of User Accounts) for Device Owner Managed Google Play Account enrollments.

Select the checkbox **Android enterprise device Account** to enable Android Enterprise work managed device enrollments attached to this account to be automatically assigned a Google Device Account.

While editing a local or LDAP user for Android devices, the Android Enterprise Device Owner Managed Google Play Account devices associated with the user will be assigned Device Accounts on the next device check-in, provided the following conditions are met:

- The feature is enabled by selecting the checkbox **Android enterprise Device Account**.
- The Go App version on the Android device is 47 and above.

Adding multiple users

Procedure :

1. Go to **Users** .
2. Click **+ Add** (top right).
3. Select **Multiple Users**.
4. By default, you can enter email addresses **Manually** . Type or paste the email addresses of the users, separated by commas.

Example: jdoe@mycompany.com, jsmith@mycompany.com, tjones@mycompany.com

5. If you want to set up other features before inviting this user, clear the **Send this invitation now** option.

Otherwise, the invitation email will be sent when you click **Done**.

6. Click **Done** to add the users.

Adding multiple users by uploading a file

Procedure:

-
1. Go to **Users**.
 2. Click **+ Add** (top right).
 3. Select **Multiple Users**.
 4. Select **Upload CSV**.
 5. Click **Download CSV Template**.
 6. Edit the template with the following information for each user:
 - user ID (required)
 - email address (required)
 - password
 - first name
 - last name
 - display name
 - user groups
 - custom attributes

This is the same information you enter when [adding a single user](#). Do not exceed 10,000 entries in the file.

7. Save the file.
8. Drag it to the upload area or select **Upload CSV** to select the file.
9. Once the uploaded user information is displayed, make any necessary edits.
10. Click **Next** (lower right).
11. If you do not want to send invitations right away, select **Do not send invitations** .
12. Click **Done**.

Adding an administrator

Procedure :

-
1. Click **Add** (top right).
 2. Select **Single User**.
 3. Complete the form with the user's information:
 - Email Address
 - First Name
 - Last Name

The **Username** field displays the email address you entered.

4. If you want to change the display name for this user, edit the default text in the **Display Name** field.
5. Assign a password in the **Password** field.
6. Enter the password again in the **Confirm Password** field.
7. Click **Done** to add the user.
8. Communicate the password to the person who will help manage devices.

Nobody user

The nobody user is a default user that cannot be deleted. The service applies this user to devices that do not have associated users, such as retired devices.

Viewing the device registration PIN information

While adding new users, the generated registration PIN information is displayed to admins if the Device Registration Authentication Type is set to PIN Only. This information can be useful to assist users with device enrollments.

- For single users, the PIN is displayed via the **Users > Invite User to Register** action and also in the PIN Info section of the User Details page.
- For multiple users, the PINs are displayed as a column in the User List page in addition to the PIN Status (Valid or Expired), PIN Issued, and PIN Expires columns.

If you cannot perform tasks on the **Users** page, it might be that you do not have the required permissions. You need one of the following [roles](#) :

-
- System Management
 - User Management

User Groups

This section contains the following topics:

- ["Creating a dynamically managed user group" below](#)
- ["Creating a manually managed user group" on page 85](#)
- ["Creating a user group from one of the duplicate user groups" on page 85](#)

Create a user group so that you can assign apps and [roles](#) to multiple users. For example, you might create a Managers group if you want all department managers to be administrators for apps and content.

You can create a user group to be managed in one of the following methods:

- **Dynamically Managed (Most Common):** Local and LDAP users are added/removed to/from a group dynamically based on certain rules and/or attributes.
- **Manually Managed (Limited purpose):** Add/remove users to/from a group manually. Manually managed groups are recommended only for testing purposes that require less permissions.

You can enter text in the **Search** field to display a list of all user groups whose names start with the entered text.

- The search results are displayed as a list of possible matches in real-time while text is being entered.
- Select the desired user group name from the list of possible matches for subsequent action.
- The search match is case insensitive.

Creating a dynamically managed user group

Procedure

1. Click **+Add**.
2. Enter a user group name in the **Name** field.
3. (Optional) Click **Add Description** to add a description for the user group.
4. Click the **Dynamically Managed (Most Common)** option.

-
5. Set rules and/or attributes as per your requirements. The following are the available rule options:
- Custom LDAP Attribute
 - msExchPoliciesIncluded
 - msExchMailboxGrid
 - mailNickname
 - Default LDAP Attribute
 - samAccountName
 - userPrincipalName
 - Default User Attribute
 - email_address
 - distinguished_name
 - last_name
 - display_name
 - first_name
 - User Group
 - Custom User Attribute
 - User Group DN
 - User Group GUID
 - User Group Name
6. For each rule, select between local and LDAP users. You can include or exclude a sub-group by using the **User Group** filter criteria.
7. Add more rules by clicking the plus icon.
You can set **ANY** or **ALL** conditional filters for the added rules.
8. Create a group of rules by clicking the hierarchical icon next to the plus icon.

-
- Review the user group's rules and attributes in the text query displayed below the rules selection options.
 - In the **Results** section, review the user(s) details that match the configured criteria. When you add or modify a rule or an attribute you can observe that the matching users are displayed, if they exist.
 - Click **Save** to save the configured user group.

Creating a manually managed user group

- Click **+Add**.
- Enter a group name.
- (Optional) Click **Add Description** to add a description.
- Select the **Manually Managed (Limited purpose)** option.
- In the **Search Users** field, type the email address of each user to be included in the group. As you type, the matching users are found and displayed, if they exist.
- Select the users you wish to add to the group. You may search and add more users as required.
- Click **Save**.



You can create a manually managed user group and then add this group to a dynamically managed user group. In such a scenario, editing the manually managed user group does not break the dynamically managed user group rule. You will not be able to delete a manually managed user group if it is added to a dynamically managed user group.

Creating a user group from one of the duplicate user groups

Starting from Ivanti Neurons for MDM 97 the Administrator portal displays the number of duplicate user groups and the corresponding number of GUIDs to identify duplicate groups, when the "User Group Name" attribute is selected in the rule builder. Also, a table under this rule displays the list of the duplicate user groups and their details such as User Group Name, GUID, Source, and distinguished name (DN).

Procedure

- Log in to the Ivanti Neurons for MDM Administrator portal.
 - Go to **Users, User Groups**.
-

-
3. Click **+Add**. The Create User Group wizard opens.
 - a. Specify the name in the **Name** field.
 - b. Select **User Group Name** from the rule builder, select **is equal to**, select *one* of the duplicate group names.
 - c. Click the + plus icon to add more rules.
 - d. Select **User Group GUID, is equal to**.
 - e. Copy and paste the GUID from the table that displays the list of duplicate user group names and GUIDs. The result displays the associated users who will be added to the new group.
 - f. Click **Save**. The listed users are now added to the new user group that you created.

If you cannot perform tasks on the **Users Groups** page, it might be that you do not have the required permissions. You need one of the following [roles](#):

- System Management
- User Management

User Settings

This section contains the following topics:

- "Editing the default setting" on the next page
- "Adding a custom setting" on the next page
- "Deleting a custom setting" on the next page
- "Configuring the settings for new device registrations" on page 89
- "Configuring the device limit per user" on page 93
- "Configuring the device wipe limit" on page 94
- "Configuring the Self Service Portal authentication" on page 94
- "Setting the password complexity" on page 95
- "Defining the terms of service" on page 98
- "Configuring the User Invite reminder emails" on page 98
- "Configuring User Registration Confirmation emails" on page 99
- "Configuring User Work Schedule setting" on page 99
- "Configuring Admin Portal authentication setting" on page 100

User settings define device registration options. There are several types:

- **Device Registration Setting:** Sets authentication by password, PIN, or both; Apple Enrollment type, and device ownership.
 - Previously, if you setup SAML auth/IdP, SAML authentication is used for both device registration and portal authentication. From release 79.1 onwards, a toggle button is provisioned to choose different authentication methods for Admin Portal access and Device Registration. The bypass toggle is applicable only for device registration.



This functionality is not supported for PIN Only type of authentication.

- **Device Limit Setting:** Sets the number of devices a user can register.

-
- **Wipe Limit Setting:** Sets the limit for the maximum number of devices that can be wiped at a time.
 - **Self Service Portal Authentication Setting:** Set the password authentication type for the self-service portal.
 - **Password Complexity Setting:** Set password complexity and policy parameters for local accounts used for device registration, and access to Admin Portal and Self Service portals.
 - **Terms of Service Setting:** Sets the terms of service displayed to the user for each device registration.
 - **User Invite Reminder Setting:** Sets the dates and frequency to send User Invite reminder emails.
 - **User Registration Confirmation Setting:** Controls the ability to send the User Registration Confirmation email. See "[Configuring and using registration confirmation emails](#)" on page 22 for an overview of the solution and "[Configuring User Registration Confirmation emails](#)" on page 99 below for specific user settings instructions.
 - **User Work Schedule Setting:** Controls the ability to configure a user work schedule that blocks all communication from Sentry to managed devices during the prescribed non-working hours. Useful for locales with Right-to-Disconnect laws.
 - **Admin Portal Auth Setting:** Controls whether Ivanti Neurons for MDM prompts the admin for password only, or password and PIN.

You can edit the default settings for the **All Users** group or add custom settings and assign them to other user groups.

Editing the default setting

Click the **Edit** link for the setting that has the lock icon. You cannot delete a default setting.

Adding a custom setting

Click the **Add setting for specific user groups** link.

Deleting a custom setting

Click the X icon.

Configuring the settings for new device registrations

You can configure minimum OS version, authentication type, and device ownership for new device registrations. The device enrollment URL generated in earlier versions of Ivanti Neurons for MDM will cease to work with the current version. The administrator will need to regenerate the device enrollment URL for device registration.

Allowlist device registration

The option to Allowlist device registration is available only in default user settings and not available for custom user settings. You can upload a CSV file using the template containing serial numbers and custom device attributes which are used to Allowlist a few devices. You can include one or more existing custom device attributes to create the Allowlist. This will enable you to assign attributes to device groups or spaces after registration.

To create custom attributes, go to **Admin** > [Attributes](#). The iOS and macOS devices are not allowed to register via iReg if the Allowlist feature is enabled and the device serial number is not mentioned in the CSV file. If the CSV file contains a duplicate serial number, then the last entry in the CSV file would be considered and the custom device attributes associated with that entry would be considered for device assignment during registration.

If the **Device Allowlist** option is enabled, only the Allowlisted devices will be allowed to register with Ivanti Neurons for MDM. This feature is applicable only for devices which register via the web based registration process. This will not affect the devices that are already registered with Ivanti Neurons for MDM. After registration, if the device serial number is removed from the CSV file, the device will not be retired. The user mentioned in the CSV file is optional, and will be assigned only if the user is mentioned in the CSV file and is a valid user.

If you want to upload a new CSV file, you can delete the existing CSV file and upload the new file. Allowlisting is only supported with iReg and if the Go client is needed, then opt for zero-touch registration. For features like AppConnect and Threat Defense to function, the Go client should be installed on the system. Because we do not support in-app registration, the user can first register the device through iReg, and later, the Go app can be pushed to the devices from the app catalog. When user accepts installation of app, the device would be a managed device and all the features will continue to work post registration. Zero-touch configuration cannot be used on devices on which the AppConnect status is Active or Inactive. It can be used only when the AppConnect status is None. The AppConnect status remains as None until the Go client is launched on the device after registration through iReg.

Procedure

-
1. Log in to Ivanti Neurons for MDM.
 2. Go to **Users > User Settings**.
 3. Under **Device Registration Settings** click **+Add setting for specific user groups**.
 4. Edit the default **Device Registration Authentication Type** setting or add a new one.
 5. Enter a name in the **Name** field.
 6. (Optional) Enter a description of the setting.
 7. In the **OS Settings** section, define the minimum OS version for iOS, macOS, or Windows:

Select the **Enable Minimum Version** toggle button and select an OS version from the drop-down list.



Enable Minimum Version setting is not applicable for DEP device registrations.

8. For **Android**:
 - Enable **Minimum Security Patch** option (Android only) and specify the period by selecting the duration type from the following drop-down list options:
 - **days(s)**
 - **month(s)**
 - **year(s)**
 - Enable **Manufacturer Allowlist/Blockedlist** option and select any of the following options:
 - **Create a Allowlist**- To only allow devices from these manufacturers to be registered.
 - **Create a Blockedlist**- To prevent devices from these manufacturers to be registered.

To add a manufacturer:

 - a. Click **Add manufacturer**.
 - b. Type the name of the manufacturer in the **Manufacturer name** field.

-
- c. Click **Save**. The added manufacturer name is displayed in the table.
-



The manufacturer name is case sensitive. To edit or delete an added manufacturer name, click the **Edit** or **Delete** option for the manufacturer.

9. In the Apple Enrollment section, select the Apple Enrollment Type:

- **Device Enrollment**
- **User Enrollment**- By default, User Enrollment is applicable for iOS and iPadOS devices.
- (Optional) **Include macOS Device (macOS 10.15+)** - Select this option to make User Enrollment applicable for macOS devices as well.

10. In the **Registration Invitation Method (iOS and Android Only)** section, Enable **MAM only registration**.



This option should be enabled for MAM-Only device registrations and when enabled, the users are redirected to Public App Store to download AppStation client app.

11. In the **Device Registration Authentication Type** section, select one of the following registration type options from the **Select Registration Type** drop-down. If you use Device Enrollment, make sure that your Device Enrollment configuration matches your choice.

- **Password Only**
- **PIN Only** When you select this option, the Bypass IdP Device Registration Authentication toggle button is locked.
- **Password and PIN**



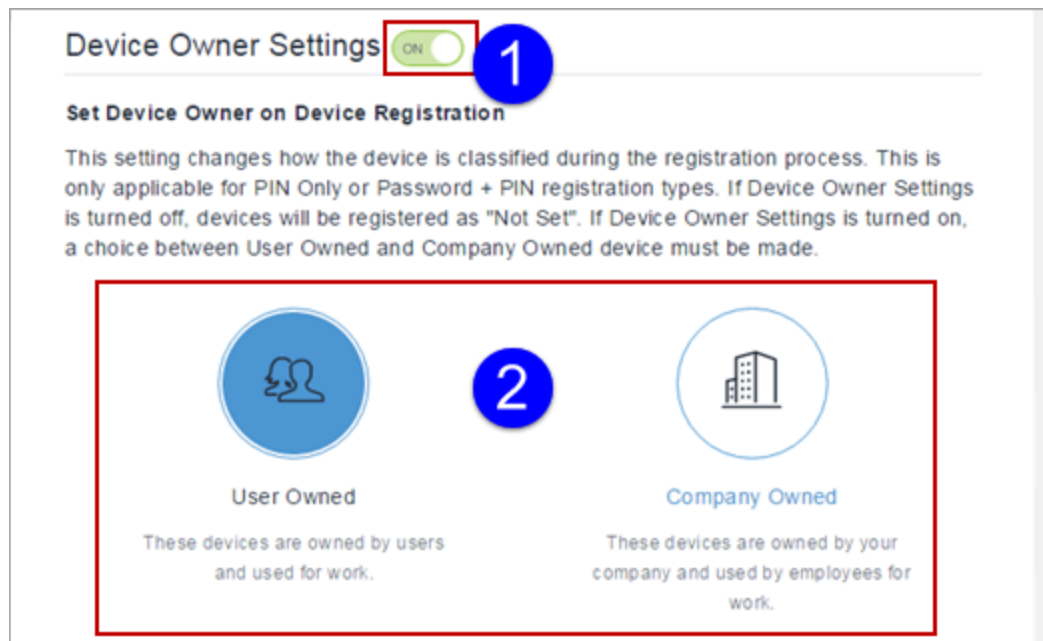
Users may still receive a PIN to complete account activation.



This setting affects both normal registration and Device Enrollment registration.

12. For PINs, specify the following. During the device registration, a user can click **Resend PIN** if required.

-
- **PIN lifetime:** How long the PIN remains valid (1-30 days).
 - **PIN length:** The number of characters (4-12).
 - **Allow user to request a new PIN:** (when forgotten or expired).
13. Optionally, turn on **Device Owner Settings**, and then click **User Owned** or **Company Owned**. This setting changes how the device is classified during the registration process.
- If **Device Owner Settings** is turned ON and if the administrator has marked the device as User Owned, the user will be presented with the option to mark the device as User Owned or Company Owned during device enrollment and also from the self-service portal. For User Enrollment Enrolled devices, the default Device Owner Settings will be "User Owned" irrespective of the choice made by an administrator.
 - For Supervised devices, device owner setting will be "Company Owned."



14. Click **+Add** for at least one user group to which you want to distribute the setting.
15. ([On-demand feature](#) for iOS and macOS devices only) Optionally, turn on the **Device Allowlist** option to allow device registration based on Allowlisted serial numbers.
16. Click **Next**. The User Setting Distribution page opens.
17. Select the user group distribution.

18. Click **Done**.

19. Send an invite to the users. For more information, see ["Inviting Users" on page 141](#).

Note the following points:

If a user device is registered using PIN only option, the user receives a registration confirmation email with a PIN for authentication.

- A PIN is sent to the user's email ID.
- The user enters the PIN on the device registration page.
- If the PIN is correct, the user is directed to complete the registration process.

For users configured with SAML-based [Identity Provider](#) (IdP), Ivanti Neurons for MDM supports PIN-based authentication while registering the device. The Device Registration Authentication Type should be PIN or PIN and Password. The PIN and Password feature acts as two-factor authentication for additional security. In this case, when such a user tries to register a device:



- A PIN is sent to the user's email ID.
- The user enters the PIN on the device registration page.
- If the PIN is correct, the user is redirected to the IdP's login page, where the user enters the IdP user name and password.
- If the IdP credentials are correct, the user is redirected to the device to complete the registration process.

Configuring the device limit per user

Procedure

1. Edit the default **Device Limit** setting or add a new one.
2. Edit or assign a name to identify the setting.
3. Type an optional description of the setting.
4. Select a limit from the drop-down.

-
5. Click **+Add** for at least one user group to which you want to distribute the setting.
 6. Click **Save**.

Configuring the device wipe limit

Procedure

1. Edit the default **Device Wipe Limit** setting.
2. Turn on the **Enable wipe limit for all users (including default roles)** option.
3. In the **Maximum number of devices a user can wipe at a time** field, type the maximum number of devices that can be wiped at a time. The default value is 1. You can set a maximum value of 200 as the device wipe limit.
4. Click **Done**.

Configuring the Self Service Portal authentication

Procedure

1. Edit the default **Self Service Portal Authentication** setting or add a new one by clicking **+ Add setting for specific user groups**.
2. Edit or assign a name to identify the setting.
3. Type an optional description of the setting.
4. Select a **Self Service Portal Authentication Type** from the drop-down. It can be one of the following options:
 - Password
 - Certificate
5. Click **Next**.
6. Select one or more user groups for which this configuration will be distributed.
7. Click **Done**.

Setting the password complexity

You can set password complexity and policy parameters for local accounts used for device registration, and access to Admin Portal and Self Service portals.



The password length, characteristics, and policies set below define the security of a password.

This also defines the difficulty associated with a user selecting a valid password. If you use Local Account for your end users and would like secure passwords for access to the Admin Portal, consider using a PIN for device registration to ensure that password complexity does not interfere with device registration. Use the "Device Registration Authentication" Type setting to select the authentication mode for device registration under **User Settings > Device Registration Setting**.

Procedure

1. Edit the default **Password Complexity** settings.
2. Define the following password complexity settings:

Setting	What To Do
Minimum Password Length	Move the slider to specify the minimum length of a password to prevent the user from creating short and insecure passwords. Number ranges between 8 to 32.
Required characteristics	Specify the number of password characters that should be met when you select a password. The minimum number of characteristics that should be met is 3 (4 for Federal customers).
Required Special Characters (symbols)	Specify the number of non-alphanumeric characters a password should contain.
Required UpperCase Characters	Specify the number of uppercase alphabetical characters a password should contain.
Required LowerCase Characters	Specify the number of lowercase alphabetical characters a password should contain.
Required Numeric Characters	Specify the number of numeric characters a password should contain.
Password validations	
Allowed Numeric Sequence	Select the number of repeating number in a sequence. Example: 123.
Allowed Repeated Characters	Select the number of repeating alphabetical characters. Example: bbc.

-
3. Set the following password policies setting to customize behavior.

Setting	What To Do
Retained Password History	<p>Move the slider to select the number of new passwords that must be associated with a user account before an old password can be used.</p> <p>Number ranges between 3 to 36.</p>
Password Expiration Period	<p>Move the slider to select the password expiration duration in days.</p> <p>Number ranges between 30 to 365 days.</p>
Inactivity Timeout	<p>Move the slider to specify the time a user maybe inactive before an Admin Portal or a Self Service portal session time.</p> <p>Number ranges between 5 to 60(minutes).</p>
Failed Logins Threshold	<p>Move the slider to select the number of failed login attempts before the 5 minute account lockout takes effect.</p> <p>Number ranges between 2 to 5.</p> <p>When the failed attempts are within the threshold limit, a message is displayed to the user on the lockout and to attempt login later.</p> <p>When the failed attempts exceed the threshold limit, a message is displayed to the user on the lockout and to attempt login after a specified time(in minutes).</p>

4. Click **Done**. If you have changed the Password Complexity default setting, older password of existing local account remains unchanged. On expiry, the user will be prompted to renew the password. For administrators, attempting to login to the Admin Portal, can contact Help Desk who can provide guidance for resetting password.



In a device registration, the recommended approach is to use PIN-only registration mode.

Defining the terms of service

Procedure

1. Create a new **Terms of Service** setting.
2. Assign a name to identify the setting.
3. Type an optional description of the setting.
4. Select the **Prompt the user...** option.
5. Type a title and text to display.
6. Click **+Add** for at least one user group to which you want to distribute the setting.
7. Click **Save**.



Once accepted, the terms of service cannot be deleted. However, you can turn off the prompts for new registration by clearing the **Prompt the user...** option.

Configuring the User Invite reminder emails

Administrators can drive device enrollments by using this setting to send User Invite reminder emails.

Procedure

1. Edit an existing **User Invite Reminder Setting** or add a new one.
2. Edit or assign a name to identify the setting.
3. Type an optional description of the setting.
4. Ensure the **User Invite Reminders** option is turned on.
5. In the Define Start and End Dates region, choose when you want to start and stop sending email reminders.



The maximum number of emails that can be sent is 30. To reset this limit, the admin should re-send the invite.

6. In the Define Frequency region, choose how frequently you want to send email reminders.
-

-
7. Click **Next**.
 8. Select a distribution for this configuration.
 9. Click **Done**.

Configuring User Registration Confirmation emails

Administrators can send emails to new users who have completed registration.

Procedure

1. Edit an existing **User Registration Confirmation Setting** or add a new one.
2. Edit or assign a name to identify the setting.
3. Type an optional description of the setting.
4. Ensure the **Send a confirmation email upon successful User registration** option is turned on.
5. Click **Next**.
6. Select a distribution for this configuration.
7. Click **Done**.

Configuring User Work Schedule setting

Administrators can configure a user work schedule for users that blocks all communication from Sentry to managed devices during the prescribed non-working hours. This is useful for users in locales with Right-to-Disconnect laws.

Procedure

1. Select **Users**.
2. Select **User Settings**.
3. In the section, **User Work Schedule Setting**, select **+Add setting for specific user groups**.
4. Provide a name for the setting.
5. Turn on the setting.

-
6. Select the time zone.
 7. Configure the hours during which Ivanti Neurons for MDM blocks the Exchange ActiveSync protocol, AppConnect-Enabled apps, and managed apps.
 8. Click **Next**.
 9. Configure the distribution, and then click **Done**.



Changes applied may take up to 1 hour and 15 minutes to take effect on the device.



Configuring Admin Portal authentication setting

Administrators can set the authentication type to authenticate user login. This setting controls whether the users will be prompted for password only or password and PIN.

Procedure

1. Edit an existing **Admin Portal Auth Setting** or add a new one.
2. Edit or assign a name to identify the setting.
3. Type an optional description of the setting.

-
4. In the **Admin Portal Authentication Type**, select any of the following options:

Option	Description
Password	<p>Select this option to authenticate the login using password only.</p> <hr/> <p> Users may still receive a PIN to complete account activation.</p> <hr/>
Password and PIN	<p>Select this option to authenticate the login using password and PIN.</p> <p>When you select this option the following additional fields are displayed:</p> <ul style="list-style-type: none">• PIN lifetime: Select the minute duration of the lifetime of the PIN from the drop-down list. The minutes should be within the range of 1 to 15.• PIN length: Select the length of the characters of the PIN from the dropdown list. The range of the PIN length should be between 4 to 12. <hr/> <p> This option is applicable only for local accounts and not for LDAP Admin accounts.</p> <hr/>
Allow user to request a new PIN	<p>Select this option to allow users to request a new PIN.</p>

5. Click **Next**.
6. Select a distribution for this configuration.
7. Click **Done**.

For users configured with SAML-based [Identity Provider](#) (IdP), Ivanti Neurons for MDM supports PIN-based authentication to the administration portal. The Admin Portal Authentication Type should be PIN and Password. This feature acts as two-factor authentication for additional security. In this case, when such a user tries to log into the portal:

-
- A PIN is sent to the user's email ID.
 - The user enters the PIN on the administration portal login page.
 - If the PIN is correct, the user is redirected to the IdP's login page, where the user enters the IdP user name and password.
 - If the IdP credentials are correct, the user is redirected to the administrator portal.

When logging into the administrator portal, a user can click **Forgot Password** to reset their password. In the next screen, the user can enter a new password and the PIN (prompted based on the preceding user authentication mode settings) sent to the user's email address. Click **Resend PIN** if required. The user must wait fifteen minutes between Forgot Password requests.



When this configuration is distributed to devices, consecutive unsuccessful log in attempt (default value: 5 attempts) by the user using password or PIN will result in account lockout and a message will be displayed to the user on the lockout.

User Branding

User branding enables you to customize the device registration process with names and logos that your users will recognize. You can customize the user-facing branding in the following ways:

- Set a custom host name for the registration URL
- Display your logo in the registration email and registration screen
- Display a custom favicon during registration activities

License: Gold

Prerequisite:

- Decide on the host name you want to use in your custom URL. It must meet the following requirements:
 - Contains no spaces
 - Contains no special characters
- Obtain a logo file that meets the following requirements:
 - PNG format
 - 580 x 80 pixels
- Obtain a favicon file that meets the following requirements:
 - PNG format
 - 64 x 64 pixels

Procedure:

1. Go to **Users > User Branding**.
2. Click **Customize** (upper right).
3. In the **Hostname** field, type a short name to use as the host name in your URL.
4. Click **Check Availability** to confirm that the host name you entered has not been used by someone else.

-
5. If the host name is not available, enter a different name.
 6. Note the resulting registration URL under **URL Preview**.
 7. Click **Next**.
 8. Under **Logo**, click **Choose File** to upload the logo to be used in the registration email and registration screen.
 9. Click **Next**.
 10. Under **Favicon**, click **Choose File** to upload the favicon to be displayed in place of the Ivanti Neurons for MDM favicon during registration activities.
 11. Click **Done**.

User Enrollment with Apple Business Manager

This section contains the following topics:

- ["Requirements for enabling User Enrollment" below](#)
- ["Priority of registrations" on page 107](#)
- ["Difference between standard MDM enrollment and User Enrollment" on page 107](#)
- ["Difference between User Enrollment vs Device Enrollment" on page 111](#)
- ["Connecting Ivanti Neurons for MDM to Apple Business Manager" on page 112](#)

Applicable to:

- Unsupervised devices with iOS 13.0 through the latest version as supported by Ivanti Neurons for MDM.
- Devices with macOS 10.15 or supported newer versions Ivanti Neurons for MDM.

Apple Business Manager is a place for IT teams to automate device deployment, purchase and distribute content, and manage roles in their organizations. Apple Business Manager implements User Enrollment - an enrollment option designed for companies implementing BYOD (Bring Your Own Device). User Enrollment is a modified version of the MDM protocol with a much greater focus on user privacy, implemented with a level of security that enterprises need.

User Enrollment allows the administrator to do the following:

- Install and remove managed applications
- Install and remove network configurations
- Install a partial VPN scoped to managed apps and accounts
- Require the usage of a password

Requirements for enabling User Enrollment

Below are the requirements for enabling User Enrollment. If any of them are not met, the enrollment type will be device enrolled.

-
- An unsupervised device with iOS 13.0 through the latest version as supported by Ivanti Neurons for MDM or a device with macOS 10.15 or supported newer versions Ivanti Neurons for MDM.
 - User setting for the Apple Enrollment Type field should be set as "User Enrollment."
 - An Apple Business Manager account.
 - The Apple App License Account needs to be part of the same Apple Business Manager account.
 - Within Apple Business Manager, if you have an account listed in Locations, you need to have Apps and Books matched to the same location. You may need to add a new location (for example, West Coast).
 - Managed Apple ID - Managed Apple ID to be associated with each enrolled device.
 - This Managed Apple ID provides authentication for MDM management and app licensing.
 - When the MDM pushes down apps and media, necessary Apple licenses are assigned to the Managed Apple ID associated with the device.
 - As part of GDPR compliance, Managed Apple IDs are masked in the user list and user details pages considering the Apple ID to be user data.
 - Managed Apple IDs were first utilized by Apple School Manager and are now utilized by Apple Business Manager for User Enrollment.



The device's Managed Apple ID and Apps and Books Location token should be from the same Apple Business Manager account's Organization.

If they are different, a notification is displayed in the Ivanti Neurons for MDM Admin Portal when the license allocation fails for an app.

- Microsoft Azure Active Directory configured for Federated Authentication or an Apple ID created manually in Apple Business Manager with a validated domain.
 - For instructions on using Federated authentication, see the [Apple Business Manager User Guide](#) on the Apple website. A login is required.
- Device users who are synced to LDAP are to be assigned to a device management role and associated with a Managed Apple ID.

In the [Users](#) list page and the [Devices](#) list page, you can add the Managed Apple ID column to be displayed for all users. In the [Devices](#) list page, you can add the User Enrollment Enrolled column to display the status of User Enrollment devices. In addition, the user and device exports include these columns in CSV files.

Priority of registrations

- User Enrollment is supported via Go for iOS client and iReg.
- Automated Device Enrollment and Apple Configurator registrations will always be device enrolled.
- If MAM configuration is applied to a device, MAM registration takes precedence over User Enrollment.
- If both auth-only and User Enrollment requirements are met, User Enrollment takes precedence.
- If you Re-enroll a device from Go for iOS client, the enrollment type will be the same as the type during the device registration irrespective of the change in the enrollment type in Ivanti Neurons for MDM. For example, if a device was user enrolled, change the type to Device Enrollment in Ivanti Neurons for MDM, and Re-enroll the device from the Go client, the device will still be user enrolled and not device enrolled.

Difference between standard MDM enrollment and User Enrollment

This section addresses the difference between standard MDM enrollment and User Enrollment with Apple Business Manager.

Standard MDM enrollment

The following list indicates what a Ivanti Neurons for MDM server can do in a standard MDM enrollment, but will not be able to do in User Enrollment mode.

The MDM server:

- Cannot erase the device.
- Does not see the personal apps the device user has installed on the device.
- Cannot convert user-installed apps into MDM-managed apps.
- Cannot clear the device passcode (i.e. unlock the device).
- Cannot set a long, complex device passcode requirement.
- Cannot configure a device-wide VPN or Wi-Fi proxy, nor can it do any management of the cellular functionality.
- Cannot see device identifiers like the UDID, serial number, or IMEI.

-
- Cannot apply many device-wide restrictions (such as restricting the app content rating), block iCloud, and apply any the supervised restrictions.

User Enrollment with Apple Business Manager

In User Enrollment, the MDM server can still do everything needed to manage enterprise apps, accounts, and data.

User Enrollment can:

- Install in-house apps or apps via user-based (Apple) Apps and Books licenses.
 - The licenses are applied on a first-come, first-served basis and are consumed by the Managed Apple IDs.
 - The license consumed by an app installed on the User Enrolled device will be different from the license consumed by the same app installed on the device enrolled device.
 - Check license type for Apple Apps and Books applications in a user details page via the License Usage tab - the Enrollment Type is displayed as User Enrollment or Device Enrollment.
- Enforce passcode payload settings. For example:
 - allowSimple = false
 - forcePIN = true
 - minLength = 6
- Query data related to enterprise-managed apps, certificates, and profiles.
- Configure a per-app VPN for apps, mail, contacts, and calendars that have been installed by MDM.
- Enforce some restrictions, like managed open in, managed contacts, managed data on the lock screen, and several others.

Enterprise data is stored in a separate Apple File System (APFS) volume, which is created at enrollment, and encrypted separately from device user data. This volume contains data stored by managed apps; enterprise Notes; enterprise iCloud Drive docs; enterprise Keychain entries; managed mail attachments and bodies; and calendar attachments. Un-enrolling from MDM destroys the volume and the keys.

All third-party apps can only be either a personal app or a managed app through Ivanti Neurons for MDM. The MDM service cannot start managing apps that the device user has already installed. In this case, the administrator will need to request the device user to delete the personal app before installing the app

through MDM. The MDM service cannot start managing apps that the user has already installed. However, some system apps like Notes and Files will support both work and personal accounts.

User Enrollment for macOS devices

User Enrollment is supported for devices with macOS 10.15 or supported newer versions Ivanti Neurons for MDM.

- Mobile@Work for macOS is not supported for macOS User Enrollment Enrolled devices.
 - Even if the app is distributed to the macOS User Enrollment Enrolled device, the app will not be pushed to the device from MDM.
 - Therefore, Mobile@Work features such as script management and app management for the Packager (MIP) apps are not supported for macOS User Enrollment Enrolled devices.
- App dependency and behavioral changes in macOS User Enrollment Enrolled devices.
 - In macOS User Enrollment Enrolled devices, app dependency works on a best effort basis as the MDM is unaware of (cannot confirm) the installation status of prerequisite apps before distributing the main app.
 - Apps and configurations can be distributed to users and user groups that belong to macOS User Enrollment Enrolled devices. However, the apps always display the **Install** button instead of "Installed" because MDM cannot display the installation status of apps in macOS User Enrollment Enrolled devices.
 - Installed apps are indicated as Requested Apps in **Devices > App Inventory** page as the macOS User Enrollment Enrolled devices do not notify the Ivanti Neurons for MDM server whether the apps are installed or not installed in the inventory report.
- In the distribution filter for apps, User Enrollment Enrolled and Automated Device Enrollment Enrolled attributes can be used for custom distribution as required.
- User-based licenses are supported using managed Apple IDs to install Apple Apps and Books applications. Device-based licenses are not allowed. The app catalog only displays Apple Apps and Books applications.
- Not all configurations, policies, and actions are allowed. See full list of configurations and policies listed following this procedure.

-
- If unsupported configurations are distributed to a macOS User Enrollment Enrolled device, they will not be distributed or applied to the device and may display a message such as "Restrictions - this is not a valid request type."
 - Similarly, unsupported admin device actions will be informed in Ivanti Neurons for MDM UI.
 - Unsupported reports will not be sent by Ivanti Neurons for MDM.

The following are the configurations and policies unsupported to be distributed to macOS User Enrollment Enrolled devices:

- Passcode
- Tunnel
- Tunnel (On Demand)
- VPN configurations
- Office 365 Auto Account Creation
- macOS Kernel Extension Policy
- Privacy Preference
- macOS Restrictions
- Software Updates
- AirPrint
- MI Client Privacy
- FileVault 2
- FileVault Recovery Key
- Firewall
- System Policy Rule
- Certificate Preference
- System Policy Control
- System Policy Managed

- macOS AppStore Restrictions
- macOS Disk Burning Restrictions
- macOS Finder Settings
- Mobile@Work for macOS
- Mobile@Work for macOS Script
- Allowed Media Control
- Time Server
- Allowed Apps Policy

Difference between User Enrollment vs Device Enrollment

This section covers the difference between User Enrollment and device enrollment.

User Enrollment applies to devices with iOS 13.0 and macOS 10.15 through the latest version as supported. Devices lower than iOS 13.0 and macOS 10.15 will be considered “device enrollment” regardless of whether the device user has been enabled for User Enrollment or not.

















 User Enrollment for Apple Business Manager does not allow for wipe or unlock. However, the user portal will still have those options available even though they will not work.

TABLE 1.

User Enrollment vs Device Enrollment			
Functionality	User Enrollment	MAM	Device Enrollment
Erase the device and see user's personal apps	✗	✗	✓
Convert managed to unmanaged or vice versa	✗	✗	✓
Clear device passcode, configure device-wide VPN or Wi-Fi proxy, or manage cellular functionality	✗	✗	✓
See device identifiers like serial number, IMEI	✗	✗	✓

TABLE 1. (CONT.)

User Enrollment vs Device Enrollment			
Functionality	User Enrollment	MAM	Device Enrollment
Apply supervised restrictions			 (Supervised devices only)
Can install and configure apps and accounts			
Can configure a per-app VPN for apps, mail, contacts, and calendars that have been installed by MDM			
Can enforce some restrictions, like managed open in, managed contacts, managed data on the lock screen, and several others			
Can query data related to enterprise-managed apps, certificates, and profiles			

Connecting Ivanti Neurons for MDM to Apple Business Manager

This section covers enabling User Enrollment for Apple Business Manager.

Prerequisites

- You must have an Apple Business Manager account. See <https://business.apple.com/>.
- You must request and install an Apple [MDM certificate](#) to manage iOS devices.

Creating local users to enable User Enrollment

This section covers creating local and LDAP users and setting the User Enrollment for unsupervised Apple devices. User Enrollment will not work on supervised devices or devices enrolled in Apple's Device Enrollment.

Creating a manually managed (static) user group

This is a one time procedure. If you have already created this group, skip to the "Creating users for User Enrollment" section.

Procedure

1. Go to **Users** > [User Groups](#).
2. Create a manually managed (static) user group, such as User Enrollment Group, to add users with device registration type as User Enrollment.
3. Click **Save**.

Creating a device registration type setting

This is a one time procedure. If you have already created this group, skip to the "Creating users for User Enrollment" section. For User Enrollment Enrolled devices, the default Device Owner Settings will be "User Owned."

Procedure

1. Go to **Users** > [User Settings](#).
2. In the Device Registration Setting section, click + **Add setting for specific user groups**.
3. Create a new setting, such as UE Registration, for users with device registration type as User Enrollment.
4. In the Apple Enrollment section, select **User Enrollment** as the Apple Enrollment Type.
5. Click **Next**.
6. In the User Setting Distribution page, select the newly created user group, such as User Enrollment Group.
7. Click **Done**.

Creating a local user for User Enrollment

As a prerequisite, create a manually managed user group and a device registration setting for User Enrollment.

Procedure

-
1. Go to [Users](#).
 2. Click **+ Add > Single User**.

Enter the new user information and add it to the newly created user group, such as User Enrollment Group. For more information, see *Adding a user* in the [Users](#) topic.

Importing LDAP users to enable User Enrollment

Prerequisites

- As a prerequisite, set up a Ivanti Neurons for MDM connector to access [LDAP](#) resources.
- Ensure that the **Managed Apple ID** setting is set to **Pattern** (user email address). Ensure the pattern for Managed Apple ID is unique. Otherwise, the account will not be updated with the Managed Apple ID if the same Managed Apple ID exists in another account.
- (Optional) include "appleid" subdomain to avoid conflict with existing Apple IDs.
- You can import users from LDAP and invite them for User Enrollment. The imported LDAP users will have their Managed Apple IDs synced with Ivanti Neurons for MDM, which is a requirement for User Enrollment.

Procedure

1. Go to **Users**.
2. Click **+Add > Invite Users from LDAP**.
3. Click **Select Users** in the LDAP server entry.
4. In the Add LDAP Users page, enter the name of the user, group, or OU in the search field.
5. To add new users or groups, click **+Add** next to the entry you want to add.
6. Click **Done**.

Importing AAD users to enable User Enrollment

As a prerequisite, connect Ivanti Neurons for MDM with Microsoft Azure Active Directory (AAD).

You can invite AAD users for User Enrollment. The imported AAD users will have their Managed Apple IDs synced with Ivanti Neurons for MDM, which is a requirement for User Enrollment.

Procedure

-
1. Go to **Admin** > [Azure AD User Source](#).
 2. Edit the settings.
 3. Select **Enable this AAD**.
 4. In the Managed Apple ID setting, select one of the following options:
 - **Pattern**
 - **User email address** - Ensure the pattern for Managed Apple ID is unique. Otherwise, the account will not be updated with the Managed Apple ID if the same Managed Apple ID exists in another account.
 - Alternatively, select **userUPN**.
 5. (Optional), include "appleid" subdomain to avoid conflict with existing Apple IDs.
 6. Select **Automatically invite users imported from AAD**. Users imported from AAD to Ivanti Neurons for MDM are automatically invited to register via email.
 7. Click **Save**.

Device user instructions for registering using User Enrollment

This section addresses the actions the device user needs to take for registering Apple User Enrollment.

Procedure

1. On the iOS device you wish to register, open the invitation email that contains a link and text guiding the end user to a registration link such as mobileiron.com/go.
2. Open the registration link in Safari.

The login page displays. The device user is to log in using their local user or LDAP credentials.

The registration page displays with a message saying the profile was downloaded.
3. Tap **Settings**. The Settings page displays.
4. Tap **Enroll in [Your Company Name]**.
5. The User Enrollment page displays.

Tap **Enroll My [Your Device]**. For example, tap Enroll My iPhone.

If you tap Cancel and Delete Profile, you will have to start the registration process all over again.

6. You will be presented with a login for either Apple or your Federated account. Enter the password for your Managed Apple ID. (The Managed Apple ID will be listed at the top of your login page.)

You may be presented with the option to stay signed in, make a selection.

A page displays the "Enrollment is Successful."

Using device logs for troubleshooting

To troubleshoot errors or issues for a User Enrolled device, start by reviewing the device logs.

Procedure

1. Go to **Devices**.
2. Click on the device to display the device details page. You can verify User Enrollment Enrolled and Registered Managed Apple ID fields.
3. Select the **Logs** tab.
4. In the Filters region, narrow the device logs using filters based on action names (such as Checkout, Device Name, Set Bootstrap Token, Get Bootstrap Token, and so on), status, start date, and end date.
5. In the Actions column, click the eye icon to display the device log details, such as Enrollment ID.
6. Click **OK**.

Account driven User Enrollment

Applicable to

- Devices with iOS 15+
- Devices with macOS 14+

Account driven User Enrollment for iOS 15+ and macOS 14+ devices is an enrollment option designed for companies implementing BYOD (Bring Your Own Device). Account driven User Enrollment is a modified version of the MDM protocol and User Enrollment with Apple Business Manager with a much greater focus on user privacy, implemented with a level of security that enterprises need.

Prerequisites

The requirements for Account Driven User Enrollment are as follows:

- An unsupervised device with iOS 15+
- Devices with macOS 14+
- A user account in Ivanti Neurons for MDM with managed Apple ID (Apple school or work account)

Setup the discovery service

If your enterprise has an enterprise domain name, for example, acme.com, then the email ID for your users is username@acme.com.

1. The user enters username@acme.com to sign in to their work or school account then the device makes a HTTP GET request call to the URL:
https://acme.com/.well-known/com.apple.remotemanagement?user-identifier=user@acme.com
For more information, see -
https://developer.apple.com/documentation/devicemanagement/discover_authentication_servers
2. On the acme.com domain configure redirection rule for the URI - /.well-known/com.apple.remotemanagement to redirect it to the following URL:
https://<n-MDM cluster>/.well-known/com.apple.remotemanagement

Device user instructions for registering using Account Driven User Enrollment

This topic addresses the actions the device user needs to take for registering Account Driven User Enrollment.

Procedure

1. On the device go to one of the following:
 - a. For **iOS** device - **Settings** > **General** > **VPN & Device Management**.
 - b. For **macOS** device - **System Settings** > **Privacy & Security** > **Profiles**.
2. Go to **Sign in to Work or School Account**.
3. Type the work or school account email address. Ensure that the email address is according to the following format:
username@ <enterprise domain name>, for example, username@acme.com.
4. The login page automatically takes the Managed Apple ID and takes the user through iReg flow. Ensure that you enter Ivanti Neurons for MDM credentials.
5. Type the work or school account credentials and click **Continue**.
6. After a 2-factor authentication, the device enrollment completes.

User Licenses

Ivanti Neurons for MDM user-based licenses define the number of users you can register, the number of devices allowed per user license, the amount of content you can configure for distribution to devices, and which features are available. If you reach your limit for users, a red triangle displays on the Admin page. If you reach your limit for content, the service will prevent you from adding more and display a message to indicate that you have reached your limit.

To determine how many user licenses you should plan for consider the following points:

- Each user license purchased under the Secure UEM or Secure UEM Premium package allows registration of up to five devices.
- Once a user registers more than five devices, another user license is claimed.
- There is no enforced limit to the number of user licenses that a user can claim.
- Licenses are released when devices are retired or wiped.

For example, when User1 registers her work phone on the first day of work, she claims a user license. The following week, she registers two personal phones and a tablet under that same license. When she registers another tablet, she now has five devices, so she claims a second user license. When her personal phone is stolen, she wipes the device, which releases the second user license.

Viewing the number of devices/ licenses for a user

Procedure:

1. Go to **Users**.
2. Click the link for the user.

The left pane lists user details, including license usage.

Managing Users

This section contains the following topics:

- "Adding an API user for Cisco ISE operations" on page 122
- "Assigning Roles to Users" on page 124
- "User Roles" on page 127
- "Finding and Filtering Users" on page 133
- "Assigning Users to User Groups" on page 139
- "Inviting Users" on page 141
- "Enabling and Disabling Users" on page 143
- "Managing Multiple Administrator Logins" on page 145
- "Changing a Password" on page 146
- "Changing the Tenant Administrator Username" on page 149
- "Sending a Message" on page 151
- "Removing Users from User Groups" on page 153
- "Deleting a User" on page 154
- "Exporting Users" on page 156
- "Assigning Custom Attributes to Users" on page 157
- "Removing Custom Attributes from Users" on page 158
- "Changing the User Locale" on page 159
- "Editing a Username" on page 160
- "Opting Out of Location Data Collection" on page 161

-
- ["Timeout Information"](#) on page 162
 - ["Opting Out of System Usage Analytics"](#) on page 163

Adding an API user for Cisco ISE operations

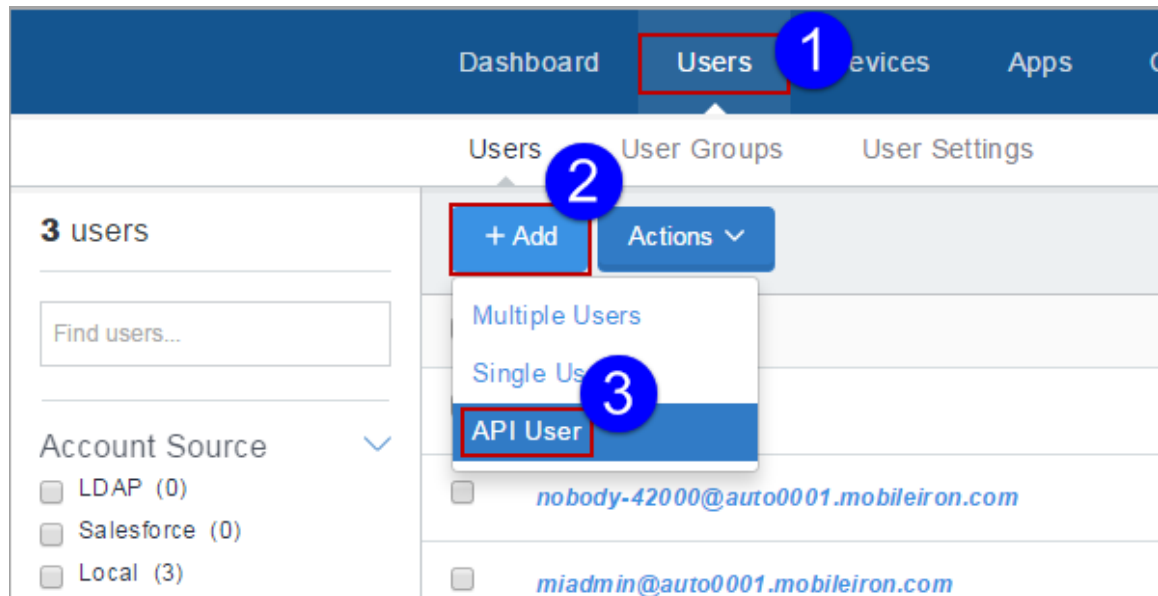
You can add an API user with the role "Cisco ISE Operations" that allows Cisco ISE to interact with the Cisco ISE APIs in Ivanti Neurons for MDM. After you create this user, you use this user's credentials from Cisco ISE to authenticate API calls into Ivanti Neurons for MDM. These APIs allow Cisco ISE to get device information; take actions on devices, for example, full wipe, corporate wipe, and pin lock; and send messages to devices.

i The API user will not be able to log into the Admin portal. This user is for enabling API usage only.

i Only the Super Admin of a tenant is assigned the Cisco ISE Operations role by default. The Super Admin must explicitly choose the other users in the system who must possess this role and assign it to them. Users, that are assigned the Cisco ISE Operations role can, in turn, assign the role to other appropriate users in the system.

Procedure

1. Click the **Users** tab.



2. Click **Add**.
3. Select **API User**.

4. Complete the resultant form with the user's information:

- Email Address
- First Name
- Last Name



The Username field displays the email address you entered. In most cases, you should not edit this default. See [When to Edit a Username](#).

5. If you want to change the display name for this user, edit the default text in the **Display Name** field.
6. Assign a password by entering it in the **Password** and **Confirm Password** fields.
7. Leave the **API Management Cisco ISE Operations** role selected in the **Assign Roles** section.
8. Click **Done** to add the user.

If you cannot perform tasks on the **Users** page, it might be that you do not have the required permissions. You need one of the following [roles](#):

- System Management
- User Management

Assigning Roles to Users

You can give users access to Ivanti Neurons for MDM data and features by assigning [roles](#). You can assign roles directly to users or to user groups. Assigning a role to a user group gives that role to all users in that group.



The User Read Only role is not assigned to users by default.

The Roles page and the associated options are hidden for tenants who have access to both Ivanti Neurons for UEM and Ivanti Neurons for MDM.

Users cannot assign the permissions that they do not already have. The permissions and roles that are not assigned to the users are not displayed for selection. In this case, an error message is displayed. When an Ivanti Neurons for MDM Administrator or a Partner Administrator attempts to assign roles to a Partner Administrator, Ivanti Neurons for MDM displays a message conveying that a Partner Administrator must perform this operation on the Service Provider Portal.

For more information about roles, see [Roles_Management.htm](#).

Procedure:

1. Go to:
 - **Users > Users** *or*
 - **Users > User Groups**.
2. Select one or more users or user groups.
3. Click **Actions**.
4. From the Users details page or User Groups details page, click **Assign Roles** *or* From the User list or User Group list page, select **Append Roles**.
5. Select one or more of the following roles you want to assign:
 - System Management | Cross-Space
 - System Read Only | Cross-Space
 - User Management | Cross-Space

-
- User Read Only | Cross-Space
 - LDAP User Import and Invite | Cross-Space
 - Device Management | Space-Specific
 - Device Read Only | Space-Specific
 - App & Content Management | Space-Specific
 - App & Content Read Only | Space-Specific
 - Device Actions | Space-Specific
 - Cisco ISE Operations | Cross-Space
 - Scheduled Task Management | Cross-Space
 - Common Platform Services (CPS) | Cross-Space
 - Low User Impact Migration Management | Cross-Space
 - Custom Device Enrollment | Cross-Space
 - Edit Microsoft Graph | Cross-Space
 - Send/Cancel Wipe | Cross-Space
 - View Microsoft Graph | Cross-Space
 - Manage Access Integration | Cross-Space

6. Click **Next**.

7. If the selected roles are Space bound, then select Spaces for all the Space bound roles.



If there is only one Space (Default Space), the Specify Space step is skipped when assigning a Space-bound role.

The summary page displays the Space name for Space bound round as Default Space.

8. Review the summary of the roles to be assigned and click **Done**.

Giving helpdesk staff permission to use basic device actions

The helpdesk roles generally allow staff to view data. However, some organizations prefer to include the basic device actions:

- Force Check-in
- Lock
- Unlock
- Send Message
- Retire
- Wipe

Procedure

You can provide permission to the actions.

1. Go to **Users > Users** or **Users > User Groups**.
2. Select one or more users or user groups.
3. Click **Actions**.
4. From the User details page or User Group details page, select **Assign Roles** or
From the User list or User Group list page, select **Append Roles**.
5. Select **Device Read Only**.
6. Select **Device Actions**.
7. Click **Done**.




Ensure that you select Device Read Only before selecting Device Actions for the users to have the expected permissions.

User Roles

User roles determine the pages users can see in Ivanti Neurons for MDM and the things users can do. The following table lists the roles you can assign and what they mean.

Role	Description	Space-Specific
System Management	Allows an administrator to manage tenant-level settings such as MDM Certificates, App Catalog Settings and more.	No
System Read Only	Allows an administrator to view tenant-level settings such as MDM Certificates, App Catalog Settings and more.	No
User Management	Allows an administrator to add and remove users, assign roles and add users to user groups.	No
User Read Only	Allows an administrator to view users and user groups as well as the apps and content catalogs.	No
Device Management	Allows an administrator to manage device groups, configurations and policies as well as perform all device actions.	Yes

Role	Description	Space-Specific
Device Read Only	Allows an administrator to view device groups, configurations and policies.	Yes
App & Content Management	Allows an administrator to add, distribute and remove Apps and Content.	Yes
App & Content Read Only	View data in Users, Apps, Content, including AppConnect tasks	Yes

Role	Description	Space-Specific
Device Actions	<p>Allows an administrator to initiate device actions, such as:</p> <ul style="list-style-type: none"> • Force Check-in • Lock • Unlock • Send Message • Retire • Wipe <hr/> <p> You must select Device Read Only before selecting Device Actions. Otherwise, users will not have the expected permissions.</p>	Yes
LDAP User Import and Invite	Allows an administrator to register LDAP Users and send invitation(s) to register device(s)	No
Cisco ISE Operations	Allows an administrator to invoke API(s) required for Cisco ISE integration.	No

Role	Description	Space-Specific
Scheduled Task Management	Allows an administrator to create and manage Scheduled Task(s) for various administrative operations.	No
Common Platform Services (CPS)	Allows an administrator to use Common Platform Services.	No
Low User Impact Migration Management	Allows an administrator to manage Low User Impact Migration settings.	No
Custom Device Enrollment	Allows an administrator to enroll a device using custom device enrollment.	No
Edit Microsoft Graph	Allows an administrator to edit Microsoft Graph API settings used for Office 365 Apps protection.	No

Role	Description	Space-Specific
View Microsoft Graph	Allows an administrator to view Microsoft Graph API settings used for Office 365 Apps protection.	No
Send/Cancel Wipe	Allows an administrator to send a Wipe command to a device or cancel an issued Wipe command before it is executed.	No
Manage Access Integration	Allows an administrator to manage Access integration.	No

For more information, see [Assigning Roles](#)

Finding and Filtering Users

This section contains the following topics:

- ["Searching a user" below](#)
- ["Using Advanced Search for users" below](#)
- ["Loading the Search queries for users" on the next page](#)
- ["Filtering Users" on page 135](#)

Searching a user

Once you have added many users, it can be helpful to use filters or searches to quickly locate a user entry.

Procedure

1. Go to **Users**.
2. Type characters in the search box.

Using Advanced Search for users

You can use the Advanced Search option to search for users based on rules to identify and view the users with specific criteria. The rule options can be nested together using the ANY (OR) or ALL (AND) options. The users matching the rules are displayed below the section. The rules can be constructed using the following operators:

- begins with
- ends with
- contains
- does not contain
- does not begin with
- does not end with
- is less than

-
- is greater than
 - is in range
 - is equal to
 - is not equal to

Starting from Ivanti Neurons for MDM 97 the Ivanti Neurons for MDM Administrator displays the number of duplicate user groups and the corresponding number of GUIDs to identify duplicate groups, when the User Group Name attribute is selected in the rule builder. Also, a table under this rule displays the list of the duplicate user groups and their details such as User Group Name, GUID, Source, and distinguished name (DN).

Procedure

1. From the Users page, click the **Advanced Search** link.
2. Click **Any** if the users need to match at least one of the rules, or Click **All** if the users need to match all the rules.
3. Create a rule that defines the search criteria, such as User Group, Custom User Attribute and Custom LDAP Attribute.
4. (Optional) Click + to create additional rules, if needed.
5. (Optional) Click **Save** to save the query.
6. Click **Search**. The list of users matching the search criteria are displayed in the page.

Loading the Search queries for users

Procedure

-
1. From the Users page, click the **Advanced Search** link.
 2. Click the 'Folder' icon. The **Advanced Search** window is displayed. The list of the created Search queries are displayed in the **Loaded Query** section. The following details are displayed in this section:
 - **Query Name** - The name of the loaded query.
 - **Query Content** - Displays the content on the rules defining the search query.
 - **Actions** - Select the action to be performed on the query.
 3. Click **Load Query** in the **Actions** column to view the list of users matching the criteria defined in the loaded query.
To delete a loaded query, click the Delete icon.

Filtering Users

The Filters side navigation bar lists various sections that help you to search for a specific user from the entire list of users. The Manage Filters wizard contains the list of all the sections that you can select to display in the Filters navigation bar.

Procedure

1. Go to **Users**.

2. Click the relevant check boxes from the sections that are listed in the Manage Filters wizard. You can search from the following sections:

- Administrators
- Google Status
- Invite Status
 - Completed (The user received it and responded.)
 - Expired (The user did not respond in time.)
 - Not Invited (You have not invited this user.)
 - Pending (Pending user response.)
- Password Expiration
 - Expires (users with password expiration option set to finite date.)
 - Never (users with password expiration option set to never.)
- User Group (Select the user groups of interest.)
- User Source
 - LDAP
 - AAD
 - Roster
 - Salesforce
 - Local

-
- Sync
 - Direct Sync - Lists the users that were directly synced from the LDAP server
 - No Sync - Lists the users that were removed from the LDAP server
 - Indirect Sync - Lists the users that were indirectly synced from the LDAP server
 - N/A
3. (Optional) Click **Restore Defaults** to restore the selection to the default filters. The Filters navigation bar displays the selected sections. If you clear all the check boxes from the Manage Filters wizard, the Filters side navigation bar displays all the sections.
 4. Click anywhere outside the Manage Filters wizard to exit the wizard.
 5. Click the x icon to close the Filters side navigation bar and click **Filters** to reopen the side navigation bar.

Assigning Users to User Groups

This section contains the following topics:

- ["Assigning users from the Users page" below](#)
- ["Assigning users from the User Groups page" below](#)

Assigning users to user groups is a great way to minimize the number of times you need to repeat tasks like:

- distributing apps
- assigning [roles](#)

Assigning users from the Users page

1. Go to **Users**.
2. Select the users you want to work with.
3. Click **Actions**.
4. Select **Assign to Group**.
5. Select the groups or click **Create New** to start a new group.
6. Click **Save**.

Assigning users from the User Groups page

1. Go to **Users > User Groups**.
2. Select the user groups you want to work with.
3. Click **Actions** (upper right).
4. Select **Assign Users**.

-
5. Type the email address of each user.
 6. Click **Assign Users**.

Inviting Users

When you add a user, you have an opportunity to invite that user to enroll devices. In fact, this option is selected by default. The invited user receives an email message containing the information needed to enroll. You can also invite (or re-invite) a user from the **Users > Users** page.

Procedure

1. Go to **Users**.
2. Select the users you want to invite.
3. Select **Actions > Send Invite**. The Invitation Preview appears, along with an option to set device ownership to **User Owned** or **Company Owned**.

Invite User To Register

Invitation Preview:

Device Owner Settings ON **4**

Set Device Owner on Device Registration

This setting changes how the device is classified during the registration process. This is only applicable for PIN Only or Password + PIN registration types. If Device Owner Settings is turned off, devices will be registered as "Not Set". If Device Owner Settings is turned on, a choice between User Owned and Company Owned device must be made.

5

User Owned
These devices are owned by users and used for work.

Company Owned
These devices are owned by your company and used by employees for work.

1

Send Registration Confirmation Email

A confirmation email will be sent upon successful user registration

Note 1: If the selected user(s) are not part of the distribution list, they will not receive any confirmation email.
Note 2: To manage this setting go to Users > User Settings > User Registration Confirmation Setting.

Cancel Send **6**

4. Optionally, turn on **Device Owner Settings**.

-
5. Click **User Owned** or **Company Owned**. This setting changes how the device is classified during the registration process. This is only applicable for PIN Only or Password + PIN registration types. If **Device Owner Settings** is turned off, devices will be registered as "Not Set." For Supervised devices, device owner setting will be "Company Owned."
 6. Click **Send**. If a PIN based device registration was performed, the user will receive a PIN to their registered email address. If a QR code based registration is set, the user will receive a QR code.
 7. Click **Okay**.



If the registration confirmation email feature is enabled as described in "[Configuring and using registration confirmation emails](#)" on page 22, then you will also see a reminder that the user will receive a registration confirmation email upon successful registration. To receive the email, the user needs to be part of the distribution list that you specify in "[Configuring User Registration Confirmation emails](#)" on page 99 in "[User Settings](#)" on page 87.

For more information, see [Importing LDAP users](#).

Enabling and Disabling Users

This section contains the following topics:

- ["Enabling and disabling local users" below](#)
- ["Enabling and disabling LDAP users" below](#)

The local and LDAP users can be in enabled or disabled status. Based on their status, you can create [custom policies](#) using the User Enabled condition and setting an action for the condition in the rule builder. For example, there can be a custom policy rule to retire the devices that belong to disabled local/LDAP users.

Enabling and disabling local users

By default, when a local user is created, the user is in enabled state.

Procedure

1. Go to **Users**.
2. Click the display name for the local user.
3. Click **Edit**. The **Authentication Required** window is displayed.
4. Enter your administrator password and click **Authenticate**.



When multiple incorrect entries of the password are entered and if it crosses the 'Failed Logins Threshold limit' set in the 'Password Complexity Settings', the account will be locked and you will be logged out from the current session.

5. Select or deselect the **Enabled** option to enable or disable the local user respectively.
6. Click **Save**.

Enabling and disabling LDAP users

You can enable or disable LDAP users only for Microsoft Active Directory. In Microsoft Active Directory, when you open the properties for a user account, click the **Account** tab, and then either select or clear the check boxes in the **Account** options dialog box, numerical values are assigned to the **UserAccountControl**

attribute. The value that is assigned to the attribute tells Windows which options have been enabled. After you assign a value to the UserAccountControl attribute, the user status will reflect after LDAP sync with Ivanti Neurons for MDM.

Following are the possible values you can assign:

- 512 - Enabled.
- 514 - Disabled.
- 66048 - Enabled, password never expires.
- 66050 - Disabled, password never expires.

View user accounts

Procedure

1. Click **Start**.
2. Go to **Programs**.
3. Go to **Administrative Tools**.
4. Click **Active Directory Users and Computers**.

For more information, see <https://support.microsoft.com/en-in/help/305144/how-to-use-the-useraccountcontrol-flags-to-manipulate-user-account-pro>.

You can view and edit the attributes by using either the Ldp.exe tool or the Adsiedit.msc snap-in. Only experienced administrators should use these tools to edit Active Directory. Both tools are available after you install the Support tools from your original Windows installation media.

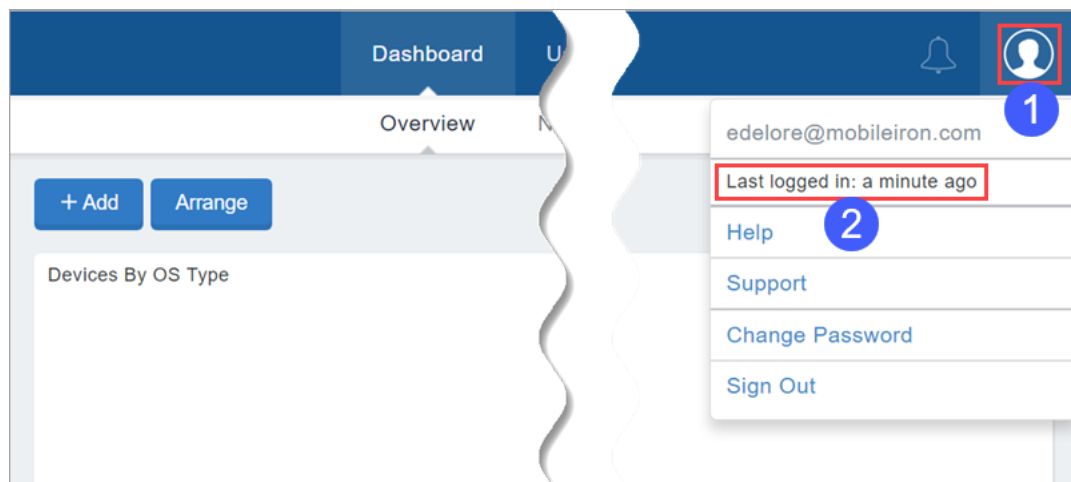
Managing Multiple Administrator Logins

Multiple Ivanti Neurons for MDM admin portal sessions are supported so the administrator can view different pages of the portal at the same time. If you are an administrator, you can view your last login date to help you keep track of multiple logins.

View the last administrator login

Procedure

1. Click the Account icon.



2. View the **Last logged in:** entry.

Changing a Password

This section contains the following topics:

- ["Changing password from the Users tab" on the next page](#)
- ["Applying password to never expire" on the next page](#)
- ["Removing the password to never expire setting" on page 148](#)



If a user has a System Management role, then only a Superuser or currently logged-in user can see the **Change Password** option.

You can change your Ivanti Neurons for MDM password. You can also change the password for another user if you have the permission.

Procedure

1. Click the Account icon (upper right).



2. Select **Change Password** from the pull-down menu.
3. Enter your current password.
4. Enter your new password.
5. Enter your new password again.
6. To set the password to not expire, select **Set Password to Never Expire**.



Setting the password to never expire overrides the **Password Expiration Period** defined under Users > User Settings > Password Complexity Setting.

-
7. Click **Done**.



To reset local account password to expire, unselect **Set Password to Never Expire**. After the option is unselected, a pop-up window shows the previous password expiration date applied to the user.

Changing password from the Users tab

Procedure

1. Go to **Users**.
2. Click the display name for the user.
3. Click **Edit** (upper left). The **Authentication Required** window opens. Administrators (who are either local users or LDAP users) are required to authenticate by entering the administrator password before editing the user.
4. Enter your administrator password and click **Authenticate**.



When multiple incorrect entries of the password are entered and if it crosses the 'Failed Logins Threshold limit' set in the 'Password Complexity Settings', the account will be locked and you will be logged out from the current session.

5. Enter the current password in the **Current Password** field.



This field will not be displayed if you are changing the password for another user.

6. Enter the new password in the **Change Password** field.
7. Confirm the new password.
8. Click **Save** (upper left).

Applying password to never expire

1. Go to **Users**.
2. Select one or more users.

-
3. Click **Actions**.
 4. Select **Assign Password Never Expire**. The **Set Local Account Password to Never Expire** window is displayed.
 5. Click **Submit**.

Removing the password to never expire setting

1. Go to **Users**.
2. Select one or more users.
3. Click **Actions**.
4. Select **Remove Password Never Expire**. The **Remove Local Account Password Never Expire** window is displayed.
5. Click **Submit**. After this setting is removed, the previous password expiration date will be applied to the users.

Changing the Tenant Administrator Username

You can change the Tenant Administrator's username to facilitate the introduction of a new Tenant Administrator. Because the Tenant Administrator can never be deleted, this is a way to change the Tenant Administrator to another username.

This feature supports the following scenarios:

User with all roles changes Tenant Administrator username

1. Tenant Admin leaves company.
2. User with User Management role changes Tenant Admin username, email address, first name, last name, and password for the new Tenant Administrator.

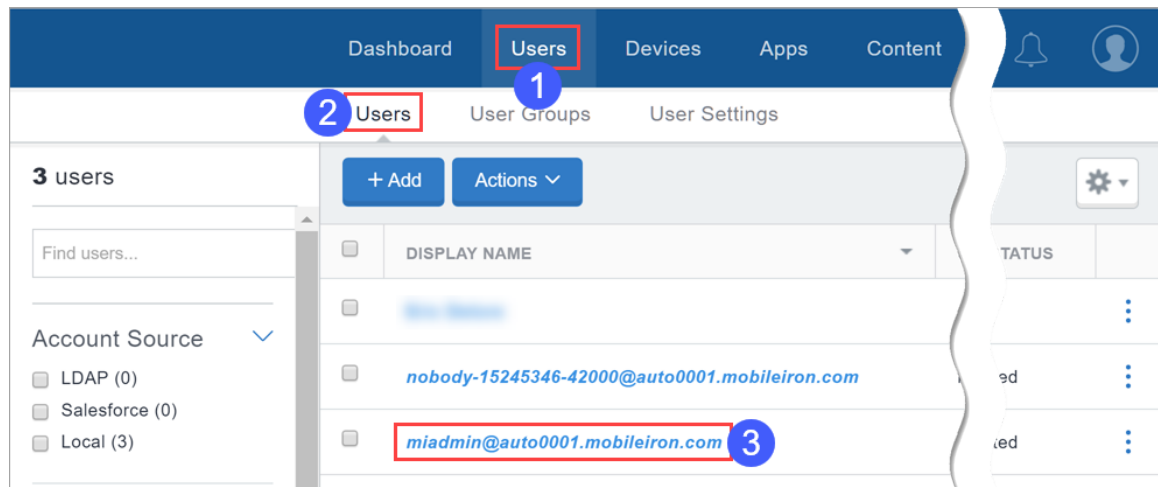
See [Assigning Roles](#) and [Changing a Password](#) for information on assigning roles and changing the password.

Tenant Administrator changes username to new Tenant Administrator before leaving company

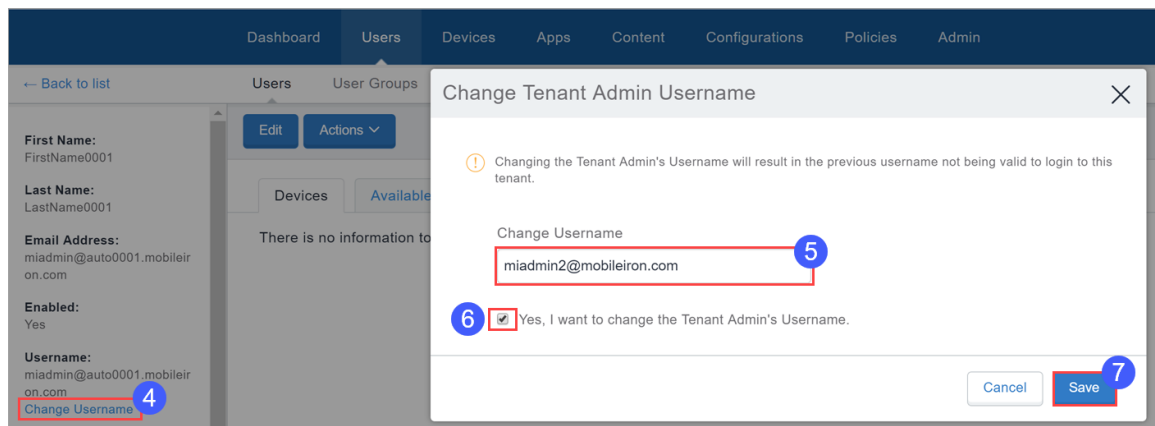
1. Before leaving the company, departing Tenant Administrator changes username and password.
2. Departing Tenant Administrator passes this information on to the new Tenant Administrator.

Changing the Tenant Administrator username

1. Select **Users**.



2. Select the **Users** sub-tab.
3. Click the Tenant Administrator's display name.



4. Click **Change Username**.
5. Enter the new username.
6. Click the check-box adjacent to **Yes, I want to change the Tenant Admin's Username** until a check mark appears in it.
7. Click **Save**.

Sending a Message

This section contains the following topics:

- ["Sending a message to users" below](#)
- ["Sending a message to devices" below](#)

You can send a message to any known user. Messages can be email or push notifications. Only users having enrolled devices can receive push notifications.

Prerequisites

- For iOS devices, ensure that Go client is installed.
- For macOS devices, ensure that Mobile@Work client is installed.

Sending a message to users

1. Go to **Users > Users**.
2. Select the users you want to message.
3. Click **Actions** (upper right).
4. Select **Send Message**.
5. If you do not want to send email, clear the **Send an Email message** check box.
6. If sending email, enter a subject and message text.
7. If sending a push notification, select the **Send a Push Notification** check box and enter message text.
8. Click **Send**.

Sending a message to devices

1. Go to **Devices > Devices**.
2. Select the devices you want to message.

-
3. Click **Actions** (upper right).
 4. Select **Send Message**.
 5. Optionally, click the device name link to go to the Device details page and click the **Send Message**



icon.

6. If you do not want to send email, clear the **Send an Email message** check box.
7. If sending email, enter a subject and message text.
8. If sending a push notification, select the **Send a Push Notification** check box and enter message text.



A push notification message can also include URLs which the users can access.

9. Click **Send**.
When a push notification is sent to the user, the user will be able to see a bell icon on the device screen toolbar. Tapping the bell icon, the user can view the history of notifications received and can perform an action or delete a notification.

Removing Users from User Groups

This section contains the following topics:

- ["Removing users from the Users page" below](#)
- ["Removing users from the User Groups page" below](#)

Removing a user from a user group means:

- any [roles](#) assigned to that group are removed from the user
- any apps assigned to that group are no longer available in the user's app catalog
- apps that were configured to be removable are removed from the user's devices

Removing users from the Users page

1. Select the user you want to work with.
2. Click **Actions** (upper right).
3. Select **Remove from Group**.
4. Select the groups.
5. Click **Remove**.

Removing users from the User Groups page

1. Click the user group to display its details.
2. Click **Edit** (upper right).
3. Click the **Remove** link next to the user you want to remove.
4. Click **Save** (upper right).

Deleting a User

This section contains the following topics:

- ["What happens when you delete a local user" below](#)
- ["What about LDAP users?" on the next page](#)

Procedure

1. Go to **Users > Users**.
2. Select the entry for the user.
3. Click **Actions** (upper right).
4. Select **Delete**.

When an Ivanti Neurons for MDM Administrator or Partner Administrator attempts to delete a Partner Administrator, Ivanti Neurons for MDM displays a message conveying that a Partner Administrator must perform this operation on the Service Provider Portal.



If a user has some devices associated with their account, first you must retire and delete the devices and then delete the user. If user has no devices the user information can be deleted when the user is deleted.

What happens when you delete a local user

- All information related to a deleted user is deleted from the system.
- Devices associated with the user are retired.
- Content uploaded by the user remains.
- No further device registrations are allowed for the user's account.

What about LDAP users?

- If the LDAP server has been disabled, an LDAP user cannot be permanently deleted. The next sync of LDAP data will restore a deleted LDAP user.
- If the LDAP server or group has been deleted, the LDAP users become local users and can be deleted.
- When a user is deleted from LDAP, it will not be deleted from Cloud. The sync status will switch to "NO_SYNC", but the user will not be removed.

Exporting Users

As an administrator, you can export a list of users from Ivanti Neurons for MDM.



When the user device registration PIN is exported to a CSV file, the PIN will be masked as '*****' instead of the actual PIN for security reasons.

Procedure

1. Go to **Users > Users**.
2. Select one or more users from the list.
3. Click **Export to CSV**.

You will be prompted with a pop-up informing that the export report would take some time to process. After submitting the request, you must wait for the request to be completed and to submit another request. Once the report is ready, the you will be prompted with a message to either Download or Delete the generated report. You will also receive an email containing a link to download the report.



The **Custom User** and **LDAP** attributes details can also be exported to a CSV file along with other details.



When a user is added with any field value that contains either +, -, =, or @ characters, the user data in the exported CSV file will automatically prefix the field with a single quote (') and the pipe (|) symbol will be added with a backslash (\). This is done to prevent Excel injection vulnerability.

Assigning Custom Attributes to Users

You can assign custom user attributes such as Department to one or more users. Each attribute has a corresponding value that you can use for tasks like creating configurations and user groups. You can assign custom attributes to one or more users.

Procedure

1. Go to **Admin > System > Attributes** to create new custom attributes if required.
2. Go to **Users**.
3. Select one or more users.
4. Click **Actions**.
5. Select **Assign Custom Attributes**.
6. Select one of the following options:
 - Force assign (overwrite) all attributes even if any existing values are found.
 - Overwrite only if value is empty, and skip attributes with existing values.
7. Select the attributes you want to assign and enter their values (empty values are not allowed).
8. Click **Assign**.

Related topics:

- ["Attributes" on page 1064](#)
- ["Variables" on page 471](#)

Removing Custom Attributes from Users

You can remove custom attributes from one or more users.



Proceed with caution as this action is not reversible.

Procedure

1. Go to **Users**.
2. Select one or more users.
3. Click **Actions**.
4. Select **Remove Custom Attributes**.
5. Select the attributes you want to remove.
6. Click **Remove**.

Related topics:

- ["Attributes" on page 1064](#)
- ["Variables" on page 471](#)

Changing the User Locale

By default, the user locale is set to the tenant locale. If required, you can change the locale for a single user.

Procedure

1. Go to **Users**.
2. Click the display name for the user.
3. Click **Edit**. The **Authentication Required** window is displayed.
4. Enter your administrator password and click **Authenticate**.



When multiple incorrect entries of the password are entered and if it crosses the 'Failed Logins Threshold limit' set in the 'Password Complexity Settings', the account will be locked and you will be logged out from the current session.

5. Under the Locale field, click **Change**.
6. In the **Change User Locale** window, select the required locale from the **Change user locale to:** drop-down list.
7. Click **Done**.
8. Click **Save**.

Editing a Username

When you add a user, the text you enter for the email address is automatically listed for the username, as well. In most cases, you should leave the default username in place because:

- A username in the format of an email address is required.
- It is convenient to use the username [variable](#) in configurations, though the email address can also be used.

The only time to edit a username is in the rare event of a conflict with an existing username, because usernames must be unique across the entire device management system. A conflict might happen, for example, if two departments in an organization sign up for the device management system.

If a username conflict happens

If you cannot add a user because of a username conflict, enter a different username using the format of an email address. The email address does not have to correspond to an actual email account. For example, you can change the following email address:

ksmith@mycompany.com

to

ksmith21@mycompany.com

If you edit the username, then any configurations that include the username as a variable will not work for this user. Create alternate configurations that use the email address variable, instead.

Opting Out of Location Data Collection

This section contains the following topics:

- ["For iOS devices" below](#)
- ["For Android devices" below](#)

If a privacy configuration is applied to enable the collection of location data, the device user can override the configuration.

For iOS devices

iOS device users can turn off location services to prevent sending location data to the device management system from the following setting:

Settings > Privacy > Location Services

For Android devices

Android device users can turn off the location setting to prevent collection of location data. The location of this setting varies by manufacturer. Android device users are also prompted to accept the request for location data.

Timeout Information

Inactivity timeout of the administrative portal is between 5 to 15 minutes and timeout is 24 hours.

Procedure

1. Go to **Users > User Settings**.
2. Edit the default **Password Complexity** settings.
3. In the Password Policies section, move the **Inactivity Timeout** slider to specify the time a user maybe inactive before an Admin Portal or a Self Service portal session time. Number ranges between 5 to 15 (minutes).
4. Click **Done**.

Opting Out of System Usage Analytics

Anonymous product diagnosis and usage data are collected to help in product improvement.

If you wish to keep your usage data proprietary, you can opt out of sending system usage analytics.

Procedure

1. Click **Usage Data** link at the bottom of the page in the Ivanti Neurons for MDM administrative portal. The **Usage Data** window is displayed.
2. Clear the **Send out diagnostics and usage data** checkbox.
3. Click **Save**.

Devices

This section contains the following topics:

- ["Getting Started with Devices" on page 165](#)
- ["Device Groups" on page 184](#)
- ["App Inventory" on page 193](#)
- ["Managing Devices" on page 197](#)

Getting Started with Devices

This section contains the following topics:

- ["Managing devices" on the next page](#)
- ["Performing actions on a device" on page 168](#)
- ["Setting the time zone for a device" on page 169](#)
- ["Listing devices by criteria" on page 169](#)
- ["Displaying detailed device information" on page 169](#)
- ["Bulk assign or change users and custom attributes to devices" on page 181](#)
- ["Exporting devices to a CSV file" on page 181](#)
- ["Searching device logs" on page 182](#)

Each entry in the **Devices** page represents a mobile device that has been registered with Ivanti Neurons for MDM and lists important information about the device. The Devices list page displays devices with information such as:

- Name
- Email Address
- Phone #
- OS
- Device Type
- Status
- Last Check-In
- Violation Count
- Space
- Legal Owner (for Shared iPads)

The Wi-Fi IP address is reported to the Ivanti Neurons for MDM server. Any changes to IP address is reported at every check-in. GDPR-compliant IP address is available as an option in the device list page and in the device details page. This feature requires devices to be registered via Go 5.5 for iOS or later versions, and Go 72 or later versions for Android as supported by Ivanti Neurons for MDM.



As new GDPR fields (such as IP Address and eSIM ID) are added over Ivanti Neurons for MDM releases, the admins who have configured GDPR already need to edit the GDPR profile if they want to hide the new fields.

The equipment identifier (EID) shows up as an iOS attribute when a device list is exported to spreadsheet (CSV) format. The EID and mobile EID (MEID) (when present) are prefixed by an EID string or MEID string, respectively.



The Ivanti Neurons for MDM server cannot handle processing the same device with different client identifiers and registered across different tenants. The server can only handle the instance where it is the same device with different client identifiers and registered to the same tenant.

Managing devices

Procedure

1. Log in to the Ivanti Neurons for MDM administrative portal.
2. Go to **Devices**.
3. Select one or more devices.
4. Select an action from the **Actions** drop-down list.

The following table lists the actions that are available on the Devices page:

Category	Action
Common	<ul style="list-style-type: none"> • Add to Group • AppConnect Unlock> • Assign Custom Attributes • Assign to User • Device Compliance Status Sync • Disable Remote Desktop • Enable Remote Desktop • Enable/Disable Bluetooth • Force Check-in • Lock • Remove Custom Attributes • Restart/Shutdown • Device Compliance Status Sync • Device Retire • Send Message • Set Ownership • Unlock • Wipe
iOS	<ul style="list-style-type: none"> • Assign to Legal Owner (Shared iPads only) • Reinstall iOS System Apps • Set Time Zone
macOS	<ul style="list-style-type: none"> • Set macOS Auto Admin Password • Set/Change Firmware Password

Category	Action
	<ul style="list-style-type: none">• Set/Change Recovery Lock
Android	<ul style="list-style-type: none">• Enter Kiosk Mode• Exit Kiosk Mode
Windows	Scripts and Actions via Ivanti Bridge

Performing actions on a device

The Actions menu (ellipsis button) lets you perform various actions on a selected device.

Procedure

1. Click a device name. The device details page opens.
2. Click the Actions (ellipsis) menu to perform one of the following device actions:
 - **Change Device Name**
 - **Delete Device**
 - **Edit Group Membership**
 - **Enable/Disable Bluetooth**
 - **Scripts and Actions via Ivanti Bridge**
 - **Pull Ivanti Bridge Log**
 - [Relinquish Ownership](#)
 - **Request Debug Logs**
 - **Restart/Shutdown Device**
 - **Retire**
 - **Set Ownership**
 - **Set/Change Recovery Lock**

-
- **Wipe**
 - **Device Compliance Status Sync**

Setting the time zone for a device

Applicable to: iOS 14.0+ and tvOS 14.0+ devices

This action does not require Location Services. The time zone device action is also displayed in the device details page of a device. Time zone changes made in the device will also reflect in the Ivanti Neurons for MDM server.



This device action triggers an error if the **Force automatic Date & Time** restriction is enabled in [iOS Restrictions configuration](#).

Procedure

1. Select one or more devices.
2. Click **Actions** > **Set Time Zone** for the selected devices.
3. Enter the timezone string in the Olson Time Zone ID format. For example, Pacific/ Midway.
4. Click **Set Time Zone**.

Listing devices by criteria

You can use the Filters side navigation bar to search and view specific devices among the entire list of devices. Use the Space drop-down list to select all or specific spaces to view the devices and their related information. You can also search for devices using either the display version or the bundle version. The Devices page displays both bundle version and display version of devices.



When you navigate from the Device Group page and click the number that is listed under the **# of devices** column or from the **#Installed** column in the **App Inventory** page, a message is displayed indicating the name of the space for which the devices are listed in the page.

Displaying detailed device information

Click the link in the Name column of an entry to display the Device Details page. The Device Details page contains several tabs organizing the following information:

-
- **Overview** - The following table lists all the details displayed on the Overview tab:


Section name	Description
General	<ul style="list-style-type: none"> ◦ Device Location ◦ Manufacturer ◦ Wi-Fi MAC Address ◦ WiFi-IP Address (Android devices) ◦ Network Tethered - (iOS devices) ◦ Has Battery - (Only for macOS 13.3+) ◦ Model Number - (macOS 13.3+ and iOS 16.4+) ◦ Serial number ◦ Alternative Serial Number (Android devices) - Manufacturer specific serial number applicable for Samsung devices in Device Admin or Device Owner mode. ◦ Storage Usage - Used (except Windows) and available internal storage on devices ◦ Available Battery (Android) ◦ Battery Status (Android) - Charging, Discharging, Full, and Not Charging ◦ Battery Estimated Charge Remaining (Windows) ◦ Battery Estimated Runtime (Windows) ◦ Update Available (macOS) ◦ Available Update Name (macOS) ◦ OS Version ◦ OS Build Version ◦ Supplemental Build Version ◦ Supplemental OS/Version Extra

Section name	Description
	<ul style="list-style-type: none"> ◦ Apple Silicon Device ◦ Firmware Version ◦ Device Source ◦ Legal Owner ◦ Multi-User Mode ◦ Time Zone ◦ System Update (Android devices) ◦ Zebra patch Version (Android devices) ◦ Last Hotfix ID - (Windows devices) ◦ Last Hotfix Installed On - (Windows devices)
Settings	<ul style="list-style-type: none"> ◦ Device Name ◦ Device Identifier ◦ Device GUID ◦ Device Enrollment Device (Apple devices) ◦ Device Enrollment Enrolled (Apple devices) ◦ Automated Device Enrollment Enabled ◦ Automated Device Enrollment Enrolled ◦ User Enrollment Enrolled (Apple devices) ◦ Registered Managed Apple ID (Apple devices) ◦ Device Groups ◦ Language ◦ MDM Device Identifiers

Section name	Description
	<ul style="list-style-type: none"> ◦ Device Client ID ◦ Client App version ◦ Client App BundleID ◦ Client Registered ◦ EAS Device Identifiers ◦ Activation Lock Enabled ◦ Apple Declarative Management Enabled ◦ Activation Lock Bypass Code ◦ Terms of Service ◦ Ownership ◦ iTunes Account Active ◦ Device Location Service Enabled ◦ Quarantined ◦ Sentry Blocked ◦ Access Blocked ◦ Compliance Action Blocked ◦ APNS capable ◦ Supervised Mode (iOS and macOS devices) - Identifies a supervised device. Device remains in direct control of the IT team. The supervised mode enables additional device capabilities (for example, field service deployments, retail point-of-sale devices), "loaner" devices used in hospitality and services, and devices shared among students in a classroom lab. ◦ Wipe PIN - Click View to display the PIN. ◦ Managed macOS Admin user (macOS devices)

Section name	Description
	<ul style="list-style-type: none"> ◦ Device Encryption Status (macOS devices) <ul style="list-style-type: none"> ◦ FileVault Encryption Enabled ◦ Personal Recovery Key Used ◦ Institutional Recovery Key Used ◦ Bootstrap Token Available ◦ System Integrity Protection Enabled ◦ Firmware Password <ul style="list-style-type: none"> ◦ Password ◦ Change Pending ◦ Command Status ◦ Allow Option ROMs ◦ Recovery Lock <ul style="list-style-type: none"> ◦ Password ◦ Recovery Lock Enabled ◦ Firewall Settings (macOS devices) <ul style="list-style-type: none"> ◦ Firewall Enabled ◦ Block All Incoming ◦ Stealth Mode ◦ Application Firewall Status (macOS devices) ◦ Firewall Status (Windows devices) ◦ Last backup to iCloud (iOS devices) ◦ Passcode Lock Grace Period (iOS devices)

Section name	Description
	<ul style="list-style-type: none"> ◦ Android ID ◦ Android Security Patch Level (Android devices) ◦ Kiosk Mode (Android devices) ◦ Android SafetyNet Attestation Type (Android devices) ◦ Android Enterprise Capable (Android devices) ◦ Android Work Enabled (Android devices) ◦ Samsung SAFE Capable (Android devices) ◦ Android Work Managed Devices (Device Owner) Enabled ◦ Android Work Profile on Company Owned Device Enabled ◦ Android Managed Device with Work Profile ◦ Android Work Profile on Company Owned Device Lock Enabled ◦ Help@Work Available ◦ Zebra Capable ◦ Secure Apps Status ◦ Secure Apps Encryption Status ◦ Secure Apps Encryption Mode ◦ FCM Enabled
Windows Information Protection (Windows devices)	<ul style="list-style-type: none"> ◦ WIP ◦ App Locker Configured ◦ EDP Mandatory Settings
Telephony	Device Service Subscriptions <ul style="list-style-type: none"> ◦ Phone number

Section name	Description
	<ul style="list-style-type: none"> ◦ Cellular Technology ◦ IMSI ◦ ICCID ◦ IMEI ◦ IMEI 2 - (Only on Android devices with dual SIM port. Applicable on Android 8.0 or higher) ◦ MEID ◦ Device Location ◦ Carrier ◦ Home MCC ◦ Home MNC ◦ Current Country Name ◦ Home Country Name ◦ Cellular Technology ◦ Roaming ◦ Current Operator ◦ Current MCC ◦ Current MNC ◦ Data roaming ◦ Voice roaming <hr/> <div style="display: flex; align-items: center;">  <p>For supported iOS devices, these properties are displayed for multiple eSIM active service subscriptions.</p> </div> <hr/> <p>SIM Service Subscriptions</p>

Section name	Description
	<ul style="list-style-type: none"> ◦ Carrier Setting Version ◦ Carrier Setting Network ◦ Current MCC ◦ Current MNC ◦ eSIM Identifier ◦ ICCID ◦ IMEI ◦ Data Preferred ◦ Voice Preferred ◦ Label ◦ Label ID ◦ Phone Number ◦ SIM Slot ◦ Is Roaming ◦ Subscriber Carrier Network
Azure Device Compliance	<ul style="list-style-type: none"> ◦ Azure Device Identifier ◦ Azure Device Compliance Status ◦ Azure Client Status Code ◦ Azure Device Compliance Report Time ◦ Azure Intune Device User UPN
Google BeyondCorp Device Compliance	<ul style="list-style-type: none"> ◦ Device Identifier ◦ Compliance Status ◦ Compliance Report Time

Section name	Description
	<ul style="list-style-type: none"> ◦ User
Battery Information	<ul style="list-style-type: none"> ◦ Battery Level - Displays current battery charge level as reported by the Android OS ◦ Battery Health Status - As reported by the Android OS ◦ Battery Charging Status - As reported by the Android OS ◦ Battery Health Percentage (OEM Specific) - Battery health in percentage for supported device manufacturers such as Zebra devices ◦ Battery Manufacture Date (OEM) - Battery manufactured date for supported device manufacturers such as Zebra devices ◦ Battery Charge Cycles (OEM) - Number of cycles completed in total for supported device manufacturers such as Zebra devices

- **Configurations** - Displays the details of the applied configurations For more information, see ["Working with Configurations"](#) on page 423.
- **Installed Apps**- Displays the details of the applications that are installed on the device. The installation date of the current version of the installed app is displayed under the **App Reported Date** column.

 The app installation date of the devices coming out of quarantine is the date when the device is removed from quarantine.

In the case of Android Enterprise devices, you can also view the installed apps usage details sorted by Day, Week, Month, or Year. To view these details, you must have selected the **Enable App usage data collection** option available in the **Configuration Setup** section, and then you can select **App Usage - Day, App Usage - Week, App Usage - Month, App Usage - Year** options to view the app usage details.

-
- **Available Apps** - Displays the details of the applications that are available for the device. Search the available apps for the device as follows:
 - App Name
 - Bundle or Package ID

In the **App Configurations** column, when you select the **Configuration Name**, you will be directed to the app catalog's **App Configuration** tab to review the app configuration options. If needed, you can modify the app configurations for the device on the **App Configurations Summary** page. For more information about configuring an app, see ["App Configuration" on page 333](#).

In the **App Configurations** column, when you select the **Configuration Name**, you will be directed to the app catalog's **App Configuration** tab to review the app configuration options. If needed, you can modify the app configurations for the device on the **App Configurations Summary** page. For more information about configuring an app, see ["App Configuration" on page 333](#).



Make sure to remember the specific app configuration's name and type for the assigned device on the **App Configurations** page.




The **Status** column indicates the application installation status on the device. The App installation status is captured only for managed applications. The application installation status for unmanaged apps is displayed as Not Installed. You must convert the application to Managed to view the correct installation status.

- **AppConnect Apps** - Details of the installed AppConnect apps.

- **Policies** - Details of the applied policies. For compromised devices, check the violation reason in the Violation column. If the device has been rooted, the system displays the reason shown in the **Violation** column:

Priority (1 = highest)	Violation
1	Plugin compromised
2	Client tampered
3	Unknown device manufacturer: unknown
4	Suspicious folder detected: [path]
5	Suspicious binary found at: [path]
6	Folder /data is browsable OR Folder /data/data is browsable
7	Found /system/app/Superuser.apk
8	Package manager compromised
9	Suspicious app found: [package]

- **Certificates** - details of the installed certificates.
For the usage of the certificate, check the Usage Type column. If the certificate is device specific, it displays the usage type as 'device'. If the certificate is user specific, it displays the usage type as 'user'.
- **Sentry** - Sentry information (ActiveSync associations)
- **Attributes** - Custom Attributes and Device attributes
- **Users** - Displays the list of active users for supervised MacOS device.

 **Users** tab is enhanced and shows the managed apple id as a hyperlink, clicking which redirects to user account details page in a Shared iPad device.

- **Logs** - View and customize device filters. You can do the following from the Filters:
 - Select the Action name to filter devices based on application actions.
 - Select Status.
 - Specify the Start Date and the End Date.

-
- **Hardware** - Hardware inventory details (system, motherboard, BIOS, hard drive, CD ROM, processor and physical memory)

Bulk assign or change users and custom attributes to devices

You can use the Bulk Assign via Upload icon to upload a CSV file to assign or change users and/ or custom attributes to devices in bulk.

Procedure

1. From the Devices page, click the **Bulk Assign via Upload** icon (next to the Actions button).
2. (Optional) Click **Download template** to save a CSV template file that you can edit and upload.
3. After the CSV file is ready, click **Choose File** to browse to the CSV file location or drag and drop the CSV file to the File data section.
4. Select one of the following options:
 - **Force assign (overwrite) all attributes even if any existing values are found**
 - **Overwrite only if value is empty, and skip attributes with existing values**
5. Click **Upload**.

Exporting devices to a CSV file

You can export the device details of a specific device using the **Export to CSV** option from the **Devices** page.

Procedure

1. Go to **Devices**.
2. Select all or multiple spaces to view the information related to specific spaces.
3. Click the devices count link. The Devices list page related to the selected space is displayed.
4. Click the **Export to CSV** option to export the devices list and related details to a CSV file. A pop-up message appears that the export report would take some time to process. Wait for the request to complete before you submit another request. Once the report is ready, you will be prompted with a message to either Download or Delete the report.

-
5. Click **Download**. You will also receive an email containing a link to download the report.
 6. (Optional) Click **Delete** to delete the report.

Searching device logs

Procedure

1. Go to **Devices** > **Devices**, click the **Name** column link of an entry.
2. Click the **Logs** tab.
3. Use the Action, Status, Start Date, and End Date filters to narrow the displayed devices. You can do the following from the Filters:
 - a. Select the Action name to filter devices based on application actions.
 - b. Select Status.
 - c. Specify the Start Date and the End Date.
4. The Device Details column displays the status of the application as follows:

For all devices the status shows the following details:

- App name, app version, bundle, or package ID
- Status of installation
- Any errors and reason for the error
For example - appOrConfigName=Name: <app name>;Identifier= <bundleid>;iTunesStoreId: <itunesid>;Status: <status or error reason from Apple>version: <app version>

For Windows devices the status shows the following details:

- Include bundle ID or package ID, status, and errors
For example -
- For type - application inventory and status - acknowledge - displays - appType
- For type - application inventory and status - sending - Does not display anything

-
- For type - install/uninstall and status - success/failure/sending - displays Include bundle ID or package ID, status, name, version, and errors

If you cannot see the **Devices** page, it might be that you do not have the required permissions. You need one of the following [roles](#):

- Device Management
- Device Read Only

Device Groups

This section contains the following topics:

- ["Adding a device group" below](#)
- ["Removing a device group" on page 190](#)
- ["Exporting devices to a CSV file" on page 190](#)

In the **Device Groups** page, you can create lists of devices that you want to treat in the same way. You can define and assign policies and configurations to the device groups. The following are the default device groups created by Ivanti Neurons for MDM:

- All Devices
- Android Devices
- Android Enterprise Devices
- iOS Devices
- tvOS Devices
- macOS Devices
- Windows Devices

The details of the apps assigned to a specific device group is displayed under the **Apps** tab for the specific device group.



The tvOS device group is a subset of the iOS device group. Therefore, the configurations and policies applied to tvOS group might be overwritten by the iOS device group.

Adding a device group

Depending on the type of license you have, you can add a new device group based on rules to identify the devices with specific criteria. The devices matching the rules are displayed below the rule builder section. The rules can be nested together using the ANY (OR) or ALL (AND) options. The rules can be constructed using the following operators:

-
- begins with
 - ends with
 - contains
 - does not contain
 - does not begin with
 - does not end with
 - is less than
 - is greater than
 - is in range
 - is equal to
 - is not equal to
 - is not blank
 - is blank

The Ivanti Neurons for MDM Administrator displays a number of duplicate user groups and the corresponding number of GUIDs to identify duplicate groups, when the User Group Name attribute is selected in the rule builder. Also, a table under this rule displays the list of the duplicate user groups and their details such as User Group Name, GUID, Source, and distinguished name (DN).

Bronze license:

Rules can identify devices by the following criteria:

- Device Type
- OS - operating system (pre-populated)
- OS Version
- OS With Version
- User Group

Silver license:

Rules can identify devices by the following criteria:

- AAD Enrolled
- Alternative Serial Number (Android Only - applicable for Samsung devices in Device Admin or Device Owner mode)
- Android Dedicated Device
- Android Enterprise Capable
- Android Managed Device with Work Profile
- Android SafetyNet Attestation Type
- Android Work Enabled
- Android Work Managed Devices (Device Owner) Enabled
- Android Work Profile Enabled
- Android Work Profile on Company Owned Devices Enabled
- APNS Capable
- Apple Silicon Device
- Automated Device Enrollment Enabled
- Azure Device Identifier
- Azure Device Compliance Status
- Azure Client Status Code
- Azure Device Compliance Report Time
- BitLocker Encryption
- Sentry Blocked
- Access Blocked
- Bootstrap Token Available
- Bulk Provisioned Type (Apple Configurator, None, or Automated Device Enrollment Enrolled)

-
- Carrier
 - Client Last Check-in
 - Client Registered
 - Compliance
 - Compliance Action Blocked
 - Current Country Name (select the current country name from the drop down list)
 - Current MCC
 - Current MNC
 - Custom Device Attribute
 - Custom LDAP Attribute
 - Custom User Attribute
 - Data Roaming
 - Device Registered
 - Device Source
 - Device Type
 - Display Name
 - Encryption Enabled
 - Hard Drive Partitions
 - Home Country Name (select the home country name from the drop down list)
 - Home MCC
 - Home MNC
 - IMEI

-
- IMEI2 (only on Android devices with a dual SIM port and applicable for Android 8.0 or higher devices)
 - IP Address
 - Kiosk Mode
 - Last Check-in
 - MAM Only
 - Manufacturer
 - OS
 - OS Edition
 - OS Version
 - OS With Version
 - Ownership
 - Phone #
 - Quarantined
 - Recovery Lock Enabled
 - Roaming
 - Secure Apps Status
 - Serial Number
 - Status
 - Supervised
 - System Version
 - Total Device Capacity
 - Total Memory MB
 - TPM Version

-
- Unlock Token Available (iOS)
 - User Enrollment Enabled
 - User Group
 - Voice Roaming
 - macOS Personal Recovery Key escrowed
 - macOS Recovery Key Type

Procedure

1. Click **Add**.
2. Enter a name for the group.
3. Enter an optional description for the group.
4. Select the type of device group you want to create:
 - **Dynamically Managed:** Use rules to define which devices are in the group.
 - **Manually Managed:** Enter each user whose devices are to be included in the group.
5. For dynamically-managed groups:
 - a. Create a rule that defines the group.

Example: OS is iOS
 - b. Click + to create additional rules, if needed.

Example: Device is iPhone 5S
 - c. Click **Any** if the devices need to match at least one of the rules.
 - d. Click **All** if the devices need to match all the rules.
6. For manually-managed groups:
 - a. Type the name of a user whose device you want to add.
 - b. Select the device from the displayed list.

-
- c. Repeat steps a and b until all devices are displayed in the list.
7. Click **Save**.

Removing a device group

Procedure

1. Go to **Devices > Device Groups**.
2. Click the check-box for the device group you want to remove.
3. Click **Delete Device Group**.

Exporting devices to a CSV file

You can export the device details of a specific device group using the **Export to CSV** option from the **Device Groups** page.

Procedure

1. Go to **Devices > Device Groups**.
2. Select all or multiple spaces to view the information related to specific spaces.
3. Click the device group count link. The Devices list page related to the selected space is displayed.
4. Click the **Export to CSV** option to export the devices list and related details to a CSV file. A pop-up message appears that the export report would take some time to process. Wait for the request to complete before you submit another request.
5. Click **Download**. You will receive an email containing a link to download the report.
6. (Optional) Click **Delete** to delete the report.

If you cannot see the **Device Groups** page, it might be that you do not have the required permissions. You need one of the following [roles](#)

- Device Management
- Device Read Only

Unmanaged Devices

This section contains the following topics:

- ["Blocking a device" below](#)
- ["Unblocking a device" below](#)
- ["Clearing a device from the device list" on the next page](#)

License: Silver

If you have set up Sentry email access control, any unregistered devices that access your email system are called unmanaged devices. You define whether unmanaged devices should have access to email by default when you [set up a Sentry](#). You can then manually allow or block email access for these devices.



The Unmanaged Devices page is updated every 5 minutes. Therefore, changes in management are not immediately reflected.

Blocking a device

Procedure

1. Select the device.
2. Select **Actions > Block**.

The device remains blocked until you select **Actions > Allow** or **Actions > Delete**.

Unblocking a device

Procedure

1. Select the device.
2. Select **Actions > Allow**.

The device continues to have access to email until you select **Actions > Block** or **Actions > Delete**.

Clearing a device from the device list

Procedure

1. Select the device.
2. Select **Actions > Delete**.

The next time the device attempts to access your email system, it will reappear on this list, and you will need to repeat any Block or Allow action you previously applied to the device.

App Inventory

This section contains the following topics:

- ["Filtering the display of apps" below](#)
- ["Displaying the installed devices for an app" on the next page](#)
- ["Displaying the list of apps" on the next page](#)
- ["Displaying the installed Win32 or Win32 Store apps on a device" on the next page](#)
- ["Creating Custom View Permission" on the next page](#)
- ["Exporting an App Inventory" on page 195](#)

The app inventory is the list of apps detected on enrolled devices. As an administrator you can use this page to get information on the apps being used by enrolled devices. You can answer questions like:

- Which apps are most popular?
- Do iOS devices get their apps directly from the App Store?
- How many Android users have downloaded an optional in-house app?
- How many devices are using an outdated version of an app?

Filtering the display of apps

When you display the **Devices > App Inventory** page, all apps are listed. To narrow this list to certain apps, use the filters (left pane). For example, to narrow down the list to display only the private apps from Google Play, select **Private** under the **Source** section.

You can view app inventory across all or multiple space devices by selecting multiple spaces from the drop-down list. When you hover on the displayed apps, device counts are displayed. You can click on the count for an app to display all devices containing the app. Each app inventory record will be grouped by space.

You can search using either the app name or bundle/package ID.

If you have selected multiple spaces, then hovering the **Total** value in the **# Installed** column displays the install count per device space.

Displaying the installed devices for an app

Click the **Managed**, **Unmanaged**, or **All** number listed in the **# Installed** column.

Displaying the list of apps

Click the **# Requested** against the app in the app inventory to view the devices that requested the app. This is applicable only for MAM-Only devices.

Displaying the installed Win32 or Win32 Store apps on a device

The app inventory displays Win32 or Win32 Store apps on a device if the [privacy configuration](#) for that device allows for the collection of information for all apps on that device. You can configure the privacy policy for the device.

Procedure

1. Determine which privacy configuration applies to the desired device by following the directions in [Devices](#).
2. Go to **Configurations**.
3. For the privacy configuration you noted in step 1:
 - a. Select the configuration.
 - b. Click Edit.
 - c. Under **Collect App Inventory**, select **For All Apps on the Device**.
 - d. Click **Done**.



The Win32AppInventory CSP returns the list of all Win32 and Win32 Store apps installed on the device every 24 hours after the inventory scans run on the device.

Creating Custom View Permission

You can specify custom view permissions for users.

Procedure

-
1. Go to **Admin**.
 2. Go to **Roles Management**.
 3. Click **Add Custom Role**.
 4. Select the **Space-Specific Role** option.
 5. Enter the user name in the **Name** field.
 6. From the **Devices** menu, click **App Inventory**.
 7. Select the **View** checkbox.
 8. From the **Devices** menu, click **Device Actions**.
 9. Click **Save**.
 10. Go to **Users** in the main menu.
 11. Click the new user that you created.
 12. Click **Assign Roles**.
 13. Select the **app | Space-Specific** checkbox, click **Next**.
 14. The **Summary** page displays the permissions that are assigned to the role you created.
 15. Click **Done**.
 16. Log in as the new user.
 17. Click **Devices** from the main menu.
 18. Click **App Inventory**.
 19. The **App Inventory** page now displays only the permitted applications for the user.

Exporting an App Inventory

As an administrator, you can request App Inventory reports using the **Export to CSV** option.

Procedure

-
1. Go to **Devices > App Inventory**.
 2. Select an inventory from the list.
 3. Click **Export to CSV**.

The admin will be prompted with a pop-up informing that the export report would take some time to process. After submitting the request, the admin must wait for the request to be completed and to submit another request. Once the report is ready, the admin will be prompted with a message to either Download or Delete the report that has been generated. The admin will also receive an email containing a link to download the report.

If you cannot see the **App Inventory** page, it might be that you do not have the required permissions. You need one of the following [roles](#):

- Device Management
- Device Read-Only

Managing Devices

This section contains the following topics:

- "Deploying Windows devices" on page 199
- "Setup Apple Remote Desktop on macOS devices" on page 203
- "Device Registration (iOS, macOS, and Android)" on page 205
- "Device Registration (Windows 10+ PC and Microsoft HoloLens 2)" on page 210
- "Provisioning Package Enrollment with PIN" on page 214
- "Using Bulk Enrollment for Windows devices" on page 219
- "Changing Passcode Settings" on page 221
- "Changing the Device Name" on page 223
- "Finding and Filtering Devices" on page 224
- "Using Device Owner" on page 227
- "Managed Device with Work Profile" on page 238
- "Using Bulk Enrollment for Android" on page 239
- "Bulk Enrolling devices using CSV file upload" on page 242
- "Using Samsung Knox Mobile Enrollment" on page 246
- "Enrolling Oculus devices" on page 246
- "Enabling Bluetooth on a Device" on page 250
- "Schedule iOS Update" on page 251

-
- "Re-install iOS System Apps" on page 252
 - "Assigning a Device to a new user" on page 253
 - "Reassigning an Android device" on page 254
 - "Forcing a device to Check-in" on page 256
 - "Locating a Device" on page 257
 - "Locking a Device" on page 258
 - "Managing devices in Apple lost mode" on page 260
 - "Requesting debug logs" on page 263
 - "Retiring a Device" on page 264
 - "Relinquishing Ownership of a Device" on page 265
 - "Wiping a Device" on page 266
 - "Deleting a Device" on page 268
 - "Unlocking a Device" on page 269
 - "Restarting or shutting down devices" on page 271
 - "Clearing the Restrictions Password (iOS only)" on page 273
 - "Deleting Sentry association for a device" on page 274
 - "Assigning Custom Attributes to Devices" on page 275
 - "Removing Custom Attributes from Devices" on page 276
 - "Synchronizing and fetching app feedback" on page 277
 - "Setting firmware password" on page 279
 - "Reissuing a new Personal Recovery Key" on page 281
 - "Setting or changing recovery lock" on page 283

Deploying Windows devices

This section contains the following topics:

- [" Overview" below](#)
- ["Device Management" below](#)
- ["Windows Device Enrollment and Registration" below](#)
- ["Windows Update Management" on the next page](#)
- ["App Management and distribution" on the next page](#)
- ["App Control" on page 201](#)
- ["Windows Device Management Configurations" on page 201](#)
- ["Windows Device Compliance" on page 202](#)
- ["Windows Apps and Hardware Inventory " on page 202](#)

Overview

Ivanti Neurons for MDM helps you to manage all Windows laptops and desktops including HoloLens 2 end-end device life cycle management: from configuration, enrollment, provisioning, securing, application, management, monitoring, software and OS updates, to retirement.

Device Management

Windows devices supported:

- Windows PC 10+
- Microsoft HoloLens 2

For more information about the Device Management and reporting functionality, see ["Devices" on page 164](#)

Windows Device Enrollment and Registration

Ivanti Neurons for MDM supports all standard device registration methods for Windows devices:

-
- Manual Registration
 - Bulk Enrollment
 - via SCCM and Ivanti EPM
 - Windows Autopilot
 - AAD Registration

For more information about the registration methods, see ["Using Microsoft Azure" on page 1234](#)

For information on Multi-User Support, see ["Multi-User Support for Windows devices" on page 1236](#).

Windows Update Management

- Configuring and Scheduling Windows updates - To configure and schedule Windows updates, create a configuration using Configuration - ["Software Updates" on page 668](#).
- Windows Update Management - You can view and approve the updates reported by Windows 10 devices that you want to be updated using Windows 10 Update Management. By using this feature, you can prevent the updates that are not necessary or not tested from being installed on the devices. For more information, see ["Windows 10 Update Management" on page 973](#).

App Management and distribution

Users can manage complete App life cycle (Import, configuration, schedule, distribution, update and removal) for Windows applications.

Supported App types:

- In-house
- MSB
- Public store

Supported App extensions:

- MSI
- MSIX
- APPX

-
- APPX bundles
 - EXE (Bridge)

For more details on managing Windows apps, see ["App Configuration" on page 333](#). To automate app updates, see ["Windows app scheduling" on page 976](#) and ["Working with Configurations" on page 423](#).

App Control

The App Control configuration allows you to categorize apps as Allowlist or Blockedlist at the device level. Apps that are already installed will not be visible and cannot be launched. Apps will still be visible in the App Store, but they cannot be downloaded or launched. Any device to which the App Control configuration is distributed will use this configuration and ignore any Allowed Apps Policy Settings. The App Control configuration supersedes any app-related policies that refer to the same app on the target devices.

For more details, see ["App Control Configuration: Control Which Apps Are Installed Per Device" on page 445](#).

Windows Device Management Configurations

Support for Windows 10+ PC and Microsoft HoloLens 2 includes the following abilities:

- ["Device Registration \(Windows 10+ PC and Microsoft HoloLens 2\)" on page 210](#)
- ["Passcode Configuration" on page 651](#)
- ["Exchange Configuration" on page 735](#)
- ["Configurations" on page 422](#)
- ["Devices" on page 164](#)
- ["Apps" on page 284](#)
- ["Windows app scheduling" on page 976](#)
- ["App Control Configuration: Control Which Apps Are Installed Per Device" on page 445](#)
- ["Windows 10 Update Management" on page 973](#)
- ["Device status reporting from Ivanti Neurons for MDM to Azure" on page 1263](#)
- ["Configuring Windows Autopilot Profiles" on page 1220](#)

-
- ["Pushing SyncML to Devices using Custom Configurations" on page 441](#)
 - ["Policies" on page 1001](#)
 - Windows Restrictions
 - Identity Certificates
 - Windows Hello for Business
 - Wi-Fi and VPN Profiles



Configurations distributed to HoloLens devices that are not supported by this device type, will not be reported as configurations distributed under the Configurations tab in the Device Details.

Windows features (only supported for Windows PC):

- ["Ivanti Bridge" on page 409](#)
- ["Windows BIOS Configuration" on page 977](#)
- ["Windows BitLocker" on page 990](#)
- ["Windows Kiosk Configuration" on page 991](#)
- ["Windows License Configuration" on page 999](#)
- ["EMA Server Intergration Configuration" on page 936](#)
- ["Printer Settings" on page 951](#)
- ["Remove Bloatware Configuration" on page 956](#)
- ["ADMX \(GPO\) Browser" on page 1230](#)

Windows Device Compliance

Ivanti Neurons for MDM can be set up with Microsoft Azure for seamless enrollment of the users on their Windows desktop and Tablets devices running on Windows 10+. To configure Azure tenant integration to enable Windows Device Compliance, see ["Using Microsoft Azure" on page 1234](#).

Windows Apps and Hardware Inventory

Windows App Inventory

The App inventory is a list of apps detected on enrolled devices. Use this page to get information on the apps being used by enrolled devices. For more information, see ["App Inventory" on page 193](#).



The App Inventory displays Win32 or Win32 Store apps on a device if the privacy configuration for that device allows collecting the information of all apps on that device.

Configuring App inventory intervals

You can set Windows 10 app inventory collection intervals for multiple app source type inventories. The intervals are used when Privacy Configuration is set to collect all apps from the device.

For more information, see ["Configuring app inventory intervals" on page 1231](#).

Windows Hardware Inventory

You can enable the collection of hardware information from Windows 10+ devices. These details are retrieved using Bridge. For more information, see ["Hardware Inventory" on page 1232](#).

Setup Apple Remote Desktop on macOS devices

This section contains the following topics:

- ["Enabling Apple Remote Desktop on macOS devices" below](#)
- ["Disabling Apple Remote Desktop on macOS devices" below](#)

Enabling Apple Remote Desktop on macOS devices

The Apple Remote Desktop feature enables the screen sharing feature and lets you manage the devices remotely. The Apple Remote Desktop feature is available for supervised macOS 10.14.4+ devices.

Procedure

1. Go to **Devices**, select one or more supervised macOS devices.
2. Click **Actions** > **Enable Remote Desktop** action for the devices.
3. Click **Enable Remote Desktop** to confirm.

Disabling Apple Remote Desktop on macOS devices

Procedure

-
1. Go to **Devices**, select one or more supervised macOS devices.
 2. Click **Actions** > **Disable Remote Desktop** action for the devices. The screen sharing feature is disabled and you cannot remotely manage the devices.

Device Registration (iOS, macOS, and Android)

This section contains the following topics:

- ["Installing the management profile manually" on the next page](#)
- ["Sending an invitation \(iOS, macOS, and Android\)" on the next page](#)
- ["Instructing end users to download the app \(iOS and Android\)" on page 207](#)

Most users start by registering a device. You can use any of the following approaches to start the registration process:

- Send an invitation to one or more end users (iReg registration)
- Instruct end users to download the Go (in-app registration)



If iOS and macOS device MDM enrollment fails with the *Profile Installation Failed The SCEP server returned an invalid response.* error, the device user must re-initiate the device enrollment process from the beginning. This happens mostly when the device user takes longer time than expected to complete the iOS and macOS device MDM enrollment process after the profile is downloaded on the device. Please contact Ivanti support for further clarifications.

Ivanti Neurons for MDM supports the user-level management of a single user (local user or registered Active Directory (AD) user) on macOS devices. Administrators can manage devices for the users, apply device profiles and user profiles, and consequentially use App Store, app distribution, configurations, and policies (including Apps@Work, restrictions, security).

To manage macOS devices with AD user, the AD user needs to be the user that is logged in during registration. Any other non-registered user cannot view the registered-user specific profiles (for example, identity certifications, VPN). However, device-level configurations can be viewed and used by any logged-in user.



The end [user must have an account](#) in Ivanti Neurons for MDM before you can start the device registration process. For LDAP users, that means a [Connector](#) and an [LDAP server](#) must be set up, and the user must be imported from the LDAP server. For local users, that means [adding a user](#).



The device enrollment URL generated in earlier versions of Ivanti Neurons for MDM will cease to work with the current version. The administrator will need to regenerate the device enrollment URL for device registration.

Installing the management profile manually

Applicable to:

- iOS 12.2 through the most recently released version as supported by Ivanti Neurons for MDM.
- macOS 11.0 through the most recently released version as supported by Ivanti Neurons for MDM.

iOS Device Registration

During in-app registration on iOS devices:

- During device registration using Go app a page with instructions to install the profile appears.
- Click the **Install Downloaded Profile** option and click **Click I Understand**.
- The downloaded profile is valid for a few minutes, after which re-registration is required.

macOS Device Registration

For macOS device registration in the self-service portal, a user must perform the following steps:

Procedure

1. Log in with their credentials.
2. In the Install Management Profile page, the profile is downloaded to the user's local system.
3. Double-click the downloaded profile to make it visible in the user's System Preferences.



There is limited time for the user to install the profile before it becomes invalid.

4. Open **Profiles** in System Preferences. When the profile is downloaded to the device, users can view a web page having the Profiles link. Click **Profiles** to open the Settings app.
5. Click **Install** to install the management profile.
6. Continue and finish the installation procedure. Enter the system password when prompted.

Sending an invitation (iOS, macOS, and Android)

Start the registration process by sending an invitation. Ivanti Neurons for MDM provides the following ways to send end users an invitation to register a device:

-
- In the [Startup Wizard](#)
 - When you [add one or more users](#)
 - In the Users page ([Actions > Send Invite](#))



If the end users misplace the invite, you can share the URL that was listed in the invitation. Ensure that you add **/go** at the end of the URL.

End users who have an Ivanti Neurons for MDM account with a password do not need an invitation to start the registration process. You can send them the URL that is listed in the invitation.

Instructing end users to download the app (iOS and Android)

The Go application is available for Android and iOS devices. You can provide instructions to the end users on how to download the application from a public app store and start the registration process from the app. The email invitation contains the following information:

- A link to the registration page
- A one-time use PIN (if set by the administrator)
- Basic instructions for the next steps

If you have already set a password for the account, you can send the password to the corporate email address of the end user. If you are using LDAP for authentication, inform the end user that network credentials are required.

If the user does not complete installation of the MDM profile during registration, then Ivanti Neurons for MDM periodically sends push notifications to the device to prompt the user to complete the registration process.

The user can use either Username and Password or scan the QR code to begin the device registration from Go app. The details are as follows:

- **Username:** Email address
- **Password:** If specified in the [User Settings](#) and a temporary password is defined by the administrator

-
- **QR Code:** Generate the QR code from the Ivanti Neurons for MDM self-service portal. When you scan the QR code using the **Scan QR Code** option, a prompt appears on the screen requesting you to grant permission to access the camera on the device. After you grant permission, the camera scans the QR code and the device is registered. This option is supported for Android 9 and later, iOS 14 and later versions.

As an end user, if you receive a registration email on your mobile device, tap the link to start the registration process. If you receive the email on a laptop or desktop, enter the URL in a browser on your mobile device to begin the registration process.

If you do not yet have a password defined for your Ivanti Neurons for MDM user account or if your [User Settings](#) require a registration PIN, a one-time use PIN is included. After you enter the PIN, you are prompted to set a password for the account if the password does not exist.



For Android Enterprise devices, when the registration is complete, any manually installed CA certificates to a work profile on company owned device or a work managed device are uninstalled.

Re-enrolling iOS devices

If you want to re-enroll your device you can do so as follows:

1. Launch the Go client on your device.
2. Go to **Settings > Troubleshoot > Re-enrol Device**. The re-enrollment process starts and displays a few prompts for confirmation.
3. Tap **Yes** on the prompts.



If you tap **Cancel** during the profile installation, the enrollment process stops and the Ivanti Neurons for MDM server disables the device MDM.

To restart the re-enrolment process you must re-install the already downloaded profile. The downloaded profile is valid only for a few minutes after that you must perform the re-enrollment from Go client.

Re-registering Android devices

The admin can re-register a device by using the retire, wipe, or delete operations without manually clearing the existing active entry. This method is specifically more helpful for re-registrations where the new entry and existing entry belong to the same tenant. The Devices page displays the status of the device on the Ivanti Neurons for MDM administrative portal as follows:

-
- **Active** - device registration is successful
 - **Retired** - device gets reset and retired status will be shown
 - **Wiped** - device gets reset and wiped status will be shown
 - **Reset** - device gets reset and will be in active status on the server until next registration

The Audit Trails page lists the device registration, re-registration, and retired statuses for Android devices. For more information, see ["Working with Widgets" on page 33](#).



For Android 9.x and earlier versions, a single entry will be shown after re-registration. In case of Android 10.x and later versions, multiple entries will be displayed. However, only the latest entry will be active and older entries will be in a retired state.

Device Registration (Windows 10+ PC and Microsoft HoloLens 2)

This section contains the following topics:

- ["Manual registration" below](#)
 - ["Sending an invitation" on the next page](#)
 - ["Completing the end users registration process" on the next page](#)
- ["Windows Autopilot" on page 212](#)
- ["AAD Standard Registration" on page 213](#)

Device registration process are of the following types:

- Manual registration
 - Invitation
 - End User registration
- Windows Autopilot
- With SCCM and Ivanti EPM via a Provisioning Package Enrollment with PIN. See [Provisioning Package Enrollment with PIN](#).
- [Bulk Enrollment](#)

Manual registration

Most users start by registering a device. You can use any of the following approaches to start the registration process:

- Email invitation
- Direct users to the URL for your implementation



- The end [user must have an account](#) in Ivanti Neurons for MDM before you can start the device registration process. For LDAP users, that means a [Connector](#) and an [LDAP server](#) must be set up, and the user must be imported from the LDAP server. For local users, that means [adding a user](#).
 - The device enrollment URL generated in earlier versions of Ivanti Neurons for MDM will cease to work with the current version. The administrator will need to regenerate the device enrollment URL for device registration.
-

Sending an invitation

In most cases, you will start the registration process by sending an invitation. Ivanti Neurons for MDM provides the following ways to send end users an invitation to register a device:

- in the [Startup Wizard](#)
- when you [add one or more users](#)
- in the Users page ([Actions > Send Invite](#))

If end users misplace the invite, receive it on a desktop or laptop, or fail to receive it for some reason, you can send them to the URL that was listed in the invitation. Just add **\go** to the end of your service URL.

End users who have an Ivanti Neurons for MDM account with a password set do not need an invitation to start the registration process. You can send them to the URL that would have been listed in an invitation.

Completing the end users registration process

Tell your device users how to complete the registration process. You can use the following instructions as a template and make any necessary changes:

Procedure

1. Open a browser on your Windows 10+ PC.
2. Navigate to mobileiron.com/go.
You are redirected to a new page containing an enrollment URL.
3. Copy the enrollment URL to the clipboard.
4. Tap **add account** at the bottom of the **Settings** page.

-
5. Enter the email address associated with the invitation you received.



If the user's Ivanti Neurons for MDM username does not match user's email address as entered in Ivanti Neurons for MDM, tell the user to enter the username when prompted for the email address.

6. Paste the Workplace server URL you copied into the next text field.
7. Tap **sign in**.
8. Enter your password in the next field.
9. Leave the other fields blank.
10. Tap **sign in**.
11. Click **done** in the **ACCOUNT ADDED** screen.
The Workplace start screen shows that an account has been added.

Windows Autopilot

Windows Autopilot is a Microsoft feature that helps administrators to setup and pre-configure new devices to make them business ready. The Autopilot feature helps with a quick, reliable, and seamless provisioning of Windows Desktop or HoloLens 2 devices. In addition, the Autopilot feature helps perform the following tasks:

- Automatically join devices to Azure Active Directory (AAD)
- Auto-enroll devices into MDM services
- Create and auto-assign devices to configuration groups based on the profile of the device
- Customize the enrollment experience
- Apply configurations and policies
- Install essential applications

Ivanti supports all modes of Autopilot profiles:

- User Driven
- User Driven Pre-provisioned (former White Glove)

-
- Self-Deploying mode

For more information, see ["Configuring Windows Autopilot Profiles" on page 1220](#).



For security and unauthorized use of the device, all Autopilot Windows devices can be locked to a tenant using the TenantLockdown CSP feature. To use this feature, the devices must be enrolled using the Autopilot option. This configuration is applied at the device level. See ["TenantLockdown CSP" on page 1229](#).

AAD Standard Registration

When users are added to the AAD tenant, they can directly enroll their devices via the Work Account.

Procedure

1. On a Windows device, go to **Settings > Accounts > Access work or school**.
2. Select Add Work or School account and then click **Connect**.
3. Provide email address from your work account.

The device gets automatically enrolled to Ivanti Neurons for MDM.

Provisioning Package Enrollment with PIN

The admin can enroll the devices managed by SCCM or Ivanti Endpoint Manager to the Ivanti Neurons for MDM. The Deployment Package Tool allows organizations to streamline the transition of Windows devices to Ivanti Neurons for MDM Modern Management, without downtime or end user interruption. The seamless transition is achieved by downloading a unique deployment package from the Ivanti Neurons for MDM Console, then deploying it through the existing management tool or domain. Once the package is executed, it will silently enroll the endpoint into Ivanti Neurons for MDM for the ongoing management. The approach allows administrators to first easily migrate the devices, then have the flexibility to configure devices later over-the-air. When a device completes the silent enrollment into Ivanti Neurons for MDM, it is joined with MDM and is co-managed by the two management authorities. Once an administrator has configured the desired Windows experience within Ivanti Neurons for MDM, the legacy management platform can be decommissioned, leaving Ivanti Neurons for MDM as the single management authority of the device.



There is an exception to this rule if a device is being transitioned from Microsoft Endpoint Manager (MEM) or formerly SCCM. The existing MEM Client continues to function in Coexistence Mode (opposed to Co-Management mode), until the MEM platform is decommissioned. When Coexistence Mode is enabled, the MEM Client automatically disables certain functionality in favor of Ivanti Neurons for MDM providing those workloads. For more information, see [Microsoft's Coexistence documentation](#).

For more exact behaviours when using MEM and other 3rd Party Management platforms, Ivanti suggests to first test the Ivanti Neurons for MDM Deployment Package Tool in your environment.

Prerequisites

- User accounts must be imported on Ivanti Neurons for MDM using LDAP, Azure AD (AAD), Local User Upload, or other identity integrations
- All devices should have [Windows Configuration Designer](#) installed.
- Enable PIN based registration on Ivanti Neurons for MDM
- Users should not have spaces in their username, this may cause a user device transition to fail.



- This tool can be deployed in environments that do not leverage the AAD.
 - The main elements of Ivanti Neurons for MDM Modern Windows Management Suite does not require AAD. Co-management or coexistence may require certain workloads / configurations to be deployed upon silent enrollment, to avoid any impact during transition.
 - Deployment Package is currently supported for SCCM and Ivanti Endpoint Manager only.
-

Procedure

1. Go to **Admin>Windows>Deployment Package**.
2. Select **User** or **User Groups** to generate PINs and click **Download Deployment Package** (.zip file).
3. The Deployment Package is given to the SCCM / Ivanti Endpoint Manager administrators to unzip and transfer the files to the respective devices managed by these admins. For information on how to perform this step, see [Packages and programs in Configuration Manager](#).
4. After the transfer, administrators remotely trigger the `setup.ps1` script on the devices. For information of triggering the script, see [Create and deploy scripts from the Configuration Manager](#).
5. The devices are enrolled on Ivanti Neurons for MDM.



The PIN generated for the users are valid for 24 hours only. Once the PIN is expired, new PIN has to be generated.

The file containing the PINs is deleted from the device post enrollment attempt is complete.

Enrolling SCCM devices to Ivanti Neurons for MDM

Procedure

1. Download all the deployment related files from the Ivanti Neurons for MDM for selected users.
2. Select accounts or groups that should be enrolled.

-
3. Deploy the Package files to client devices using SCCM:
 - a. Verify if the required clients are present in SCCM. If the Windows-configuration-designer is not present on the client, the admin should push the designer and deploy it on the client.
 - b. On the SCCM server, create a folder and copy the deployment zip file and extract the contents of the file.
 - c. Create a .bat file that will copy the contents of the folder where the files are extracted to the client device.
 - d. In SCCM, go to **Software Library > Application Management > Packages** and create a package to copy the contents of the folder to the client. Enter the destination folder to which you want to copy the contents.
 - e. Deploy the package to the device or device location.
 - f. Under the Monitoring section, you can monitor the deployment status and confirm that the files are copied to the client destination folder.
 4. Execute the script to enroll a device:
 - a. Go to **Software Library > Scripts** and create script.
 - b. Enter a name to the script and import the PowerShell script **setup.ps1** from the unzipped folder.
 - c. Approve the script and execute the script on target device.
 - d. Select **Start now** and click **Save**. The Scheduled tasks starts executing the script. On successful execution, the status will become Green.
 5. To verify the device enrollment, **Settings > Add or remove a provisioning package > Details**.

Enrolling Ivanti Endpoint Manager devices to Ivanti Neurons for MDM

Procedure

1. Download all the deployment related files from the Ivanti Neurons for MDM for selected users.
2. Select accounts or groups that should be enrolled.

Case 1: A device name is considered for enrolling the device with the same username - In this case, the email address is not a valid user email address. An email with device name concatenated with

the AD domain is considered as the enrollment email address. The admin must set Account as LocalSystemAccount and use setup.ps1 as primary file to initiate the PowerShell execution.

Case 2: A valid user email address is considered for enrolling the device and no restrictions on modifying files in the device location - Use the logged in user's email address for enrollment. To enable this enrollment, the admin must set Account as Current user account and use setup.ps1 as primary file to initiate the PowerShell execution.

Case 3: A valid email address is considered for enrolling the device with restrictions on modifying files in the device location - Use the logged in user's email address for enrollment. This case has two sub-cases:

- Using two scripts for enrollment - Create a distribution package with **setupEPMCopyContentsToTempFolderStep1.ps1** and run as Current User Account. The files are copied to a temporary location. Create another distribution package with **setupEPMCopyContentsToTempFolderStep2.ps1** and run as Local System Account.



In case the device user has restrictions on modifying the folder containing package files - Copy the files to a temporary folder, check the user id and create a PowerShell package. The PowerShell package is executed by the **setupEPMCopyContentsToTempFolderStep2.ps1** script. After the installation, the temporary folder will be deleted.

- Disable/Enable UAC
 - a. Update the registry entry to disable UAC control and reboot the machine
 - b. Execute the PowerShell package as Current user's account and using setup.ps1
 - c. Update the registry entry to enable UAC control and reboot the machine

-
3. Create PowerShell package:
 - a. Verify if the required clients are present in the Endpoint Manager.
 - b. Copy the files to C:\Program Files\LANDesk\ManagementSuite\LANDesk\files\. Create a sub-folder within this folder and extract files.
 - c. Create Package: **Distribution > Distribution packages > New > Windows > PowerShell.**



The admin can distribute the packages to different devices based on the level of restrictions set on devices.

- d. In the Primary file section, enter the package name and upload setup.ps1 from the folder that has the copied files
 - e. Under the Additional files section, copy the remaining files (other than setup.ps1 script) using **Add.**
 - f. Select Current user's account under the Accounts section.
 - g. Click **Save.**
 4. Create Scheduled task:
 - a. Select the created package, right-click and select **Create Scheduled task(s).** A Scheduled task is created.
 - b. Drag the device and add it to the scheduled package section.
 - c. On the Scheduled Package, right-click and select **Properties.**
 - d. Verify the Package.
 - e. Under Task type, select **Push.**
 - f. Select **Start now** and click **Save.** The Scheduled tasks starts executing the script. On successful execution, the status will become Green.
 5. To verify the device enrollment, **Settings > Add or remove a provisioning package > Details.** Alternatively, the admin can verify a device enrollment under the Diagnostic Logs of the device.
-

Using Bulk Enrollment for Windows devices

The Bulk Enrollment feature enables you to quickly register multiple Windows devices with Ivanti Neurons for MDM.

Prerequisites:

- User accounts must be imported on Ivanti Neurons for MDM using Azure AD (AAD) Premium Account.
- All devices should have [Windows Configuration Designer](#) installed.

Procedure:

1. Link the Ivanti Neurons for MDM and AAD tenants. See [Connecting AAD to UEM for Windows 10 Devices](#).
2. Open the **Windows Configuration Designer** app and select **Provision desktop devices**. A New project window appears on the screen.
3. Enter the following details:
 - Name - A unique name for your project
 - Project folder - Location on the device where you want to save the project
 - Description - Optional description of the project
4. Click **Finish** to close the new project window and perform a sequence of steps.

Set up device

5. Enter a unique name for your devices. The name can include a serial number (%SERIAL%) or a random set of characters.
6. Optionally you can enter a product key if you are upgrading the Windows, configuring the device for a shared use, or removing pre-installed software.

Set up network

7. Optionally you can configure the Wi-Fi network devices to connect to when they first start. If the network devices are not configured, a wired network connection is required when the device is started first.

Account Management

-
8. Select **Enroll in Azure AD**, enter a **Bulk Token Expiry** date, and then click **Get Bulk Token**.
 9. Enter your Azure AD credentials to get a bulk token.
 10. In the **Stay signed in to all your apps** page, click **No, sign in to this app only**.
 - Click Next when Bulk Token is fetched successfully and Create the Package.
 - A user with provisioning package is created in the Azure portal - User principal name (like package_0ea893a5-1e93-4d21-a6b1-dc788946fd1d@miwinqe.onmicrosoft.com). Copy the file (runtime ppkg tool) to a storage device.



The AAD user for creating bulk token, and the package user should not have MFA enabled. To verify, you need to perform OOBE + AAD join on that user.

11. Recreate or synchronize the package user (created in Azure) to Ivanti Neurons for MDM.

Bulk enroll a device with a flash drive contained the provisioning package. You can also double-click on the existing device to perform post-OOBE experience. If the package failed to install in the first attempt, the second attempt also fails. Check if the new device is created in Ivanti Neurons for MDM and AAD belongs to the package user.

Changing Passcode Settings

This section contains the following topics:

- ["Changing the assigned Passcode configuration" below](#)
- ["Assigning a different Passcode configuration" below](#)

Use the [Passcode configuration](#) assigned to a device to change the passcode settings. You can either:

- change the settings for the assigned configuration
- OR
- assign a different Passcode configuration

Changes you make to the configuration will affect all devices that configuration is assigned to.

Changing the assigned Passcode configuration

Procedure

1. Go to **Devices**.
2. Find the entry for the device in the list.
3. Click the link in the **Name** column.



If a Passcode configuration has been assigned, it will display in the Configurations tab.

4. In the Configurations tab, click the **Passcode Config** link.
5. Click **Edit** (upper right).
6. Make the changes.

Assigning a different Passcode configuration

Procedure

-
1. Make sure someone has created the configuration you need.
 2. Go to **Devices**.
 3. Find the entry for the device in the list.
 4. Click the link in the **Name** column.

Changing the Device Name

Administrators can manually change a device's name (not using the Edit Device Name configuration).

Applicable to:

- iOS Supervised devices
- macOS 10.10+ devices

Procedure

1. Go to **Devices**.
2. Find the entry for the device in the list.
3. Perform one of the following steps:
 - Add the **Device Name** column if not already added by clicking the Settings gear icon on the right and selecting **Device Name**.
 - Click the link in the **Name** column to go the device details page.
4. Next to the Device Name, click the **Edit** pencil icon.
5. Enter a new device name and click the tick icon.
6. In the Overwrite Device Name display box, review the notes and click **OK**.

The changed name will be pushed to the device the next time it checks in. This action cannot be undone.



If a Default Device Name configuration was previously configured, this action will overwrite the name set in the configuration.

Finding and Filtering Devices

This section contains the following topics:

- ["Searching a device" below](#)
- ["Filtering devices" below](#)
- ["Using Advanced Search" on the next page](#)
- ["Loading the search queries" on page 226](#)

Searching a device

The Ivanti Neurons for MDM administrative portal displays the number of duplicate user groups and the corresponding number of GUIDs to identify duplicate groups, when the User Group Name attribute is selected in the rule builder. Also, a table under this rule displays the list of the duplicate user groups and their details such as User Group Name, GUID, Source, and distinguished name (DN).

Procedure

1. Go to **Devices**.
2. Type device name in the **Search** field. All the devices that contain the characters are listed.

Filtering devices

The Filters side navigation bar lists various sections that help you to search for a specific device from the entire list of devices. The Manage Filters wizard contains the list of all the sections that you can select to display in the Filters navigation bar.

Procedure

1. Go to **Devices**.
2. Click the relevant check boxes from the sections that are listed in the Filters side navigation bar.

Example:

- From the **User Enabled** section, select **Yes** to display only those devices for which the users are in enabled state.

-
- If you have assigned custom attributes to devices, you can filter devices based on those attributes by clicking the settings (cog) icon.
 - From the **Status** section, select **Retired** and **iOS** to display only retired iOS devices.
3. (Optional) Click **Restore Defaults** to restore the selection to the default filters. The Filters navigation bar displays the selected sections. If you clear all the check boxes from the Manage Filters wizard, the Filters side navigation bar displays all the sections.
 4. Click anywhere outside the Manage Filters wizard to exit the wizard.
 5. (Optional) Click the x icon to close the Filters side navigation bar and click **Filters** to reopen the side navigation bar.



- If you use any of the stop words that are listed in the stopwords.txt file, which is part of the Apache SOLR server configuration, the words will not be indexed, as a result the entities that contain the stop words will not be displayed in the search results.
 - Examples of entities-devices, users, groups, attributes, applications, certificates, audit trails, content, and notification modules.
 - Examples of stop words-a, an, if, be, into, and so on.
-

Using Advanced Search

You can use the Advanced Search option to search for a device based on rules to identify and view the devices with specific criteria. The rules can be constructed using the applicable operators, including the "begins with", "ends with", "contains", "does not contain", "does not begin with", "does not end with", "is less than", "is greater than", "is in range", "is equal to", and "is not equal to" operators. The rule options can be nested together using the ANY (OR) or ALL (AND) options. The devices matching the rules are displayed below the section.

The Ivanti Neurons for MDM administrative portal displays the number of duplicate user groups and the corresponding number of GUIDs to identify duplicate groups, when the User Group Name attribute is selected in the rule builder. Also, a table under this rule displays the list of the duplicate user groups and their details such as User Group Name, GUID, Source, and distinguished name (DN).

Procedure

1. From the Devices page, click the **Advanced Search** link. The Advance Search wizard opens.
2. Click one of the following options:

-
- **Any**-if the devices must match at least one of the rules
 - **All**-if the devices must match all the rules
3. Create a rule that defines the search criteria. **Example:** APNS Capable is equal to Yes.
 4. (Optional) Click **+** to create additional rules.
 5. Click **Search**. The list of devices matching the search criteria are displayed.



- For iOS 14.0+ devices, the eSIM ID (EID) of a device is available in the device details page. The eSIM ID (EID) allows the carriers to assign the SIM to a specific device. The eSIM ID (EID) field is GDPR-compliant.
 - As new GDPR fields (such as IP Address and eSIM ID) are added over Ivanti Neurons for MDM releases, the admins who have already configured GDPR must edit the GDPR profile if they want to hide the new fields.
 - Advance Search shows the status of the recovery lock of a device.
-

Loading the search queries

You can view the list of saved search queries.

Procedure

1. Click Advanced search and then click the folder icon. The list of the created search queries are displayed in the **Loaded Query** section and the following details are displayed:
 - **Query Name** - The name of the loaded query.
 - **Query Content** - Displays the content on the rules defining the search query.
 - **Actions** - Select the action to be performed on the query.
2. Click **Load Query** in the **Actions** column to view the list of devices matching the criteria defined in the loaded query.
3. Click **Delete** to delete a loaded query.

Using Device Owner

This section contains the following topics:

- ["Provisioning Android Enterprise Devices using a QR code or NFC Bump" on the next page](#)
- ["Provisioning Android Enterprise devices using client token" on page 232](#)

License: Gold

You can designate devices as company-owned or employee-owned after the devices have been registered. This designation helps manage policies that are based on whether a user has a personal device or a company owned device. With the proper license, you can then use ownership in rules for creating device groups.

Starting with a new or factory-reset device, use the [Provisioner](#) app to provision device owner mode using one of the following options:

- NFC (Near Field Communication) bump
- QR code scan

An NFC bump involves tapping the master or template device against a new or factory-reset device to provision it.

A QR code scan involves tapping the screen of a new or factory-reset device, configuring a Wi-Fi network, and scanning the code when the device is ready to be provisioned.

While provisioning Device Owner mode using NFC or QR code, the provisioner app accepts an enrollment token. On registration, the enrollment token is sent to the server. If it is present in the server and the device is assigned to a user, the device is successfully registered.

The Go client will control the device once it is in Device Owner mode and locks itself to the screen until the device is registered with Ivanti Neurons for MDM to prevent users from leaving the provisioning process. Device Owner mode also supports Kiosk mode. For configuration information go to: [Lockdown & Kiosk Configuration](#).

Important

- If you retire a device in Device Owner mode, the device will factory reset.
- All devices in Device Owner mode can optionally have all the system apps enabled.

-
- A device can only have one active device owner at a time.
 - Only devices that are Android Enterprise capable are able to be provisioned into device owner mode.
 - For Samsung Knox Standard devices that are in Device Owner mode, users will be prompted to activate Samsung ELM license. This prompt will also appear on Samsung devices that are in Device Owner mode when the Go client app is upgraded from a previous release to the most recently released version as supported by Ivanti Neurons for MDM. After activation, the serial number is displayed on the Device Details page, which would match with the Device > Settings > Serial Number field.

Provisioning Android Enterprise Devices using a QR code or NFC Bump

To provision Android Enterprise devices using QR code or NFC bump you will need to download and install the Provisioner app from Google Play on the master device.

Compatible Components

Provisioner version: 1.3.0.

Provisioner is compatible with or works with the following:

Item	Version
Android OS (on device to be provisioned)	<ul style="list-style-type: none"> • 5.0 - or supported newer versions is required, if using NFC. • 7.0 - or supported newer versions is required is required if using QR code. <p>Device must be Android Enterprise capable.</p>
Android OS (on master device)	<p>5.1 - through the most recently released version.</p> <p>Device must have NFC for using NFC bump. It is not required for QR code.</p>
UEM server product, enabled for Android Enterprise	<p>One of the following:</p> <p>Ivanti Neurons for MDM, or Allow-labeled Ivanti Neurons for MDM.</p>
Android client app	<p>The latest client app version is automatically installed on the provisioned device by Provisioner.</p>

Prerequisites

To provision an Android Enterprise device to be a work managed device, you need to:

- Ensure the required Android Enterprise-related configuration is defined and will apply to the registered device.



The default Android Enterprise: Work Managed Device configuration must be enabled for the device.

- Enable Android Enterprise on the server.
- Have an NFC-capable Android device (only if NFC is used) to serve as the master, with the

Provisioner app installed.

- Have Android Enterprise-capable devices to provision.

To enable the Android beam for use with NFC bump:

Procedure

1. Go to **Settings** on the device.
2. Go to **Networks > Wireless Networks**.
3. In the **Connectivity section** select **Share & connect**.
4. Slide the **NFC** switch to **On**.
5. Slide the **Android Beam** switch to **On**.



The steps to enable the Android beam and NFC may vary on different devices.

Provision Android Enterprise devices to become work managed devices

Procedure

1. Using the Android master device, download the Provisioner app from Google Play and install the app.
2. Launch Provisioner on the master device.
3. Select NFC or QR code for the Provisioning method.
4. Tap **App for Provisioning**, and choose the client app to be installed on the provisioned device:

Select this client app:	To register with this UEM server:
Go	Ivanti Neurons for MDM
At Work UEM	(Allow labeled) Ivanti Neurons for MDM

-
5. Fill out the remaining fields in the Provisioner app. Some fields may auto-populate if a supported Wi-Fi type is present. The Wi-Fi fields are not shown if QR code is selected. Use these guidelines:

Field	Value
Select app for provisioning	Go or At Work
Time Zone	Enter the time zone to be configured on the device
Locale	Enter the locale to be configured on the device
Enable All System Apps	Click the checkbox to enable all system apps
Wi-Fi Network SSID	Enter the Wi-Fi SSID the target device is to use
Wi-Fi Security Type	Enter the Wi-Fi security type
Wi-Fi Password	Enter the password for the Wi-Fi
Bulk Enrollment	The bulk enrollment feature is optional. To use the bulk enrollment, a hostname is required. Optionally, a username may be entered and the quick start option may be selected. To skip the bulk enrollment feature, these fields should be left blank.

6. Tap **Continue**.
7. If you selected **NFC**, tap **Continue**. The screen **Bump the devices!** appears on the master device. Continue with the **NFC Bump** section below.

If you selected **QR code**, the screen **Scan this QR code!** appears on the master device. Continue with the **QR Code** section below.

Use the steps below for NFC Bump

8. Confirm that the target device is displaying the Android Welcome screen.

-
9. Press the master device back-to-back with the target device to initiate an NFC transfer. If the NFC transfer succeeds, the target device may make a sound, and then proceed to download the client app. If a Wi-Fi connection cannot be established, or if the device is unable to download the client app, the device will automatically do a factory reset.
 10. If you hear the sound or see a screen other than the Welcome screen, you can decouple the devices. This typically takes a few seconds. If the device is not encrypted, it will start the encryption process before continuing.

You can continue to provision additional devices by “bumping” the devices to the master device. The target device must be showing the Welcome screen, and the master device must be showing the “Bump the devices!” screen.

Use the steps below for QR Code provisioning

11. Confirm that the target device is displaying the Android Welcome screen.
12. Tap the Android Welcome screen on the target device 6 times on the same place on the screen.
13. You will be prompted to configure a WiFi network so the setup wizard can download a QR code reader to the target device.
14. After the QR code reader is downloaded, the camera is launched.
15. Hold the target device a few inches above the master device until the QR code is scanned successfully. The setup wizard will then proceed to download the client app. If it is unable to download the client app, it will automatically do a factory reset.
16. You can continue to provision additional devices by scanning the QR code on the master device. The target device must have a camera ready to scan, and the master device must be showing the “Scan this QR code!” screen.
17. The QR code can also be exported by tapping the Share icon. The options offered for exporting will vary by device.

Provisioning Android Enterprise devices using client token

You can provision an Android Enterprise device in Device Owner mode using a branded client token instead of using the NFC bump or QR code methods. This method enables you to sign on a device with a token which facilitates an automatic installation of the Go or At Work client and provisioning in Device Owner mode:



Branded client tokens are supported on devices provisioned with Managed Google Play Accounts, using Android 6 or supported newer versions. For more details see the Android UEM Developers guide. https://developers.google.com/android/work/prov-devices#Key_provisioning_differences_across_android_releases.

Requirements to use this method:

- You must be enrolled with an Android Enterprise account.
- The device must be Android Enterprise-capable.
- The device must use Android 6 through the most recently released version.
- You must have a new or factory reset device.

Configure (for devices running Android 5.0+)

Procedure

1. In the Ivanti Neurons for MDM portal, Go to **Configurations**.
2. Click **+Add**.
3. Select **Lockdown & Kiosk: Android Enterprise**.

The **Create Lockdown & Kiosk: Android Enterprise Configuration** page is displayed.

4. Enter a configuration name and description.

Choose a Lockdown type.

5. Click **Work Managed Devices (Device Owner)**.

Android Device Owner Lockdown settings options are displayed.

Optionally, choose to

- Disable WI-FI or WI-FI settings
 - Disable Camera
 - Disable Bluetooth
 - Disallow Bluetooth Settings
-

-
- Disable Screen Capture
 - Mute Master Volume
 - Disallow Apps Control
 - Disallow Credentials
 - Disallow Emergency Broadcasts
 - Disallow Mobile Networks
 - Disallow Tethering
 - Disallow VPN
 - Disallow Factory Reset
 - Enable Factory Reset Protection.



You can optionally specify a list of authorized Google account IDs (an integer value) that can provision the device after factory reset or hover over the help icon to view help for retrieving authorized account IDs).

- Disallow Modify Accounts
- Disable NFC (Outgoing Beam)
- Disallow Outgoing Calls
- Disallow Safe Boot
- Disallow Share Location
- Disallow Debugging features
- Ensure Verify Apps
- Disallow SMS
- Disallow Unmute Microphone
- Disable Auto Time
- Disable Auto Time Zone

- Disable Data Roaming
- Disable Wi-Fi Sleep
- Restrict Input Methods
- Restrict Accessibility Services
- Disable USB file transfer
- Disable external media
- Disable keyguard (no effect if PIN/Passcode is set)
- Keep screen on while connected to power
- Disallow create windows
- Skip first use hints

6. Under **Enable/Disable System Apps** section, you can optionally choose to enable to disable the following System Apps:

Item	Version
Preset System Apps	
Built-In camera	Click the toggle button to turn ON or OFF the Built-In Camera app.
Built-In Phone	Click the toggle button to turn ON or OFF the Built-In Phone app.
System App Package Name	To enable or disable any other system app(s) other than the preset system apps, Click the +(plus) icon and add the system app package name. To remove the system app, click the -(minus) icon.

Optionally choose to enable **Kiosk Mode**.

The following settings are displayed:

-
- Enable Lock Task Mode
 - Enter Kiosk automatically (on initial setup only)
 - Disable Quick Settings
 - Allow User to Access WiFi Settings
 - Allow User to Access Bluetooth Settings
 - Allow User to Access Location Settings
 - Allow User to Delay Application Updates
 - Allow User to Access Date and Time Settings
 - Allow User to Access Mobile Network Settings
 - Allow User to Select Language
 - Enable Shared Device (select any of the following options)
 - Enable Login
 - Enable Logout (provide the Timeout setting in hours)
7. Optionally select the default or custom branding options from the drop-down list.
 8. Optionally create a Kiosk Exit Pin to use to exit Kiosk mode.
 9. Optionally create a Allowlist of apps that will be available to users in Kiosk Mode.

Provision the device

Procedure

1. Power on the device and enter your WI-FI password. Your device may prompt you for a different password.
2. In the **Verify your account** screen enter your Android Enterprise token. Click **Next**.
3. On the **Google Services** screen click **Install**.
4. Accept the Terms and Conditions.

-
5. On the Setup work device screen click **Next**. The Go or At Work client downloads and installs on the device. The device now enters Device Owner mode.

Related topics

- [Using Bulk Enrollment for Android](#)
- [Device Groups](#)

Managed Device with Work Profile

Managed Device with Work Profile on Company Owned Device is a mode in which the Android enterprise device is a corporate-owned device with personal data separate from the rest. This mode supports two profiles where you can deploy work apps inside the managed profile and have the user with their personal side. Managed Device with Work Profile on Company Owned Device mode is created by distributing a Managed Device with Work Profile configuration to a device that is provisioned in device owner mode.

For more information on Managed Device with Work Profile Lockdown Settings, see "[Lockdown & Kiosk: Android Enterprise](#)" on page 571.



This mode requires Android 8.0 through the most recently released version.

App configurations, apps sharing widgets across profiles, client certificate aliases, and ID certificates can be applied to Managed Device with Work Profile.

The following configurations are applicable to Managed Device with Work Profile devices:

- Advanced passcode
- Always on VPN
- Certificate
- Identity Certificate
- Google account
- Passcode
- Samsung phone restriction
- Threat Defense
- Wi-Fi
- Default App Runtime Permissions
- SafetyNet Attestation
- Passcode
- Threat Defense Local Actions

Using Bulk Enrollment for Android

The bulk enrollment feature enables you to quickly register multiple Android devices with Ivanti Neurons for MDM.

License: Silver

Perform the following tasks before using bulk enrollment:

1. Install Android SDK, which includes the Android Debug Bridge (adb), on the computer used to register the devices.
For more information about the Android Debug Bridge, see: <http://developer.android.com/tools/help/adb.html>.
2. Enable USB debugging.
The procedure to enable USB debugging on Android devices varies depending on the Android release. See: <http://developer.android.com/tools/device.html> for information on enabling USB debugging.
3. Install the Go client on each device.
4. Connect the devices via USB cable to the provisioning computer to be used to register them.

The Go can be started and registered to a server using the Android Debug Bridge (adb) shell. The Android Debug Bridge is a tool that can be used from the command line in Windows, or in the Terminal utility in iOS. It enables you to communicate with a connected Android device. From the adb shell the command format is:

```
> adb shell
```

```
$ am start -a android.intent.action.MAIN -d  
"mirp://na1.mobileiron.com?key=value&key=value" -n  
com.mobileiron.anyware.android/com.mobileiron.polaris.manager.ui.StartActivity
```



The Registration Protocol (**mirp**) is used to encode relevant data for registration.

Valid keys and values are:

Key	Value
user	User's email address that would have been typed into the username field if using iReg. Required.
password	User's password
pin	Registration pin for the user
quickStart	<p>When set to TRUE: the splash screen will show, but not as long. On the Welcome screen, when the spinner changes to the Continue button, the screen will automatically move on without having to tap Continue. Also, this streamlined provisioning flow occurs across all devices:</p> <ul style="list-style-type: none"> • The privacy and shortcut prompts for the user are skipped. • On zebra devices, the client shall grant admin privileges to itself without a user prompt. Requires a minimum version of Zebra MX 4.3. <p>When set to FALSE: the splash screen will show as usual and the user will need to tap Continue on the Welcome screen. Optional, defaults to FALSE.</p>



Use of a password, pin, or token is required to use bulk enrollment.

This example command specifies a server, user, password, pin, and quickstart:

```
am start -a android.intent.action.MAIN -d
"mirp://ppp183.auto.mobileiron.com?user=miadmin@auto0001.mobileiron.com&password=P@$$W0R3&pin=12345&quickStart=true" -
n com.mobileiron.anyware.android.qa/com.mobileiron.polaris.manager.ui.StartActivity
```

Sample bulk enrollment script

You can use this script as an example to use when designing your own bulk enrollment script. This sample script registers all devices attached to the provisioning machine with the same user and password.


```
for i in `adb devices | grep -v devices |  
  
do  
  
    echo "Registering $i"  
  
    adb -s $i shell "am start -a android.intent.action.MAIN -d  
\"mirp://<servername?user=user email addresspassword=password  
  
done
```

Potential Error messages

Here are some potential errors that you may encounter using bulk enrollment.:

Error	Resolution
mirp scheme not found	Example command using a mirp scheme: <code>am start -a android.intent.action.MAIN -d "xxxmirp://?"</code>
URL is invalid	Occurs if no data string is sent at all. Verify that the URL is correct.
No server information found	Server information missing or improperly entered.
No user information found	Verify that user key was entered.
No password/pin information found	Verify that a pin OR password key was entered.

When there are multiple profiles created for Bulk Enrollment:

- A natively enrolled fully managed Android Enterprise device receives the custom attribute that was created with the first profile.
-  When migrating devices, if the device is present in a bulk enrollment profile, the custom attributes defined for the migrating device in the bulk enrollment profile will be applied to the device on migration. This behavior is the same for the migrated fully managed Android Enterprise devices because it receives the custom attribute of the 1st profile.

Also, all the profiles created for that particular device are seen as active.

Bulk Enrolling devices using CSV file upload

Bulk enrollment allows you to register multiple Android devices using the device identifiers. You can upload the CSV file to add devices in bulk.

Procedure

1. In the **Devices** page, click **Bulk Enrollment** tab. The **Bulk Enrollment** page is displayed.
2. Click **Add**.
3. In the **Profile Name** text field, enter the name of the Profile. Optionally, click **+Add description** to provide a description for the CSV file.
4. In the **Upload CSV** section, click **Download CSV Template** to download the CSV template. Using the existing format, you can edit the file to add devices.



Allows up to 200000 rows at a time in bulk enrollment CSV.

5. After editing and saving the CSV file, click **Upload CSV** to upload the CSV file. A confirmation on the successful upload is displayed.



Rows with inadequate information may result in CSV upload failure. Each record should include at least the serial number and manufacturer information, or the IMEI value.




To remove the added CSV file, click on the 'minus' icon. To choose a different CSV file to upload click on the **Choose a different file** link.


-
- Optional: Select **Assign custom attributes without token** to bulk enroll all types of devices without generating a token. This option is not selected by default.

Bulk enrollment without token can also be applied when the IMEI or the combination of Serial number and Manufacturer (with or without custom attributes) is provided in the uploaded CSV file. But the registration of the device depends on the correctness in the attribute values uploaded in the CSV file. The following table explains the scenarios on the outcome based on the attribute value combination entered for bulk enrollment:

Scenario	Entered Attribute values			Device registration status
	IMEI	Serial Number	Manufacturer	
1	Correct	Incorrect	Incorrect	Device is registered
2	Incorrect	Correct	Correct	Device is registered
3	Incorrect	Incorrect	Correct	Device is not registered
4	Incorrect	Correct	Incorrect	Device is not registered

 The manufacturer name is case insensitive.

- In the **Select User** field, you can optionally select users.
The enrollment token is displayed in the Enrollment Token column. To refresh the enrollment token, click **Refresh**.
The expiry date of the token is displayed in the **Token Expiry** column. To extend the token expiry period, click **Extend**. In the **Extend Upto** field, enter the number of days to extend the token.

 The number of days specified should be within the range 7 to 99. Default token expiry is within 7 days.
This page will not be displayed if you have selected the option, **Assign custom attributes without token**.

- Click **Done**.

After the upload, the following details of the uploaded CSV file are displayed in a table in the **Bulk Enrollment Profiles** page.

Setting	Description
Profile Name	The name of the Profile.
Description	Some description about the profile.
Last modified	The latest date of modification done in the CSV file.
TYPE	Some information about the profile. By default, it is set to Self Maintained.
No of Devices	The number of devices in the bulk enrollment.
Associated User	Name of the associated user. Click on the Modify User link to modify user.
Actions	<p>You can perform any of the following action:</p> <p>Download Existing Inventory - Click this button to download details of all the devices available in the profile.</p> <p>View - Click this link to view the details of profiles uploaded in bulk for registration.</p> <p>Edit - Click this button to edit the profile details. This option is available only when single device option is selected.</p> <p>Delete - Click this link to delete the profile. In the confirmation window, click Yes to confirm the deletion of the uploaded profile.</p>



Token generated while uploading CSV should be used for the registration. Entering the wrong token redirects to normal IReg flow where the ID/password should be entered.

Actions

When viewing the Bulk Enrollment profiles from the View Profile details section, you can perform other tasks from the Actions tab, which is present on the View Profile details page.

-
- **Add More Devices** - Use this option to add more devices to a profile. You need to provide either **IMEI Number** or **Serial Number**, or both, **Manufacturer**, and optionally the **Custom Attributes** information and then click **Save**.
 - **Modify Configuration** - Use this option to modify an existing configuration. You can add **Ivanti specific keys**, make changes to **Pre-Defined Android System Extras** or **Custom Android System Keys** and then click **Update**.
 - **Generate QR code** - Use this option to generate a QR code for Bulk Enrollment of profiles.
 - **Refresh Token** - Use this option to refresh a token or extend the validity of a token.
 - **Delete** - Use this option to delete devices from the selected profile. Once you select the devices and click the Delete button, a confirmation pop-up appears on the screen. Click **Delete**.
 - **Edit** - Use this option to edit devices from the selected profile. You need to select the devices and click the **Edit** button.

Using Samsung Knox Mobile Enrollment

Samsung Knox Mobile Enrollment enables administrators to register qualified Samsung devices to Ivanti Neurons for MDM. Using Knox Mobile Enrollment, a device can be shipped directly from an approved reseller to an end user and the Go Android client will automatically download with enrollment data pre-populated. For details see the [Samsung Knox Mobile Enrollment for Android Enterprise](#).

Requirements

- Device list by IMEI
- CSV file containing a list of devices containing an IMEI or serial number, and optionally a username and enrollment password.
- Ivanti Neurons for MDM (current release).
- Samsung Knox account approved for mobile enrollment
- Samsung supported devices. A list of Samsung supported devices is available [here](#).

Enrolling Oculus devices

Ivanti Neurons for MDM can now manage the Quest for Business devices (Oculus devices). Currently, Meta supports Oculus for Business (OFB) and Quest for Business (QFB) devices for MDM. You need to perform some basic tasks on the Meta console to make the devices MDM-ready and then register for Ivanti Neurons for MDM.

You can enroll the Oculus device fleet in the Device Manager under the Meta Workplace console. You need to log in to the Oculus Business Workplace using the credentials shared on your registered email. On the Home page, All Devices information will be displayed under the Device Fleet section. The Device Fleet section provides an overview of all the devices available under Device Management. These details include the Device Name, Device Status, OS (Operating System), Model, etc.

This section contains the following topics:

- Prerequisites to enrolling Oculus devices
 - ["Setting up an MDM app in the Device Manager" on the next page](#)
 - ["Setting up the Oculus device" on the next page](#)

-
- Register an OFB device with MobileIron Go
 - ["On Ivanti Neurons for MDM Console" on the next page](#)
 - ["On Go client" on page 249](#)

Prerequisites to enrolling Oculus devices

Setting up an MDM app in the Device Manager

The Devices / Headsets are provisioned and updated to at least **v28** of **Oculus for Business**. On the Meta Console, the administrator must set up an MDM in the Device Manager and map the Oculus devices to this specific MDM service.

Procedure

1. On the **Oculus Business Workplace** home page, select **Apps**.
2. Under the **App Library**, click on the third-party MDM app that you want to install, and then click **Update**.
3. Select the appropriate MDM for the app from the list under **Mobile Device Management** and then click **Update App**.
4. Click the Oculus Device headset on which you want to install the MDM. The device information will appear on the screen.
5. Under the **About** tab, scroll down to **Mobile Device Manager**.
6. Click the **Edit** button next to the **MDM Authority** option.



By default, the Oculus Device Manager option will be selected. You need to select the MDM Authority App and select **MobileIron Go** from the MDM Authority App list.

7. Click **Save**. The Device automatically resets and then you need to set up the Oculus device using the setup app.

Setting up the Oculus device

You can add Oculus Quest 2 Headset devices using the Device Setup app. This app must be shared with the required users so that the users can download and install the app on their Android devices.

Procedure

-
1. Under the **Device Fleet** section, click **Unconfigured Devices**.
 2. Click **Get Setup App**. The **Send Download Link** page appears on the screen.
 3. Select one or more team members from the list or click **Add recipient** to select from the list.
 4. Click **Send Link**. The selected users will receive an email with a link to install the **Device Setup** app.
 5. Click the **Download Device Setup App** link in the email to install the **Device Setup App** on your Android device.



After downloading, this app will not appear in the App Store of your device. You need to get it from the Downloads section of your device and install it.

6. Open the **Oculus for Business** app from your Android device.
7. Power ON the Oculus devices by pressing the power button for 2 seconds.
8. Turn on Bluetooth and place your Android device close to the Oculus devices until the setup is complete.
9. Search for Oculus devices using Bluetooth of your Android device.
10. Once the required Oculus device is found, you need to connect it to a Wi-Fi network to complete the setup.
11. Click **Enter Wi-Fi Information** and provide the Network Name and Password and then click **Save**. Now, the Oculus device is connected to the Wi-Fi network.
12. Click **Start Setup**. A notification appears on the screen that the setup is in progress, and you should not close the app or handle the headsets during the setup.

A confirmation appears on the screen. You can continue to search for more devices using the **Find More Devices** button.

Registering an OFB device with MobileIron Go

On Ivanti Neurons for MDM Console

An OFB device can be registered with MobileIron Go on Ivanti Neurons for the MDM console. However, the Work Managed Device Non-GMS mode (AOSP) configuration (under **Configurations**) must be distributed to these OFB device groups.

On Go client

An OFB device can be registered on the MobileIron Go client. You need to perform the following tasks to register the OFB device:

- After completing the setup using the OFB Setup app, continue with the on-screen instructions on the OFB headset and complete the device setup.
- The MobileIron Go app launches automatically and you need to provide the login credentials and complete the registration by following the MDM instructions.

Now, the device is provisioned in DO mode and is set to be managed by the MDM.

Enabling Bluetooth on a Device

Applicable to:

- iOS 11.3+
- macOS 10.13.4+

You can enable or disable Bluetooth on a device.

Procedure

1. Navigate to the device in the [Devices page](#).
2. Perform one of the following actions:
 - Select the devices from the list.
 - Click the device name to display the Device details page.
3. From the **Actions** menu, click **Enable/Disable Bluetooth**.
4. Click **OK**.

The changes will be pushed to the device(s) the next time it checks in.

Schedule iOS Update

Applicable to:

- iOS 9.0+ Supervised Device Enrollment devices
- iOS 10.3+ Supervised devices.

Schedule an iOS device to update to the latest iOS version available to it. The **Device > Actions** menu option **Update OS Version** for Supervised iOS devices displays a list of only those iOS versions which are applicable to the device.

Procedure

1. Navigate to the device in the [Devices page](#).
2. Click the device name to display the Device details page.
3. From the **Actions** menu, click **Update OS Version**.
4. On the **Update OS Version** wizard, review the iOS version and select the OS version from the **Update to version** drop-down list.



If you enter an equal or older version, an error message appears indicating that the target iOS version should be greater than the current version.

5. Click **Update**.

The iOS device will be scheduled to update to the latest iOS version available to it when the device checks in. If the device has a passcode, after MDM sends the update to the device, the device queues the update and the user is prompted to enter their passcode in order to start the installation. For more information, see [Software Updates](#).

Re-install iOS System Apps

Applicable to:

- iOS 11.3+ devices.

Re-install deleted iOS system apps on iOS devices.

Procedure

1. Navigate to the [Devices page](#). Alternatively, you can click the name of the device and perform this action from the Device Details page.
2. Select one or more iOS devices.
3. From the **Actions** menu, click **Re-install iOS System Apps**.
4. On the Re-install iOS System Apps display box, select one or more available system apps to be installed on the devices.
5. Click **Re-install Apps**.

The apps will be installed on the selected and compatible iOS devices when the devices check in. System apps installed in this manner will not be considered managed apps. If there are no compatible devices selected, you will get a message that the system apps will not be installed on those devices.


For more information, see [Software Updates](#).


Assigning a Device to a new user

An existing registered device may need to be re-provisioned for a new user, if there has been a role change for the user, or if the previous user's relationship to the company has changed. These steps help to avoid retiring and re-registering the device.


Procedure:

1. Navigate to the device in the [Devices page](#).
2. Click the device name to display the Device details page.

3. Click **Assign to user**  icon.

 Alternatively, you can select a device from the **Devices** page, and click **Assign to user** option from the **Actions** menu.

4. Start to enter the users name in the **Search User...** field.
5. Select the desired user.
6. Click **Assign to user**.
The device will be provisioned for that user.

 You may notice that in user-based and license-based scenarios, you can assign a device to a user who has exceeded the assigned device limit. This is because the intent of the device limit feature is to limit the registration of devices in support of Bring Your Own Device (BYOD) scenarios.

In both device-based and user-based licenses, enforcing the device limit is inconsequential. For device-based licenses, the cost to the end customer does not change because the total number of devices in the system does not change. For User-based licenses, the lack of this check actually benefits the customer. For example, consider five users, U1 through U5 with 5 devices each. With user-based licensing, this would consume five licenses. If instead, two of the devices from U4 and U5 are moved to U1 and U2, then license consumption goes DOWN, from five to three.

Reassigning an Android device

The administrator can transfer the ownership of an Android device from one user to a different user. During the reassignment process, the device's management profile will be reconfigured or remapped from the current user to new user in Android Enterprise mode. The reassignment can be done on all Android Enterprise devices except the Android Management API (AMAPI) devices and cannot be done on Google Domain Android Enterprise devices.



The device reassignment can be done only with the devices in same mode. For example, a device in Work Managed Device mode can be reassigned to another user in the same mode.

The device reassignment process will have the following statuses:

- Initiated
- Success
- Failed
- Pending

You can view the last reassignment status of a device under the **Device Details** page -> **Overview** tab -> **Last Reassignment Status**.

Procedure

1. Go to **Devices**.
2. Select one or more devices from the list.
3. From the **Actions** list, click **Assign to user**.
4. Alternatively, you can click on any device name. The **Device Details** page opens. Click the **Assign to User** icon to get the Assign to user screen and select the required user.
5. Click **Assign to user**. The selected options will be validated to check if the selected devices can be reassigned to the selected users or not.

After successful validation and reassignment, a confirmation message appears on the screen.



If you have selected a maximum number of 10 devices, then the "Assignment initiated" message appears on the screen. If you have selected 11 or more devices, then "Validation is in progress" pop up appears on the screen.



Android Device Reassignment is an innovative solution built uniquely with focus on eliminating data-left-overs from the previous registered user and is only available in SUEM-Premium SKU.

Forcing a device to Check-in

Devices need to contact Ivanti Neurons for MDM (check in) to provide and receive information. Check-ins are scheduled at regular intervals. You can also prompt a device to check in on demand. Forcing a device to check in can speed up the process of applying configurations, updating policies, etc.

Procedure

1. Go to **Devices > Devices**.
2. Select the devices.
3. Click **Actions**.
4. Select **Force Check-in**.
5. Optionally, click the device name link to go to the Device details page and click the **Force Check-in**



icon and click **OK**.



If there is a failure at device end while processing the configuration installation command during a check-in, Ivanti Neurons for MDM will not retry to install the configuration to the device during the later check-ins automatically. Administrator needs to retry installing the configuration manually from the device details page of the device. To do so, go to the Configuration tab, select the error configuration and click **Retry Install**.

Locating a Device

If you have enabled the Locate feature for a device, you can display the last known location for that device. You must edit the [privacy configuration](#) to enable collection of Location data and apply the configuration to the device to enable this feature. The device must also support this feature, and users must agree to share their location data.

Procedure

1. Navigate to the device in the [Devices page](#).
2. Click the link in the **Name** column.
3. In the **Overview** tab, click on the link under **Device Location**.

The following details are displayed on the page:


Field name	Description
Last located on	Displays the date and time when the device was last located.
Coordinates	Displays the latitude (north-south position) and longitude (east-west position) of the device.

You can also find the device location map displayed in the page.

Locking a Device

You can trigger the screen lock on a device. Locking works somewhat differently on different devices.

Procedure

1. Go to **Devices > Devices**.
2. Select the device.
3. Click **Actions**.
4. Select **Lock**.
5. Alternatively, click the device name link to go to the Device details page and click the **Lock**  icon and click **OK**.
6. For AppConnect Android apps, the Lock command locks the user out of the container and also locks the device. The users can log back in to the device and the AppConnect app using the device passcode and the AppConnect passcode respectively.
7. For iOS 7 devices, you can enter a display message and phone number (optional). These options can give device users information about why the device has been locked and the number to call to get it unlocked.
8. For macOS devices, the user is prompted to enter a 6-digit PIN as passcode to access the device. To proceed with the screen lock, the device user needs to:
 - a. Enter the PIN.
 - b. Select the check box to confirm locking the device.
 - c. Click **Yes, send lock command**.



In macOS, user can add optional lock screen message and phone number during device lock passcode setting.

-
9. For ChromeOS devices, when you perform a Lock operation, a pop up window "Locking a device may require the user to enter a passcode to access the device." appears on the screen. Click **Lock** and the device status will be updated to **Disable sent**, and the updated device status will be visible after periodic device sync.

Alternate Methods of Locking a Device:

- A device user can perform the lock action from the Self Service Portal.
- An Administrator can perform the lock action from the Administrator Portal.

Managing devices in Apple lost mode

This section contains the following topics:

- ["Enabling lost mode" below](#)
- ["Performing lost mode actions" below](#)
- ["Disabling lost mode" on the next page](#)

Applicable to: iOS 10.3+ Supervised devices

You can place a supervised device in lost mode through Ivanti Neurons for MDM. This means you report the device as lost to Apple servers, allowing you to retrieve the last recorded location of the device, as well as disable lost mode if the device is found.

Enabling lost mode

You can report a lost device to Apple servers by placing the device in lost mode. After you have placed a device in lost mode:

- If the device is retired, you cannot disable lost mode.
- If the device is wiped, you cannot locate or track the device.

Procedure

1. Go to **Devices**.
2. Select the checkbox for the device.
3. Select **Actions** > **iOS Only** > **Lost Mode**.
4. In the Lost Device Mode section, select the **Enable Lost Mode** option to place the iOS device in lost mode.

Performing lost mode actions


After the lost mode is enabled, you can perform the following actions from the Lost Device Mode section:

- **Push Message/Phone Number to iPhone**


- Enter a message to be displayed on the locked screen of the lost device.
- Enter a contact number to be displayed on the locked screen of the lost device. If someone finds the device, they can call the number to report it.

- Lock Device

- **Refresh Device Location**

 If the device is wiped, you will not be able to locate the device.

- **Play Lost Mode Sound**

 Sound will play until the device is removed from lost mode or a user disables the sound on the device.

- **Refresh location**

The **Refresh Location** option is added to **Lost mode** to view device location. The following details are displayed:

- **Latitude:** The latitude of the device location.
- **Timestamp:** The time and date Timestamp from the payload is displayed.
- **Longitude:** The longitude of the device location.

Disabling lost mode

If a device in lost mode is retrieved, or the lost mode was enabled in error, you can disable lost mode.

 If the lost device is retired from Ivanti Neurons for MDM, disabling lost mode will not work.

Procedure

1. Go to **Devices**.
2. Select the checkbox for the device.

-
3. Select **Actions > iOS Only > Lost Mode**.
 4. In the Lost Device Mode section, deselect the **Lost Mode is enabled for device** option.


Requesting debug logs

You can send a request to iOS, macOS, and Android work managed devices to retrieve debug logs for troubleshooting device issues. Using the "Request debug logs" command in the Devices page, the actions and success or failure of an event is captured in the audit logs.

This feature requires the following clients:

- iOS devices require Go 5.3.0 for iOS or supported newer versions. For devices that are migrated from Ivanti EPMM to Ivanti Neurons for MDM, this feature requires Mobile@Work 12.2.0 for iOS or supported newer versions.
- macOS devices requires Mobile@Work 1.5 for macOS or supported newer versions.
- Android work managed devices require Go 65 for Android or supported newer version.

Procedure

1. Go to **Devices > Devices**.
2. Select the device and click the device name link to go to the Device details page.
3. Click the  icon.
4. Select **Request debug logs** and click **OK**.


When the request is sent and when the logs are ready at the device, a notification is sent to the admin and is displayed in device logs. The device logs can also be downloaded by clicking the link.

Retiring a Device

Retiring a device ends its relationship with Ivanti Neurons for MDM. You might retire a device if:

- the user left the company
- the user has replaced the device
- you need to undo the management tasks you have completed (start over)

Procedure

1. Go to **Devices > Devices**.
2. Select the device.
3. Click **Actions** (upper right).
4. Select **Retire**.
5. Optionally, click the device name link to go to the Device details page and click the  icon.
6. Select **Retire** and click **OK**.



When you perform a Retire operation on a device which is in Active state, the device will be retired immediately.

Relinquishing Ownership of a Device

Applicable to Android devices in Work Profile on Company Owned Device mode.

Relinquishing ownership of a device in Work Profile on Company Owned Device mode removes the work profile and retires the device from Ivanti Neurons for MDM, without affecting personal apps and data. The end user can then use the device as a personal device, with full access to all device controls and settings.




The device needs to be removed from Google Zero Touch or Knox Mobile Enrollment portal.

You might relinquish ownership of a device if:

- the user left the company
- the user has replaced the device


Procedure

1. Go to **Devices > Devices**.
2. Select the device.
3. Click **Device details page** and click  icon.
4. Select **Relinquish Ownership**.

Wiping a Device

Wiping a device removes all the data and returns the device to factory default settings.

Procedure

1. Go to **Devices > Devices**.
2. Select the device.
3. Click **Actions** (upper right).
4. Select **Wipe**.
5. Alternatively, click on the device name link to go to the Device details page and click the  icon. Select **Wipe** and click **OK**.
6. (Optional, applicable to iOS 11+ devices) Select the **Preserve Data Plan** option.
7. (Optional, applicable to iOS 11.3+ devices) Select the **Skip Proximity Setup** option.
8. Select the **Enable Return to Service** option to automatically re-enroll after the data is erased, so that you don't have to re-enroll the device manually after a wipe. Select **Wifi profile data** from the drop-down menu. The user needs to deactivate all activation locks. Currently this is applicable only for iOS 17+ devices enrolled in DEP mode.
9. For macOS devices, you can send a 6-digit PIN to the device as passcode. On the device, the user is prompted to enter the PIN to access the device. To proceed with the wipe action, the device user needs to:
 - a. Enter the PIN.
 - b. Select the check box to confirm the device wipe action.
 - c. Click **Yes, wipe this device**.
10. For ChromeOS devices, when you perform a Wipe operation from the **Device Details** or **Device Listing** page, a pop up window "Wiping a device returns it to factory settings, which can result in a loss of data on the device. The Wipe action differs by platform." appears on the screen.

-
- a. Select the "I understand that Wipe cannot be reversed" check box to confirm the device wipe action.
 - b. Click **Wipe** to wipe the device.



The device status changes to "**Wipe Sent**." The updated device status will be visible after a periodic device sync.



On Android Enterprise devices, you can perform the **Wipe** device action even after the device reboots and remains locked.



Android devices that are in the **Wipe Pending** state can be deleted using the **Delete Device** option present on the **Device Details** page. Once a device is deleted, it loses connection to the server and becomes non-compliant. So the user must re-enroll the device after performing the factory reset.

Deleting a Device

After you retire a device, you can delete it. Deleting it removes it from all pages. You can delete a device only if its status is Retired or Retire Pending.

Procedure

1. Go to **Devices > Devices**.
2. Navigate to the device.
3. Click the link in the **Name** column.
4. Click the **Delete Device** link (left pane).
5. Read the displayed warning.
6. If you still want to delete the device, select the check box to confirm.
7. Click **Delete**.

Unlocking a Device

This section contains the following topics:

- ["Unlocking Android devices" below](#)
- ["Unlocking AppConnect for Android apps" on the next page](#)
- ["Unlocking an iOS device" on the next page](#)
- ["Unlocking ChromeOS devices" on the next page](#)

To unlock a device:

You can clear the screen lock on a device. Unlocking works somewhat differently on different devices.

Procedure

1. Go to **Devices > Devices**.
2. Select the devices.
3. Click **Actions**.
4. Select **Unlock**.
5. Alternatively, click the device name link to go to the Device details page and click the **Unlock**



icon and click **OK**.

Unlocking Android devices

When an Unlock command is received, the Android app attempts to reset the passcode. In the Device Admin and Device Owner modes, the unlock code is reset, whereas in the Profile Owner and Company Owned Personal Enabled modes, the work profile unlock code is reset.

Unlock command provides an option for the administrator to set the unlock code with a combination of alphanumeric characters. The default option, which sets the unlock code to '0000' can be performed on multiple devices. However, the new option, Custom unlock code for Android, can be performed on one device at a time. The minimum number of characters should be 6 and maximum should be 8. This option is available under the **Actions** tab, as well as in the **Device Details** page. When you select the Unlock option from **Actions** tab or from the **Device Details** page, you can see two options.

-
- Default
 - (Android only) Provide an unlock code - You can provide an Unlock code from this section and click **Unlock**.

After setting the unlock code, the administrator can find the unlock code in the **Audit Trials** page and **Device Logs** page.



The Directboot unlock works only for default unlock option, '0000' unlock code. The custom unlock code for direct boot is not supported.

Unlocking AppConnect for Android apps

For AppConnect apps, the **AppConnect Unlock** command helps to unlock containers that have been locked due to users trying to log in multiple times with incorrect passcodes. This unlock does not unlock the device.

Unlocking an iOS device

When an Unlock command is received, the iOS app removes the passcode from the device. If the [passcode configuration](#) specifies that a new passcode is required, then the device user will be prompted to set a new passcode that complies with the rules defined in the passcode configuration. The user must make this change within 60 minutes or the app will force the user to set the new passcode.

Unlocking ChromeOS devices

When a ChromeOS device is selected and the **Unlock** option is clicked, a pop up window appears on the screen - "Unlocking may clear an existing passcode to enable a user to access the device. Unlocking differs by platform." Click **Unlock** and the device status will be updated to "Unlock Sent", and the updated status will be visible after periodic device sync.

Restarting or shutting down devices

This section contains the following topics:

- ["Restarting a device" below](#)
- ["Shutting down a device" on the next page](#)

Applicable to: Android 7.0+ (managed devices), iOS 10.3+ (iOS and tvOS) supervised, macOS 10.13+ and Windows 10+ devices

Administrators can restart or shutdown an iOS or tvOS supervised device individually from the device details page or in bulk from the devices list page.


Restarting a device

Procedure

1. Go to **Devices**.
2. Navigate to the device.
3. Click the link in the **Name** column.
4. Click the **Actions** button.
5. Click **Restart/Shutdown device**.

 Unsupported devices cannot be restarted.

6. Read the displayed warning.
7. (Optional) Select the option to clear the passcode of the device on restart. If the passcode is not cleared, the device will require a passcode and will not be connected to Wi-Fi after the restart.
8. Select **Restart Device** if not already selected.
9. If you still want to restart the device, click **Send to Device**. Otherwise, click **Cancel**.

 For Android devices, administrators can view the information on when the device was restarted under **Uptime** in the Device Details page.

You can restart multiple supported devices from **Devices** list page. To do so, select the devices, click **Actions >Restart/Shutdown Device**, and follow the instructions on the screen.

Shutting down a device

Procedure

1. Go to **Devices**.
2. Navigate to the device.
3. Click the link in the **Name** column.
4. Click the **Actions** button.
5. Click **Restart/Shutdown device**.



Unsupported devices cannot be restarted.

6. Read the displayed warning.
7. Select **Shutdown Device**.
8. If you still want to shutdown the device, click **Send to Device**. Otherwise, click **Cancel**.

You can shutdown multiple supported devices from **Devices** list page. To do so, select the devices, click **Actions >Restart/Shutdown Device**, and follow the instructions on the screen.

Clearing the Restrictions Password (iOS only)

You can clear a Restrictions password set by users on supervised iOS 8 devices. This action is available for active devices only.

Procedure

1. Go to Devices > Devices.
2. Select the entry for the device.
3. Select Actions > Clear Restrictions Password.
4. Confirm the action when prompted.

Deleting Sentry association for a device

Sentry association is made to devices for App Tunneling or ActiveSync-enabled email system which controls email access to devices. If required, any device that is associated with Sentry can be removed from its association as follows:

Procedure

1. Go to **Devices**.
2. In the **Name** column, click on the device link of the device for which you want to delete the Sentry association.
3. Click on the **Sentry** tab.
4. In the **Actions** column, click **Delete**.

Assigning Custom Attributes to Devices

You can assign custom device attributes such as internal ID to one or more devices. Each attribute has a corresponding value that you can use for tasks like creating configurations and device groups. After you create custom attributes, you can assign them to devices. For more information about managing attributes, see ["Attributes" on page 1064](#).

Procedure

1. Log in to the Administrative portal.
2. Go to **Devices**.
3. Select one or more devices.
4. Click **Actions**.
5. Select **Assign Custom Attributes**.
6. Select *one* of the following options:
 - Force assign (overwrite) all attributes even if any existing values are found.
 - Overwrite only if value is empty, and skip attributes with existing values.
7. Select the attributes you want to assign and enter their values (empty values are not allowed).
8. Click **Assign**.



The **Custom Device Attributes** with their values can be exported to CSV format from the **Device Details** page.

Removing Custom Attributes from Devices

Proceed with caution as this action is not reversible. To remove custom attributes from one or more devices:

Procedure

1. Go to **Devices**.
2. Select one or more devices.
3. Click **Actions**.
4. Select **Remove Custom Attributes**.
5. Select the attributes you want to remove.
6. Click **Remove**.

Synchronizing and fetching app feedback

You can send a request to an app installed on Android devices to get the details of the current app configuration status of the app. When a request is sent, you receive app configuration feedback report for the device.

Procedure

1. Go to **Devices**.
2. Click on the device for which you want to send the request.
3. Click **Actions**.
4. Select **Sync and fetch App feedback**. The request is sent to sync and fetch the app configuration feedback. The App Feedback Last Sync field beside Client Last Check-in field will get updated.
5. In the **Installed Apps** tab, click **View Details** link for the app in the **App feedback** column. The **App Feedback** Window is displayed.
 - Key** - Provides detailed information and provides placement of reported settings (in the Managed app config of the app) based on the feedback received from apps.
 - Time Stamp** - Time and date of the Key.
 - Severity** - Specifies the severity of the key. Example: 'Info', 'Error'.
 - Message** - Type of message received from app config feedback. Example: 'Failure'.
 - Data** - Details of the data received from app config feedback.

Viewing app config feedback from the App Catalog

You can view app configuration feedback report for the particular app from the App Catalog.

Procedure

1. Go to **Apps > App Catalog**.
2. Select a app for which you wish to view the details.
3. Click the **App Config Feedback** tab. The **Device Count** column displays the number of devices (hyperlink) for each key of the app configuration feedback report.

-
4. Click on the number of devices hyperlink to view the details of the devices. For example, by clicking on hyperlink 5, displays the details of 5 devices. The following details are displayed for the combination of 'Key' and 'Severity', which is displayed above the table:
- Email Address** - specifies the username. Clicking the username link navigates to **Installed Apps** tab under **Devices > Device Detail**.
 - Device Type** - specifies the device model.
 - OS** - Android OS version number.
 - Serial Number** - Serial number of the device.
 - Time Stamp** - Time and date it was last updated.
 - Message** - Type of message received from app config feedback. Example: 'Failure'.
 - Data** - Details of the data received from app config feedback.

You can view the app config feedback error notifications for the Android device by clicking the bell icon (top right) or in the **Dashboard > Notifications** page. Clicking the notification link navigates to **App Config Feedback** tab and view the app feedback report.



The app config feedback report will be removed and will not be displayed when the device is wiped or retired. Background job that runs every 24 hours purges data older than 7 days.

Setting firmware password

Applicable to: macOS 10.13 or supported newer versions.

The administrator can set or update the firmware (EFI) password for a macOS device. A firmware password prevents starting up of the macOS device from any internal or external storage device other than the startup disk selected by the device user. As a result, it also blocks the ability to use most startup key combinations.

Procedure:

1. Go to **Devices**.
2. To set or change the firmware password for a single device:
 - a. Click the user name the device is associated with to view the device details page.
 - b. In the General section, expand **Firmware Password** and click **Set Password** or click **Set/Change Firmware Password** from the device Actions menu.
 - c. The following information is displayed in this section:
 - a. **Password:** Password or a list of probable passwords.



When an admin sets the firmware password, the command is sent to the device. If the device does not respond in time, the password is stored temporarily and displayed in this field. The new password will not take effect until there is an acknowledgment from device and the device gets restarted. Till then, all probable passwords are displayed. After the device is restarted and the password change is acknowledged, then all the unwanted passwords are cleared.

- b. **Change Pending** - Indicates if the password change is pending.
 - c. **Command Status** - Indicates if the password change was success or failure.
 - d. **Allow OptionROMs** - Indicates whether option ROMs are to be enabled. By default, it is set to No.
3. To set or change the firmware password for more than one device:

-
- a. Select the devices.
 - b. From the Actions menu, click **Set/Change Firmware Password**.
4. Enter the current and the new passwords.
If it's the first time, the current password can be left blank.
To reset the password, leave new password field blank.
 5. Click **Save**.



Only devices with supported macOS versions will be updated with new password. Unsupported devices will be skipped.

Reissuing a new Personal Recovery Key

Applicable to: macOS devices with Mobile@Work for macOS 1.66 or supported newer versions.

When migrating from other MDM solutions to Ivanti Neurons for MDM, administrators can request the OS to reissue a new Personal Recovery Key (PRK) upon enrollment if a PRK was previously issued prior to enrollment. This enables the key to be stored in Ivanti Neurons for MDM.

You can view the Audit Trails log entries for the PRK activities as follows:

1. Go to **Dashboard > Audit Trails**.
2. In the Type filter, select **Personal Recovery Key**. PRK entries will be displayed in the Device Management category and activities such as "Personal Recovery Key viewed."

Prerequisite

Distribute the following configurations to the devices before performing this procedure:

- Mobile@Work for macOS configuration.
- FileVault Recovery Key configuration.

Procedure

1. Contact [Support](#) to request the script to generate new PRK on the device.
2. Create a device custom attribute with the name "deviceprk" which is used in the script.
3. Upload the script to the repository in **Admin > All Scripts**. While doing so, select the "deviceprk" custom attribute.
4. Create a dynamic device group for devices for which PRK was not retrieved from the old MDM solution. Select the device group rules as follows: "**Platform=macOS and Encryption Enabled is equal to Yes and macOS Personal Recovery Key escrowed is equal to No and macOS Recovery Key Type is equal to Personal.**"
5. Create a Mobile@Work for macOS Script configuration in which you can select the PRK script from the repository. Distribute the configuration to the new device group.

-
6. Schedule the script to run once a day or as desired. This script will ask for user password on every run. By default, the timeout period for the script execution is 60 seconds. It is recommended to extend the timeout period in the corresponding Mobile@Work for macOS configuration by setting the **Max Run Time** field to 300 seconds.
-

- The decrypted key is available from the device details page of a device in the Device Encryption Status section. Click **View** next to the FileVault Encryption Enabled field.



- On obtaining the PRK, the device moves out of the device group. Hence, the script configuration will not be applicable anymore and will be deleted from the device.
 - After the MDM retrieves the recovery key of a device using the script, the script will be uninstalled from the device.
-

Related topics:

- ["Attributes" on page 1064](#)
- ["All Scripts" on page 1311](#)
- ["Device Groups" on page 184](#)
- ["Mobile@Work for macOS" on page 629](#)
- ["FileVault Recovery Key" on page 520](#)

Setting or changing recovery lock

Applicable to: macOS 11.5+

The administrator can set or change recovery lock for device reboot for macOS device running on Apple silicon. A recovery lock prevents starting up of the macOS devices in recovery mode, unless the passcode is entered.

Procedure:

1. Go to **Devices**.
2. To set or change the recovery lock for reboot:
 - a. Click the user display name the device is associated with to view the device details page. Perform one of the following steps:
 - b. In the **Overview** section, expand **Recovery Lock** and click **Set Password** or click **Change Password**. Or Click the **Actions** ellipsis and click **Set/Change Recovery Lock**.
 - c. In the **Set/Change Recovery Lock** dialogue box do the following:
 - a. **Current Password:** Enter the current password here. Keep it empty if you are setting it for the first time.
 - b. **Password:** Enter the password you want to set.
 - c. **Confirm Password:** Re-type the password you want to set.
3. Click **Set/Change Recovery Lock**.



In Overview, **Recovery Lock Enabled** shows the status of the Recovery Lock passcode.



Administrators can also clear the passcode by removing the existing passcode and click **Set/Change Recovery Lock**.

Apps

This section contains the following topics:

- "App Catalog" on page 286
- Apps@Work
- "iOS Apps@Work AppStore Features" on page 317
- "Viewing App Details" on page 329
- "App Configuration" on page 333
- "Assigning Custom Attributes to Apps" on page 353
- "Managed Configurations for Android" on page 355
- "Managing Google Play Apps" on page 362
- "Deleting Apps from the App Catalog" on page 364
- "Upgrading In-House Apps" on page 365
- "Finding the Package Name for an Android App" on page 367
- "Categories" on page 368
- "Distribution Filters" on page 369
- "Exclude or Distribute apps" on page 372
- "Reviews" on page 374
- "Apple Apps and Books" on page 376
- "Catalog Settings" on page 390

- "Deploying app dependencies" on page 395
- "Deploying Divide Productivity with Android Enterprise" on page 399
- "Setting up the Provisioner app" on page 402
- "Managing Windows Applications" on page 405
- "Ivanti Bridge" on page 409

App Catalog

This section contains the following topics:

- ["Licensing for app features" on the next page](#)
- ["Switching between list and grid view" on page 288](#)
- ["Adding Google Play Store app for Android Enterprise" on page 288](#)
- ["Adding an app from a public store" on page 290](#)
- ["Adding an in-house app" on page 293](#)
- ["Delegating device permissions for Android Enterprise In-house apps" on page 302](#)
- ["Displaying the provisioning profile status for iOS in-house apps" on page 304](#)
- ["Updating provisioning profile for iOS in-house apps" on page 304](#)
- ["Deploying in-house apps to Google Play" on page 304](#)
- ["Adding a web app for Android Enterprise devices" on page 305](#)
- ["Adding a web app for iOS devices" on page 308](#)
- ["Using Advanced Search" on page 310](#)

Use the App Catalog page to manage your app catalog. The app catalog lists the mobile apps you have made available for your users. These include apps that users can download from public app stores and apps you intend to distribute using Ivanti Neurons for MDM (in-house apps). AppConnect-enabled apps, GoClient for iOS, and M@W for macOS are also available as business apps on the App Catalog page, thereby simplifying the process of importing them for configuration and distribution. In MAM-Only devices, iOS users will be prompted to select the certificate to authenticate access to these apps when they open the app catalog.

M1 chipset MacBooks by Apple supports iPhone and iPad VPP apps. Only the administrator can push the supported iPhone and iPad VPP apps. This option is not available for users to install from App Catalog.

For the Ivanti Neurons for MDM tenants with Android devices, if Android Enterprise is not enabled by the end of March 2021, administrators will not be able to search for apps with the names. Communication on this change is displayed with a banner message when accessing the App Catalog page. This banner message continues to be displayed till Android Enterprise is enabled on these tenants and until the 'Don't show this again' checkbox option is not selected.

-
- Silent App Install method is not available for public macOS apps. The macOS apps can also be deployed through Apple Apps and Books via device-based licenses and through the Silent App Install method on enrollments.
 - While uploading the Go app to Ivanti Neurons for MDM server, if there is a need for you to select the **Convert to managed app** option, then you also need to enable the **Install on Device** option.
 - App Catalog and app installation are not supported for Sonim XP5s devices.
 - Android does not allow apps with active admin privileges to be uninstalled. To uninstall such an app, go to **Device Settings > Security > Device Administrators** and disable the Device Administrator privileges. Then, uninstall the app.
 - In-house Android apps cannot be uploaded if the app is compressed or obfuscated.
 - Public apps are not supported on [Shared iPads](#).
 - Due to a limitation from Apple, for Business-to-Business (B2B) iOS apps available in the App Catalog, descriptions and screenshots of the apps are not available in the **Details** tab.
 - When you search for an app in the App Catalog or Admin portal, the search results will be based on **App Name**, **Comment**, **Description**, **Display Version**, and **What's New**. If the searched app data matches with any of these fields, it will be displayed as a search result.
-

Licensing for app features

The following App Catalog features require additional licensing:

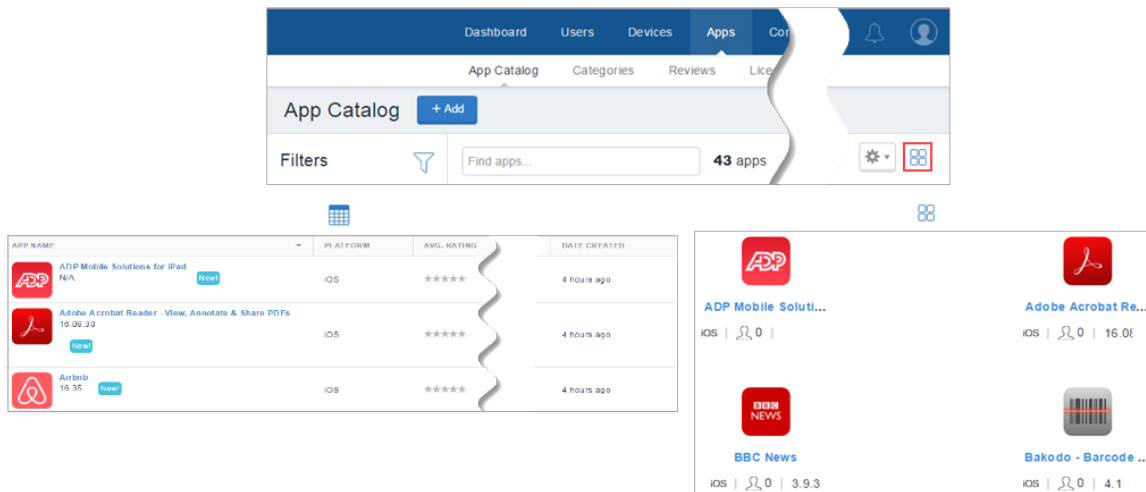
- Silent app install/uninstall: Silver license
- Per-app configuration: Gold license
- AppConnect custom configuration: Gold license
- [Android Enterprise](#) custom configuration: Silver license

If an Android device is in kiosk mode:

Only in-house apps can be installed while the device is in Kiosk Mode. You can install public apps, but the device must exit Kiosk Mode before those apps can be installed. Also, you can limit the apps available for use on devices in Kiosk Mode to only the apps that are approved or Allowlisted by your company. On devices using Android 4.1, If an approved app launches an app not included on the Allowlist, that app will launch and then be quickly minimized. On devices using Android 5.0, the unapproved app launched from a Allowlisted app will remain available.

Switching between list and grid view

Click the List or Grid icon on the right side of the App Catalog screen.



Adding Google Play Store app for Android Enterprise

- You can add an app from the Google Play Store to the App Catalog and make it available to the users. To add an app from Google Play Store in Android Enterprise, it is required to approve an app to be included in the app catalog.
- The Google Play Store layout for Android Enterprise devices has a home page for migrated devices which is managed from Core and has a quick link to Ivanti Neurons for MDM that displays all the applications that are managed from Ivanti Neurons for MDM. When you migrate Android Enterprise devices from Core to Ivanti Neurons for MDM, only the applications that are common between Core and Ivanti Neurons for MDM App Catalog are listed in the work profile Google Play Store of the device. You can click on the Ivanti Neurons for MDM button to view the list of all the applications that are available from Ivanti Neurons for MDM App Catalog.


The Google Play Store layout for Android Enterprise devices has a home page for migrated devices which is managed from Core and has a quick link to Ivanti Neurons for MDM that displays all the applications that are managed from Ivanti Neurons for MDM. When you migrate Android Enterprise devices from Core to Ivanti Neurons for MDM, only the applications that are common between Core and Ivanti Neurons for MDM App Catalog are listed in the work profile Google Play Store of the device. You can click on the Ivanti Neurons for MDM button to view all the applications that are available in Ivanti Neurons for MDM App Catalog.

Prerequisite


- You must enable Android Enterprise to access and add Google Play store applications to the App catalog.

Procedure

1. Go to **Apps > App Catalog**.
2. Click **Add** (top left).

 Select Google Play from the drop-down list to search for an app in the Google Play Store. Google Play iFrame is displayed when Android Enterprise is enrolled.

3. Search for the app in the Search field and click on the app.
4. Click **APPROVE** to approve the app to be available for the users. A confirmation window is displayed with the details of the access provided to the app. Click **APPROVE**.

 An approved app can later be unapproved by clicking **UNAPPROVED**.

5. Select any of the following options to handle new app permission request:

Option	Description
Approval Settings	
Keep approved when app requests new permissions	Allows users to install updated app
Revoke app approval when this app requests new permissions	Removes the app from the store until it is re-approved.
Approval Settings	
Add Subscriber	Enter the email address to add subscribers to email notifications when the apps you have approved request new permissions.

6. Click **Done**.


Adding an app from a public store

You can add an app from a public store to the app catalog and make it available to the users.

Procedure

1. Go to **Apps > App Catalog**.
2. Click **Add**.
3. Choose the app you want:
 - a. Select the public app store.
 - b. Enter the name of the app.
 - c. Select the app from the list.
 - d. Click **Next**.
4. Describe the app for users:
 - a. Add or remove categories.
 - b. Enter an optional description.
 - c. Click **Next**.
5. Define app distribution:
 - a. Select a distribution option.
 - b. Expand the **Advanced Options & App Configuration** section.

Use the following guidelines to complete the options:

Setting	What To Do
Install on Device	<p>Select this option to start installation immediately after registration. The user will be prompted to confirm installation of the app except under the following conditions:</p> <ul style="list-style-type: none"> • The device is a supervised iOS device for new app installs and app updates. • The device is a iOS non-supervised device for app updates. • The users who have enrolled in the Apps and Books program. • The device is a Samsung Knox device and the silent installation option below has been selected. <p>For iOS public apps, when installed for the first time in the device, the App Catalog displays 'Reinstall' button that allows the user to install the app again.</p> <hr/> <p> The reinstall is performed if app version on device is different from the version on iOS app store.</p> <hr/>
Do not show app in end user App Catalog	Select this option if you do not want the user to see the app in the app catalog on the device.
Set App Install Priority	Select High, Medium or Low to set the priority of the app installation during user onboarding. Only high priority apps gets installed during user onboarding .

Setting	What To Do
Suspend app repush after a set number of failed attempts (iOS only)	<p>Switch the toggle switch to ON to suspend the re-push of app after a set number of failed re-push attempts using the following settings:</p> <p>Stop repush after - Enter the number of failed re-push attempts after which the re-push should be stopped. The values entered should be within 1 to 999</p> <p>failed attempts and try again after - Enter the number of hours required after the failed re-push to action the re-push again. The values entered should be within 3 to 48 hours.</p>
(Android only) Silently install on Samsung Knox devices	This option does not apply to public apps.
(iOS and macOS only) Enable Per-App VPN for this app	<p>Select this option to use a Per-App VPN configuration with this app.</p> <p>Select the Per App VPN configuration to be used from the drop-down list.</p> <p>For macOS, select Tunnel Per App VPN configuration only.</p>
(iOS only) Prevent backup to iCloud and iTunes	Select this option to keep data related to this app from being backed up to iCloud and iTunes.
(iOS only) Remove apps on un-enrollment	Select this option to remove this app once the device is no longer managed by Ivanti Neurons for MDM.
(iOS only) AppConnect Custom Configuration	For AppConnect-enabled app, enter the keys and values that specify your custom configuration preferences. See the documentation for the app for available keys.
iOS 7+ Managed App Settings	Enter keys and values defined for this app as an iOS 7+ managed app. See the documentation for the app for information on supported keys.



[Android Enterprise](#) apps will have different options.

- c. Click **Next**
- d. Select a promotion option:
 - Not Featured
 - Featured List
 - Featured Banner
 - If you select Featured Banner specify the following details:
 - a. **Title** - Specify the application title
 - b. **Description** - Specify the application detail
 - c. **Banner style** - Select a banner color
- e. Click + **Add Description** to enter a brief description of the configuration.
- f. Optionally, change the distribution of the configuration.
- g. Click **Done** to save the app configuration.
- h. Click **Done**.

When you search for a Windows app in the App Catalog, you can search the app that matches closely by using the **App Name** or **AppStore ID** options from the drop down list:



- **App Name** - Select this option and provide the App Name
- **AppStore ID** - Select this option and provide the AppStore ID

The Windows Store app search supports Win32 store apps.

Make sure the Winget tool is available on the device to manage the Win32 Store apps.

Adding an in-house app

You can upload an in-house app to the app catalog with the following file formats. A large file could take several minutes to upload. The number of in-house application versions is limited to 100. If that number is

exceeded, the Ivanti Neurons for MDM system purges the oldest versions of the application. The status of the application upload and purge is listed and is visible from the Audit Trails page.

MIP app inventory returned by Mobile@Work may be incorrect for few apps. Mobile@Work may fail to detect the installation status of apps that are not installed in default location. For such apps, adding the detection script will help in identifying the right state of the app on the device. Mobile@Work determines the presence of the app if the exit code of the detection script is 0. For any other exit codes, the app will be determined as not installed. Based on the apps detected, Mobile@Work prepares the inventory report for the device.

- IPA (iOS)
- MIP (Packager macOS app)
- PKG (macOS)
- APK (Android)
- APPX, APPXBUNDLE, EXE, and MSI (Windows)



For applications such as PKG with scripts or DMGs having PKG with scripts, the Mobile@Work for macOS can only detect a successful install request. It will not report if the app has been deleted or if the scripts that were installed were removed. Therefore, the Ivanti Neurons for MDM server will be unable to resend an install command. If the connection is disconnected while downloading the apps, retry the app installation by doing a check-in. For MIP apps, even if the app is removed from the device installed by PKG or DMG having PKG with script in it, Mobile@Work will not install the MIP app if the entry of the PKG exists in the receipts folder of the client device.

Procedure

1. Go to **Apps > App Catalog**.
2. Click **Add** (top left).
3. Drag the app file to the dotted box, or click **Choose File** to select it from your file system and click **Confirm**.
4. Click **Next** (lower right).

-
5. Describe the app for users and configure prerequisite apps:
- a. Add [categories](#).
 - b. When adding a macOS package, if the package file contains more than one app (for example, Microsoft Office and Cisco AnyConnect packages), then the selected primary apps will be used to identify that the package is installed. Per-app VPN, if configured, will be applied to these apps.
 - c. Enter an optional description.
 - d. **MSI product code:** When uploading the MSI apps, the product code of the MSI app is auto-populated in this field.
 - e. **Override URL:** Enter an optional App Source URL Override to allow downloading the app from a different source or to allow obtaining large files, such as Microsoft Office installation media, from a local network (HTTP and HTTPS). This option requires access to a secure internal network and manual synchronization of an alternate server on which the apps are stored. Do not enter a value unless you have established the necessary infrastructure. You can edit this value while editing the app settings for the specific app.

-
- For iOS apps, the app Override URLs must be in HTTP or HTTPS format only.



- For Android and macOS apps, the app Override URLs must be in HTTPS format only.
 - For macOS apps, the URL should end with the extension, which is .pkg.
-

- f. **Command Line** (Windows 32-bit MSI apps only): Enter an optional Command Line switch to specify additional information that are not part of the package while deploying the MSI files. For example, to write installation logs to an output file, you can enter "/log output.txt" in this field. This creates the output.txt file in the C:\Windows\System32 folder. By default, the Command Line option /qn for silent installation is auto-populated during MSI app upload.



The package name of the MSI app to be uploaded should not be added as part of Command Line arguments. If added, the upload will be restricted until the app's package name is removed from the Command Line arguments. A list of all the supported Command Line options is provided under the additional link. This link will be visible in the app's View and Edit mode.

- g. .EXE for Win32: Installed through Bridge using the Admin PowerShell mode. The Bridge functionality will be automatically used, if available.

-
- Update version to maintain consistency between the **Display Version** and **Bundle Version**
 - Installer (.EXE) location
 - Installer command line parameters: argument to silently run the file (for example, /SILENT or /VERY SILENT) is mandatory
 - Installer run as user: to install using user's credentials, select 'Run as User' option
- h. For Win32 Store apps: Installed through Bridge using the Admin PowerShell mode.
- i. For Packager macOS apps, configure prerequisite apps (optional). See Understanding Packager in-house macOS apps for an overview of prerequisite app functionality.
- j. **Launch URL:** Enter the custom URL for launching the app in AppStation. Required only when adding non-AppConnect apps for distribution in a MAM-only deployment with AppStation and is applicable only for iOS apps.
- k. Configure [app delegation](#).



Once you delegate a prerequisite app and it becomes a prerequisite app for the app from the non-default space, you cannot un-delegate that app unless you remove the prerequisite relationship first.

- l. Click **Next**.
- m. Click **Next**.
6. (Optional) Add screenshots of the app.
7. (Optional) Add or replace icons for the app (iOS, MacOS, and Windows apps).
8. Click **Next**.
9. For Packager macOS apps, define or select installation scripts to run before and/or after app installation. Select one or both of the following scripts by typing in the search box or clicking the link to see the list of scripts. Click **Next**.

-
- **Pre Install Scripts** - Enter the script name to select the script to run before app installation. The pre-install scripts will be run or retried till the script execution success status is received from the client. Only after that, the app install command is sent. You can view the script run status in the device details page in the **Logs** tab.
 - **Post Install Scripts** - Enter the script name to select the script to run after app installation.
 - **Uninstall Scripts**: Enter the script name that server sends to a device when it detects that an app is no longer distributed to the device.
 - **Detection Scripts**: Enter the script name that server sends to a device to detect an app. The result of the detection script of the app overrides the default inventory result of the app on the device. Irrespective of whether the App is distributed to the device or not, the detection script of all apps will be sent to the device to evaluate the existence of the apps on the device.

A sample detection script is shown below:

```
#!/bin/bash
app_name="Name of the App"
count="$(system_profiler SPApplicationsDataType | grep "$app_name" -c)"
echo "$app_name count $count"
if [ $count -ge 1 ]
then
  echo "$app_name is installed"
else
  echo "$app_name is not installed"
  exit 1
fi
exit 0
```

You can create the scripts in the **Admin > [All Scripts](#)** page. If you upgrade the app, you can choose to copy the scripts from the older app and run the scripts for the upgraded app. If you skip this section, you can configure scripts by editing the app later.

10. Define app distribution:
 - a. Select a distribution option.
 - b. Expand the **Advanced Options & App Configuration** section.
 - c. Use the following guidelines to complete the options:

Setting	What To Do
Install on Device	<p>Select this option to start installation immediately after registration. The user will be prompted to confirm installation of the app except under the following conditions:</p> <ul style="list-style-type: none"> • The device is a supervised iOS device. • The device is a Samsung Knox device and the silent installation option below has been selected.
Do not show app in end user App Catalog	<p>Select this option if you do not want the user to see the app in the app catalog on the device.</p>
Set App Install Priority	<p>Select High, Medium or Low to set the priority of the app installation during user onboarding. Only high priority apps gets installed during user onboarding.</p>
Suspend app repush after a set number of failed attempts (iOS only)	<p>Switch the toggle switch to ON to suspend the re-push of app after a set number of failed re-push attempts using the following settings:</p> <p>Stop repush after - Enter the number of failed re-push attempts after which the re-push should be stopped. The values entered should be within 1 to 999</p> <p>failed attempts and try again after - Enter the number of hours required after the failed re-push to action the re-push again. The values entered should be within 3 to 48 hours.</p>
(Android only) Silently install on Samsung Knox devices	<p>Select this option if you do not want the user prompted to confirm installation on Samsung Knox devices.</p>

(iOS and macOS only) Enable Per-App VPN for this app	Select this option to use a Per-App VPN configuration with this app. Select the Per App VPN configuration to be used from the drop-down list. For macOS, select Tunnel Per App VPN configuration only.
(iOS only) Prevent backup to iCloud and iTunes	Select this option to keep data related to this app from being backed up to iCloud and iTunes.
(iOS only) Remove apps on un-enrollment	Select this option to remove this app once the device is no longer managed by Ivanti Neurons for MDM.
(iOS only) AppConnect Custom Configuration	For AppConnect-enabled app, enter the keys and values that specify your custom configuration preferences. See the documentation for the app for available keys.
iOS 7+ Managed App Settings	Enter keys and values defined for this app as an iOS 7+ managed app. See the documentation for the app for information on supported keys.

d. Click **Next**.

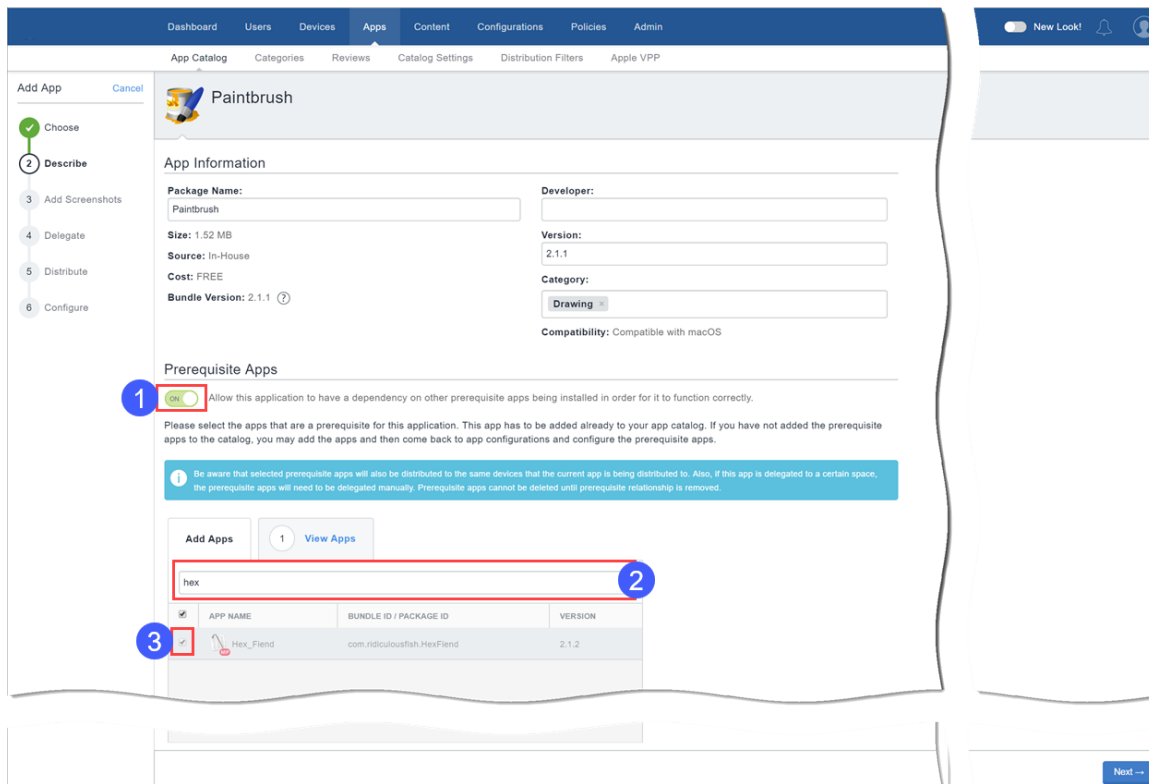
11. Select a promotion option:





- Not Featured
- Featured List
- Banner

12. Click **Done**.

Understanding Packager in-house macOS apps

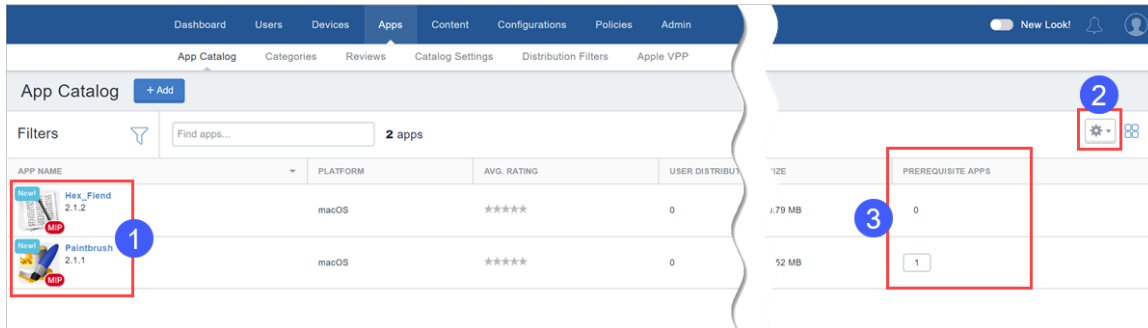
When importing Packager in-house macOS apps, the admin can enable, **1**, the Prerequisite Apps feature to search for, **2**, and select, **3**, prerequisite apps that must be installed on clients before the app the admin is importing can be installed.



Once imported, the Packager macOS in-house app appears in the app catalog with the  badge displayed, , below. You can then use the column settings, , to add the PREREQUISITE APPS column, , to see at a glance the apps with dependencies, that is, that have prerequisite apps.

- You can search for and select MIP, non-MIP, and public apps (Apps and Books and macOS App Store public apps) as prerequisite apps.
- Users need to accept Apps and Books license for Apps and Books prerequisite apps to install silently.
- For non-Apps and Books public prerequisite apps, administrators need to explicitly distribute the public apps and the user has to install the public apps. The public apps (Apps and Books and non-Apps and Books apps) have to be imported into the App Catalog in order to show up in the prerequisite apps list. The Source column indicates the type of prerequisite app.
- MDM check-in is required to install a non-MIP in-house app that has non-MIP prerequisite apps.
- Users need to manually install public non-Apps and Books prerequisite apps.

- If the Apps and Books token is removed or if the license is exhausted, then the Apps and Books apps selected as the prerequisite apps, and thereby the main app, are not installed. The administrator has to follow a best practice to inform the users in advance in any of these cases for Apps and Books apps.

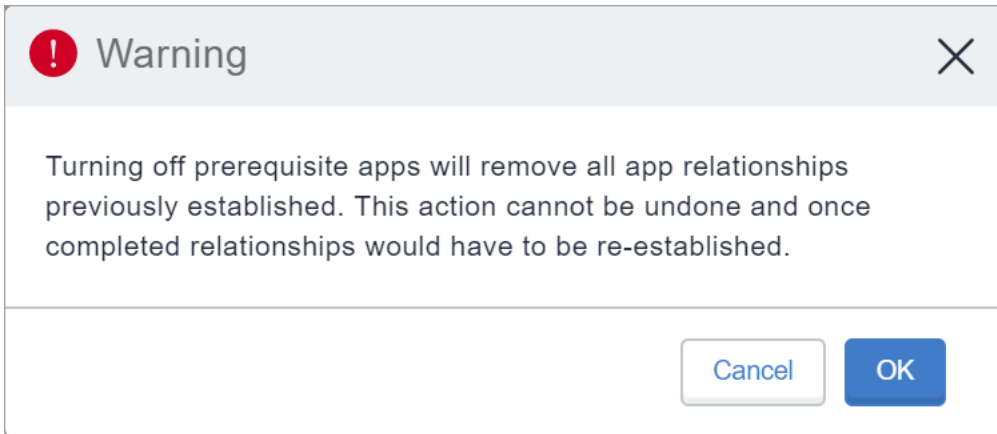


Prerequisite apps are also available as independent apps for download by the user when they are distributed explicitly. If the user tries to uninstall a prerequisite app:

- Make sure that the prerequisite app installs again in the next device check-in.
- The prerequisite app is uninstalled if there are no dependent main apps installed on the same device.
- If the prerequisite app is not distributed explicitly, then the prerequisite app will be uninstalled along with the main app.
- If the prerequisite app is distributed explicitly, then the prerequisite app stays on the device.
- If the prerequisite app has a dependent app, then the prerequisite app stays on the device.

Turning off the Prerequisite Apps feature

When interacting with apps with dependencies and prerequisite apps, for example, when updating, deleting, or delegating such apps, you will encounter system prompts coaching you about how the app's dependency or prerequisite status may impact the actions you seek to perform. For example, when you try to turn off the Prerequisite Apps feature for an app, the following prompt appears:



- If you turn off the Prerequisite Apps feature for an app, details about the prerequisite apps are cleared. This includes automatic delegation and un-delegation of prerequisite apps from sub-spaces.
- In Apps@Work, the install button does not appear for dependent apps whose prerequisite apps are not already installed on the harboring client.
- On the user devices, when a user tries to install an in-house app with dependencies, the prerequisite apps will be installed (if not already installed) first followed by the main app, which may take a few minutes. The list of dependent apps are displayed to the user along with the status of their installations.

Delegation and un-delegation of prerequisite apps from spaces

- Prerequisite apps tied to an app (the main app) are automatically delegated when the main app is delegated to a subspace.
- If the main app is un-delegated from a sub-space, the prerequisite apps are also un-delegated where prerequisite apps are not explicitly distributed. However, the prerequisite apps that are tied to more than one main app are not un-delegated.
- If the prerequisite apps are explicitly delegated, then they are not automatically un-delegated.

Delegating device permissions for Android Enterprise In-house apps

Delegated permissions can be assigned to in-house apps that can be applied to Android Enterprise managed devices and AMA devices.

Procedure

-
1. Go to **Apps > App Catalog**.
 2. In the **App catalog**, select an app to which you wish to delegate device permissions.
 3. Click the **App Configurations** tab.
 4. In the Delegated Permissions (In-house Android Enterprise app), select the required permissions for the apps:



Only COSU deployment uses AMAPI. Refer to the AMAPI section for more information.

- **Configure third-party app runtime permissions**
- **Hide and suspend third-party apps**
- **Manage certificates**
- **Manage app configurations**
- **Manage blocking app-uninstallation**
- **Manage Enabling System apps**
- **Manage Certificate Selection** (not supported in AMAPI mode)
- **Manage Retention of Un-Installed apps** (not supported in AMAPI mode)
- **Manage Network Log Collection**(supported in only one app at a time)
- **Manage Security Log Collection** (supported in only one app at a time)
- **Manage Installation of existing apps** (not supported in AMAPI mode)
- **Install and remove packages** (not supported in AMAPI mode)

Install and remove packages option is available on all supported Android Device Owner mode devices (7.0 or later). Other delegated permissions are applicable only to Android 8.0 or later.

5. Configure the distribution options, selecting from **Everyone with App**, **No One**, or **Custom**.
6. Click **Save**.

Displaying the provisioning profile status for iOS in-house apps

Display provisioning profile status on the App Catalog page for the iOS in-house apps. The tool tip next to the profile name displays the number of days for expiry of the profile. This status can be useful to check when the provisioning profiles are expiring for the in-house apps.

The status is useful for troubleshooting apps that are not installing due to profile being expired. The apps would install but would not open or launch if there is no appropriate provisioning profile.

Procedure

1. Go to **Apps > App Catalog**.
2. Click the gear icon on the top right to display the columns.
3. Select **Provisioning Profile** to display the column for the list of apps on the App Catalog page.

The Provisioning Profile details are also available on the app details page under the Provisioning Profile Settings section.

Updating provisioning profile for iOS in-house apps

Provisioning profile is applied to a specific iOS in-house app. The Provisioning Profile details of an app are available on the app details page. A Provisioning Profile which is not expired is required in an iOS in-house app to launch on the device. If it is expired, you can update a provisioning profile by uploading the profile in the app details page.

Procedure

1. Go to **Apps > App Catalog**.
2. Click on the app for which the provisioning profile update is required. The app details page is displayed.
3. Click **Edit**.
4. In the **Provisioning Profile** section, click **Choose File**.
5. Select the provisioning profile file (.mobileprovision file extension) to be uploaded and click **Save**.

Deploying in-house apps to Google Play

Upload your in-house apps to the Google Play Private channel and import them into Ivanti Neurons for MDM for deployment to Android Enterprise enabled devices.

Procedure

1. Log into Google private apps console: <https://play.google.com/apps/publish>.
2. Click **All Applications** in the left menu.
3. Click **Create new application** and enter a name for the application.
4. Click **Upload APK** to upload the .apk file you generated.
5. Click **Store Listing**:
 - Enter a short description and a full description.
 - Upload screenshot for all tabs.
 - Upload a high resolution icon.
 - Upload a feature graphic icon (graphic.png)
 - Enter the required information for Categorization, Contact details, and Privacy policy.
 - Complete the questionnaire for an app rating.
6. Click **Pricing & Distribution**.
If all the required information has been entered Ready to Publish is displayed at the top of the page.
7. Go to the Apps tab In the Ivanti Neurons for MDM.
8. Click **Refresh Available Catalogs** to sync your private apps.



It may take several hours to publish your app.

Adding a web app for Android Enterprise devices

A web app is a link to any website, which gets installed on the device as a shortcut. Web apps behave in a similar manner as any other app, which means the web app can be distributed on the same criteria as an app. It appears in the app catalog and can be installed by users as any other app. However, web apps can have only a single version, and the silent install is not supported. Web apps use web clips and get installed on device as configurations, but behave as apps.

Set up a web clip as an app in the app catalog to make the web app available in the app catalog for the users. The web clip can be defined as a configuration, but a configuration can only be distributed by an

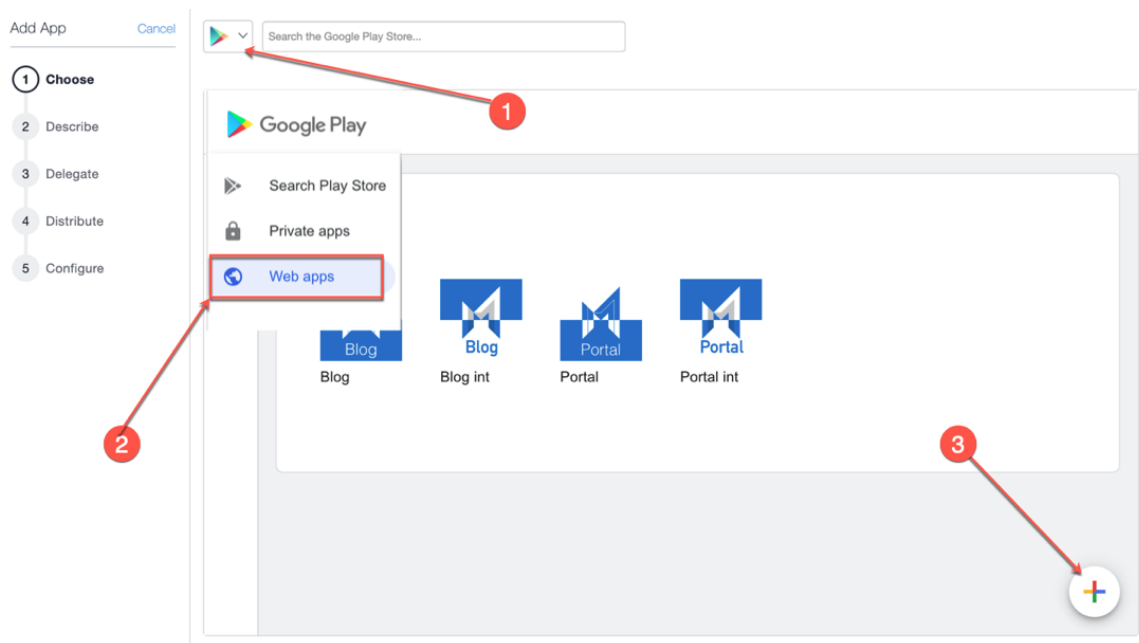
administrator. Users can choose to install the web app on their devices or opt out, whereas users have no option to opt out of a web clip configuration.

In Android Enterprise, a web app is an embedded form of web app that runs over Google Chrome inside the Work Profile. It can be combined to a VPN or SSO solutions in Android Enterprise. After a web app is created, the app works like any other Android app, which you can distribute as required. Web apps require Chrome to be installed on Work Profile on Company Owned Device in order to run.

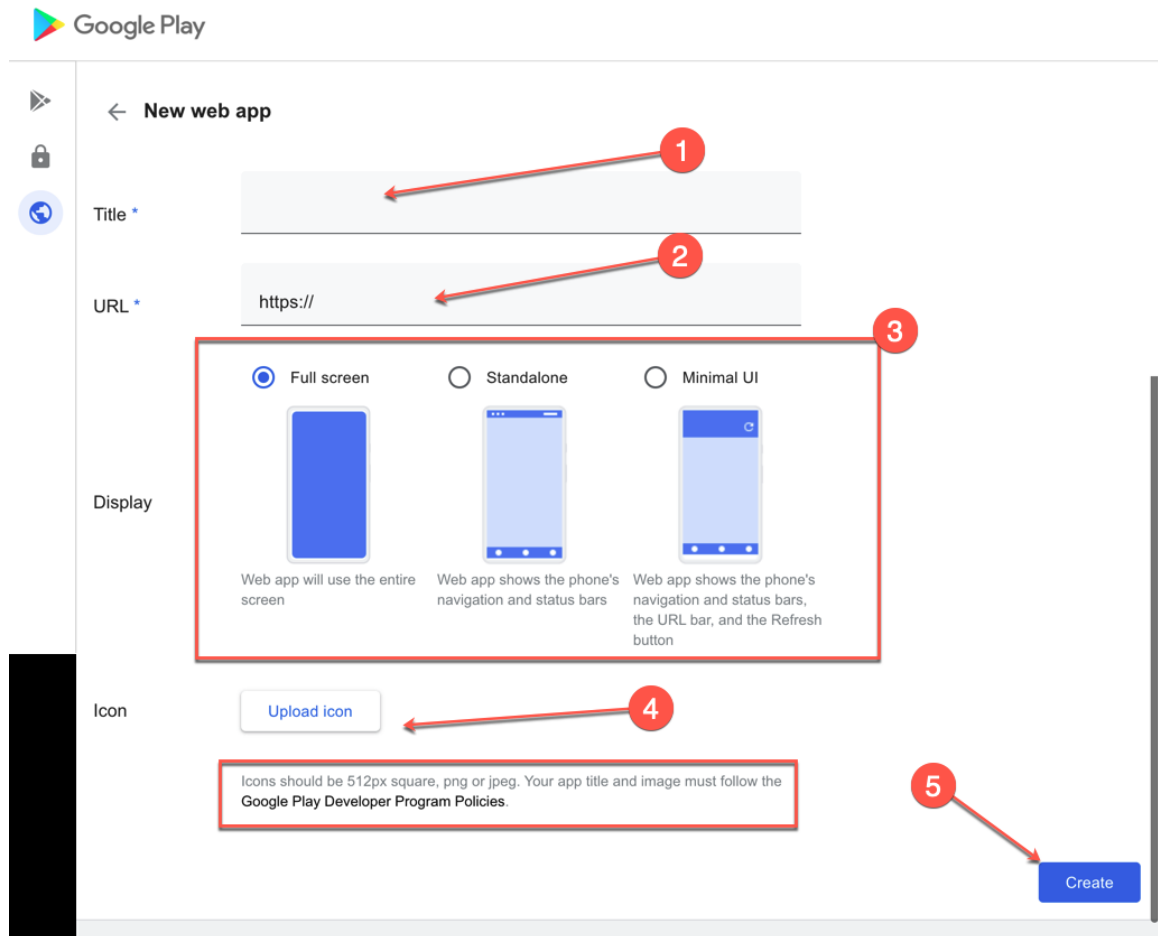
i If there are any issues with using this feature, administrators can contact [Support](#).

Procedure

1. Go to **Apps > App Catalog**.
2. Click **+ Add** (top left).
3. Select **Google Play** from the drop-down list to search for an app in the Google Play Store. Google Play iFrame is displayed if Android Enterprise is enrolled.
4. Click **Web apps**.



5. Describe the app for users:



- a. App title or name.
 - b. App URL.
 - c. Display type for the web app.
 - d. Upload icon, which can be a 512px square PNG or JPEG image.
6. Click **Create**. Wait for the app to be published to iFrame. It can take a few minutes. You can close it and return later.
7. After the web app is published, import the app to app catalog for distribution. Click the web app icon.

-
8. Scroll down and click **Select**.
 9. Add categories and an optional description.
 10. Click **Next**.
 11. Select one of the following options for App Delegation:
 - Delegate this app to all Spaces.
 - Do not delegate this app to all Spaces.
 12. Click **Next**.
 13. Select a distribution option for the application.
 14. Click **Finish**.

After adding a web app, you can edit the web app whenever required. To do so:

1. In the **App Catalog** page, click the name of the existing web app.
2. Click **Edit** to edit the web app fields.

Adding a web app for iOS devices

A web app is a link to any website, which gets installed on the device as a shortcut. Web apps behave in a similar manner as any other app, which means the web app can be distributed on the same criteria as an app. It appears in the app catalog and can be installed by users as any other app. However, web apps can have only a single version, and the silent install is not supported. Web apps use web clips and get installed on device as configurations, but behave as apps.

Set up a web clip as an app in the App Catalog to make the web app available in the app catalog for the users. The web clip can be defined as a configuration, but a configuration can only be distributed by an administrator. Users can choose to install the web app on their devices or opt out, whereas users have no option to opt out of a web clip configuration.



If there are any issues with using this feature, administrators can contact [Support](#).

Procedure

-
1. Go to **Apps > App Catalog**.
 2. Click **+ Add** (top left).
 3. Click **Web apps**.
 4. Describe the app for users:
 - a. App Name.
 - b. App URL.
 - c. Platform Type.
 - d. App Icon.
 - e. Add or remove categories.
 - f. Full Screen - Select to display the web app as a full screen application.
 - g. Removable - Select to make the web app removable.
 - h. Click **Next**.
 5. Select one of the following options for App Delegation:
 - Delegate this app to all Spaces.
 - Do not delegate this app to all Spaces.
 6. Click **Next**.
 7. Select a distribution option for the application.
 8. Click **Finish**.

Editing a web app

After adding a web app, you can edit the web app whenever required.

Procedure

1. In the **App Catalog** page, click the name of the existing web app.
2. Click **Edit** to edit the web app fields.

Slow roll out applications

The Slow roll out setting lets administrators to automatically roll out new version of applications to devices gradually. The option Use slow roll out distribution method, is available when you roll out the subsequent release of the application. The Ivanti Neurons for MDM administrative portal lets you edit applications even when the slow roll out is paused.

Once the slow roll out is set for one release, it is applicable for the subsequent releases with the same percentage that you last set. You can pause the distribution of an application if the distribution is set to 100%. However, if you set the distribution target to 100%, you must manually set the distribution target percentage for the next version as the UI resets the percentage to 0%.

Procedure

1. Go to **App Catalog, Apps**, select one of the distribution mode options.
2. Select the option **Custom % of devices in selection summary (Slow Rollout)**.
3. From the **Slow rollout settings**, drag the slider in **Specify distribution target%**.
4. Click **Confirm**, and then click **Done**. The status of the latest app version is displayed. The App Catalog page indicates the SLOW ROLL OUT status in the table.

If you cannot perform tasks on the **App Catalog** page, it might be that you do not have the required permissions. You need the App & Content Management role.

Using Advanced Search

You can use the Advanced Search option to search for an app based on rules to identify and view the apps with specific criteria. These rules can be constructed using the applicable operators, including the "equals", "is less than", "is greater than", "is equal to", and "is not equal to" operators. The rule options can be nested together using the ANY (OR) or ALL (AND) options. The apps matching the rules are displayed below the section.



The custom attributes values used in Search are case sensitive.

Procedure

1. From the App Catalog page, click the **Advanced Search** link. The Advance Search wizard opens.
2. Click one of the following options:
 - **Any**-if the apps must match at least one of the rules
 - **All**-if the apps must match all the rules

3. To create a rule that defines the search criteria, select one of the following options and select the appropriate associated action:

- AppConnect Enabled
- Average Rating
- Bundle ID
- Category
- Cost
- Custom Attributes
- Date added to the AppCatalog
- Date Modified
- Device Distribution
- Device Group Distribution
- Device type
- Group Distribution
- Minimum OS version
- Name
- OS Platform
- Provisioning Profile
- Size
- Source
- User Distribution

-
- User groups Name
 - Version
4. (Optional) Click **+** to create additional rules.
 5. Click **Search**. The list of apps matching the search criteria are displayed.

Loading the search queries

You can view the list of saved search queries.

Procedure

1. Click **Advanced search** and then click the folder icon. The list of the created search queries are displayed in the **Loaded Query** section and the following details are displayed:
 - **Query Name** - The name of the loaded query.
 - **Query Content** - Displays the content on the rules defining the search query.
 - **Actions** - Select the action to be performed on the query.
2. Click **Load Query** in the **Actions** column to view the list of apps matching the criteria defined in the loaded query.
3. Click **Delete** to delete a loaded query.

Related topics

- ["User Roles" on page 127](#)
- ["Deleting Apps from the App Catalog" on page 364](#)
- ["Deploying app dependencies" on page 395](#)

Apps@Work (iOS, Android, Windows, and macOS)

Apps@Work is an enterprise app storefront that facilitates the secure distribution of software and apps. Apps@work is available for iOS, Android, macOS and Windows devices. Apps@Work corporate appstore is integrated into Ivanti Go app and Mobile@Work clients for iOS, Android and macOS. For Windows devices it is a native standalone application. This section contains the following topics:

- ["iOS Apps@Work" below](#)
- ["Android Apps@Work" on page 315](#)
- ["macOS Apps@Work" on page 315](#)
- ["Windows Apps@Work" on page 315](#)

iOS Apps@Work

The Apps@work native appstore is deployed automatically with the Go client. No action from the administrator is required. The Apps@work tab is displayed on the Go client task bar. End user can go to this tab to view and install their company approved apps. For more information, see ["iOS Apps@Work AppStore Features" on page 317](#).

The iOS Apps@Work end user notifications for app updates are enabled by default. If you want to change the settings see the **Notifications** topic in ["Catalog Settings" on page 390](#).

Existing Customers with iOS Apps@Work Webclip

The customers who have the legacy iOS Apps@Work webclip deployed, will not get the Native Integrated AppCatalog by default. If you would like to transition to the iOS Apps@Work Native catalog and remove the Apps@work webclip from the devices, perform the following steps:

Pushing the configurations

The administrator must push the App Catalog for Native Client configuration to the devices to make Apps@Work available in a Native Appstore experience from Go client application. For more information, see ["Working with Configurations" on page 423](#).

Procedure

-
1. Log in to the Ivanti Neurons for MDM administrative portal.
 2. Go to **Configurations** > Filter and select **Client Services**. All the client configurations are listed.
 3. Select **App Catalog for Native Client**. The App Catalog for Native Client configuration page opens.
 4. Click the **Edit Distribution** icon. The Edit Distribution page opens.
 5. Select one of the following options:
 - **All Devices**
 - **No Devices** - if you do not want to distribute to any devices
 - **Custom** - lets you select Devices, Device Groups, Users, User Groups
 6. After the configuration is distributed the user must upgrade the Go client version to 83 or above. Apps@Work tab is now visible in the Go app client.



The configuration cannot be pushed for devices that are registered using iReg because Go client is unavailable on the device. You must install the Go app client to get the native app catalog. For more information, see "[Device Registration \(iOS, macOS, and Android\)](#)" on [page 205](#).

Remove iOS Apps@Work Webclip

For customers who have Apps@Work Webclip distributed to their devices and have already migrated to Apps@Work Native experience they can remove iOS Apps@Work webclip.

Procedure

1. Go to **Configurations**.
2. Filter the Configuration – **Apple App Catalog**.
3. Click **Edit**.
4. From **Distribution** select **Distribution to No Devices**.
5. Click **Save**.

Android Apps@Work

The Apps@work native appstore is deployed automatically with the MI Go client. No action from the administrator is required. The Apps@work tab is displayed on the Mi Go client task bar. End user can go to this tab to view and install their company approved apps. For more information, see ["Admin - Android Enterprise" on page 1295](#).

macOS Apps@Work

macOS Apps@work is integrated into the macOS Mobile@Work client. Once device has registered into Ivanti Neurons for MDM the client will switch and display as Apps@Work. For newly created tenants the Apple App Catalog Webclip configuration will not be pushed to macOS devices. If required the administrator can distribute the Apps@work Webclip configuration to macOS devices. For more information, see ["Configuring macOS devices" on page 17](#).

Distributing macOS apps

- Ivanti supports macOS apps distribution via Apple MDM protocol and using the Mobile@Work app. Administrators can choose to use one or both of the following approaches:
 - Apple's MDM protocol - Administrators can upload only specific PKG formats (distribution format) as in-house apps and can also distribute apps from Mac App Store (Apple's Apps and Books licensing support is included). However, this approach does not allow administrators to distribute DMG and other PKG formats.
 - Mobile@Work for macOS app - As a way to distribute apps to users, administrators can use MobileIron Packager (MIP) app to convert any PKG, DMG or .app files to a MIP file. Upload the MIP file into Ivanti Neurons for MDM as an in-house app
- You can download the utility from the [software downloads site](#).
- Administrators can use Mobile@Work to distribute in-house apps that are in the DMG, PKG or .app format. For apps that are only available in the Mac App Store, administrators can continue to use Apple's native MDM capabilities, which includes Apple Apps and Book licenses capabilities. For more information, see ["Configuring macOS devices" on page 17](#).

Windows Apps@Work

Apps@Work is a stand alone native app that can be downloaded from the Microsoft Store or can be push directly from Ivanti Neurons for MDM. It enables use of Windows public and in-house apps on Windows

10+ devices in Ivanti Neurons for MDM. Apps@Work is installed silently on supported Windows 10+ devices.

For more information, see ["App Configuration" on page 333](#).

Using Windows Apps@Work


Apps@Work enables use of Windows public and in-house apps on Windows 10 devices in Ivanti Neurons for MDM. Apps@Work is installed silently on supported Windows 10 devices.

Apps@Work Certificate Authentication

To use Certificate Authentication with Windows Apps@Work:


1. Go to **Admin > Windows > Apps@Work Certificate Authentication**.
2. Toggle the setting to **ON**.

 Toggle the setting to **OFF** enforces the use of username and password.

 SAML is not supported for Apps@Work for Windows.

To configure an app for Apps@Work:

1. Select a Windows app.
2. Click the **App Configuration** tab.
3. Click **Install on Device**.
Windows In-house app configuration can be set to the silent install flag or install using Apps@Work. Public apps cannot be set to silent install.
4. Optionally, choose to display or hide apps in Apps@work catalog.
This option applies to in-house apps only.
5. Click the **Promotion** tab.

 Apps@Work currently does not support the banner promotion so the available options are **Featured** and **Not Featured**.
Only the **Promotion** option is displayed for public apps.

iOS Apps@Work AppStore Features

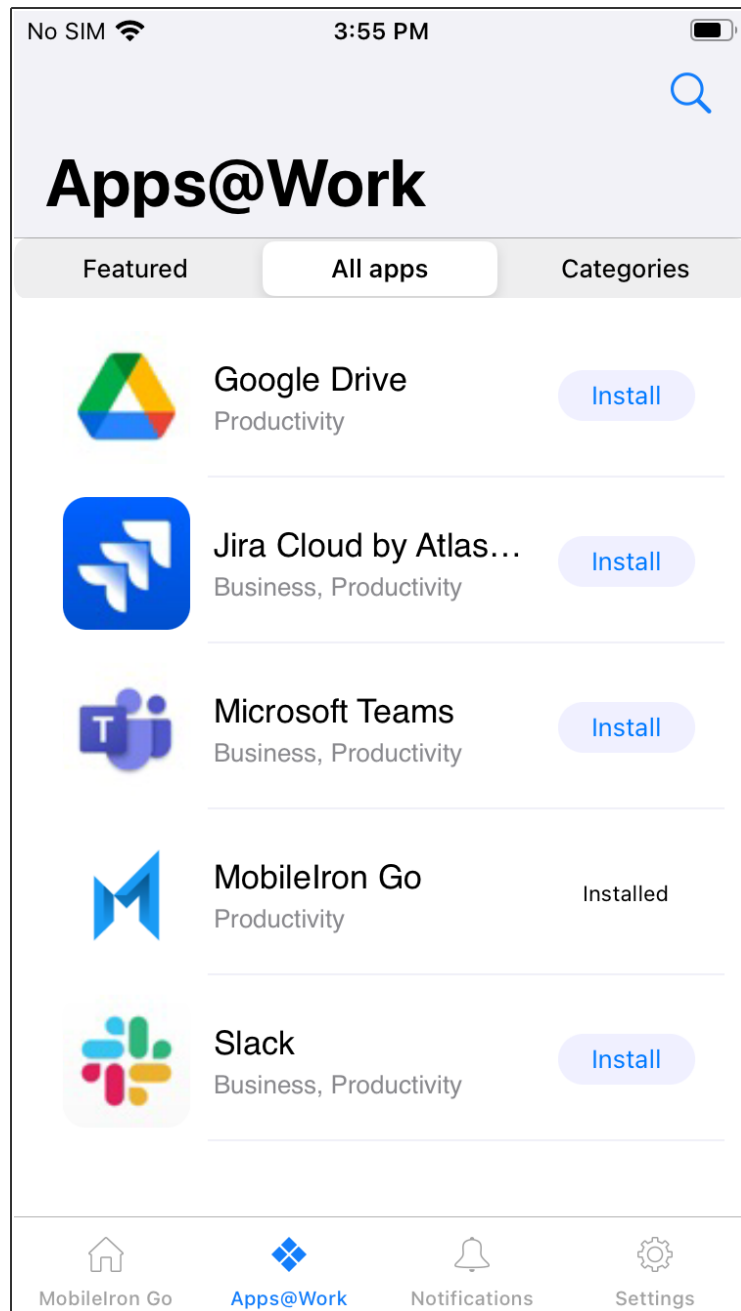
The Apps@Work tab has the following features:

- [" Access Apps@Work tab from the Go application" below](#)
- ["Search" on page 319](#)
- [" Installing an app - Button States" on page 321](#)
- ["Featured Applications and Banner" on page 324](#)
- ["Application Update Notification" on page 327](#)
- ["Settings-My Devices" on page 327](#)

Access Apps@Work tab from the Go application

Procedure

1. Log in to Go app from your iOS device.
2. Tap the **Apps@Work** icon. Two default tabs are available-All Apps and Categories.



3. Tap the **All Apps** tab. The All Apps tab lists all the apps in an alphabetical order.

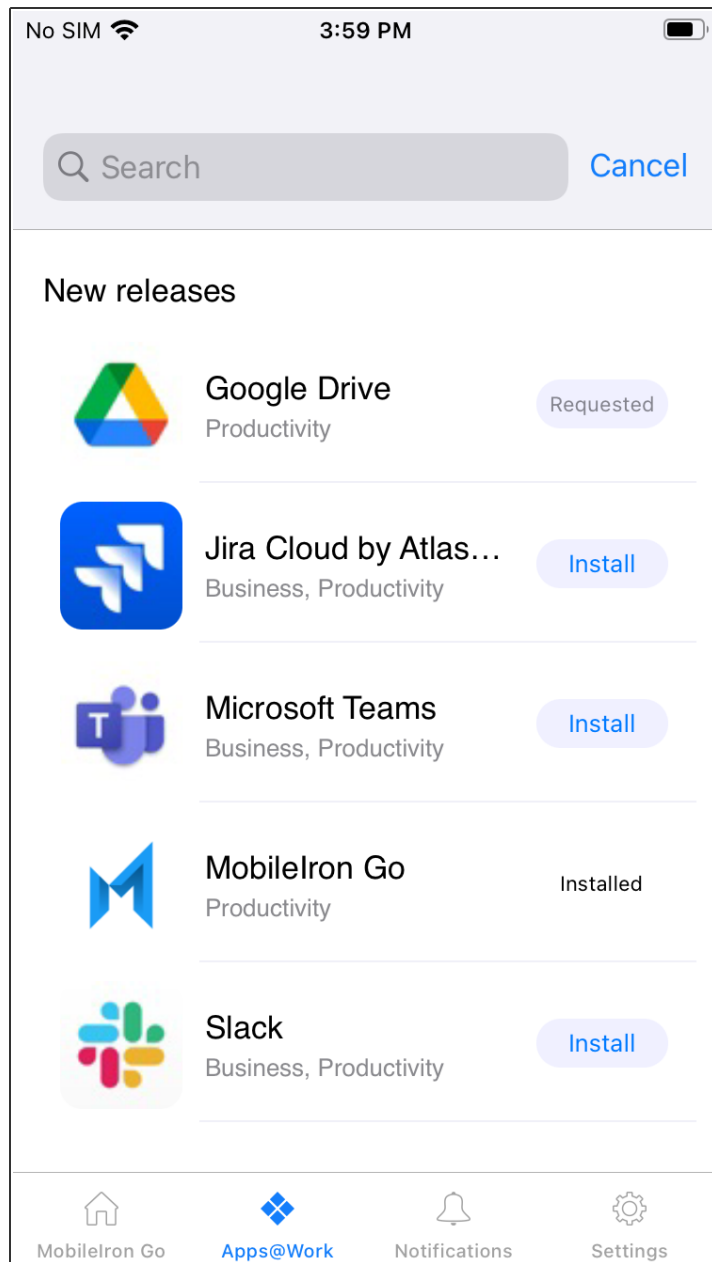
-
4. Tap the **Categories** tab. The Categories tab displays only the categories that have any applications in it as follows:
 - Each category displays the number of applications present in it.
 - The MyApps row under the Categories tab is a list item that contains all the installed applications. The MyApps row will always be the first category and the rest of the categories are listed alphabetically.
 - When no applications are installed the MyApps list displays None.
 - When you click on a category, all the applications that are specific to the category are listed with the Install option. Click **Install** to install each application individually or you can click **Install All** to install all the applications in the category. You will be prompted to permit the installation for each application.

Search

Procedure

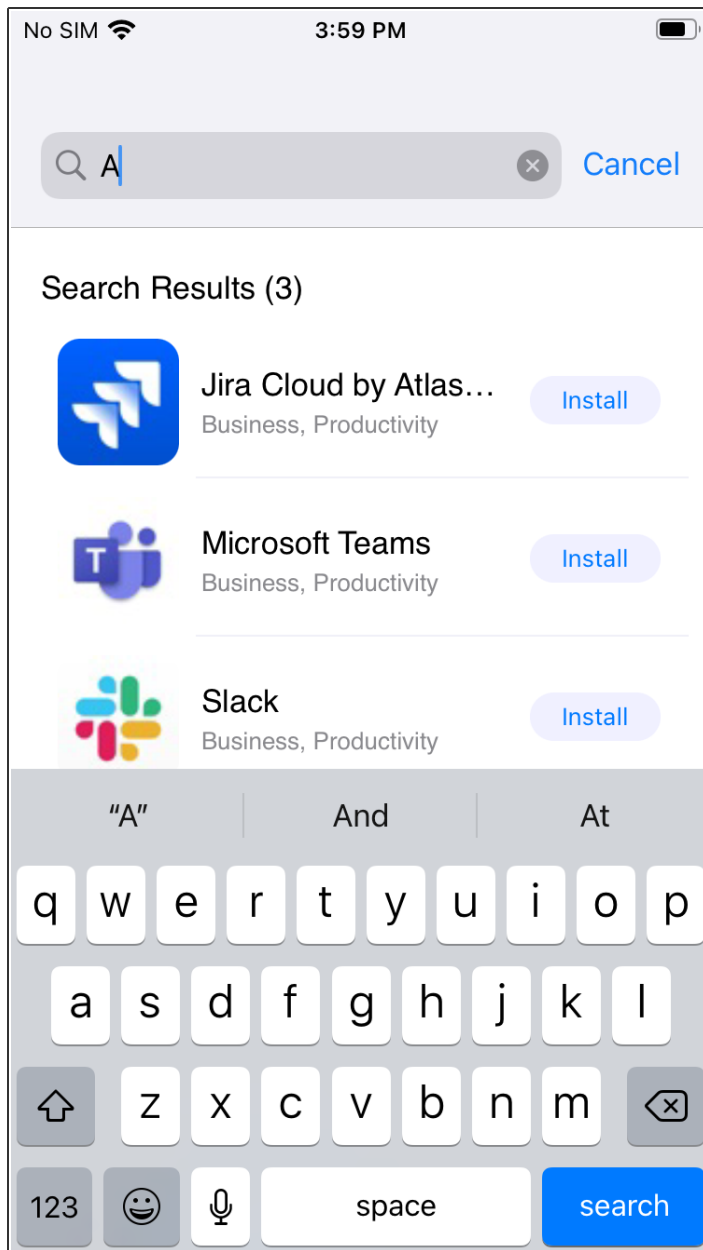
1. Log in to Go app from your iOS device.
2. Tap the **Apps@Work** icon.
3. Tap the search (lens) icon to search for the following:

- **New Releases**-displays a list of newly released apps appears when no text is typed in the search bar



- Type any text and the search field will dynamically predict and display the matching applications.
- The search result count is displayed as a sub-heading

- You can also tap the **Install** button to install an application without navigating to the details page.



Installing an app - Button States

Since the app installation requires the server to process the request and push the application to the device, the install button will not display the progress in real-time. The install button changes states from Install > Requested > Installed.

Procedure

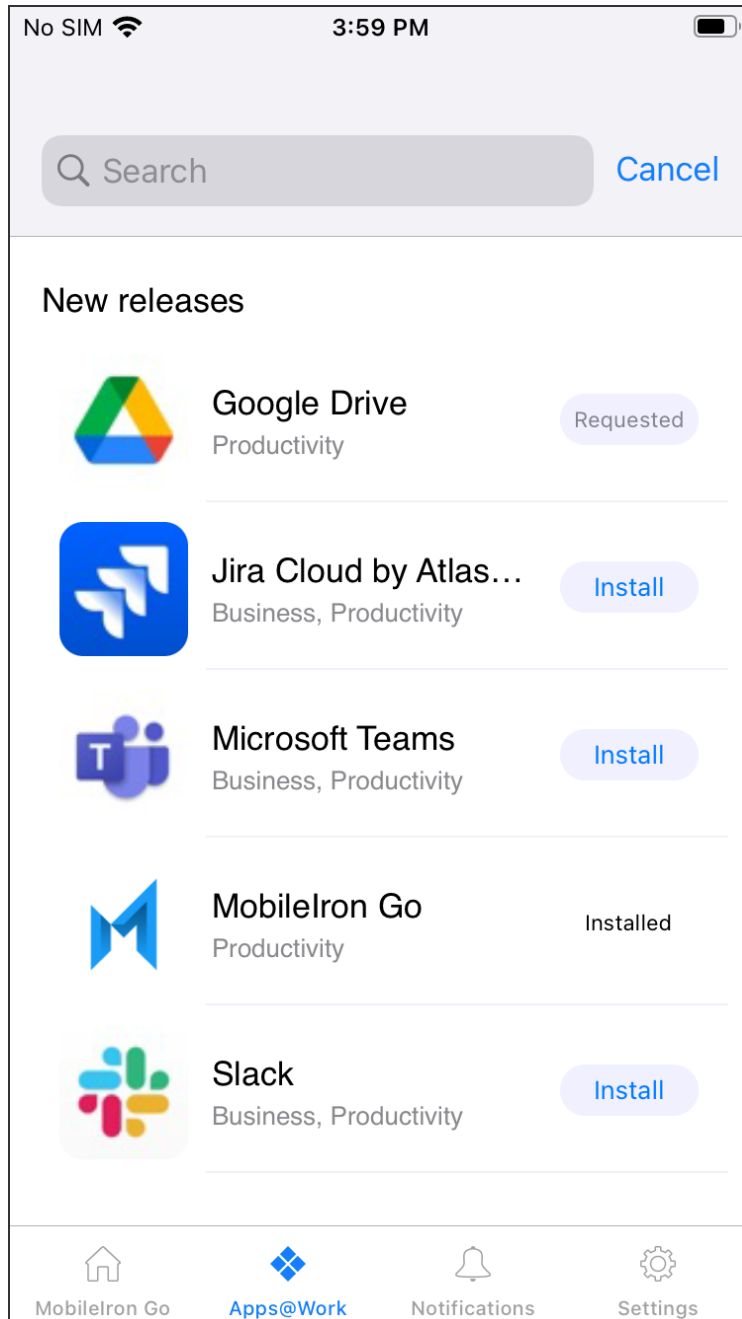
1. Log in to Go app from your iOS device.
2. Tap the **Apps@Work** icon.

3. Tap **Install** and the status notifications appear as follows:

- An alert message appears, for the first time, indicating that an installation is requested.
- Tap the Requested button. An alert message appears.

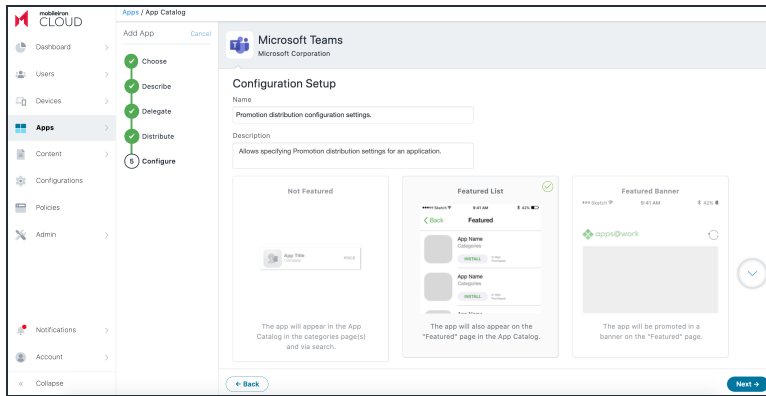


The Installed status is not a button.



Featured Applications and Banner

The Featured tab is visible based on the configuration pushed by the administrator. The Featured tab is the default landing page when no updates are available.

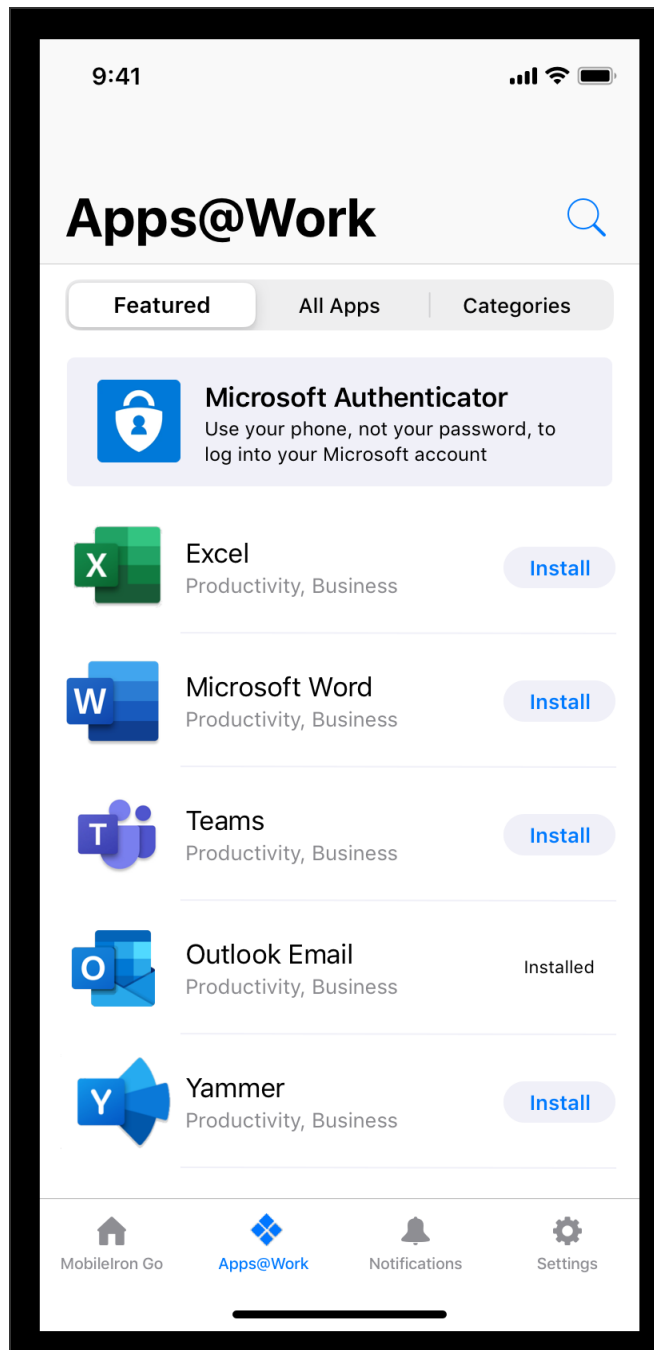


Procedure

1. Log in to Go app from your iOS device.
2. Tap the **Apps@Work** icon.

3. Tap the **Featured** tab.

- The Featured App Banner displays one application in the banner.
- The Featured App contains a list of all the featured applications.

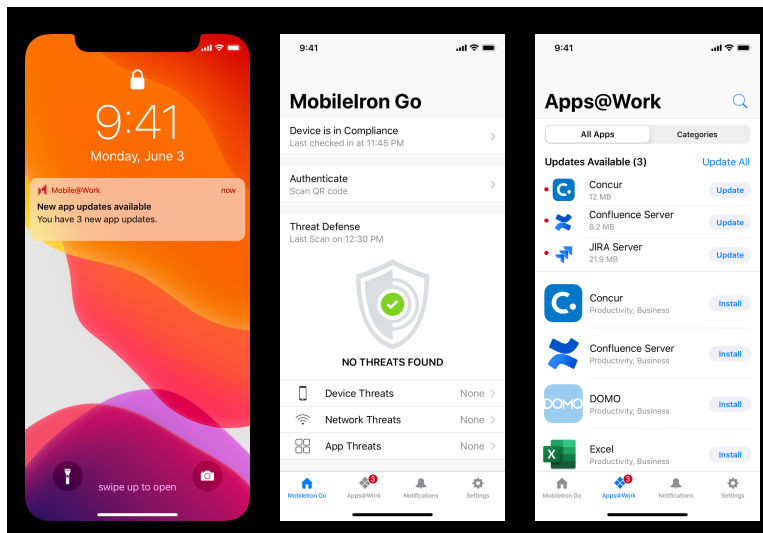


Application Update Notification

The end user receives a notification on the device when any application updates are available. The notification contains the number of applications that have updates available. When user clicks on the notification, Apps@Work opens.

Procedure

1. Log in to Go app from your iOS device. The Apps@Work icon displays the count of applications that have pending updates.
2. Tap the application update notification, you will be redirected to the All Apps tab in Apps@Work. The following indications are displayed:
 - The Updates Available sub-section under the All Apps tab displays the count of the applications that are available for update.
 - A red dot icon is displayed for every application that requires an update.



Settings-My Devices

Procedure

-
1. Log in to Go app from your iOS device.
 2. Tap the **Settings** icon.
 - The My Devices tab is available under Settings.
 - My Devices is now listed as a line item under Authenticate.

Viewing App Details

You can drill down from the App Catalog to app details about any of the apps in the catalog. In the app details page, the details on the apps such as Display Version (for example, 1.5.0), Bundle Version (for example, 1.5.0.42) and Minimum OS Version required (for example, 5.0 for Android) are displayed.

Apps that do not meet the version specified in the Minimum OS Version Required field are not displayed in Apps@Work catalog. Therefore, such apps are not available to be distributed to the devices. The Minimum OS Version Required field is also displayed as part of the [Audit Trails](#) for the apps.

Procedure

1. Click **Apps**.
2. Click **App Catalog**.
3. Select the app.

The App Details window appears.



For iOS in-house apps, you can check the **Provisioning Profile Expiration Date** on the app details page.



App Information shows **Allow app installation on M1 devices upon distribution** as an option for all iOS and iPadOS VPP apps. The administrator must enable the option **Allow app installation on M1 devices upon distribution** for only iOS or iPad VPP applications that can be installed on M1 macOS device. Only after enabling this option, the administrator can see M1 macOS devices during application installation. The Managed app configuration is supported for iOS VPP applications on M1 Mac devices.



For iOS AppStore apps, **Sync new version** checks and synchronizes app updates from the iTunes Store. The updated app version displays within 12 to 24 hours based on the app sync schedule.



A toggle button for **Prerequisite Apps** is added in Device details. Administrators can select this option and add apps as prerequisites of a main app.

Once an app is distributed to different devices, the app distribution status can be viewed under the **Devices Summary** tab. The Device Summary tab also has information about the number of eligible devices, number of devices on which the app got installed, number of devices on which the app installation is

pending, and number of devices on which the app installation failed. The device count in these boxes is based on devices that have Required App Installation, so admins can track the initial deployment on mandatory apps.

For general application count (including user installed applications), please use the App Inventory search.



Apps excluded from the device have Pending distribution state.

The following table lists the reasons for app installation failure on iOS / OSX apps:

Reason	Description
AppAlreadyInstalled	"App Already Installed."
AppStoreDisabled	"The app store is disabled."
CouldNotVerifyAppID	"Could not verify the App ID."
Failed	"The app installation has failed with unknown error."
ManagedButUninstalled	"The app is managed, but has been removed by the user. When the app is installed again (even by the user), it will be managed once again."
ManagementRejected	"The user declined the conversion of an unmanaged app to a managed app."
NotAnApp	"The InstallApplication command is rejected due to an invalid application identifier which resolves to an asset other than an app."
NotSupported	"The app is not supported."
Other	"Reason for newly added errors."
PurchaseMethodNotSupported	"For iOS 7 and later, the app can't be installed due to an invalid purchase method (applicable only to VPP apps)."
UserInstalledApp	"The user has installed the app before the managed app installation could take place."
UserRejected	"The user rejected the offer to install the app."
UpdateRejected	"The user rejected the offer to update the app."

The following table lists the reasons for app installation failure on Android apps:

Reason	Description
USER_INSTALLED	"Already installed on device (outside of MDM)."
UNSUPPORTED	"Not supported"
USER_REJECTED_INSTALL	"User rejected the install of the application."
ERROR_INSTALL	"Error detected when trying to install; failed."
UNRECOGNIZED	"Item is not found or is no longer tracked (for example, error / uninstalled from device and removed from tracking)."
UNSUPPORTED_INSTALL	"Updated for 3.0 Android client/22.0.0 server: specific status to track install vs uninstall is necessary."
HIDDEN	"During quarantine, the HIDDEN/UNINSTALLED status will be sent. Unquarantine should revert it back to installed."
OTHER	"Reason for newly added errors."



For Windows devices, if the app is set to install silently in the App Configurations, then the Devices Summary displays the number of eligible, installed, pending, or failed devices for the app.

Viewing app inventory information from app details page

To view app inventory information, click the **View App Inventory (all versions)** to view in **Devices > App Inventory** a filtered list by bundle ID of that app.

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neurons **MDM**
Enterprise Mobile Device Cloud

- Dashboard >
- Users >
- Devices >
- Apps >**
- Content >
- Configurations >
- Policies >
- Admin >
- Notifications >
- Account >
- << Collapse

Apps / App Catalog / Details

Apps@Work

Ivanti, Inc. | Version 10.0.0.409 (ARM, ARM_X64, X86) | Delegation Status: App is not delegated

View App Inventory (all versions)

[Details](#) |
 [Distribution](#) |
 [App Configurations](#) |
 [Reviews](#) |
 [Attributes](#) |
 [Devices Summary](#)

Edit

App Information

<p>Package ID: Ivanti.Apps@Work_1zzf3a4dv2htc</p> <p>Size: 13.12 MB</p> <p>Source: In-House</p> <p>Cost: FREE</p> <p>Date Created: 15 hours ago by System</p>	<p>Category: Productivity</p> <p>Display Version: 10.0.0.409</p> <p>Bundle Version: 10.0.0.409 ?</p> <p>Avg. Rating: *****</p> <p>Compatibility: Compatible with Windows</p> <p>Supported Architectures: ARM, ARM_X64, X86</p>
--	---

Prerequisite Apps

APP NAME	BUNDLE ID / PACKAGE ID	VERSION	SOURCE
There is no information to display.			

App Dependencies

DEPENDENCY NAME	MINIMUM VERSION	ARCHITECTURE	FILE NAME	SIZE	STATUS	IS ASSOCIATED
Microsoft.VCLibs.140.00	14.0.22929.0	x86	Microsoft.VCLibs.140.00	0.69 MB	✔	true
Microsoft.VCLibs.140.00	14.0.22929.0	x64	Microsoft.VCLibs.140.00	0.76 MB	✔	true

App Configuration

This section contains the following topics:

- ["Licensing for app features" below](#)
- ["Configuration steps common to multiple apps" below](#)

App configuration enables you to customize the installation, promotion, and distribution of each app you deploy to your users' devices. The apps can be your own in-house apps, apps from a public store, or Ivanti Neurons for MDM apps. You have the flexibility to deploy the apps to many different users and groups with unique names and configurations specifically tailored to each recipient. The number of in-house application versions is limited to 100. If that number is exceeded, the Ivanti Neurons for MDM system purges the oldest versions of the application. The status of the application upload and purge is listed and is visible from the Audit Trails page.



When you change the values for the app configuration of an app in the app catalog or in the managed app configuration profile, one or two device check-ins are necessary for the device to receive the new configuration values.

Licensing for app features



The following features require additional licensing:

- Silent app install/uninstall: Silver license
- Per-app configuration: Gold license
- AppConnect custom configuration: Gold license

Multiple application packages require good group management as future device types could not be defined by the Windows OS. In such a case the only way of installing proper version of the app is for the admin to use the correct group to the correct application.

Configuration steps common to multiple apps

Do these steps first and then proceed with configuration steps for each app you want to deploy. You can design multiple configurations of the same app and give each configuration a unique name. Each configuration can have its own distribution and promotion levels to fit your deployment strategy. The

number of in-house application versions is limited to 100. If that number is exceeded, the Ivanti Neurons for MDM system purges the oldest versions of the application. The status of the application upload and purge is listed and is visible from the Audit Trails page. You can deploy an application to a maximum of 100 Users, Users Group, Device, or Device Group at once. You can select an app to add to the App catalog. Ivanti Neurons for MDM has an asynchronous process to Send Install/Update Request command for iOS apps. When you use the Send Install/Update Request command, the Ivanti Neurons for MDM administrative portal displays a message that the:

- process will continue to run in the background
- process is complete
- status whether the process is successful or if there are any errors

Procedure

1. Go to **Apps > Apps Catalog** and click **+Add**.
2. Use the pull-down menu to select either the App Store, Google Play or your In-House app store and choose an app to add to the catalog.
Depending on your licensing agreement, you might also have apps available to add to your catalog.
3. Optionally, edit the Category of the app.
4. Optionally, add a brief description of the app in the **Description** field.
5. Click **Next**.
6. Choose a distribution level for this configuration of the app:
 - **To everyone** - The app is added to all the user compatible devices.
 - **To no one** - The app is staged for distribution at a later date.
 - **Custom Distribution** - Select any of the following options:
 - **User/User Groups** - The app is distributed to only the users or user groups you choose.
Click the **Users** tab to select the user(s).
Click the **User Groups** tab to select the user group(s).
 - **Device/Device Groups** - The app is distributed to only the devices or device groups you choose
Click the **Devices** tab to select the device(s).
Click the **Device Groups** tab to select the device group(s).

-
7. Click **Next**.

Configuring installation options

You can select the installation configuration options.

Procedure

1. Click **Install Application configuration settings** or click the + icon to add another configuration to view the **Configuration Setup** page.
2. Enter a name for the configuration in the **Name** field.
3. Optionally, enter a brief description of the installation configuration in the **Description** field.
4. Select the **Device Installation Configurations** option.
5. Select one of the following options:
 - **Require installation on device**
 - **Install only once at device registration**
6. Select the **Do not require a specific app version** option to avoid downgrading an already installed app to a lower version. This option is available only for modern apps.

-
7. Select the following options:
- **Silently install on Samsung Knox workspace and Zebra devices** (Android Only)
 - **Do not show app in end user App Catalog.**
 - **App Update Mode** (supported for AMAPI devices as well). (Android Only)
Use this option to update an app to the latest version using one of the following three modes:
 - **Default:** This mode is selected once you select the App Update Mode option. In this mode, the update happens within 24 hours from the time of app availability.
 - **Postpone for 90 days:** If you select this update mode, you can postpone the app updates for 90 days. After 90 days, the apps are updated automatically based on other settings made in Managed Google Play configuration.
 - **High Priority:** If you select this update mode, and the user's device is online, the app gets updated immediately after it is available on the Google Play Store.
 - **Set App Install Priority** - see the Configuring app priority topic for more details



On Android devices, the app updates are allowed using the Auto Update option even without selecting the Silent Install option. Administrator can control app updates on apps which are not mandatory or the apps which are self-installed by the user.

8. You may encounter additional configuration options, depending on the chosen app. These options may include the ability to add multiple Key and Value pairs. In such cases, click + **Add** to enter Key and Value pairs. For more information, see **Adding an app from a public store** in "[App Catalog](#)" on [page 286](#).
9. (macOS 11+) Select the options to install and configure the apps as managed apps:
- **Install as Managed App**
 - **Convert to as Managed App**




In macOS 12.0+, Managed App support is available on user enrolled devices.

Configuring app priority

You can define the order in which apps are received on the device when it is first registered (specifically, within the first 20 minutes after registration date and time) and required apps are being pushed to install.

You can prioritize downloading of specific apps before other apps. For example, prioritizing the download of Tunnel and Email apps before other non-critical apps. This feature is applicable for public and private apps. Prerequisite apps are pushed before dependent apps.

This feature is supported on iOS (except AppStation for iOS), Android (except Android for Enterprise), macOS (in-house PKG apps and Apple Apps and Books apps), and Windows devices.

 This feature is available for new registration devices. By default, all apps are set to Medium priority. During this process, the user can select to manually install any app in the catalog even though that app will compete for resources to install and may queue before high priority apps.

 In the case of Windows apps, the Bridge app has the highest priority than other apps.

See the previous section, "Configuring installation options" for the procedure to set the priority of an app using the **Set App Install Priority** option. You can set High, Medium, or Low priority for an app. Apps with same priority will be installed in no particular order. App priority is not used during app updates, when the user has already installed the app.

Selecting Apple Application Management Configuration settings

These settings will apply to this app only and will override any global settings selected in the **Apps > Catalog Settings**. To select **Apple App Management** settings.

Procedure

1. Click **Apple Apps settings** or click the + icon to add another configuration to view the **Configuration Setup** page.
2. Enter a name for the configuration in the **Name** field.
3. Enter a brief description of the configuration in the **Description** field.
4. Select or deselect one or more of the following options from the **Apple Management Settings**:
 - **Prevent backup to iCloud and iTunes**
 - **Remove apps on un-enrollment**
 - (iOS 14.0+) **Allow removal and offloading of this app** - You can deselect this option to prevent a user from removing and offloading a managed app.
 - (Optional) Add an **Apple Managed App Configuration**

-
5. Click **Update**.

Selecting App Promotion levels

You can set the level of promotion for the app.

Procedure

1. Click **Promotion distribution configuration settings** or click the + icon to add another configuration to view the **Promotion configuration** page.
2. Click **Edit**.
3. Enter a name for promotion distribution configuration settings in the **Name** field.
4. Optionally, enter a brief description of the configuration in the **Description** field.
5. Select the level of promotion you want the app to receive, **Not Featured**, **Featured List**, or use **Feature Banner**. If **Not Featured** is selected the app will not be listed.
6. If you select **Featured Banner** specify the following details:
 - a. **Title** - Specify the application title
 - b. **Description** - Specify the application detail
 - c. **Banner style** - Select a banner color
7. Click + **Add Description** to enter a brief description of the configuration.
8. Optionally, change the distribution of the configuration.
9. Click **Done** to save the app configuration.

Configuring AppTunnel traffic rules

Use the AppTunnel configuration to define traffic rules to allow access to services using Sentry.

For information about adding an AppTunnel configuration, see "Adding an AppTunnel configuration" in the *AppConnect Guide for Ivanti Neurons for MDM*.

Configuring Managed app

Procedure

-
1. Click the + icon to open the configuration page.
 2. Click + **Add Description** to enter a brief description of the configuration.
 3. Click + **Add** to enter a Key and Value.
 4. Choose a distribution level.
 5. Click **Next**.

Configuring a VPN for each app using Per App VPN

Procedure

1. Click the + icon to open the configuration page.
2. Enter a name for the VPN for this app in the **Name** field.
3. Click + **Add Description** to enter a brief description of the configuration.
4. Click the **Enable Per-App VPN for this app** option and select an available Per-App VPN configuration.
5. (Optional) For macOS apps, enter **Designated Requirement** string in the format, identifier "%s". For example, identifier "com.google.Chrome". Use this field to enable a multiple package macOS app to use a Per-App VPN like Tunnel.
6. Choose how to **Distribute this App Config**.
7. Click **Next**.

Using Apple Managed App Configuration

Using the Apple Managed App Configuration, specific settings can be configured for the installed managed app. An application might have some configuration parameters implemented or restricted by the developer. For applications with such restrictions your configuration options might be limited. You can configure Apple managed apps.

Procedure

1. Go to **Apps > App Catalog**.
2. Select an app.

-
3. Click the **App Configurations** tab.
 4. Click **Apple Managed App Configuration** or click the + button.
In the Apple Managed App Configuration there are some default configuration settings in place.
 5. Click **Add** to add another configuration, if needed. Optionally, click name of the configuration to edit the configuration.
 6. Under **Configuration Source** select any of the **Source Type** options
 - **AppConfig Community** - This option is available only for those apps that have an app configuration specification available in the community repository. If this option is available, it is selected by default.
 - **Use .xml spec** - Select this option to upload the schema for the app to push a particular version of app configuration. Click **Choose File** to upload the .xml file. Ensure that the .xml file contains the bundle ID and the version. An error message will be displayed if the bundle ID in the file does not match with the bundle ID of the app.
 - **None** - Select this option if you do not want to apply any schema for the app. This option is selected by default if the **AppConfig Community** option is not available.
The uploaded .xml file is displayed in the **Configuration Source** section. Click the Delete icon to delete the uploaded .xml file.

7. In the **Apple Managed App Settings**, you can set the configuration options to enter key value pairs.

- Click **Add** to add the key value pairs to the managed app configuration to retrieve the registration name identity by Go client during iReg or Apple Device Enrollment. You can select the data types (String, Integer, Boolean, Long Float, Double, Date, String Array, Integer Array, Double Array, Float Array, Long Array) for the key value pairs.



Add the following key value pairs to the managed app configuration to retrieve the registration name identity by Go client during iReg or Apple Device Enrollment:


Key	Value	Type
registration.username	`\${userEmailAddress}`	STRING
registration.token	`\${zeroTouchClientRegistrationNonce}`	STRING
registration.token.expirationSeconds	`\${zeroTouchClientRegistrationNonceExpiresAtSeconds}`	STRING
registration.url	`\${clientRegistrationUrl}`	STRING



If the end user terminates the Ivanti Go application, click **Edit** to set the application to do one of the following:

Key	Value	Type
To display default notification use the following values:		
enableAppTerminationNotification	True/False OR 1/0	Boolean OR String
To Display a custom notification use the following values:		
appTerminationNotificationMessage	Custom notification	String
enableAppTerminationNotification	True/False OR 1/0	Boolean OR String

-
- **Use .plist** - .plist files contain multiple key value pairs to be uploaded in bulk. Click **Choose File** to upload the .plist file. The validated plist data will be displayed in the **Apple Managed App Settings** table.

 plists with nested dictionaries are invalid.

8. Click **Update** to save your entries.


Configuring Network Relay

To make your app's network traffic more private and secure without connecting to VPN. For more information see, "[Network Relay Configuration](#)" on page 817.

1. Click the **Network Relay + icon** to open the configuration page.
2. Enter a name for the **Network Relay** for this app in the Name field.
3. Click + **Add Description** to enter a brief description of the configuration.
4. Click the **Enable Network Relay** for this app option and select an available **Network Relay configuration**.
5. Choose how to **Distribute** this App Config.
6. Click **Next**.

Configuring Cellular 5G Slicing

Cellular 5G network slicing support allows individual managed apps (for all iOS apps) to be assigned to a network slice which may provide specific network capabilities and characteristics to optimize the app experience. The assignment is done using the new **CellularSliceUUID** app attribute in either the MDM app installation command or declarative app configuration. The string value of the network slice to put into the key needs to be provided by the supporting carrier.

 5G network slicing will not be used if either the specific app or the entire device is configured to use a VPN.

Procedure

1. Go to **Apps > Apps Catalog > App Configurations > Cellular 5G Slicing** and click **Add**.
2. Under the **Configuration Setup** section, update the following fields:
 - Name
 - Select the **Enable 5G network Slicing** option
 - Choose the **DNN** or **App Category** (as per the network provider)
3. Choose a distribution level for this configuration of the app:
4. Click **Save**.

Distributing Application using Web Content Filter Configuration

You can use the Web Content Filter configuration to distribute an application instead of a DNS proxy server. After you create the Web Content Filter configuration, you can add the configuration to an application for distribution. For more information about Web Content Filter configuration, see "[Web Content Filter](#)" on page 679.

Procedure

1. Go to **Apps > App Catalog**.
2. Select an app.
3. Click **Next**.
4. Select the delegation option and click **Next**.
5. Select the distribution options and click **Next**.
6. Select **Web Content Filter configuration** and click the + icon.
7. Specify the **Name**.
8. Select the **Enable Web Content Filter for this app** checkbox.
9. Select the Web Content Filter from the drop-down menu.

-
10. Choose a distribution level for this configuration of the app:
 - a. **To everyone** - The app is added to all the user compatible devices.
 - b. **To no one** - The app is staged for distribution at a later date.
 - c. **Custom Distribution** - Select any of the following options:
 - **User/User Groups** - The app is distributed to only the users or user groups you choose.
Click the **Users** tab to select the user(s).
Click the **User Groups** tab to select the user group(s).
 - **Device/Device Groups** - The app is distributed to only the devices or device groups you choose.
Click the **Devices** tab to select the device(s).
Click the **Device Groups** tab to select the device group(s).
 11. Click **Next**.
 12. Click **Done**. The selected app is distributed to the specific users through the Web Content Filter configuration.

Distributing Application using DNS Proxy

You can use the DNS Proxy configuration to distribute an application. After you create the DNS Proxy configuration, you can add the configuration to an application for distribution. For more information about DNS Proxy Configuration, see "[Creating DNS Proxy Configuration](#)" on page 508.

Procedure

1. Go to **Apps > App Catalog**.
2. Select an app.
3. Click **Next**.
4. Select the delegation option and click **Next**.
5. Select the distribution options and click **Next**.
6. Select **DNS Proxy Configuration** and click the + icon.
7. Specify the **Name**.

-
8. Select the **Enable DNS Proxy for this app** checkbox.
 9. Select the DNS proxy from the drop-down menu.
 10. Choose a distribution level for this configuration of the app:
 - a. **To everyone** - The app is added to all the user compatible devices.
 - b. **To no one** - The app is staged for distribution at a later date.
 - c. **Custom Distribution** - Select any of the following options:
 - **User/User Groups** - The app is distributed to only the users or user groups you choose.
Click the **Users** tab to select the user(s).
Click the **User Groups** tab to select the user group(s).
 - **Device/Device Groups** - The app is distributed to only the devices or device groups you choose.
Click the **Devices** tab to select the device(s).
Click the **Device Groups** tab to select the device group(s).
 11. Click **Next**.
 12. Click **Done**. The selected app is distributed to the specific users through the DNS Proxy configuration.

Cloning App Configuration Settings

You can clone the Configuration Settings of a Managed app so that the same settings can be applied on other devices. You can even rename and make some changes to the cloned settings.

Android

You can clone Configuration Settings on Android devices.

Procedure

1. Go to **Apps > App Catalog**.
2. Select an app from which you want to clone the configuration settings.
3. Click **App Configurations**.

-
4. Under the **App Configurations Summary** section, you will find the list of configurations (**Managed Configurations for Android, Install on Device, Promotion, Delegated Device Permissions, and Google Play Release**) available for Android devices.
 5. Click on any of the available configurations.
 6. Under **Actions**, click **Clone** to begin the cloning process.
 7. By default, the cloned configuration name will be <Copy of the Cloned Configuration name>. However, you can modify the name by entering a name of your choice in the **Name** box.
 8. (Optional) Enter some text about the cloned setting in the **Description** box.
 9. Click **Continue**.

A confirmation window appears indicating that cloning the app configuration settings is complete. You can view the cloned version under the App Configurations Summary and within the cloned app.

iOS

You can clone Managed app Configuration Settings on iOS devices.

Procedure

1. Go to **Apps > App Catalog**.
2. Select an app from which you want to clone the configuration settings.
3. Click **App Configurations**.
4. Under the **App Configurations Summary** section, you will find the list of configurations (**Install on Device, Apple App Settings, Promotion, AppConnect Custom Configuration, App Tunnel, Apple Managed App Configuration, and Per App VPN**) available for iOS devices.
5. Click on the required configuration that you want to clone.
6. Under **Actions**, click **Clone** to begin the cloning process.
7. By default, the cloned configuration name will be <Copy of the Cloned Configuration name>. However, you can modify the name by entering a name of your choice in the **Name** box.
8. (Optional) Enter some text about the cloned setting in the **Description** box.
9. Select a configuration source from the **Source Type** list.

-
10. Under the **Apple Managed App Settings** section, enter **Key**, **Value**, and select **Type** from the list. For information about the **Key**, **Value**, and **Type**, see **Using Apple Managed App Configuration**.
 11. Click **Continue**.
A confirmation window appears indicating that cloning the app configuration settings is complete. You can view the cloned version in the **Apple Managed App Configuration** section.

Windows

You can clone App Configuration Settings on Windows devices:

Procedure

1. Go to **Apps > App Catalog**.
2. Select an app from which you want to clone the configuration settings.
3. Click **App Configurations**.
4. Under the **App Configurations Summary** section, you will find the **Install on Device** and **Promotion** configurations.
5. Click on the required configuration that you want to clone.
6. Under **Actions**, click **Clone** to begin the cloning process.
7. By default, the cloned configuration name will be <Copy of the Cloned Configuration name>. However, you can modify the name by entering a name of your choice in the **Name** box.
8. (Optional) Enter some text about the cloned setting in the **Description** box.
9. Click **Continue**.

A confirmation window appears indicating that cloning the app configuration settings is complete. You can view the cloned version under the App Configurations Summary and within the cloned app.

Choosing Windows 10 apps for your in-house catalog

Choose the apps to add to your in-house app catalog. The in-house, Microsoft Store, and Microsoft for Business apps are supported for Windows 10. Windows 10 enforces compliance directly on the device based on the apps you choose to allow or disallow.



The Windows 10 check-in interval is once every 60 minutes by default. You may want to perform a forced device check-in to get an update of the device and app status.

These actions are supported:

- Uploading new apps
- Silent installation
- Installing manually from Apps@Work
- Adding a new version of the app
- Deleting an app

These formats are supported:

- APPX
- APPXBUNDLE
- MSI wrapped Win32 - pre-bundled Win32 app
- MSIX (supported on RS5 and above Windows 10 devices)
- .EXE (using bridge)



The **Ivanti Neurons Agent** app is available on the **App Catalog** for **Windows** devices. The admin can deploy the **Ivanti Neurons Agent** app as an in-house app and this app can be distributed accordingly on the Windows devices.

Configure Windows 10 apps

Procedure

1. Click **Devices** on the main navigation bar.
2. Select a Windows 10 device that you have enrolled in Ivanti Neurons for MDM.
3. Click **Apps > App Catalog**.
4. Select an app.

-
5. Use the **Actions** pulldown menu to add the app or delete the app from your catalog. Optionally add a new version of the app.
 - Click the **Actions** pulldown menu.
 - Select **Add New Version**.
 - Go to the catalog and select a new version of the app.
 - Click **Update and Save** to view the App information screen.
 6. Use the **Version** pulldown menu to choose which version to use.
 7. Click **Edit** to begin making changes to the details.
 - Edit the **Category** if needed.
 - Enter a **Description** if needed.
 - Add screenshots if needed.
 8. Click **Save**.
 9. Click the **Distribution** tab and click **Edit** to begin making changes to the distribution level.
 10. Click **Save**.
 11. Click the **App Configurations** tab to view a summary of the current configuration.
 12. Enter a description of the app if needed.
 13. Click **Install on Device** in the App Configurations summary page. Silent installation is the default and cannot be changed.

-
14. Click **Promotion** in the left navigation pane then click **Promotion distribution configuration settings** to change the promotion level.
 - Click **Edit** to make changes to the promotion level settings.
 - Enter a name for the configuration.
 - Enter a description for the configuration.
 - Select a promotion level.
 - Click **Update** to save your changes.
 15. Click the **Reviews** tab to view information on reviews.
Export the review data to a spreadsheet if needed.

Editing Windows 10 app configuration settings

Procedure

1. Click **Policies > Configuration**.
2. Click **+Add**.
3. Select **Windows App Control** to view the **Create Windows App Control Configuration** screen.
4. Enter a **Name** and **Description** for the configuration.
5. Define the app type as:
 - Allowed (Allowlisted) - Only these apps are allowed. These apps are installed silently if not already present on the device.
 - Disallowed (Blockedlisted) - If present on the device, these apps will be blocked if launched.
6. Specify the Rule definitions for the App Type and App Identifier.
7. Click **Lookup Apps** to view the **Search Windows 10 Apps** screen.
8. Enter the name of the app to search the Windows Store.
9. Select the app from the choices displayed to add it to the App Identifier.

-
10. Optionally use the App Type pulldown menu to set a path define in the App Identifier to allow or disallow apps using the specified path or block all apps installed in that path.
App Type **Publisher/PFN Equals** applies to Windows 10+ devices and supports PFN. **EXE/Win32 Equals**.
 11. Click **Next**.
 12. Select a distribution level.
 - **All Devices**.
 - **No Devices**.
 - **Custom** - to enter the users or groups to receive the app.
 13. Click **Done**.
 14. You can edit the Rule definitions to select an App Type and specify an App Identifier.
 - Click the **Actions** pulldown menu.
 - Select **Add New Version**.
 - Select a new version of the app.
 - Click **Update and Save** to view the **App information** screen.

Configuring Reboot device after install option for Windows

You can configure a device to reboot after an app installation using the **Reboot device after install** option.

Procedure

1. Go to **Apps > App Catalog**.
2. Select any Windows-specific app from the list.
3. Go to **App Configurations > Install on device > Install Application configuration setting**.
4. Click **Edit** and set the **Reboot device after install** option to ON.

-
5. Select one of the following schedule options at which you want to reboot the device:

Setting	What To Do
Right after Installation	Select this option to reboot the device soon after you install the application.
At specific time during the day	Select this option to reboot the device at a specific time of the day after you install the application.
After few mins	Select this option to reboot the device after 15, 30, 60, or 120 minutes after you install the application.

6. Click **Update**.

The device will be rebooted at the scheduled time.



In the case of public apps and Microsoft Store for Business (MSB) apps, you need to set the **Silently install on Windows devices** setting to ON from the **App Configurations** section.

Installing apps using Apps@Work

To install an app using Apps@Work:

1. Click the **Apps@Work** app.
Your administrator email address and server URL are pre-filled in the Apps@Work login dialog.
2. Enter your password and click Sign In to display the apps page.
3. Select an app to install. You will not be able to install apps with dependencies on prerequisite apps if those prerequisite apps are not already installed on the client.
For Apps@Work for iOS devices, you can optionally click the **Install All** button to install all apps. This option is available in **New Releases**, **Featured Apps** and **Categories** screens.



Apps and Books apps will not be installed if the Apps and Books app license is not previously accepted.

4. Click **Update and Save** to view the **App information** screen.

Related topics:

- ["App Catalog" on page 286](#)

Assigning Custom Attributes to Apps

After you create custom attributes, you can assign them to one or more applications. Each attribute has a corresponding value that you can use for tasks such as creating application groups. For more information about managing attributes, see ["Attributes" on page 1064](#).

Create and assign a custom attribute for an individual application

You can assign a custom attribute to a single application.

Procedure

1. Log in to the Administrative Portal.
2. Navigate to **Apps > App Catalog**.
3. Select an application and click **Attributes**.
4. Click **+Add New** select a value from the **Attribute Name** drop-down menu.
5. Specify the attribute value in the **Value** field.
6. Click **Save**. The custom attribute is added to the application.

Assign custom attribute to multiple applications

You can assign custom attributes to one or more applications. When you select multiple applications, the custom attribute is applied to every version of the application. You can select a specific application, go to the Attributes tab and change the custom attribute details for a specific application version.

Procedure

1. Log in to the Administrative Portal.
2. Navigate to **Apps > App Catalog**.
3. Select check boxes for one or more applications.
4. Click **Actions**.

-
5. Select **Assign Custom Attributes**. The Assign Custom Attributes to Apps wizard appears.
 6. Select *one* of the following options:
 - Force assign (overwrite) all attributes even if any existing values are found.
 - Overwrite only if value is empty, and skip attributes with existing values.
 7. Select the check boxes for one or more attributes.
 8. Specify the value in the Value fields (empty values are not allowed).
 9. Click **Assign**. The custom attribute is assigned to all the versions of the selected applications.
 10. (Optional)If you want to change the custom attribute for a single application version, select the application version from the version drop-down and click Edit.



The **Custom Apps Attributes** with their values can be used for creating reports and for exporting to CSV format from the **Device Details** page.

Managed Configurations for Android


This section contains the following topics:

- ["Using Android Enterprise Managed Configurations" below](#)
- ["App Restrictions and Permissions for in-house apps" on page 358](#)
- ["Setting up Gmail with Android Enterprise" on page 359](#)

If Ivanti Neurons for MDM is Android Enterprise enabled, then the Android Enterprise configuration is available to use per app.

Using Android Enterprise Managed Configurations

1. Click **Apps**.
2. Click **App Catalog**.
3. Select an app for which to configure the Android Enterprise configuration.
4. Click **App Configurations**.
5. Click **Managed Configurations for Android**.
6. Provide a name for the configuration.
7. Optionally, provide a description.
8. Use the Managed Configurations fields to configure managed configurations behaviors:

Setting	Description
Blocks apps from sharing widgets across profiles	Enable to block apps from sharing widgets across profiles only if the app is not silently installed. Leave disabled to allow trusted apps deployed in the Android Enterprise profile to display widgets on the home screen so users can access information without having to log in.
Blocks the user from uninstalling the app	Enable to block the user from uninstalling the app after Ivanti Neurons for MDM silently installs the app.
Minimum version code	Set a minimum version code required for the app to override the default update behavior. If the version code of the app currently installed on the device is less than the specified minimum version code then the app is updated immediately to the latest version.
Auto-launch on install	<p>Select this option if you want to launch an app automatically after installation. This functionality is available only if the app is newly installed on the device and not for a version update. In the case of Work Profile and Work Profile on Company-Owned devices, Go app should be active and in the foreground.</p> <hr/> <p> Due to limitations on Android 10+, only one app will auto-launch if the user pushes multiple apps in the case of Work Profile and Work Profile on Company-Owned devices.</p> <hr/>

Managed Configurations

The administrator can control the app configuration fields which can be sent to devices or which should not be sent. In general, the default values are set when pushing the configurations to different devices. Under the Managed Configurations section, within **Push to device** setting, select **Push all settings** or **Only push settings with values defined**.

Each Android Enterprise app configuration displays Certificate-enable button for each text field and when clicked, the text field is replaced by a drop-down list of certificates. When configured, these certificates are silently applied without any user interaction.

An existing certificate-enabled field can be changed to text-enabled by clicking the same button next to the field. A text-enabled field changed to certificate-enabled field can be changed back to text-enabled field by clicking on the same button. (Default drop-down fields cannot be changed back to text-enabled fields).



If there are no ID certificates configured in the tenant and when switched from text to drop-down using the Certificate-enable button, only 'None' option is shown in the drop-down list.

9. Click **Manage Permissions** to select and configure runtime permissions for applications targeting API 23 or higher and Android 6.0+.
Only the dangerous permissions that are applicable to the specific application are listed for selection. The complete list of dangerous permissions (such as read your contacts, find accounts on the device, write call log, and so on) are listed at <https://developer.android.com/guide/topics/permissions/requesting.html#perm-groups>.

- The permissions are applied only when the application requests permissions.
- The permissions are not applied if the users have previously accepted or denied permissions.

The rights you can assign to each permission include:

- Auto grant
- Auto deny. Use this setting with caution.
- Default/Global

10. Configure the distribution options, selecting from **Everyone with App**, **No One**, or **Custom**.
11. Click **Save**.

App Restrictions and Permissions for in-house apps

The administrator can set some app restrictions and restrict or grant permissions for In-house apps. This functionality was available only for Public apps. But this functionality has been extended to the In-house apps now.



The administrator must re-upload the In-house apps to have the **App Restrictions** and **Permissions** features available on their apps. It is recommended to delete the existing app before uploading a new version.

Procedure

1. Go to **Apps > App Catalog**.
2. Select an **In-house** app from the list.
3. Click **App Configurations**.
4. Click **Manged Configurations for Android**.
5. Click **Add**.

The **App Restrictions** section appears on the screen.

6. Enter the required values for the available restrictions.
7. Select **Manage Permissions**.

The **Select Permissions** window appears on the screen.

8. Select the required permissions from the list and then click **Select**.
9. Under the **Runtime Permissions** section, set the values for the selected permissions.
10. Under the **Distribute this App Config** section, choose one of the following **App Distribution** options:
 - **Everyone with App**
 - **No One**
 - **Custom**

-
11. Click **Save**.

The selected restrictions and permissions will be applied on the In-house apps.


Setting up Gmail with Android Enterprise

You can deploy Gmail to Android Enterprise devices if you have set up Ivanti Neurons for MDM for Android Enterprise. To setup Gmail with Android Enterprise

1. Go to **Apps > App Catalog**.
2. Select Gmail app for which to configure the Android Enterprise configuration. The Configuration Setup section is displayed.
3. Provide a name for the configuration.
4. Optionally, provide a description.
5. Use the **Managed Configurations** fields to configure managed configurations behaviors:



The **Expand all** and **Collapse all** options are available for nested or hierarchical restrictions only.

Setting	Description
Push to device	<p>Push all settings - Select this option to enable all toggles, including those with no values</p> <p>Only push settings with values defined - Select this option to enable all toggles with defined values and disable the toggles for settings without values</p> <hr/> <p> In many cases, the default settings are already available. However, the admin can select the required app config settings or edit the variables that must be sent to the devices.</p> <hr/>
Email address	Enter substitution variables to define the email address. Typically, you enter \$emailaddress\$. UEMs can use this field to pull user credentials from Active Directory.
Hostname or host	Enter the host name for the Active Sync server, such as hostname.company.com:443/path.
Username	Use the variable for the user's Active Directory username that can be specified as a direct username (janedoe) or templated value (\$username\$).
Authentication types	Select the list of strings containing the permitted authentications types.
SSL required	When selected, enables and requires SSL on port numbers used with hostname.
Trust All certificates	Select only if you want the app to automatically accept untrusted certificates. Use this option only for debugging or development when working in a test environment.
Login certificate alias	Enter the alias for the login certificate used for authenticating to the ActiveSync servers.

Setting	Description
Allow unmanaged accounts	Select this option to allow users to add or remove any Exchange account other than the account specified in this managed configuration.
Default email signature	Enter the string comprising the default email signature to be appended to the bottom of all outbound email message text.
Default sync window	Enter the value from 0-5 that represents the time window for syncing with EAS (Exchange Active Sync).

6. Click **Next**.
7. Configure the distribution options, selecting from **Everyone with App, No One**, or **Custom**.
8. Click **Save**.

Managing Google Play Apps

You can define which binary from the Google Play app that should be deployed to specific groups or individuals. This deployment is applicable to Android enterprise deployments. The app developer must also allowlist your organization to be able to deploy alpha or beta channel apps.

1. Click **Apps**.
2. In the **App Catalog** select an app for which to configure the Google Play release configuration.
3. Click **App Configurations** tab.
4. Click **Google Play Release**.



Google Release configuration is only applied for Android enterprise apps. By default, Production option is applied if Google release configuration is not selected for newly added apps.

5. Click **Add**.
6. Provide a name for the configuration.
7. Optionally, provide a description.
8. Select an option from the drop-down list to select the binary that will be available to users and devices receiving this app. The options are:
 - **Production**
 - **Alpha**
 - **Beta**



Production option is applied by default for apps which are already pushed to the device.

9. Configure the distribution options, selecting from **Everyone with App, No One**, or **Custom**.
Custom distributes the app within the user group along with device filter.
10. Click **Save**.

Prioritizing multiple release configuration

When multiple Google Release configurations are added, you can prioritize the order in which the Google Release configuration should be applied.

1. In **App Configurations**, click **Prioritize Configs**.



This button is displayed only when multiple configurations are listed

2. From the listed configurations, drag and drop the configuration that should be applied in priority to the top of the list.
3. Click **Update**.



When the top prioritized configuration is deleted, the configuration that was earlier listed below gets the top priority.

Deleting Apps from the App Catalog

You can delete public and in-house apps from the App Catalog. You cannot delete prerequisite apps. You need to edit the apps to remove the prerequisite relationships before deleting such apps. If the app is installed on devices, it will be removed the next time those devices check in. Silent app install/uninstall is supported on Samsung and Zebra devices in Device Admin mode, or all devices in Device Owner mode.

In the case of in-house apps, a confirmation window appears on the screen. You need to select the acknowledgment that you want to continue with the Delete operation and click **Delete App**. When you try to delete multiple apps and some apps cannot be deleted, a window appears on the screen which contains information about the apps that cannot be deleted and the reason for that.

The following conditions apply when you try to delete one or more apps from the App Catalog:

- If one version of the in-house app cannot be deleted, then it is not possible to delete any version.
- If one version of the in-house app is a prerequisite app, then the app cannot be deleted and none of the versions can be deleted.
- When you select all or some of the in-house apps to delete them from the App Catalog, all the versions of the selected in-house apps will be deleted.
- An in-house app delegated from a Space cannot be deleted.

Procedure

1. Go to **Apps > App Catalog**.
2. Click the link for the app.
3. Select **Actions > Delete from Catalog**.
4. Read the warning that explains what happens when you delete an app.

The warning explains that Apps and Books licenses (iOS) and app reviews (all OSes) are also deleted.

5. Select the "I understand the consequences of deleting an app" check box to proceed with the delete operation.
6. Click **Delete App**.

Upgrading In-House Apps

Use the following procedure to update an in-house app:

1. Go to **Apps > App Catalog**.
2. Select the app to be upgraded.
3. Select **Actions > Add New Version**.
4. Drag and drop the app to the **Upload App** area or click **Choose File** to select it from your file system.
5. Select one of the following options based on what you want to do with the previous version of the app:
 - **Keep the description, screenshots, distribution, app prerequisites, and app configurations the same:** replaces the previous version in the app catalog.
 - **Change the description, screenshots, distribution, app prerequisites, or app configurations :** includes both versions in the app catalog.
6. Under **What's New**, enter text that explains to users what is different in the new version.

This text will be displayed on the device when the user selects the app for installation.
7. If you chose to change descriptions, screenshots, or distribution options, complete those changes.
8. Click **Done**.

If you chose to keep older versions of the app in the catalog, only one entry will display under **Apps > App Catalog**. The pane on the far left will indicate the number of apps accounted for by the entry. If you later decide to delete the newer version, the older version will automatically replace it on installed devices.

Displaying a list of app versions

Admins are allowed to upload apps with the same version and different architectures.

ProcedureProcedure

1. Click the link for the app under **Apps > App Catalog**.

2. Click the **Version** tab.

If there are multiple versions of the app in the catalog, a drop-down displays the versions. If multiple apps with the same version number but different architectures are uploaded, the drop-down displays the supported architecture details. The supported architectures for the apps are also displayed under **App Information**.

Finding the Package Name for an Android App

For public apps available on the Google Play Store:

1. Use a web browser to locate the app in Google Play Store.
2. Select the app.
3. Examine the URL displayed in the browser.

The package name is included in the URL after id= as shown below:

`https://play.google.com/store/apps/details?id= <package name>`

For in-house apps and other apps not available on the Play Store, try downloading [Package Name Viewer](#), or a similar app on the Google Play Store.

Categories

This section contains the following topics:

- ["Adding a category" below](#)
- ["Removing a category" below](#)

Categories describe types of apps and help organize apps when users browse the app catalog. Every app must have at least one category assigned. A list of common app categories is available when you start using Ivanti Neurons for MDM. Use this page to manage app categories.

Adding a category

You can add new categories here, or when you add an app to the [app catalog](#).

1. Click **Add** (bottom left)
2. Type the category name.

Categories are not case sensitive, so MINE is the same as Mine.

3. Click **Save**.

Removing a category

- Click the X next to the category.

If you cannot perform tasks on the **App Categories** page, it might be that you do not have the required permissions. You need one of the following [role](#):

- App & Content Management

Distribution Filters

This section contains the following topics:

- ["Configuring the distribution filters" below](#)
- ["Configuring the distribution filters for delegated administrator" on page 372](#)

Use Distribution Filters to limit the apps available for installation. Distribution filters enable you to display only the apps in the app catalog that are applicable to the device.

License: Silver

These filters are available by default:

- **Android enterprise Enabled Apps** - limits app distribution to Android enterprise enabled devices only.
- **iPad Only Apps** - limits app distribution to iPad devices only.
- **iPhone Only Apps** - limits app distribution to iPhone devices only.

Configuring the distribution filters

1. Go to **Apps > Distribution Filter**.
The default app filters and any created app filters are listed here.
2. Click **+Add** to access the **Create Distribution Filter** dialog.
3. Enter a name and description in the appropriate fields.

-
4. Select rule definitions .These rules can be constructed using the applicable operators, including the "contains", "is less than", "is greater than", "is in range", "is equal to", and "is not equal to" operators. The rules can be nested together using the ANY (OR) or ALL (AND) options. App distribution filters are as follows:
- Access Blocked
 - APNS Capable
 - Android managed Device with Work Profile
 - Android Work Enabled
 - Android Work Managed Devices (Device Owner) Enabled
 - Android Work Profile on Company Owned Device Enabled
 - Client Last Check-in
 - Client Registered
 - Compliance
 - Compliance Action Blocked
 - Current Country Name
 - Current MCC
 - Current MNC
 - Custom Device Attribute
 - Custom LDAP Attribute
 - Custom User Attribute
 - Custom IDP Attribute
 - Device Type
 - Home Country Name
 - Home MCC
 - Home MNC
 - IMEI
 - IMEI2 (only on Android devices with a dual SIM port and applicable for Android 8.0 or higher devices)
 - Kiosk Mode
 - Manufacturer
 - OS Version
 - Ownership
 - Phone#
 - Roaming
 - Secure Apps Status
 - Supervised
 - Sentry Blocked
 - User Enrollment Enrolled
 - Automated Device Enrollment Enrolled

-
5. Click **Create Distribution Filter**.
 6. If needed, select a custom filter to update.
 - a. Click **Edit** to display the **Update Distribution Filter** page.
 - b. Enter a name and description in the appropriate fields.
 - c. Use the pull-down menus to define rules for the filter.
 - d. Click **Update Distribution Filter**.
 7. Select an app.
 8. On the App Detail page and select the **Distribution** tab.
 9. Click **Edit**.
 10. Choose an App Distribution option :
 - **Everyone**
 - **No one**
 - **Custom**



The Distribution Filter section is visible only if **Everyone** or the **Custom** distribution option is selected.

11. Choose a distribution filter option:
 - a. Enter a filter name in the **Search the existing distribution filters...** field to locate a filter that has already been created.
 - b. Click **+Add Distribution filter** to add a new filter.



Distribution filters can be created or assigned to an app before it's added to the catalog. Changes made to the Distribution Filters will impact the distribution of apps which are using that filter (in all Spaces).



When the filter is set and if the **Allow app installation on M1 Devices upon distribution** is enabled the result populates macOS M1 devices. iOS VPP app will be available for all mac devices if **Allow app installation on M1 Devices upon distribution** is enabled and the Distribution Filter is either **Everyone** or **Custom**. Distribution filters of macOS related attributes are not supported for iOS apps.

Configuring the distribution filters for delegated administrator

Delegated Administrator can manage and edit created filters that were added to individual apps during the distribution process in delegated Space. However, the Delegated Administrator cannot use distribution filters created in Default Space in any other Space, but can use them for delegated apps.

Delegated Administrator can create, manage, and edit distribution filters in specific Space they have access to. The distribution filter is available only in the Space it was created in. App distribution filters cannot be delegated.



When a Delegated Administrator with App and System Management role adds an app using distribution filter in delegated Space can see the device details for devices in his Space and for the devices in other Spaces.

User with System management or System read only role will not be able to create, update, or delete distribution filters in any Space.

Delegated Administrator with App and Content manager role might not have access to the distribution filter. Due to which you cannot:

- Create apps using distribution filters. This happens when you are logged in as a Delegated Administrator and add an app.
- Delegated Administrator with only System Read-Only role or higher can add apps with distribution filter. A Delegated Administrator without System management role can add apps without distribution filter.

The Delegated Administrator can filter Delegation Status in App catalog by selecting the following options:

- Delegated
- Not-Delegated

Exclude or Distribute apps

Exclude or distribute managed apps from a device without changing the app distribution configuration for in-house and public apps on iOS, macOS, and Windows devices. For all managed apps, these options are present in the **Actions** column of the **Available Apps** section for all devices.

Permissions

To exclude or distribute an application to or from a device, you need to have the following authorizations:

-
- Access device in space (partition)
 - Access the available apps for the device.

Exclude

The exclude option for a selected app uninstalls and removes the associated data from the device. Follow the workflow to exclude a prerequisite app. A pop-up confirmation indicates that you are excluding a prerequisite app, resulting in the exclusion of the main app from the device.

If you exclude in-house apps with multiple versions, it then excludes all the undistributed app versions from the device. If you exclude an app from the device, it deletes from Apps@Work and Ivanti Go. If you exclude and delete an app from the App Catalog and add again, the app will no longer remain excluded for the device. If you exclude a managed app from the device, it should be visible in the **Devices > Devices > Available Apps** list for the administrator to distribute the app after excluding it.

Distribute

When the administrator triggers the **Send install** command from the app, the app will not install until the administrator decides to distribute it from the device's **Available Apps**. A new exclusion message appears for the devices that don't get the app. When the administrator distributes an available application, the next sync installs the distributed application on the device.

Reviews

This section contains the following topics:

- ["Viewing ratings and reviews" below](#)
- ["Disabling ratings and reviews" below](#)
- ["Deleting a review" on the next page](#)
- ["Exporting reviews to a CSV file" on the next page](#)

Reviews are the comments and ratings (stars) your users provide about apps in the app catalog. Reviews provide valuable information to you and to users who are considering installing an app. Use the **Reviews** page to view or delete ratings and reviews. You might delete a review or rating if it is old or inappropriate.



- Only device users can create and edit app ratings and reviews.
 - Device users can edit, but not delete, their own ratings and reviews.
 - Only administrators can delete app reviews.
 - App ratings cannot be deleted. Ratings (stars) given to apps remain on the **Apps > App Catalog** page, even if you later disable the ratings and reviews feature for your users.
-

Viewing ratings and reviews

- Go to **Apps > Reviews** to read full user review comments and ratings (stars) for the apps you have distributed.
- Go to **Apps > App Catalog** and see the **Avg. Rating** column for the total number of reviews and the average rating.
- Go to **Apps > Apps Catalog**, click the **App Name**, and see the **Reviews** tab for ratings and reviews for a specific app.

Disabling ratings and reviews

1. Go to **Apps > Catalog Settings**.
2. Uncheck **Enable Ratings and Reviews in the end user app catalog**.

-
3. Click **Save**.

Deleting a review

1. Go to **Apps > Reviews**.
2. Select the review.
3. Click the **Actions** button at the top right of the page.
4. Select **Delete**.
5. Click **Yes** in the **Delete Review** confirmation dialog.

If you cannot perform tasks on the **Reviews** page, it might be that you do not have the required permissions. You need one of the following [role](#):

- Apps & Content Management

Exporting reviews to a CSV file

You can export the app reviews using the **Export to CSV** option from the **Reviews** page.

Procedure

1. Go to **Apps > Reviews**.
2. Click the **Export to CSV** option to export the review list and related details to a CSV file.
3. A pop-up message appears with **Continue** and **Cancel** buttons stating that the export process has started, and a report will be available shortly.
4. Click **Continue** and wait for the request to complete before you submit another request.
5. A message appears stating that the **Apps Reviews - CSV report is finished** with **Download** and **Delete** buttons.
6. Click **Download** to download the report.
7. (Optional) Click **Delete** to delete the report.

Apple Apps and Books

This section contains the following topics:

- "License distribution of apps across multiple Apple Apps and Books accounts in a space" on the next page
- "Device-based and user-based license distribution" on the next page
- "Using device-based license option" on page 378
- "Using user-based license option" on page 378
- "Adding a Apps and Books app to the catalog" on page 379
- "Adding Apps and Books accounts" on page 379
- "Updating a Apps and Books secure token" on page 380
- "Updating the priority of a Apps and Books account" on page 381
- "Deleting a Apps and Books secure token" on page 381
- "Distributing licenses for a Apps and Books app in the catalog" on page 382
- "Viewing app licenses per user" on page 382
- "Apps and Books license usage notifications" on page 384
- "Viewing Apps and Books license usage" on page 385
- "Revoking Apps and Books license for an app" on page 385
- "Apps and Books behavior for macOS and iOS devices" on page 387
- "Apps and Books license entitlement when a device moves spaces" on page 388

License: Silver

The **Apple Apps and Books** screen is available only if you have set up Apple Apps and Books in your [app catalog settings](#). This screen shows the app licenses that have been purchased for Apple devices via the Apple Apps and Books and how many have been used. Use this screen to:

-
- select the Apps and Books apps that will be included in your catalog
 - distribute licenses for Apps and Books apps

For more information about distributing apps with Apps and Books, see the Ivanti Community article, [Ivanti Neurons for MDM: How to Distribute Apps with VPP](#).



Apple Books may not be available in all countries or regions. In order to distribute licenses for apps via Apple's Apps and Books you must enter the sToken provided by Apple.

License distribution of apps across multiple Apple Apps and Books accounts in a space

- If the same app exists in multiple Apps and Books accounts, then the license will be distributed from the account in the order of priority of the accounts.
- If the same app exists in multiple Apps and Books accounts, and if the app license in the Apps and Books account with higher priority is exhausted, then the app would be distributed a license from the next prioritized account only if the user or the device is present in the license distribution list of the next prioritized account.
- A license will not be revoked and re-assigned on changing the priority of the Apps and Books accounts. The app would be distributed a license from the first account. If the licenses are exhausted in the first account, the app would be distributed a license from the next prioritized account, and so on.
- A user has an option to revoke all licenses of an app from the App Catalog page. This action would revoke the license of that app from all available Apps and Books accounts.
- Reserved licenses have precedence over priority of the Apps and Books accounts.

Device-based and user-based license distribution

Whether the license for an app is Device-based or User-based depends on how you assign it. When assigning an app license to a device, it becomes a device-based license. When assigning an app license to a user, it becomes a user-based license.

A license is distributed when installing a Apps and Books app to a device, or when a token is issued for that app. If no licenses are available for the app, the user has the option of installing and paying for the app themselves. If a user has already been assigned a user-based license for the requested Apps and

Books app, the app is installed using the existing user-based license, rather than the Apps and Books license.



In the case of [Shared iPads](#), Apps and Books are installed based on device-based licenses regardless of whether device-based licenses are selected or not.

Using device-based license option

With device-based licenses, the users need not enroll in Apps and Books. The required apps will install automatically. Corporate supervised devices do not need to deal with an IT owned Apple ID.

During device check-in, the device is identified by the serial number and the required app is installed if there are licenses available. If no licenses are available the app is not installed. If a license for an app is reserved, then a device based license assignment will not occur at app installation.



Application updates for Apps deployed using Device based Apps and Books licensing are controlled by the administrator.

To control how an app will be updated, in **Apps > App Catalog** navigate to the **App Configurations/Install On Device** tab. You will be able to select an immediate update that will occur at the next device check-in, or you can choose to have the app update automatically when new versions become available.

Important: Before assigning a device-based license to a business to business (B2B) or productivity app, confirm the app is eligible for device-based licensing with the app developer.

Using user-based license option

A user-based license remains valid for that user if they have to move from one device to another in case the device is lost or stolen or the user upgrades to a new device. With user-based licenses, the user must first enroll into Apple Apps and Books. Enrolling is a manual action that the end user must complete in the App Catalog. Required Apps and Books apps won't be installed on the device until the user enrolls in the Apps and Books.

If the app is a required Apps and Books app and the license distribution is user-based:

-
- Required app install will not occur if the user is not enrolled in the Apps and Books program.
 - Required apps may be installed if the user is enrolled in the Apps and Books program and a license is available.
 - If the user is enrolled in Apps and Books, but there are no licenses available then the app will not be installed.

Adding a Apps and Books app to the catalog

Procedure

1. Go to **Apps > App Catalog**.
2. Select an app and click **Add to Catalog**. Click **Next**.
3. Optionally, add a description of the app. Click **Next**.
4. Select a distribution option. Click **Next**.
5. Click the **App Configuration** tab.
6. Optionally, select **Install on device**. This configuration option installs the app without prompting the user on supervised iOS devices.
7. Select other configuration options if needed.

In the Apps and Books secure token info page, the following token details are displayed:

- Created date
- Location (if the token contains this information)
- Expiry date

Adding Apps and Books accounts

Ivanti Neurons for MDM allows adding multiple Apps and Books accounts by adding multiple Apps and Books secure tokens in a single space.

Perform the following steps to add a Apps and Books secure token in a space:

-
1. Go to **Apps > Apple Apps and Books**.
 2. Click **+ Add Apps and Books sToken**.
 3. Enter a name and choose a token file.
 4. Optionally, deselect the **Automatically distribute Apps and Books apps to all users** option. This option is selected by default, in which case the All Users group is used to distribute the FCFS licenses.
 5. Optionally, select the **Clear all data from previous Apps and Books License** option to remove all app licenses associated with this token.
 6. Click **Save**.

After the account is added, a list of all added Apps and Books accounts is displayed in the table.

Updating a Apps and Books secure token

Procedure

1. Go to **Apps > Apple Apps and Books**.
2. Click the Apps and Books account name.
3. In the Token tab, click **Update sToken** (.stoken file).
4. Enter the token name and choose a token file.
5. Optionally, deselect the **Automatically distribute Apps and Books apps to all users** option. This option is selected by default, in which case the All Users group is used to distribute the FCFS licenses.
6. Optionally, select the **Clear all data from previous Apps and Books License** option to remove all app licenses associated with this token.
7. Click **Update**.

From the Token tab, click **Resync Apps and Books License Usage Information** to perform a full sync of all app and license information from Apple Apps and Books service. This action is only necessary if the license allocation information in Ivanti Neurons for MDM is not accurate. This inaccuracy may occur due to inconsistencies in Apple Apps and Books APIs.

Updating the priority of a Apps and Books account

Administrators can assign a priority for each Apps and Books account in a space depending on which the licenses would be consumed. The priorities of the Apps and Books accounts are used to have a predictable license distribution system and resolve conflicts when a user or a device is eligible to receive a license from multiple Apps and Books accounts for the same app.

Procedure

1. Go to **Apps > Apple Apps and Books**.
2. Click **Edit Priority** against the required Apps and Books account name.
3. In the Edit Priority window, select a new priority.
4. Click **Save**.

Deleting a Apps and Books secure token

Removing a Apps and Books secure token is irreversible and destructive. When a token is removed:

- Apps that have reserved tokens will have their tokens removed.
- Apps that were paid for will remain in the catalog and users can pay for them on their own.
- Apps that were installed by end users via the corporate Apps and Books account will need to transition to personal accounts if the users wish to use them. Users have a 30-day grace period to do so.

Procedure

1. Go to **Apps > Apple Apps and Books**.
2. Click the Apps and Books account name.
3. In the Token tab, click **Delete**.
4. In the Apps and Books Secure Token Delete window, select the **Yes, Delete the Apps and Books Secure Token** option to confirm.
5. Click **Delete**.

Distributing licenses for a Apps and Books app in the catalog

1. Select **Apps > Apple Apps and Books** from the main menu.

A list of Apps and Books accounts is displayed. Under each account, a list of apps purchased through the Apps and Books program is displayed.

2. Select an app and click **Distribute Licenses**.
3. Choose a distribution option, **First-come, first-served**, **Reserved**, or **Disallowed** in the Apps and Books Licenses section.

Viewing app licenses per user

You can view license preference for your users by using the License Usage tab.

1. Click the **Users** tab
2. Select a user.
3. Click the **License Usage** tab.

A list of apps is displayed with their Apps and Books License type and license assignment details.

To view the license usage for each app per user:

1. Go to **Users** in the Ivanti Neurons for MDM main menu.
2. Select a user.

The **Devices** tab is displayed by default.

3. Click on the **License Usage** tab.

A list of all the apps installed on the user's device is displayed including the license status. The serial number for the device is listed in the Apps and Books License Type column for device based licenses.

- App name
- Version of the app
- Cost of the app
- Date the app was assigned

- Apps and Books license type
- Actions (License status.)

You can also view the Apps and Books license usage for each app:

1. Go to **App > App catalog** in the Ivanti Neurons for MDM main menu.
2. Select an app.
3. Click on the **Apps and Books Licenses** tab if present.
4. Click an account name. Only apps purchased through the Apps and Books program will be displayed in this tab.

A separate tab for each Apps and Books license type is displayed.

License type and log	Description
First Come First Served (FCFS) - You have the option to select which user groups will receive this type of license.	<ul style="list-style-type: none"> • User Requested Apps - Apps the user chooses to install. A User based License is the default • Required Apps - Apps that are required and are installed by Admin configuration using the Install on Device setting. These apps use Device based licenses by default.
Reserved	Reserved licenses have priority over FCFS licenses. Here you can select the users or devices to have a Reserved license for the app.
Disallowed	Enter the users who are not allowed to have a license for this app. The user can still install the app, but they must purchase it.
Activity Log	Displays the user, the type of Apps and Books license assigned to them, the date it was assigned, and the latest action taken on the license.

To view the detailed license usage for each app per device:

1. Go to **Devices** in the Ivanti Neurons for MDM main menu.
2. Select a device.
3. Click on the **Installed Apps** tab.

A list of all the managed apps installed to the selected device is displayed including the license status.

- App Name
- Version of the app
- Platforms supported
- Source of the app
- Size of the app
- Apps and Books license type
- App reported (installed) date for iOS apps

Apps and Books license usage notifications

Apps and Books notifications help you track Apps and Books license usage. The notifications thresholds are defined as:

- An information notification is issued when over 50% of the licenses have been used.
- A warning notification is issued when 70 to 80% of the licenses have been used.
- A Critical notification is issued when 90 to 100 % of the licenses have used.
- Notifications are cleared when the usage drops below 50%.

To view license information for each app:

1. Click **Apps > Apple Apps and Books**.

License Information is displayed including:

- Name of the app.
 - Cost of the license.
 - Number of licenses available.
 - Number of redeemed licenses.
2. Go to **Dashboard > Notifications** to view details of a license notification.

The Notifications page is displayed.

3. Click on the notification title to see the details. See [Dashboard](#) for the available notifications.

Apps and Books license usage notifications

Trigger	Severity	Notification Type	Component Type
50% Redeemed	Info	License Usage	Apps and Books
70% Redeemed	Warn	License Usage	Apps and Books
80% Redeemed	Warn	License Usage	Apps and Books
90% Redeemed	Alert	License Usage	Apps and Books
100% Redeemed	Alert	License Usage	Apps and Books

Viewing Apps and Books license usage

The license usage details specific to a user is displayed in the license usage table in the license column.

1. Click an app.
2. Click the **License Usage** tab.
3. Enter a user name in the search field.

Revoking Apps and Books license for an app

Apps and Books Licenses are revoked when a:

-
- Device is inactive (retired or wiped).
 - Apps and Books app is deleted.
 - Device based license is revoked when the device is retired.
 - Apps and Books token is deleted.

To revoke a Apps and Books license for an app:

1. Select the app under **Apps > App Catalog**.
2. Click the **Apple Apps and Books Licenses** tab if present.
3. Perform one of the following tasks:
 - a. Click **Revoke All Licenses** to revoke all licenses from all users or devices.
 - b. Click the **Activity Log** tab. Use the **Actions** column to revoke individual licenses on a per user or per device basis.



- For iOS devices, Apple allows a 30-day grace period for Apps and Books apps after the Apps and Books license is revoked. Therefore, the Apps and Books app remains installable.
 - For macOS devices, after the Apps and Books license is revoked, the app still remains on the device.
-

To revoke a Apps and Books license for a user:

1. Click an app.
2. Click the **License Usage** tab.
3. Click the **Revoke License** link for the user whose access to the license should be removed.



Apps and Books licenses are automatically revoked if the user is deleted or the user removes the MDM profile from the device.

Apps and Books Authentication Error Notifications

Some authentications errors might occur when using the Apple Apps and Books service. These Apps and Books Authentication errors notifications are:

Error Notification	Action
Invalid Authentication Token	Upload a valid Apps and Books sToken
Expired Token	Generate a new token online using your company's account
The sToken has been revoked	Upload a valid Apps and Books
Login required	Log into the Apps and Books service

Apps and Books behavior for macOS and iOS devices

Apps and Books for iOS

Action	Device-based License	User-based License
Remove Apps and Books app from distribution for user	App is uninstalled on user's device	App is uninstalled on user's device
Un-Delegate Apps and Books app	App is uninstalled from all devices in non-default space(s)	App is uninstalled from all devices in non-default space(s)
Deleting Apps and Books app from default or custom space	App is uninstalled from all devices	App is uninstalled from all devices

Apps and Books for macOS

Action	Device-based License	User-based License
Remove Apps and Books app from distribution for user	App does not get uninstalled on user's device	NA
Un-Delegate Apps and Books app	App does not get uninstalled from all devices in non-default space(s)	NA
Deleting Apps and Books app from default or custom space	App does not get uninstalled from all devices	NA

Apps and Books license entitlement when a device moves spaces

When a device moves to a new space, the Apps and Books license that is assigned to the device or the device owner is revoked. A new Apps and Books license is assigned depending on the availability in the new space.

The following are the Apps and Books license entitlement scenarios:

Scenario	Entitlement
A Apps and Books license is assigned to a device or a device owner in the source space and a Apps and Books license for the same app is available in the destination space.	Assign a license from the Apps and Books token in the destination space.
A Apps and Books license is assigned to a device or a device owner in the source space and no Apps and Books license for the same app is available in the destination space.	Revoke the license from the Apps and Books token in the source space.
No Apps and Books license is assigned to a device or a device owner in the source space and a Apps and Books license for any installed Apps and Books app is available in the destination space.	Assign a license from the Apps and Books token in the destination space.

If you cannot perform tasks on the **App Categories** page, it might be that you do not have the required permissions. You need one of the following [role](#):

- App & Content Management

Catalog Settings

This section contains the following topics:

- ["Changing Apple App Management settings" below](#)
- ["Setting Default App Store Region" on the next page](#)
- ["Enabling/disabling iOS app updates" on page 392](#)
- ["Enabling/disabling application ratings and reviews" on page 392](#)
- ["Uploading or updating an iOS/macOS Apps and Books sToken \(License: Gold\)" on page 393](#)
- ["Removing an iOS/macOS Apps and Books sToken from your Ivanti Neurons for MDM service" on page 393](#)

In the **Apps > Catalog Settings** page, configure the preferences you want to apply across all the applications in your App Catalog. You can do the following:

- Include app updates during device check-in
- Prevent backup to iCloud and iTunes (iOS only)
- Set default app store region (Apple and Microsoft)
- Remove iOS apps when the device is un-enrolled
- Enable Ivanti Neurons for MDM "Ratings and Reviews"
- Upload iOS and macOS Apps and Books tokens (requires Gold license)

Changing Apple App Management settings

These settings will apply to all apps unless an app management configuration has been created for individual apps.

-
1. Select or clear one or more of the following check boxes:
 - **Update apps during device checkin** (selected by default)
 - **Prevent backup to iCloud and iTunes**
 - **Remove apps on un-enrollment**
 2. Click **Save**.

Notifications

1. Click the drop-down list under **Generate system notification when new app versions are available from Apple App store and Google Play Store**, and select one of the following options:
 - **Once a week**
 - **Once a day**
2. Click the drop-down list under **Generate End-User Notifications for new app updates available in AppCatalog**, and select one of the options:
 - **Once a week**
 - **Once a day**

Setting Default App Store Region

In the App Catalog settings, set default region for Apple and Microsoft app stores.

1. In the Default App Store Region section:
 - Select **Apple App Store Region**.
 - Select **Microsoft App Store Region**.
2. Select or clear the option to use the last selected App Store region as the default region for each administrator. If this option is selected, then the app store region will be set as whichever region was last selected by each administrator and it will override the previous settings. If this is the first time an administrator is using this feature, then the default app store regions will be set to the previous settings in this procedure.
3. Click **Save**.

Enabling/disabling iOS app updates

1. Select or clear **Update apps during device checkin**.

- By default, this option is selected.
- When cleared, any device checkin (including a force checkin by the admin) does not include app updates.
- However, the user can manually update the app by clicking the Force checkin action on the device app catalog.
- New app installations and all other configurations and settings will be updated during the device checkin.

2. Click **Save**.

For a managed app, the admin can click the **Update** button on the app details page to manually update the app to the latest version from the App Store.

On a user's device, the user can click the **Force Checkin** button on the App Catalog menu to let the device checkin and let the app updates occur along with other configurations and updates.

These settings together allow end-users to choose when their apps get updated:

- Wait until connected to Wi-Fi to avoid data charges.
- Avoid being locked-out, at the wrong time, while the app updates.

Enabling/disabling application ratings and reviews

This will allow users to rate and review the applications and for other users to read those reviews.

1. Select or clear **Enable Ratings and Reviews in the end user app catalog**.
2. Click **Save**.



The format of the Apps and Books sToken has changed. Instead of a character string in previous releases, it is now a character string stored in a text file in the vptoken file format. Upload this file directly to the admin console for processing. The Apps and Books account page has been updated to display the Apps and Books organization name and expiration dates.

Uploading or updating an iOS/macOS Apps and Books sToken (License: Gold)

1. Select **Add Apps and Books sToken**.
2. Enter a name for the sToken file in the **Alias Name** field.
3. Drag and drop the sToken file to the specified area or click **Choose File** to navigate to the sToken file.
4. Click **Save**, or if you are updating an sToken file click **Update**.
5. Go to the [Apple Apps and Books](#) page to view the apps associated with this token.



If Apps and Books tokens were reserved for individual users in a previous release of Ivanti Neurons for MDM, you must verify that the tokens are still reserved for those users and reserve them again if needed.

Removing an iOS/macOS Apps and Books sToken from your Ivanti Neurons for MDM service

You can revoke an app that is no longer needed by a user, and reassign it as needed. If the app was deployed as a managed app with MDM for iOS/macOS, then you have the option of removing the app and all data immediately.

1. Select an app to remove.
2. Click **Delete**.
A warning dialog appears.
3. Optionally, you can give the user a 30-day grace period to:
 - Save their data.
 - Buy a personal copy of the app.
 - Transfer Apps they installed by this Apps and Books account to their personal accounts to continue use.

If you cannot perform tasks on the **Catalog Settings** page, it might be that you do not have the required permissions. You need the following [role](#):

-
- App & Content Management

Deploying app dependencies

When you upload an in-house application bundle, Ivanti Neurons for MDM scans the application to identify dependencies. If any dependencies are found, it lists them in the third step of the Add App Wizard. For any application dependency, administrators can select to upload a dependency file. However, some applications might not install without uploading the dependency file.

The admin has an option to set app dependency when installing a particular app. In such a case, there can be one or more apps tagged with the main app. When a user tries to install the main app, the user will be notified about the dependent apps that will be installed with the main app.



This feature is supported on iOS, Android, Windows, and macOS devices.

Note the following points about application dependencies and prerequisites:

- The administrator can set the dependent applications that are prerequisites before an application can be installed on a device. A prerequisite application can be an in-house, public, private(Android), or VPP application.
- The count of prerequisite applications are now displayed in the Prerequisite Apps column in the App Catalog page. You can mouse over the number to view the list of prerequisite applications.
- A prerequisite application is downloaded directly once the main application is triggered for installation.
- If a main application is delegated, the associated prerequisite applications are auto-delegated.
- You cannot delete a prerequisite application from the app catalog until the prerequisite relationship is removed.
- Multiple versions of an application can have different prerequisite applications.
- The Audit Trails page logs the addition, removal, and auto-delegation of prerequisite applications for iOS, Android, and macOS.
- If the administrator or end-user installs an application that has prerequisite applications, the prerequisite applications are installed before the main application is installed. If a device check-in takes place before all the prerequisite applications are installed, all the prerequisite applications are uninstalled.



Although an application needs a dependency file, Ivanti Neurons for MDM does not require that you upload any of the files to deploy an app.



For Samsung devices, the admin should add prerequisite apps to the Kiosk Mode Allowed Apps list. The prerequisite apps added to the Allowed apps list do not get added to the Blacklisted apps list.



For non-Samsung devices, if the main app is added to the Kiosk Mode Allowed Apps list, the prerequisite app should run silently in the background. You can view the prerequisite app in kiosk mode only if the admin sets this app in kiosk mode.



Windows devices - If the Bridge app is a prerequisite app that is not distributed, and the main app is a .exe that is distributed silently. When the dependency is removed, the Bridge app will be uninstalled, but the .exe fails after this step. Admin should make sure that the Bridge app is not undistributed by default.



Windows devices - When the main app is non-silently distributed and the main app has a prerequisite app with no distribution, the pre-requisite app installs first and is successful. However, in case the main app fails to install, then immediately the pre-requisite app uninstalls. Retry of failed main app happens only when the user triggers an install request.

Adding an in-house application

1. Go to **Apps > App Catalog**.
2. Click **Add**.
3. Drag the app file to the dotted box, or click **Choose File** to select it from your file system and click **Confirm**.
4. Click **Next** (lower right). Ivanti Neurons for MDM scans the app for dependency files and lists them in the **App Dependencies** table.
5. Review the app information and verify that you selected the correct app.
6. Click on the Upload icon in the **Actions** column. The **Upload Dependency** window is displayed.
7. Click **Choose file** to browse and locate a local copy of the file and click **Upload**.

-
8. Ivanti Neurons for MDM scans optional packages for the app, if any and lists them in the Optional Packages table. If listed, click on the Upload icon in the Actions column. The Upload Optional package window is displayed.
 9. Review the app information and verify that you have selected the correct app.
 10. Click **Choose file** to browse and locate a local copy of the file and click Upload.
 11. Click **Next**.
 12. (Optional) Add screenshots of the app and click **Next**
 13. If the application requires other prerequisite applications.
 - a. Select the option **On** from the **Prerequisite Apps** section.
 - b. Search for the prerequisite application under the **Add Apps** tab.
 - c. Select the applications.
 - d. Click **Save**.
 14. Define app distribution and click **Next**.
 15. Define the App Configuration section and click **Done**. The next time the devices sync with Ivanti Neurons for MDM, the app is deployed in the device along with the dependent files.



You can add additional dependencies by clicking the Add Dependencies button. When uploaded, these additional dependencies are also listed under the App Dependencies table. The admin can also manually add optional package with content only type. This type of package is not version dependent.

Adding a prerequisite app

You can add a prerequisite application to a main application. You can add different prerequisites for different versions of a main application. The App Catalog page provides you with the option to either keep the description, scripts, screenshots, distribution, app prerequisites, and app configurations the same as that of the existing application version or change the associated required applications. You cannot delete a prerequisite application without removing the association with the main application.

The Audit Trail page now displays the supported prerequisite applications in specific fields as follows:

The Prerequisite Applications section for the supported iOS, Android, and macOS applications in the Audit Trails page displays the following fields:

- appVersionId
- name
- platformAppId

The prerequisite applications that are auto-delegated or undelegated containing the following fields are displayed:

- dmPartitionDistributionType
- dmPartitionDistributionReason

Procedure

1. Select an application from **App Catalog**.
2. Click **Edit**.
3. Scroll down to **App Delegation** and select the option **Delegate this app to all spaces**.
4. Click **Save**.




If you delegate multiple applications, and choose to remove delegation from the main application, the prerequisite application is not removed from delegation automatically.

Deploying Divide Productivity with Android Enterprise

Divide Productivity is a PIM app you can deploy to Android Enterprise devices.

1. Go to **Apps > App Catalog**.
2. Under **Business Apps**, click **Divide Productivity**.
3. Enter additional categories or a description.
4. Click **Next**.
5. Accept the displayed permissions.
6. Click **Next**.
7. Select a distribution option.
8. Expand **Advanced Options & App Configuration**.
9. Use the following guidelines to enable options:

Setting	What To Do
Blocks the user from uninstalling the app	Select to prevent the end user from uninstalling the app when it has been silently installed.
Mail Address	Use variables to define the email address to associate with the app.
Password	Use variable to define the password for the email account. If you leave this field empty, the user will be prompted for the password.
Host	Enter the host name of the mail server to use. Enter the fully qualified domain name of the ActiveSync server. If you are using a Standalone Sentry, enter its fully qualified domain name (FQDN) instead. Example: mySentry.mycompany.com
Server Type	Select the type of mail server.
Username	Use variables to define the username for the email account.
Is SSL Required	Select if you want secure communication using https to the server that you specified in the Host field.
Trust All Certificates	Select only if you want the app to automatically accept untrusted certificates. Typically, you select this option only when working in a test environment.

Setting	What To Do
Default Email Signature	<p>Enter the default email signature for all emails.</p> <hr/> <p> that the end user can change this at any time. Once the device user changes it, later changes to this field have no effect.</p> <hr/>
Email Max Attachment Size	Enter the maximum size to be allowed for attached files.
Enable Task	Select to synchronize tasks.
Login Certificate Alias	Enter the alias for the login certificate.
Smime Signing Certificate Alias	Not currently supported.
Smime Encryption Certificate Alias	Not currently supported.
Advanced Options	
Install on Device	Select to prompt the user to install the app.
Silently install on Samsung Knox devices	Select to install the app automatically on Samsung Knox devices.
Do not show app in end user App Catalog	Select if you do not want the app to appear in the app catalog on the device.

10. Select a promotion option.

11. Click **Done**.

Setting up the Provisioner app

This section contains the following topics:

- ["Provisioning Requirements" below](#)
- ["Enable Android beam to use NFC bump" on the next page](#)
- ["Provision a corporate-owned device" on the next page](#)
- ["Register the device" on page 404](#)
- ["Verify the device registration status" on page 405](#)

Provisioner is a Ivanti Neurons for MDM app used to provision corporate-owned devices so that they can be registered as work managed devices and placed in Device Owner mode.

A company-managed device has a corporate profile only and no personal profile. The administrator is able to set over twenty lockdowns on the device, that can restrict device functions such as the camera, phone calls, SMS, networking, and more.

The Provisioner app is needed by the device that will initiate the configuration of the Android Enterprise target device with an NFC bump. To provision corporate-owned devices, install the Provisioner app onto a master device, and use the NFC (near field communication) bump to provision new devices. The bump is tapping the two devices together. The devices can be provisioned to use one of the client apps:

- Go to use with Ivanti Neurons for MDM
- At Work UEM, an unbranded client app, to use with Ivanti Neurons for MDM.

Provisioning Requirements

To provision a corporate-owned Android Enterprise device to be a work managed device:

- Corporate-owned native Android Enterprise-capable devices must be factory reset prior to provisioning.
- Android Enterprise configuration must be defined and applied to the Android device group.
- An NFC-capable Android device designated to serve as the master or as the template, with the Provisioner app installed.

-
- Android Enterprise-capable devices to provision.
 - Provisioner app
Download the Provisioner app for Android from Google Play.

Enable Android beam to use NFC bump

Procedure

1. Go to **Settings** on the device.
2. Go to **Wireless & networks** and click **More**.
3. Select the **NFC** checkbox.
4. Click **Android Beam** and slide the switch to **On**.



The exact steps may differ slightly for your device.

Provision a corporate-owned device

Procedure

1. Install the Provisioner app on the device to be used as the Android master device.
2. Launch Provisioner on the master device.
3. Select an app from the dropdown menu.

-
4. Enter the information requested by the Provisioner app. Some fields may auto-populate if a supported Wi-Fi type is present. Use these guidelines:

Field	Value
Select app for provisioning	Go (select for use with Ivanti Neurons for MDM) At Work UEM (unbranded client app; select for use with branded Ivanti Neurons for MDM).
Wi-Fi Network SSID	Enter the Wi-Fi SSID the master device is to use.
Wi-Fi Security Type	Enter the Wi-Fi security type
Wi-Fi Password	Enter the password for the Wi-Fi
Time Zone	Enter the local current time zone
Locale	Enter the locale

5. Click **Continue**.
The **Bump the devices** screen is displayed on the master device.
6. With the target device turned on and displaying the Android Welcome screen, press the master device back-to-back with the target device to initiate an NFC transfer.
If the NFC transfer is successful, the target device may make a sound, and then proceed to downloading the chosen client app. If the device is not encrypted, it will start the encryption process before continuing.
7. Continue to provision additional devices by bumping the devices. The target device must display the Welcome screen, and the master device must display the **Bump the devices** screen.

Register the device

Once the corporate-owned device has been provisioned using NFC bump, it will have the selected client app installed. Launch the client app and register the device.

Verify the device registration status

Procedure

1. Go to **Devices > Devices**.
2. Click the link for a device to view the details.
3. The status of the device is listed in the left pane.

Managing Windows Applications

Users can manage (Import, Configure, Schedule, Distribute, Update, and Remove) the complete app life cycle for Windows applications. The app distribution and app update processes are supported through the MDM console. For more details on managing Windows apps and other applications, see ["App Configuration" on page 333](#), ["App Insights" on page 48](#), and ["App Catalog" on page 286](#).

Supported app types

- In-house (Check options in **Adding an In-house app** from the section ["App Catalog" on page 286](#))
- MSB (Microsoft Store for Business integration)
- Public store (via native Microsoft Store Integration) Microsoft Store Region can be set in Apps > Catalog Settings. For more information, see **Adding an app from a public store** from the section ["App Catalog" on page 286](#).

Supported app extensions

- MSI
- MSIX
- APPX
- APPX bundles
- EXE (via ["Ivanti Bridge" on page 409](#))

App Control

The App Control configuration controls the app installation per device. For more information, see ["App Control Configuration: Control Which Apps Are Installed Per Device" on page 445](#).

Packages and Dependencies

The following different features are available:

1. Windows apps can be set as prerequisites for all types of applications. For information on how to set app prerequisites, see "[Deploying app dependencies](#)" on page 395.
2. The APPX and APPX bundles App Dependencies and Other Packages dependencies. On the "[Viewing App Details](#)" on page 329 page, review the **App Dependencies and Other Packages** section.
3. Win32 apps support the selection of the correct product code (MSIs) and command lines and variables. A list of common command line options can be found [here](#).

Scripts

Scripts are supported via Ivanti Bridge Client. For information on setting up the Scripts, see the "[Ivanti Bridge](#)" on page 409

Once Ivanti Bridge is installed on the devices, the scripts can be distributed as follows:

- At device level with the Scripts and Actions via Ivanti Bridge Action
- Via the Ivanti Bridge Configuration (go to Configurations > Bridge)

Pre-install and post-install scripts and files

For .exe files and .MSI files

You can configure pre and post-PowerShell install scripts, registry scripts, and Windows executable (.exe) files and download other types of files for Windows apps at the App Details level.

When adding a new pre or post install script or file, the Ivanti Bridge screen appears. You can attach the script or file, add script argument and also provide a target location for the files. The pre-install script must be executed successfully on the device before sending the app installation command to the device. The pre and post install scripts and files will be executed / installed in the same order in which they were uploaded to the console. If the pre-install script download or installation fails, the app installation cannot proceed further.

If the post-install script fails, you can view the errors in the Device details page under the Device logs section. Also, you cannot revert the pre-install scripts / downloaded files and installed .exe files in case the post-install actions fail.

You can reorder the pre-install or post-install scripts and files using the Prioritize Scripts and Files option. This option will be available only if there are at least two or more scripts or files available. Using this option, you can drag and drop the files or scripts within their respective pre or post sections, and not from one section to another.

Installation behavior and configurations

Windows applications support the following features:

- Silent installations
- ["Windows app scheduling" on page 976](#)
- Reboot options

For more details on installation behavior options, see ["App Configuration" on page 333](#)

MSI apps and EXE apps (installed using Bridge) support installations with user-less MDM sessions.

For example, in the following scenarios:



- The device was restarted, and no user is logged-in yet
- The user logged out from the Windows session
- The device was enrolled in Autopilot user-less (Self-deploying or Pre-provisioning) mode
- Applications are installed at the device level



It allows installing the MSI apps in more efficient ways, for example, during Auto-pilot enrollment or during the night when nobody works on the Windows device. When simple repacking is used for EXEs in MSI, it can be installed, but not upgraded or deleted. The real MSI package has a connection with CSP. Other Application types will be installed after the user logs in.

Tunnel for Windows (Per-App VPN)

Tunnel is a stand-alone native Windows application. It is currently available in the Microsoft Store for distribution to devices. Creates a Per-App VPN Configuration. Sentry deployment is required. To configure the Tunnel app, go to **Configurations** > **+Add** > Search for Tunnel (choose the Configurations that support Windows devices). Select the Sentry profile and configure settings to start tunneling the app data via Sentry. To set up a Sentry Server, go to **Admin** > **Infrastructure** > **Sentry**.

App Inventory

Application and Software Inventory installed in your Windows Device fleet can be tracked at two levels:

- To check applications installed across your devices, go to **Devices > App Inventory**
- To check inventory at the device level, go to Devices > choose a device > click on Installed Apps

Administrators can set Windows application inventory collection intervals. Go to Admin > Windows > App Inventory Intervals The intervals are used when privacy configuration is set to collect all apps from the device. To configure the Privacy Configuration, go to Configurations > +Add > search for Privacy > Choose Collect apps Inventory For all apps on the device. Select app types to be collected.

Corporate App Catalog (Apps@Work)

Customers can enable a Corporate Catalog on Windows Devices using Apps@Work. Apps@Work is available and deployed via the App Catalog in Neurons for UEM. For more information, see "[Apps@Work \(iOS, Android, Windows, and macOS\)](#)" on page 313.

Ivanti Bridge

This section contains the following topics:

- ["Bridge supported file types" on the next page](#)
- ["Bridge setup" on page 411](#)
- ["Bridge Logs" on page 415](#)
- ["Bridge Last Check-in" on page 415](#)
- ["Bridge Service Failure Recovery" on page 416](#)

Ivanti Bridge unifies mobile and desktop operations for Windows 10 using a single console and communications channel. It extends UEM capabilities to managing PCs and allows organizations to take advantage of [significantly reduced costs](#) and increased efficiency while ensuring consistent security across PCs and mobile. By using Ivanti Bridge, enterprises have the ability to use a single protocol for Windows 10 Desktop devices as they do for supported Windows mobile devices, to send information to the legacy applications on the OS.

Ivanti Bridge allows IT to modernize Windows operations on UEM without giving up critical functionality. IT can apply policies and scripts already in place without requiring a systems image, domain join, or multiple channels of communication to the device.

With Ivanti Bridge, organizations can now:

- Have complete control over PCs with UEM
- Manage PCs remotely, over-the-air
- Reduce the need for imaging desktops
- Leverage GPO-based commands with PowerShell scripts deployed by UEM
- Easily edit and manage Registry
- Effortlessly deploy non-MSI wrapped Win32 apps and Win32 Store apps
- Gain File System visibility



Ivanti Bridge is only used with Windows 10 Pro or Windows 10 Enterprise desktop devices and is not supported on ARM processors. Ivanti Bridge does not support Windows 10 Home desktop devices.

Bridge supported file types

Ivanti Bridge includes support for the following file types:

- PowerShell

PowerShell scripts pushed to devices using Bridge support named arguments.

64-bit PowerShell scripts are supported on 64-bit Windows 10 desktop devices.



The Bridge timeout on the server-side for expecting a result after sending a PowerShell script to device is about 20 minutes. The timeout is logged as a Failure. However, the script on the device continues to work.



The Bridge timeout on the device-side for expecting the process of a PowerShell script execution is about 60 minutes. After 60 minutes, the process will be killed, no output from the script is saved, and a new Failure is sent to the server.



The server-side and device-side timeouts are logged as Failures. If the second timeout passes and the script generates some output, no output is logged on the server-side.

- Registry
- VB Scripts
- .EXE for Win32 application deployment
- Win32 Store apps uses WinGet tool for installing and uninstalling the apps.



If admins need to push Win32 (.EXE) files to a device (for example, as a Windows in-house app), the Bridge functionality will be automatically used if available. It is mandatory to enter an argument to silently run the file (for example, /SILENT or /VERYSILENT).

The .EXE apps are installed through Bridge using the Admin PowerShell mode. For Windows devices, to install using user's credentials select 'Run as User' option.



The admins should select the **Installer run as user** checkbox in **App Installer - Settings** to install the apps for a user. Do not select the check box if you want the apps to install at the system level.

Using Ivanti Bridge, the device can be augmented in following key areas.

- **Registry:** Reading, writing, and updating registry values.
- **Files:** Verifying, reading, and updating contents of a file.
- **Application Deployment:** Adding the ability to install .EXE-based applications to the desktop device. These applications can either reside on the Ivanti Neurons for MDM servers or on a Content Delivery Network (CDN) in the Cloud.

Bridge setup

Setting up Ivanti Bridge requires that admins complete the following steps in the following order:

1. ["Activating Bridge licenses" below](#)
2. ["Installing the Bridge mobile application" below](#)
3. ["Uploading scripts to the devices" on the next page](#) for permanent or one time use to the devices

Activating Bridge licenses

Ivanti Bridge is part of the legacy Gold package and the current Secure UEM package.

Installing the Bridge mobile application

After activating the Ivanti Bridge licenses, the Bridge mobile application can be installed as follows:

1. Go to **Apps > App Catalog**.
2. Click **+Add**.
3. Click **Ivanti Bridge** in the Business Apps section.
4. Add details, customize, and distribute the Bridge mobile application to the required devices as per the procured licenses.
If you have enabled the **Silently install on Windows devices** option, Bridge mobile application will be silently installed and the Bridge service will start running on the devices.



Bridge app is added to the app catalog by default, and also distributed by default to all devices.

Uploading scripts to the devices

Administrators can upload scripts to the devices for permanent use by creating a new Bridge configuration:


1. Go to **Configuration > +Add**.
2. Select the **Ivanti Bridge** configuration.
3. Enter a name for the configuration.
4. Enter a description.
5. In the Configuration Setup section, specify the remaining settings as described in the table under step 7.
 1. Enter the **Script File** category settings to specify an installation script to be pushed or executed on the devices.
 2. (Optional) Enter the **UndoScript File** category settings to specify an uninstallation script to be pushed or executed on the devices. This is useful in scenarios such as device retirement or configuration deletion.
 3. (Optional) Select the option **Configure Outlook** to configure Microsoft Outlook to a device using Bridge.




Only supported on Outlook 2010 and 2013.

6. Click **Next**.
7. Select a distribution for this configuration.

A force check-in will be done automatically for these device actions.

Category	Setting	What To Do
	Name	Enter a name that identifies this configuration.
	Description	Enter a description that clarifies the purpose of this configuration.
Script File	All Versions (Windows 10+ Desktop)	
	Script File	<p>Select a valid script or executable file (.ps1, .reg, .exe).</p> <ul style="list-style-type: none"> The specified script file or executable file (.ps1, .reg, .exe) will be automatically executed. Other file types will only be copied to the target folder.
	Script Arguments	<p>Specify the list of arguments for the script file.</p> <ul style="list-style-type: none">  For Win32 (.exe) files, enter an argument to silently run the file (for example, /SILENT or /VERYSILENT). This is mandatory.
	Target Folder	<p>Specify the target folder for the script file.</p> <ul style="list-style-type: none"> If the target folder is not specified, then the value of the %TEMP% system environment variable is used as the target folder.
Undo Script File	All Versions (Windows 10+ Desktop)	

	Script File	<p>Select a valid script or executable file (.ps1, .reg, .exe).</p> <ul style="list-style-type: none"> The specified script file or executable file (.ps1, .reg, .exe) will be automatically executed. Other file types will only be copied to the target folder.
	Script Arguments	<p>Specify the list of arguments for the script file.</p> <ul style="list-style-type: none"> <div style="border: 1px solid red; padding: 5px; display: inline-block;">  For Win32 (.exe) files, enter an argument to silently run the file (for example, /SILENT or /VERYSILENT). This is mandatory. </div>
	Target Folder	<p>Specify the target folder for the script file.</p> <ul style="list-style-type: none"> If the target folder is not specified, then the value of the %TEMP% system environment variable is used by default.

Uploading scripts to the devices for one-time use

Administrators can upload a script to the devices for one-time (ad hoc) use.

- Go to **Devices > Devices**.
- Click the device name link to go to the Device details page. This is a Windows 10 desktop device to which the one-time script will be pushed/executed.

- Click the  icon and click **Script and Actions via Ivanti Bridge**.


- Enter a name.

-
5. In the Script File section, specify a script to be pushed/executed on the device as described in the preceding table.
 6. Click **Apply**.
The script execution will be queued and may take a while to complete. Go to the Logs tab to check and view the status (output or failure messages). A force check-in will be done automatically for these device actions.

Bridge Logs

This feature allows you to pull Ivanti Bridge logs for individual devices for troubleshooting and diagnosing applications. The logs are sent at the next device check-in. You can wait for the next scheduled sync or perform a forced device check-in to get the logs quickly:

To pull logs from a device:

1. Go to **Devices > Devices**.
2. Click the device name link to go to the Device details page. This is a Windows 10 desktop device to which the one-time script will be pushed/executed.
3. Click the  icon and click **Pull Ivanti Bridge Log**. The **Pull Ivanti Bridge Log** window is displayed.
4. Select one of the following options:
Single log - requests Ivanti Neurons for MDM to pull the most recent Bridge log on the device.
All logs - requests Ivanti Neurons for MDM to pull all log (up to 30 days) on the device.
5. Click **Pull Log**. After a device has sent it to Ivanti Neurons for MDM, you can view the Bridge log from the Logs tab in the Device details page.



Only logs sent using **All logs** option can be downloaded as zip file only.

Bridge Last Check-in

The Bridge Last Check-in column lists the Bridge service's last check-in date and time on the Devices page. The column can be added to the Devices page using the Customize Columns option and it is not visible by default.

To make this column visible, select **Devices > Customize columns > select Bridge Check-in**.



The exported data will also have the Bridge Last Check-in details wherever applicable.

Bridge Service Failure Recovery

The Bridge Service Failure Recovery has been introduced in Bridge 2.1.14 version. By default, this version gets imported into the App Catalog for all the users. In some rare cases, the Bridge Service may fail without any known reason. In such cases, the support is available in Bridge 2.1.14 and later versions.

Content

Use the Content page to distribute content hosted by an external source. The content might includes files that users can download such as sales presentations, images, spreadsheets, and documents.

This section contains the following topics:

- ["Managing Content" on page 418](#)
- ["Categories" on page 421](#)

Managing Content

This section contains the following topics:

- ["Distributing Hosted Content" below](#)
- ["Deleting content" on the next page](#)

Hosted Content supports the distribution of downloadable content with external URLs. External URL should lead to a downloadable PDF or EPUB or IBOOK files only and external URL must have these extensions.

Distribution of VPP Book licenses are not supported, hence the distribution of Apple Books based on iTunes Store ID are not supported.

Use Books or Pages app on device to access the pushed content from Ivanti Neurons for MDM. You can access them in Library section.

iBook and EPUB content can be distributed to iOS 8+ iPad devices (Gold license). These formats are restricted to iPad because Apple supports in-house distribution of these formats only to iPad. This restriction does not apply to iOS 9 devices.



Content previews are not available for these formats.

For **PDF** content, you have the option of pushing the document to the iBook app on iOS 8+ devices.

Distributing Hosted Content

Though you cannot upload new documents to Ivanti Neurons for MDM, you can provide a path (URL) where the content is hosted and distribute it to the device groups.

Procedure

1. Go to **Content > Hosted Content**.
2. Click + **Add**.

-
3. Enter the following information:
 - Title
 - Author
 - Category
 - (Optional) Description
 4. In the **Hosted Content Path** field, enter a URL for the file you would like to upload.
 5. Click **Next**.
 6. Make any necessary changes to the distribution.
 7. Click **Done**.

To modify Hosted Content, the previous content has to be deleted, new Hosted Content has to be added and distributed.

To modify the settings other than the URL:

1. Go to **Content > Hosted Content**.
2. Click the link to the document in the **Name** column.
3. Click the Edit icon.
4. Make the required changes.
5. Click **Next**.
6. Make any necessary changes to the distribution.
7. Click **Done**.

Deleting content

1. Click the link to the document in the **Name** column.
2. Select **Actions > Delete This Document**.

-
3. Click the check box to confirm.
 4. Click **Delete Document**.

When you delete a document:

- It is removed from the system.
- It is no longer available in the content catalog.
- It is removed from devices that have downloaded it.

If you cannot perform tasks on the **Content** page, it might be that you do not have the required permissions. You need the following [role](#):

- App & Content Management

Categories

This section contains the following topics:

- ["Adding a category" below](#)
- ["Removing a category" below](#)



As part of the End of Support for Content announced April 15, 2017, the ability to add new Content has been disabled. Content currently uploaded can still be distributed to the Apple iBooks app and used.

Categories describe the types of content in the content catalog. Categories help organize content so that users can easily find what they need. Each item added to the content catalog must have at least one category assigned.

Adding a category

Procedure

1. Click **Add** (bottom left)
2. Type the category name. Categories are not case sensitive.
3. Click **Save**.

Removing a category

You can click the X next to the category to remove a category.

If you cannot perform tasks on the **Content (Content)** page, it might be that you do not have the required permissions. You need the following [role](#):

- App & Content Management

Configurations

Configurations are collections of settings that you send to devices. For example, you can use configurations to automatically set up VPN settings and passcode requirements on the devices. The existing configurations for your system are listed in the Configurations page.

This section contains the following topics:

- ["Working with Configurations" on page 423](#)
- ["Creating a User Self-Service Portal Configuration" on page 436](#)
- ["Custom Configuration" on page 438](#)
- ["Pushing SyncML to Devices using Custom Configurations" on page 441](#)
- ["Home Screen Layout Configuration" on page 442](#)
- ["App Control Configuration: Control Which Apps Are Installed Per Device" on page 445](#)
- ["App Notifications Configuration" on page 448](#)
- ["Exporting Configurations" on page 450](#)
- ["Prioritizing Configurations" on page 452](#)
- ["Managing Configurations" on page 453](#)

Working with Configurations

This section contains the following topics:

- ["Filtering the display of configurations" on the next page](#)
- ["Adding a configuration" on page 425](#)
- ["Distributing the configuration" on page 427](#)
- ["Pushing configurations to multiple devices" on page 429](#)
- ["Excluding configurations" on page 429](#)
- ["Pushing an excluded configuration" on page 430](#)
- ["Exporting configurations " on page 430](#)
- ["Importing configuration" on page 432](#)
- ["Editing a configuration" on page 433](#)
- ["Deleting configurations" on page 434](#)
- ["Schedule in-house application updates" on page 434](#)

Configurations are collections of settings that you as an administrator send to devices. For example, you can use configurations to automatically set up VPN settings and passcode requirements on the devices. The existing configurations for your system are listed in the Configurations page. You can select multiple configurations from the Configurations page and push them to multiple devices at once. These configurations can be pushed to devices specific to spaces and the devices in other spaces remain unaffected. Configurations can be pushed to either a single space or multiple spaces or all spaces at a time.

There are many [types of configurations](#) available. They fall into the following basic categories:

- security
- user resources
- enterprise network access
- cellular network
- other (more configurations)

You can perform the following actions for most of the configurations:

- add
- edit
- clone
- delete
- exclude one or more configurations from a specific device
- push one or more excluded configurations to a specific device

Certain configurations have restricted actions:

- Some configurations cannot be added or cloned. iOS Activation Lock is an example of this type of configuration. Therefore, these configurations do not appear among the tiles listed when you add a configuration. These configurations are listed only in the Configurations page.
- System-defined configurations cannot be edited or deleted. SCEP for iOS Enrollment is an example of this type of configuration.
- Some configurations can be marked as cannot be deleted or reinstalled from a device. These configurations cannot be excluded or pushed to the device.

Filtering the display of configurations

When you view the **Configurations** page, all configurations are listed. To narrow this list to certain configurations, use the filters (left pane) under OS and Configuration Type. For example, to narrow down the list to display only the macOS configurations, select **macOS** under the **OS** section.

You can view configuration across all or multiple space devices by selecting multiple spaces from the drop-down list. When you hover on the displayed configurations, a pop-up window with a list of spaces are displayed. You can click on a space to display the configuration details page.

To search for an existing configuration by its name, enter the configuration name in the **Search** field.

Starting from Ivanti Neurons for MDM release 81, global administrators can delegate space administrators to edit the Dynamically Generated Identity Certificate for All Devices and for the Custom distribution option.

Adding a configuration

This option is enabled only if a single space is selected in the drop-down list.



You can distribute a maximum of 100 configuration files at once.

Procedure

1. Click **Add**.
2. Select the type of configuration you want to create.
3. Click **Next**.
4. If you do not want this configuration enabled immediately, clear the **Enable this configuration** option.

5. Select a distribution level for the configuration:

- **All Devices** - distribute the configuration to all the available devices. To delegate configurations across spaces, select one of the following options:
 - **Do not apply to other spaces.**
 - To delegate configurations across spaces, select **Distribution Summary > Apply to devices in other Spaces.**
 - Select the **Allow Space Admin to Edit the Distribution** check box to allow the delegated space administrators to edit the distribution for the specific space.
- **No Devices** - select this configuration for distribution at a later point in time.
- **Custom** - define specific set of devices that will have this configuration sent to them. To delegate configurations across spaces, select one of the following options:
 - **Do not apply to other spaces.**
 - **Distribution Summary > Apply to devices in other Spaces.**
 - Select **Allow Space Admin to Edit the Distribution** check box to allow the delegated space administrators to edit the distribution for the specific space.



The administrator can use the Custom Distribution option to distribute Custom Configuration to Device, Device Groups, User, and User Groups. The configuration assignment or distribution to User or User Groups is not available for the following configurations:

-
- Android Enterprise: Work Profile (Android for Work)
 - Android Enterprise: Work Managed Device (Android for Work)
 - Android Enterprise: Managed Device with Work Profile/Work Profile on Company-Owned device
 - Android Work Managed Devices (Device Owner) for Work Managed Device Non-GMS mode (AOSP) devices
6. If your service has Spaces defined, specify whether the configuration should be applied to the other Spaces, and the priority.

-
7. Click **Done**.



For configurations that issue a command to the device instead of installing a profile on the device, the configuration details will not list the configuration as applied to any devices.

Distributing the configuration

Global administrators can delegate space administrators to edit the Dynamically Generated Identity Certificate for All Devices and for the Custom distribution option. For the Dynamically Generated certificates, you can optionally select the **Allow this configuration to be available in all Spaces** option. This option makes Dynamically generated Identity Certificate available to all Spaces and can be used in Exchange, Wifi, VPN and any other applicable configurations including the managed App configurations. This option can be used in scenarios where Dynamically Generated Identity certificate only needs to be distributed to devices (in non default Spaces) as part of associated configurations and not to be distributed as an individual configuration.

Procedure

1. Specify the settings fields using the information specified in the table for the individual configuration as applicable.
2. Click **Next**.
3. Select the **Enable this configuration** option.
4. (Optional) Select **Allow this configuration to be available in all Spaces**.

5. Select one of the following distribution options:

- **All Devices.** Select one of the following options:
 - **Do not apply to other spaces.**
 - **Apply to devices in other Spaces.**
 - **Apply to all devices in other device spaces as highest priority.** (This is applicable only for Wi-Fi Configuration.)
 - **Apply to all devices in other device spaces as lowest priority.** (This is applicable only for Wi-Fi Configuration.)
 - Select **Allow Space Admin to Edit the Distribution** check box to allow the delegated space administrators to edit the distribution for the specific space.
- **No Devices** (default)
- **Custom** Select one of the following options:
 - **Do not apply to other spaces.**
 - **Apply to devices in other Spaces.**
 - **Apply to all devices in other device spaces as highest priority.** (This is applicable only for Wi-Fi Configuration.)
 - **Apply to all devices in other device spaces as lowest priority.** (This is applicable only for Wi-Fi Configuration.)
 - Select **Allow Space Admin to Edit the Distribution** check box to allow the delegated space administrators to edit the distribution for the specific space.



Irrespective of spaces, Dynamically Generated Identity Certificate can be configured to all spaces, distributed to all devices, and applied to all devices in other device spaces.

6. Click **Done**.

Pushing configurations to a device

If you want to reinstall any of the excluded configurations on a device, you can push the configurations.

Procedure

-
1. Go to **Devices > Devices**.
 2. Click a device name to view the details page.
 3. Go to **Configurations**.
 4. Select the check-boxes to select the specific configurations to be pushed to the device.
 5. Click **Push Profiles**.
 6. To push a single configuration, click **Push** under the **Actions** column.

Pushing configurations to multiple devices

You can select multiple configurations from the Configurations page and push them to multiple devices at once.

Procedure

1. Log in to the Ivanti Neurons for MDM Administrator portal.
2. Go to **Configurations**.
3. Select the check-boxes to select the specific configurations.
4. Click **Actions**, select **Push selected configs** to devices. The Push Configurations wizard opens and all the configurations and their push statuses are displayed.
5. Click **Push valid configuration(s)**. The configurations are pushed to all devices in bulk.
Configurations that are excluded for specific devices from the **Devices > Configurations** tab, are not pushed.

Excluding configurations

Some previously distributed configurations can be manually removed from a device by excluding them.

Procedure

1. Go to **Devices > Devices**.
2. Click a device name to view the details page.
3. Go to **Configurations**.

-
4. Select the check-boxes to select the specific configurations.
 5. Click **Exclude Profiles**.

To exclude a single configuration, click **Exclude** under the **Actions** column. The selected configurations are now listed under the Excluded Configurations tab.

Pushing an excluded configuration

Procedure

1. Go to **Devices > Devices**.
2. Click a device name to view the details page.
3. Go to **Configurations > Excluded Configurations**.
4. Select one or more configurations to be pushed to the device.
5. Click **Push Profiles**.
6. To push a single configuration, click **Push** under the **Actions** column.

Exporting configurations

You can export the details of selected configurations or all configurations from selected spaces to individual files.

Procedure

1. Go to **Configurations**.
2. Select the check-boxes to select the specific configurations.
3. Click **Actions > Export selected configs with details**. If you want to export all configurations, select **Export all configs with details**.

A set of YAML files are included in a .ZIP file. The report includes the details of all the existing configurations in the selected spaces.

Export all the configurations

Export your configuration files to send to support for use as a diagnostic aid. You can export a single configuration file to a Yaml format file or export all your configurations into a .zip file. You can export files from different areas of the Configuration page depending on which configurations you want to export.

Procedure

1. Go to **Configurations**.
2. Select the check-boxes to select the specific configurations.
3. Click **Actions** > **Export selected configs with details**. If you want to export all configurations, select **Export all configs with details**.

A set of YAML files are included in a .ZIP file. The report includes details of all the existing configurations in the selected spaces.

Exporting a customized configuration

Procedure

1. Go to **Configurations**.
2. Click **+Add** to select a configuration.
3. Follow the steps to customize the configuration.
4. Click **Next**.
5. Choose a distribution level.
6. Click **Done**.
7. Select the configuration you just created from the list on the **Configuration** page.
8. Click the **Actions** pull-down menu and click **Export**.
A file with the name of the configuration and a timestamp `_yyyymmdd.yaml` is downloaded to your device.

Exporting an existing configuration

Procedure

-
1. Go to **Configurations**.
 2. Select an existing configuration.
 3. Click the **Actions** pull-down menu and click **Export**.
A file with the name of the configuration and a timestamp `_yyyymmdd.yaml` is downloaded.

Importing configuration

You can import a YAML file that contains the configuration details. To edit a configuration you can edit the details in the YAML file select a configuration and import the file and the updated values appear in the configuration. If more then one configuration or space is selected, the Import button gets disabled. If an incorrect file type is selected, an error message appears. If you select a a YAML file that contains different details than the required details for a configuration, an error message appears.

Procedure

1. Go to **Configurations**.
2. Select a configuration, click **Import**, Click **Choose File**, select the YAML file, and click **Import**. The YAML file with the configuration details is imported.


Creating a configuration using YAML file

You can create a configuration from a YAML file. The distribution related specifications are not part of the YAML file. The distribution is by default set to No Devices.

Procedure

1. Go to **Configurations**.
2. Click **Import**, Click **Choose File**, select the YAML file, and click **Import**. The YAML file with the configuration details is imported. The Create configuration page opens displaying all the details that were added in the YAML file.
3. Select *one* of the distribution types:
 - **All Devices**
 - **No Devices**
 - **Custom**

-
4. Verify the details of the configuration and select *one* of the following Distribution Summary option:

 The distribution summary is not available for all the configurations.

- **Do not apply to other spaces**
- **Apply to devices in other spaces**


5. If the new name of the configuration matches the name of an existing configuration, an error message appears, click **OK**, click **Back** and edit the configuration name.
6. Click **Next** and then click **Done**.

Editing a configuration


You can open a configuration and directly edit the details of a configuration, or import a YAML file with all the necessary details. If more than one configuration or space is selected, the Import button gets disabled.

Procedure

1. Go to **Configurations**.
2. Select and open a configuration, click the edit (pencil) icon and edit the configuration.
3. Alternatively, from the edit configuration page click the **Import** icon, select the YAML file, and click **Import**. The Edit configuration page opens displaying all the details that were added in the YAML file.
4. Verify the details of the configuration and select one of the following Distribution Summary option:

 The distribution summary is not available for all the configurations.

- **Do not apply to other spaces.**
- **Apply to devices in other spaces**

 The distribution is set to No Devices by default.

5. Click **Next**.
6. Click **Next** and then click **Done**.

Deleting configurations

You can delete selected configurations.

Procedure

1. Select the check-boxes to select the specific configurations.
2. Click **Actions** > **Delete**.

Schedule in-house application updates

Ivanti Neurons for MDM automatically updates in-house applications when a device checks in. Administrators can now schedule in-house application updates based on the server time zone. The application updates only when the device checks in within the scheduled time. By default, the scheduling of application updates is disabled.



This configuration is applicable only for updates and not for a new installation. You can use the Send install/update command to override the auto-update schedule for iOS applications. If auto update is enabled at the app level or catalog level, it will take precedence over the Scheduled App Configuration and the app will update immediately at check-in.

The configuration is applicable only for the following application types:

- iOS in-house applications.
- Android in-house applications that are only in DO mode.
- macOS applications that are of .pkg and .MIP formats.
- Windows applications.

Prerequisites

Ensure that the following prerequisites are met for the configuration to function as expected:

- The application must be managed for iOS and Android. For macOS, the application can be in either managed or unmanaged state.
- Ensure that the option Install on Device under Application Configuration is enabled.
- The device must be checked in during the scheduled time.

Procedure

-
1. Log in to the Ivanti Neurons for MDM administrator portal.
 2. Go to **Configurations**.
 3. Click **Add**. The Add Configuration page opens.
 4. Search for **App Auto Update**. The Create App Auto Update Configuration page opens.
 5. Specify a name in the **Name** field.
 6. From the **Configuration Setup** section, select the **Timezone** from the drop-down list.
 7. Select the **Start Time** from the drop-down list, and then select the **Duration** from the drop-down list.
 8. Click **Next**.
 9. Select the required user and device group and then click the checkbox **Enable this configuration**.
 10. Click **Done**. The configuration is applied, the application will now update only at the specified schedule.

If you cannot see the Configurations page, it might be that you do not have the required permissions. You need one of the following [roles](#):

- Device Management
- Device Read Only

Related topics:

- [Spaces](#)
- [Prioritize Configurations](#)

Creating a User Self-Service Portal Configuration

As an enterprise user, you can use the Self-Service portal to manage your devices and certificates. The My Devices tab displays the devices that you have registered.

You can do the following tasks from the My Devices tab:

- Lock
- Unlock
- Retire
- Reset Secure Apps Passcode

You can perform the following tasks from the My Certificates tab:

- Upload Certificate



You can distribute a maximum of 100 configuration files at once.

Procedure

1. Log in to the Ivanti Neurons for MDM administrator portal.
2. Click **Add**.
3. Search for **Create User Self-Service Portal Configuration**.
4. Click **Next**.
5. If you do not want this configuration enabled immediately, clear the **Enable this configuration** option.

6. Select a distribution level for the configuration:

- **All Devices** - Distribute the configuration to all the available devices. To delegate configurations across spaces, select one of the following options:
 - **Do not apply to other spaces.**
 - To delegate configurations across spaces, select **Distribution Summary > Apply to devices in other Spaces.**
 - Select the **Allow Space Admin to Edit the Distribution** check box to allow the delegated space administrators to edit the distribution for the specific space.
- **No Devices** - select this configuration for distribution at a later point in time.
- **Custom** - define specific set of devices that will have this configuration sent to them. To delegate configurations across spaces, select one of the following options:
 - **Do not apply to other spaces.**
 - **Distribution Summary > Apply to devices in other Spaces.**
 - Select **Allow Space Admin to Edit the Distribution** check box to allow the delegated space administrators to edit the distribution for the specific space.

7. If your service has Spaces defined, specify whether the configuration should be applied to the other Spaces, and the priority.

8. Click **Done**.



For configurations that issue a command to the device instead of installing a profile on the device, the configuration details will not list the configuration as applied to any devices.

Custom Configuration

This section contains the following topics:

- ["Defining a Custom configuration" below](#)
- ["Custom Configuration settings" on the next page](#)

License: Silver

Applicable to: iOS, macOS, Android, Windows

Description

Allows you to import and distribute a predefined configuration file.

The valid configuration file formats are as follows:

OS	Valid Configuration File Formats
iOS	<ul style="list-style-type: none">• .plist• .mobileconfig• .xml
macOS	<ul style="list-style-type: none">• .plist• .mobileconfig
Android	.xml. Currently, this feature only supports .xml configuration files for Zebra devices.
Windows	SyncML.

Defining a Custom configuration

Procedure

1. Select **Configurations**.
2. Click + **Add**.

-
3. Type "custom" in the search field, and then click the **Custom** configuration.
The Custom Configuration details page appears.
 4. Configure the settings on this page. Refer to the table in the section [Custom Configuration settings](#) for guidance on the values.
 5. Click **Next** to configure the distribution settings.
 6. (macOS devices) Select an additional option for the **Who does this configuration apply to** setting depending on your desired behavior for this configuration:
 - Device Wide (commonly used).
 - User Specific (current registered user).
 7. Click **Done**.

Custom Configuration settings

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Choose OS	Click an OS icon to upload a configuration file that corresponds to the selected icon.
Choose File	This option appears after you have selected an OS. Drag a configuration file into the Drag and Drop box, or click the Choose File button to select a configuration file.

Custom CSP Configuration (Windows only)

You can create Custom CSP configuration on Windows devices only. When you select the Windows OS from Choose OS section, you will get two options:

Option 1 - CSP XML file - Select this option and follow the same process mentioned for the **Choose File** setting.

Option 2 - Custom CSP OMA-URI Schema Node

Procedure

1. Select the Custom CSP OMA-URI Schema Node option from the list. The Custom CSP Configuration section appears on the screen.
2. Under **ACTIONS**, click the + button to start creating the configuration with different OMA-URI fields.
3. The **Add Row** pop up window appears on the screen which has the following fields:
 - Description - Enter any general information about the setting
 - OMA-URI - Enter the OMA-URI that you want to use as a setting
 - Data type - Select a data type that you will use for this setting - DATE, FLOAT, BASE64, NODE, XML, BINARY, CHARACTER, TIME, BOOLEAN, INTEGER
 - Value - Enter a value that is associated with the selected data type
 - Access Type - Add, Delete, Exec, Replace, Get
4. Click **Save & Close** to close the window with the provided details. Click **Save & Add** another to create a new row.
5. Click **Next**.
6. Select the mode of distribution and click **Done**.

Related Topics

- [Pushing SyncML to Devices Using Custom Configuration](#)
- [How to create a configuration](#)

Pushing SyncML to Devices using Custom Configurations

You can create your own Synchronization Markup Language (SyncML) configuration files or get them from a third party source to implement custom features by adding them to a custom configuration.

Supported platforms:

- Windows

Supported devices:

- Windows 10+
- Microsoft HoloLens 2

Procedure

1. Go to **Configurations**.
2. Click **+Add**.
3. Click **Custom Configuration** to display the **Create Custom Configuration** page.
4. Enter a name for the configuration.
5. Click the Windows OS icon.
6. Drag and drop the SyncML file in the interface or click **Choose File** to navigate to the file to select for uploading to the device.



Ivanti Neurons for MDM does not perform any validation checks on the code in the file.

7. Click **Next**.

Custom SyncML Log

The SyncML commands sent to Windows device and SyncML responses on these commands from the device can be viewed under the Device Logs tab. This log information will be available after sending the **Windows Custom SyncML** configuration. When the system sends a Custom SyncML configuration, it has the "Installed" status always on the device "Configuration" tab for the configuration irrespective of the SyncML responses.

Home Screen Layout Configuration

The Home screen layout configuration defines a layout of apps, folders, and web clips for the Home screen.

This section contains the following topics:

- ["Defining a Home Screen Layout configuration" below](#)
- ["Home Screen Layout Configuration settings" on the next page](#)

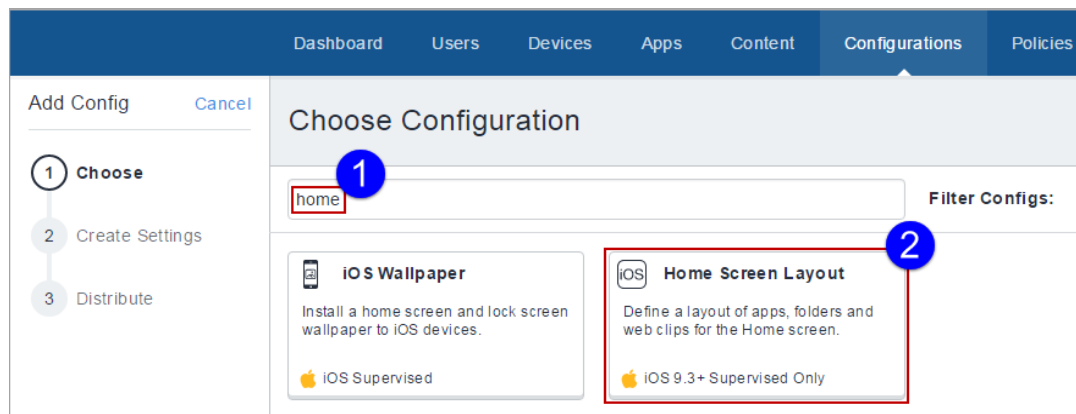
License: Silver

Eligible Devices: iOS 9.3+ Supervised Only

Defining a Home Screen Layout configuration

Procedure

1. Go to **Configurations** > click **+ Add**.
2. Type "home" in the search field, and then click the **Home Screen Layout** configuration. The Home Screen Layout Configuration details page opens.

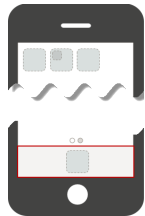



3. Configure the settings on this page. Refer to the table in the section [Home_Screen_Layout_Configuration_Settings](#) for guidance on the values.
4. Click **Next** to configure the distribution settings. For shared iPad devices, select the **Device** channel

or the **User** channel. For more information, see ["Working with Configurations" on page 423](#).

5. Click **Done**.

Home Screen Layout Configuration settings

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Dock	<p>Click the + icon to add an app or webclip to the dock of the home screen, shown highlighted here, and then follow the directions on the subsequent screens:</p>  <p>i Specifying a Web Clip in this payload doesn't create a Web Clip. Use the Web Clip payload to create a Web Clip on the device.</p> <p>i You can manually add system apps by typing the Apple bundle ID (starting with 'com.apple'). For example, type 'com.apple.DocumentsApp' for adding 'Files' app.</p>
Page 1	Click the ⊕ to add an app or webclip to the page area of the home screen, shown highlighted here, and then follow the directions on the subsequent screens:

Setting	What To Do
	 <p data-bbox="537 604 1057 680">You can click Add Page to add another page to the phone display.</p>

App Control Configuration: Control Which Apps Are Installed Per Device

The App Control configuration allows you to categorize apps as Allowlist or Blockedlist at the device level. Apps that are already installed will not be visible and cannot be launched. Apps will still be visible in the App Store, but they cannot be downloaded or launched. Any device to which this configuration is distributed will use this configuration and ignore any Allowed Apps Policy settings. This configuration supersedes any app-related policies that reference the same applications on the target devices.

This configuration supersedes any app-related policies that reference the same applications on the target devices. For Windows 10 devices, restrictions happen at the device level, therefore a configuration is the only way to enforce app rules.

The App Control configuration allows you to create a:

- **Allowedlist:** Only allow Apps that are explicitly added to this list. No other apps will be able to be installed on devices.
- **Blockedlist:** Disallow specific apps from being installed on devices.

Supported Devices

You can use the App Control configuration to Blockedlist or Allowlist different apps on the following devices:

- Android Work Profile on Company Owned devices
- iOS 9.3+ Supervised only
- tvOS 11+
- Windows

Create App Control Configuration

Procedure

1. Select **Configurations**.
2. Click + **Add**

-
3. Enter **App Control** in the resultant **Choose Configuration** field, and then select the **App Control** configuration.
 4. Enter name and description for the configuration.
 5. Select an OS and then continue below at the section that applies to your OS.

Android Work Profile on Company Owned devices

Users can add upto 50 application IDs to the Allowlist or Blockedlist group.

Procedure

1. Select **Create a Allowedlist for Personal Apps** or **Create a Blockedlist for Personal Apps** to add the list of appropriate applications to be Allowlisted or Blockedlisted.
2. Enter the application ID (com.example.com) and click **Add**.
3. Click **Next** and select a distribution option.
4. Click **Done**.

iOS 9.3 supervised devices

Procedure

1. Choose whether to create a Allowedlist or Blockedlist.
2. Click **Add Apps**.
3. Choose the apps to Allowedlist or Blockedlist by clicking one or both of the following tabs:
 - Click **Add by Lookup** to search for and choose apps from the App Store or App Catalog.
 - Click **Add Manually** to choose apps by entering the Apple bundle ID (starts with "com.apple") for Apple System apps only.
4. Click the **Allowedlist** or **Blockedlist** tab to review the list of chosen apps to be Allowedlist or Blockedlisted.
5. (Optional) Select the **Include all Webclips** option.

-
6. Click **Next** and then choose a distribution option.
 7. Click **Done**.

Windows devices

Procedure

1. Select **Allowed** or **Disallowed** to add the list of appropriate applications to be Allowlisted or Blockedlisted.
2. Under the **Rule Definition** section, select the **App Type** from the list.
3. Enter an identifier name in the **App Identifier** box to search for a specific app. You can also use the **Lookup Apps** link to open a new dialog and search for Windows-specific app identifiers.
4. (Optional) Enter some description about the app in **App Description** box.
5. Use **+Add** link to add more rule definitions to Allowlist or Blockedlist the apps.
6. Click **Next** and select a distribution option.
7. Click **Done**.

App Notifications Configuration

Choose how users receive notifications from selected apps.

Applicable to: iOS 9.3+ Supervised devices.

Creating an App Notifications configuration

Procedure

1. Select **Configurations**.
2. Click + **Add**.
3. Type notifications in the search field, and then click the **App Notifications** configuration. The App Notifications Configuration Setup page appears.
4. Name and describe the configuration.
5. Add apps by looking up in the App Store or manually by entering the Bundle ID.
6. Choose an app to which to apply the app notification settings.

7. Configure the notification settings. Here are the notifications you can select:

- Allow Notifications
 - Show in Notification Center
 - Sounds
 - Badge App Icon
 - Show on Lock Screen
 - (iOS 12.0+ Supervised) Show the critical alert when using CarPlay
 - (iOS 12.0+ Supervised) Allow critical alerts to be enabled (ignore "Do Not Disturb")
- Unlock Alert Style
 - Banners
 - Modal Alert
 - None
- (iOS 12.0+ Supervised) Grouping Type
 - Automatic
 - By app
 - Off
- (iOS 14.0+) Notification Preview Type - Select a preview type to display in device notification message previews.
 - User Controlled - Display message previews as per user settings for the apps on the device.
 - Always - Display message previews.
 - When Unlocked - Display message previews only when a device is unlocked.
 - Never - Prevent apps from displaying message previews in Notifications.

8. Click **Next** to configure the distribution settings.

9. Click **Done**.

For more information, see [How to create a configuration](#).

Exporting Configurations

Export your configuration files to send to support for use as a diagnostic aid. You can export a single configuration file to a Yaml format file or export all your configurations into a .zip file.

Procedure

Export Configuration

You can export files from different areas of the Configuration page depending on which configurations you want to export.

Export all the configurations:

1. Go to **Configurations**.
2. Select the check-boxes to select the specific configurations.
3. Click **Actions > Export selected configs with details**. If you want to export all configurations, select **Export all configs with details**.

A set of YAML files are included in a .ZIP file. The report includes details of all the existing configurations in the selected spaces.

Export a customized configuration:


1. Go to **Configurations**.
2. Click **+Add** to select a configuration.
3. Follow the steps to customize the configuration.
4. Click **Next**.
5. Choose a distribution level.
6. Click **Done**.
7. Select the configuration you just created from the list on the **Configuration** page.
8. Click the **Actions** pull-down menu and click **Export**.
A file with the name of the configuration and a timestamp _yyyymmdd.yaml is downloaded to your device.

Export an existing configuration:

1. Go to **Configurations**.
2. Select an existing configuration.
3. Click the **Actions** pull-down menu and click **Export**.
A file with the name of the configuration and a timestamp _yyyymmdd.yaml is downloaded.

Prioritizing Configurations

If you select multiple device groups for a configuration, then multiple configurations of the same type might be assigned to a given device. When configurations of the same type are applied to the same device, the defined priority determines which configuration is applied. The configuration with the highest priority has the lowest number. For example, the configuration with priority 1001 has a higher priority than the configuration with priority 1002. The service assigns numbers automatically.

 WiFi priority cannot be applied to the device and is exempted from the priority.


This option is available only if the page contains two or more configurations of the same type and if a single space is selected in the drop-down list. You can change the priority of configurations.

Procedure


1. Go to **Configurations**.
2. With no configuration selected, select **Actions > Prioritize configs**.

If **Actions** is not displayed, then you do not have multiple configurations of a type that requires priorities.

3. Use the arrows to move the configurations so that the one that should have the highest priority appears at the top.

 A lock icon indicates that the configuration priority cannot be changed without editing the All Devices distribution setting in the configuration.

4. Click **Save**.

 Prioritization can be done up to 400 configurations.

If you cannot see the Configurations page, it might be that you do not have the required permissions. You need one of the following roles:

- DeviceManagement
- DeviceReadOnly

Managing Configurations

This section contains the following topics:

- ["AppConnect Configurations" on page 476](#)
- ["Security Configuration" on page 480](#)
- ["User Resource Configurations" on page 725](#)
- ["Enterprise Network Access Configuration" on page 759](#)
- ["Cellular" on page 884](#)
- ["Other Configuration" on page 892](#)

Configuration Types

This section contains the following topics:

- ["Search a Configuration" below](#)
- ["Security" on the next page](#)
- ["User Resources" on page 463](#)
- ["Enterprise Network Access" on page 466](#)
- ["Cellular Network" on page 468](#)
- ["More Configurations" on page 469](#)
- ["Device Sync Configuration" on page 469](#)

Search a Configuration

Use the search and filter capability on the **Choose Configurations** page to find the configuration you want to apply.

Procedure

1. Choose **Configurations**.
2. Choose one of the configurations listed or click the **+Add** button.

The **Choose Configuration** page is displayed

3. Click one of the configurations listed or :
 - Enter the name of the configuration in the search box
 - Click a filter icon on the right of the search box to display configuration types compatible with platform.
4. Click a configuration button to access configuration setting options.


For more information, see ["Working with Configurations" on page 423](#).

Security

Type	What It Does	For These Devices	Needs This License
Android Enterprise	Specifies Android Enterprise options	Android Enterprise	Silver
AppConnect Device	Specifies security settings AppConnect-enabled apps on devices	<ul style="list-style-type: none">• Android• iOS	Gold
Azure Active Directory (Azure Tenant)	By connecting Ivanti Neurons for MDM to the Azure Active Directory, you can use the device compliance status of managed devices for conditional access to Microsoft 365 apps.	<ul style="list-style-type: none">• iOS• Android	<ul style="list-style-type: none">• For new customers: Secure UEM Premium• For existing customers: Platinum
Certificate	Establishes trust with servers	<ul style="list-style-type: none">• Android• iOS• macOS	
"Certificate Transparency" on page 506	Controls Certificate Transparency enforcement which can only appear in a device profile.	<ul style="list-style-type: none">• iOS• macOS• tvOS	
Device Logging	Retrieves additional logs such as network and security logs from devices.	<ul style="list-style-type: none">• Android Enterprise	
Android Encryption	Prompts users to start encryption.	Android	
Encrypted DNS	Allows you to enhance security without needing to configure VPN.	<ul style="list-style-type: none">• iOS• macOS	Gold

Type	What It Does	For These Devices	Needs This License
Mobile Threat Defense	Protects managed devices from mobile threats and vulnerabilities affecting device, network, and applications.	<ul style="list-style-type: none"> • Android • iOS 	
Threat Defense Local Actions	Create and distribute a device configuration defining the local actions to be taken on supported Android devices when the Threat Defense-enabled client detects a threat.	Android	
FileVault 2	Provides ability to perform full XTS-AES 128 disk encryption on the contents of a volume.	macOS	Gold
FileVault Recovery Key	Determines settings for redirecting the FileVault recovery keys to a corporate server.	macOS	Gold
Identity Certificate	<ul style="list-style-type: none"> • Authenticates the device to servers. • Authenticates the device to network resources. 	<ul style="list-style-type: none"> • Android • iOS • macOS 	
iOS Activation Lock	Enables the Apple Activation Lock feature on supervised devices.	iOS	Silver
iOS Custom Configuration	Distributes an iOS configuration profile that was created by a different app.	iOS	

Type	What It Does	For These Devices	Needs This License
iOS Restrictions	<ul style="list-style-type: none"> Locks down device features. Enables device features. 	iOS	
Conference Room Display	Turns on the Conference Room Display mode on Apple TV.	tvOS 10.2+	
Lockdown & Kiosk: Android	<ul style="list-style-type: none"> Locks down device features. Re-enables device features. Applies the kiosk feature. 	Android	
Lockdown & Kiosk: Android Enterprise	<ul style="list-style-type: none"> Defines features and apps that are restricted on Android enterprise devices. Applies the kiosk feature. 	Android 5.0 +	
Lockdown & Kiosk: Samsung Knox Standard	<ul style="list-style-type: none"> Defines features and apps that are restricted on Samsung Knox Standard devices. Applies the kiosk feature. 	Samsung Knox	
macOS Firewall	Manages the Application Firewall settings that are accessible in the Security Preferences pane on	macOS 10.12+	Gold

Type	What It Does	For These Devices	Needs This License
	<p>macOS devices.</p> <hr/> <p> The Administrator can enable the stealth mode by specifying a device that cannot be discovered by the ping command.</p> <hr/>		
macOS Restrictions	Determine which restrictions are enabled on macOS devices.	macOS	Gold
macOS AppStore Restrictions	Define which restrictions are enabled in macOS AppStore.	macOS	Gold
macOS Disk Burning Restrictions	Manage disk burning restrictions in macOS.	macOS	Gold
Mobile@Work for macOS	Create and distribute execution rules for Mobile@Work for macOS.	macOS	Gold
Mobile@Work for macOS Script	Create scripts to distribute to Mobile@Work for macOS.	macOS	Gold
"Identity Preference" on page 643	Identify an Identity Preference item in the user's keychain that references an identity payload included in the same profile.	macOS	Gold


Type	What It Does	For These Devices	Needs This License
"Certificate Preference" on page 638	Identify a Certificate preference item in the user's keychain that references a Certificate payload included in the same profile.	macOS	Gold
Allowed Media Control	Configure mounting, unmounting, and eject options for physical media.	macOS	Gold
macOS Finder Settings	Manage settings of Finder app in macOS.	macOS	Gold
macOS Kernel Extension Policy	Controls restrictions and settings for loading user-approved Kernel Extensions.	macOS	Gold
"Active Directory (macOS)" on page 639	Configure advanced options to bind macOS devices to an Active Directory (AD) domain in order to access software services that rely on AD for authentication and security.	macOS	Gold
"Office 365 Auto Account Creation (macOS)" on page 645	Configure user information and options to setup initial configuration for all Microsoft Office 365 applications.	macOS	Gold
Apple App Catalog	Manages access to the Apple App Catalog via a web clip.	<ul style="list-style-type: none"> • iOS • macOS 	Silver
Managed Domains	Specifies trusted email and web domains.	<ul style="list-style-type: none"> • iOS 8+ 	

Type	What It Does	For These Devices	Needs This License
Passcode	<ul style="list-style-type: none"> • Makes a passcode mandatory. • Specifies passcode length and content. • Changes passcode requirements. 	<ul style="list-style-type: none"> • Android • iOS • macOS 	
" Privacy Preference (macOS) " on page 656	Configure which applications are allowed to gain access to system services, system files, and system resources.	macOS	Gold
Authenticate	Provide password-less authentication for cloud services and/or desktop logins.	<ul style="list-style-type: none"> • macOS • Windows 	
" Privacy Configuration " on page 661	Specifies whether location data is collected.	<ul style="list-style-type: none"> • iOS • Android • Windows 	
" Client Privacy Statement Information " on page 667	Display privacy policy to the user in Go client.	<ul style="list-style-type: none"> • Android • Android enterprise • iOS 	
" Client Privacy " on page 660	Configure to collect data via MixPanel including device and usage information to troubleshoot and maintain the highest quality of services.	<ul style="list-style-type: none"> • iOS • macOS 	

Type	What It Does	For These Devices	Needs This License
Software Updates	Creates and distributes rules for OS updates.	<ul style="list-style-type: none"> • iOS • macOS • Windows 	
"Time Server" on page 678	Allow devices to connect to custom time servers.	macOS	Gold
Web Content Filter	Controls Safari content.	Supervised iOS 7	Silver
Windows_Firewall	<p>The Windows Firewall configuration has various firewall restrictions. Based on the firewall restrictions applied by the administrator, the Firewall Status result in one of the following firewall statuses in the Security Preferences pane on Windows devices:</p> <ul style="list-style-type: none"> • Firewall is on and monitoring. • Firewall has been disabled. • Firewall isn't monitoring all networks or some rules have been turned off. 	Windows 10+	

Type	What It Does	For These Devices	Needs This License
	<ul style="list-style-type: none"> • Firewall is temporarily not monitoring all networks. • Not applicable. 		
Windows Information Protection	Defines Windows Information Protection (WIP) settings to protect enterprise data.	Windows 10+	Gold
Windows Restrictions	Determines which features are available on Windows 10+ devices.	Windows 10+	

User Resources

Type	What It Does	For These Devices	Needs This License
CalDAV	<ul style="list-style-type: none"> sets up access to a CalDAV server (like Google Calendar) 	<ul style="list-style-type: none"> iOS 	
CardDAV	<ul style="list-style-type: none"> sets up access to a CardDAV server (like Google Contacts) 	<ul style="list-style-type: none"> iOS 	
Email	<ul style="list-style-type: none"> sets up access for POP/IMAP email (like Gmail) 	<ul style="list-style-type: none"> iOS 	
Exchange	<ul style="list-style-type: none"> sets up access for ActiveSync-based email (like Outlook) for Android and iOS mobile devices sets up Exchange Web Services (EWS)-based email for macOS devices defines how much to sync to the device defines security for email 	<ul style="list-style-type: none"> Android iOS macOS 	<hr/> <ul style="list-style-type: none"> Exchange via sentry is not supported on macOS  <ul style="list-style-type: none"> The Sync Past days emails flag is not applicable for macOS <hr/>

Type	What It Does	For These Devices	Needs This License
Google	<ul style="list-style-type: none"> Creates Google account configurations that connect iOS 9.3.2+ devices to Google accounts. Specifies which app to use to make calls to contacts in the Google system. 	<ul style="list-style-type: none"> iOS 	
Font	<ul style="list-style-type: none"> installs non-standard fonts necessary for proper display of documents 	<ul style="list-style-type: none"> iOS 	
Subscribed Calendar	<ul style="list-style-type: none"> sets up a subscription to an internet calendar 	<ul style="list-style-type: none"> iOS 	
Web Clip	<ul style="list-style-type: none"> displays a shortcut (icon) to a web page 	<ul style="list-style-type: none"> iOS macOS 	
Content Caching	<ul style="list-style-type: none"> provides content-caching service in order to enable local copies of the App Store software and enables connected clients for faster software and app downloads. 	<ul style="list-style-type: none"> macOS 	

Enterprise Network Access

Type	What It Does	For These Devices	Needs This License
AirPlay	<ul style="list-style-type: none"> sets up access to alternate devices for media display 	<ul style="list-style-type: none"> iOS macOS 	Silver
AirPrint	<ul style="list-style-type: none"> sets up wireless printing 	<ul style="list-style-type: none"> iOS macOS 	Silver
Always On VPN	<ul style="list-style-type: none"> sets up access to a VPN server without user interaction 	<ul style="list-style-type: none"> Android 7.0 + iOS 8+ 	<ul style="list-style-type: none"> Gold for Android enterprise Silver for iOS
Default App Runtime Permissions	<ul style="list-style-type: none"> sets the runtime permission configuration for apps deployed to Android enterprise devices. 	<ul style="list-style-type: none"> Apps built targeting Android API 23+ and running Android 6.0+ on Android enterprise devices. 	
Education	<ul style="list-style-type: none"> configures the Apple Education payload and the Classroom app for Leaders and Members 	<ul style="list-style-type: none"> supervised iOS 9.3+ 	Gold
Global Proxy	<ul style="list-style-type: none"> sets up devices to forward HTTP traffic to a proxy server 	<ul style="list-style-type: none"> supervised iOS 7 	Silver
LDAP	<ul style="list-style-type: none"> sets up access to a corporate directory 	<ul style="list-style-type: none"> iOS 	
Tunnel	<ul style="list-style-type: none"> defines a per-app VPN connection between a client and Sentry using Tunnel 	<ul style="list-style-type: none"> iOS 7+ Windows 10+ 	

Type	What It Does	For These Devices	Needs This License
Bridge	<ul style="list-style-type: none"> allows IT to modernize Windows operations on UEM without giving up critical functionality 	<ul style="list-style-type: none"> Windows 10+ desktop 	Bridge license
macOS Server	<ul style="list-style-type: none"> define a macOS Server account with the configured account types and relevant settings. Allows the user to activate File Sharing on the server. 	<ul style="list-style-type: none"> iOS 10+ 	
Per-app VPN	<ul style="list-style-type: none"> sets up connections between specific apps and a VPN server 	<ul style="list-style-type: none"> iOS 	Silver
"Network Relay Configuration" on page 817	<ul style="list-style-type: none"> adds configuration to define settings for network relays 	<ul style="list-style-type: none"> iOS macOS 	
Single Sign-On	<ul style="list-style-type: none"> sets up single sign-on for specified managed apps 	<ul style="list-style-type: none"> iOS 	
Multi-user Secure Sign-in	<ul style="list-style-type: none"> sets up secure multi-user login via web clip 	<ul style="list-style-type: none"> iOS 	
VPN	<ul style="list-style-type: none"> sets up access to a VPN server 	<ul style="list-style-type: none"> Android Windows iOS macOS 	
VPN On Demand	<ul style="list-style-type: none"> sets up access to a VPN server based on domains, host names, etc. 	<ul style="list-style-type: none"> iOS 	
Wi-Fi	<ul style="list-style-type: none"> sets up access to a wireless network 	<ul style="list-style-type: none"> Android Windows 	

Type	What It Does	For These Devices	Needs This License
		<ul style="list-style-type: none"> • iOS • macOS 	

Cellular Network

Type	What It Does	For These Devices	Needs This License
APN	<ul style="list-style-type: none"> • sets up the cellular Access Point Name for the device 	<ul style="list-style-type: none"> • iOS 	
Cellular	<ul style="list-style-type: none"> • sets up cellular network access 	<ul style="list-style-type: none"> • iOS 	
"Cellular Private Network Configuration" on page 888	<ul style="list-style-type: none"> • sets the payload to provide device information on private network deployments 	<ul style="list-style-type: none"> • iOS 	
"iOS Telecom Presets Configuration" on page 890	<ul style="list-style-type: none"> • sets default values for roaming restrictions • sets default values for personal hotspot restrictions 	<ul style="list-style-type: none"> • iOS 	

More Configurations

Type	What It Does	For These Devices	Needs This License
Apple TV	<ul style="list-style-type: none">defines language and locale for Apple TV	<ul style="list-style-type: none">supervised iOS 7	Silver
Default Device Name	<ul style="list-style-type: none">defines a default device name using variables	<ul style="list-style-type: none">supervised iOS 8	Silver
iOS Wallpaper	<ul style="list-style-type: none">installs a home screen and lock screen background	<ul style="list-style-type: none">supervised iOS 7	Silver
macOS Wallpaper	<ul style="list-style-type: none">Installs a home screen and lock screen wallpaper on the devices. Wallpapers can be changed by the user but not removed from a device once distributed		Not required
Single App Mode	<ul style="list-style-type: none">restricts the device to use of the specified app	<ul style="list-style-type: none">supervised iOS 7	Silver
"Associated Domains Configuration" on page 893	<ul style="list-style-type: none">The Associated Domains configuration is a dictionary that maps apps to their associated domains.Associated domains can be used with features such as Extensible AppSSO, universal links, and Password AutoFill.	macOS 10.15+	Gold

Device Sync Configuration

Device Sync settings provide a list data points you can monitor on devices. Device Sync configurations cannot be edited. You can view a list of the settings checked.

Procedure

-
1. Go to **Configurations**.
 2. Click **Device Sync Config**. The Details tab of the **Device Sync Config** page is displayed with a list of items checked.

Settings	Time between readings in minutes
Certificate List	
Device Information	60
Installed App List	60
Managed App List	60
Profile List	60
Provisioning Profile List	60
Restrictions	60
Security Information	60
iOS 9+	
Check for Updates	1440

Related topics

- [Variables](#)
- ["Working with Configurations" on page 423](#)

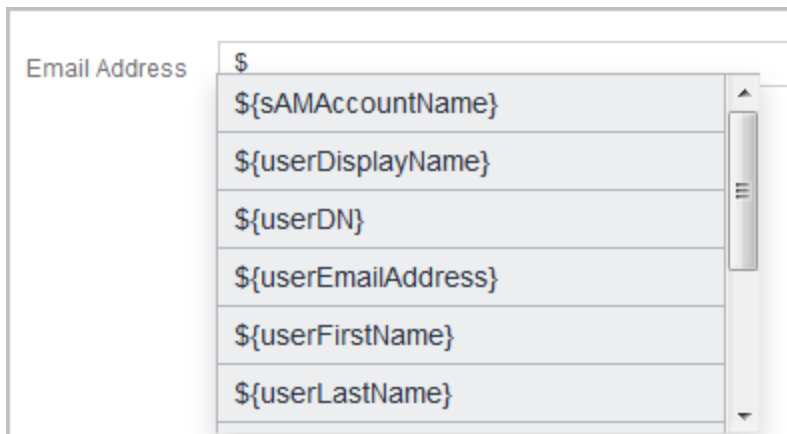
Variables

You can use variables in certain configuration fields to represent values specific to a given user. Any field that supports variables displays a list of supported variables if you type \$ in the field. This section contains the following topics:

- ["Supported user account variables" below](#)
- ["Supported device variables" on page 473](#)

Supported user account variables

User Variables



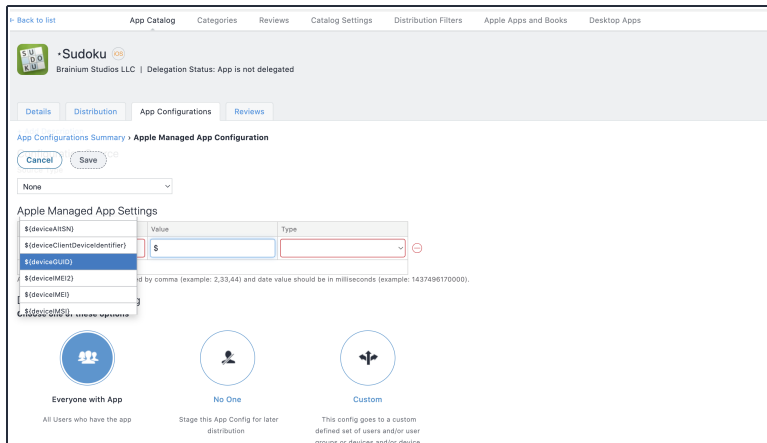
Variable key	Value description
<code>\${department}</code>	department attribute (requires Azure Active Directory)
<code>\${edipi}</code>	No Description
<code>\${managedAppleId}</code>	User's Managed Apple ID
<code>\${sAMAccountName}</code>	sAMAccountName attribute (requires Active Directory)
<code>\${userCN}</code>	Common Name (CN) attribute extracted from the distinguished name (requires LDAP)
<code>\${userDisplayName}</code>	Display name
<code>\${userDN}</code>	Distinguished Name (requires LDAP)
<code>\${userEmailAddressDomain}</code>	The domain part of the email address (part after '@')
<code>\${userEmailAddressLocalPart}></code>	The local part of the email address (part before '@')
<code>\${userEmailAddress}</code>	Email address
<code>\${userFirstName}</code>	First name
<code>\${userLastName}</code>	Last name
<code>\${userLocale}</code>	Locale
<code>\${userOU}</code>	Organizational Unit (OU) attribute extracted from the distinguished name (requires LDAP)
<code>\${userREALM}</code>	Kerberos Realm information (requires Active Directory)
<code>\${userUIDDomain}</code>	The domain part of the login ID (the part after '@')

Variable key	Value description
<code>\${userUIDLocalPart}</code>	The local part of the login ID (the part before '@')
<code>\${userUID}</code>	Login ID (email address format)
<code>\${userUPN}</code>	userPrincipalName attribute (requires Active Directory)

Supported device variables

Use device variables to specify information about a mobile device.

Device Variables



Variable key	Value description
`\${clientLastCheckin}`	Date client last checked-in (most recent checkin - either MDM or Client)
`\${deviceAltSN}`	Alternative Serial Number
`\${deviceClientDeviceIdentifier}`	Identifier used by the client application
`\${deviceGUID}`	Globally unique device identifier
`\${deviceIccIdentifier}`	No Description
`\${deviceIMEI2}`	IMEI2
`\${deviceIMEI}`	IMEI
`\${deviceIMSI}`	IMSI
`\${deviceLastCheckin}`	Date device last checked-in (most recent checkin - either MDM or Client)
`\${deviceMdmChannelId}`	Internal device identifier
`\${deviceMdmDeviceIdentifier}`	Identifier used for MDM
`\${deviceMEIdentifier}`	No Description
`\${deviceModel}`	Model
`\${deviceName}`	Device name
`\${devicePhoneNumber}`	Device phone number
`\${devicePK}`	Cluster unique device identifier
`\${deviceSN}`	Serial Number
`\${deviceUDID}`	iOS UDID
`\${deviceWifiMacAddress}`	Wi-Fi MAC Address

Email template variables

Variable key	Value description
\${policyMessageContent}	No Description
\${policyMessageTitle}	No Description

Time stamp variables

Variable key	Value description
\${timestampMS}	Current timestamp (milliseconds since the epoch)

Policy template variables

Variable key	Value description
\${nameOfPolicy}	Policy name violated
\${nextAction}	Next Tiered Compliance Action (different than wait and retire) to be taken after send message
\${nonComplianceTime}	Count of days device has been in non-compliant state
\${policyViolationFirstTime}	Time stamp when policy violation was first triggered (UTC DD-MM-YYYY format)
\${ruleConditions}	Rule definition (query string the way it appears now)

Related topics:

- ["Attributes" on page 1064](#)

AppConnect Configurations

This section contains the following topics:

- ["AppConnect Overview" on page 477](#)
- ["AppConnect Passcode" on page 478](#)

AppConnect Overview

License: Gold

AppConnect is a feature that containerizes apps to protect data on iOS and Android devices. Each AppConnect-enabled app becomes a secure container whose data is encrypted, protected from unauthorized access, and removable. Because each user has multiple business apps, each app container is also connected to other secure app containers. This connection allows the AppConnect-enabled apps to share data, like documents. Ivanti Neurons for MDM uses policies to manage the AppConnect-enabled apps.

For more information about AppConnect and how to configure and deploy AppConnect apps, see the *AppConnect Guide for Ivanti Neurons for MDM*.

Status of Secure Apps

From the **Devices > Devices** page, click a device to view the **Overview** page. On this page, users can check the status of secure apps with the following information:

- **Secure Apps Status** - Indicates whether AppConnect is enabled or disabled.
- **Secure Apps Encryption Status** - Indicates whether AppConnect passcode is enabled or disabled.
- **Secure Apps Encryption Mode** - Indicates the encryption mode (such as AES 256).

In addition, these fields can be used:

- As filters (left pane) to narrow the device entries displayed when users are trying to find/filter devices.
- As rules while creating a dynamically managed device group.
- As distribution filters, which refine the devices that apps that will get distributed to based on defined rules.

For each secure app, administrators can review Container Policy and Configuration statuses (Installed, Applied, Sent, or Pending Install) in the **Configurations** tab of the device details page.

AppConnect Passcode

This section contains the following topics:

- ["Changing/Resetting a passcode" below](#)
- ["Generating a one-time PIN for resetting a secure apps passcode for iOS devices" below](#)

You can require an AppConnect passcode, also known as the secure apps passcode. With a single login with the AppConnect passcode, the device user can access all the secure apps. On the Admin Portal, you configure the rules for the AppConnect passcode. The AppConnect passcode is not the same as the passcode used to unlock the device.

Changing/Resetting a passcode

Users can change or reset the secure apps passcode in the Secure Apps Manager app for Android devices and in the Go for iOS app, provided it has been allowed in the AppConnect configuration. For iOS devices:

Procedure

1. Open the Go for iOS app.
2. Click **Secure Apps**.
3. Click **Authentication**.
4. Click **Change Secure Apps Passcode** and follow the instructions to change/reset the passcode.

For Android devices:

1. Open the Secure Apps Manager app.
2. Click **Change Passcode** in the options menu.
3. Click **Forgot Password** to reset the passcode.

Generating a one-time PIN for resetting a secure apps passcode for iOS devices

Administrators can configure Ivanti Neurons for MDM to allow iOS device users to reset their secure apps (AppConnect) passcode when they forget it. When you have configured this option, device users who registered with Ivanti Neurons for MDM using a user name and password can enter those credentials in Go 3.1.0 for iOS or supported newer versions to authenticate themselves and then reset their secure apps

passcode. However, device users who have forgotten the password and PIN need a different mechanism for authenticating themselves.

Procedure

1. On Ivanti Neurons for MDM, the administrator turns on the **Secure Apps Passcode** option in the Default iOS AppConnect Configuration (or in any other iOS AppConnect Configuration).
2. The user generates a one-time PIN for a specific iOS device on the self-service user portal by clicking the **Reset Secure Apps Passcode** option and following the instructions. The one-time PIN is valid for 30 minutes.
3. In Go for iOS on a device, the user follows the instructions for resetting a forgotten secure apps passcode.
4. When prompted for his user credentials, the user enters his user name and the one-time PIN instead of the regular passcode.
5. The user resets his secure apps passcode.

Security Configuration

This section contains the following topics:

- "Android Enterprise" on page 483
- "Editing the Android Enterprise default configuration" on page 485
- "Setting up Android Enterprise" on page 486
- "Android Work Challenge" on page 498
- "Certificate configuration" on page 503
- "Certificate Transparency" on page 506
- "Certificate Revocation Checking Configuration" on page 507
- "Create Autonomous Single App Mode Configuration" on page 507
- "Creating DNS Proxy Configuration" on page 508
- "Device Logging configuration" on page 509
- "Android Encryption" on page 512
- "Encrypted DNS" on page 513
- "Threat Defense" on page 517
- "FileVault 2" on page 518
- "FileVault Recovery Key" on page 520
- "FileVault Options Configuration" on page 522
- "Identity Certificate" on page 523

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- "Apple Activation Lock Configuration" on page 533
 - "iOS Custom Configuration" on page 538
 - "iOS Restrictions" on page 539
 - "Conference Room Display" on page 561
 - "Lockdown & Kiosk: Android Device Admin Mode" on page 563
 - "Setting up Kiosk Mode for Android" on page 567
 - "Setting up Android shared device kiosk" on page 570
 - "Lockdown & Kiosk: Android Enterprise" on page 571
 - "Lockdown & Kiosk: Samsung Knox Standard" on page 607
 - "macOS Firewall" on page 611
 - "macOS Restrictions" on page 613
 - "macOS AppStore Restrictions" on page 619
 - "macOS Disk Burning Restrictions" on page 621
 - "Allowed Media Control" on page 623
 - "macOS Finder Settings" on page 627
 - "macOS Kernel Extension Policy" on page 628
 - "Mobile@Work for macOS" on page 629
 - "macOS Software Update Rules Configuration" on page 636
 - "Certificate Preference" on page 638
 - "Active Directory (macOS)" on page 639
 - "Identity Preference" on page 643
 - "Office 365 Auto Account Creation (macOS)" on page 645

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- "Authenticate" on page 647
 - "Apple App Catalog" on page 649
 - "Managed Domains" on page 650
 - "Passcode Configuration" on page 651
 - "Privacy Preference (macOS)" on page 656
 - "Client Privacy" on page 660
 - "Privacy Configuration" on page 661
 - "Client Privacy Statement Information" on page 667
 - "Software Updates" on page 668
 - "Security Preferences Configuration" on page 677
 - "Time Server" on page 678
 - "Web Content Filter" on page 679
 - "Windows Firewall" on page 684
 - "Windows Information Protection" on page 689
 - "Windows Restrictions" on page 697
 - "Windows Desktop restrictions" on page 703
 - "Desktop Settings for Windows 10" on page 706
 - "Windows Hello for Business Configuration" on page 710
 - "Play Integrity (Previously SafetyNet Attestation)" on page 712
 - "Advanced Android Passcode and Lock Screen" on page 713
 - "Microsoft Defender for Endpoint" on page 722
 - "Certificate-based authentication" on page 723

Android Enterprise

License: Silver

An Android Enterprise configuration defines the [Android Enterprise](#) options enabled for supported devices. You can create alternate configurations for different groups of devices or just edit the default configuration. For a list of devices that support Android Enterprise, see the [Android](#) official page.

Android Enterprise settings

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Disable Screen Capture (Android 5.0 +)	Select to prevent devices from using the native screen capture feature.
Disable Apps Control (Android 5.0 +)	Select to prevent users from modifying apps in Settings or Launchers.
Disallow Config Credentials (Android 5.0 +)	Select to prevent users from setting up user credentials.
Disallow Cross Profile Copy / Paste (Android 5.0 +)	Select to prevent devices from copying and pasting to other Android Enterprise work profiles.
Disallow Modify Accounts (Android 5.0 +)	Select to prevent users from adding and removing accounts.
Disallow Outgoing Beam (Android 5.0 +)	Select to prevent users from using NFC to transfer app data.
Disallow Share Location (Android 5.0 +)	Select to prevent websites and apps from prompting the device user to share device location.
Restrict Input Methods (Android 5.0+)	Select to restrict input methods by designating a list of Allowed Package names.

Setting	What To Do
	If there are no Allowlisted Packages, then only system input methods will be allowed. The input methods are not just restricted to the Work Apps, but to the entire device.
Restrict Accessibility Services (Android 5.0 +)	Select to restrict input methods by designating a list of Allowed Package names. If there are no Allowlisted Packages, then only system accessibility services will be allowed. The input methods are not just restricted to the Work Apps, but to the entire device.
Disable Caller ID (Android 6.0 +)	Sets whether Caller ID information from the work profile will be shown in the device for incoming calls.

Related topics

- [Setting up Android Enterprise](#)

Editing the Android Enterprise default configuration

Global Administrators can allow space administrators to edit the distribution for any of the following Android Enterprise default configuration in custom space.

- Android Enterprise: Work Profile on Company Owned Device (Android for Work)
- Android Enterprise: Work Managed Device (Android for Work)
- Android Enterprise: Managed Device with Work Profile

Edit the distribution for any of the above configurations

Procedure

1. In the Configurations tab, select the configuration to be edited.
2. Click on the Edit icon.
3. Click **Next**
4. Select any of the following distribution level for the configuration:
 - All Devices - to distribute the configuration to all compatible devices.
 - a. In the Distribution Summary section, select Apply to devices in other spaces.
 - b. Select 'Allow Space Admin to Edit the Distribution'.
 - Custom - define specific set of device groups that will have this configuration sent to them.
 - a. In the Define Device Group Distribution, Select the check box next to the device type for which you wish to distribute the settings. You can alternatively search for device groups by typing the device group name in the Search Device Groups search field.
 - b. Select 'Allow Space Admin to Edit the Distribution'.
5. Click **Done**.

When this configuration is applied to spaces, the Space administrators will be able to edit the distribution by clicking the distribute icon in custom space.

Setting up Android Enterprise

This section contains the following topic:

- ["Supported Devices" on the next page](#)
- ["Connecting Ivanti Neurons for MDM with Android Enterprise" on the next page](#)
- ["Getting Your Android Enterprise Credentials" on the next page](#)
- ["Adding your Android Enterprise MDM Token to Ivanti Neurons for MDM" on page 488](#)
- ["Synchronizing user between Ivanti Neurons for MDM and Google" on page 489](#)
- ["Active Directory/LDAP Users" on page 489](#)
- ["Local Users" on page 489](#)
- ["Deploying Android Enterprise to Supported devices" on page 490](#)
- ["Retiring Registered Devices" on page 490](#)
- ["Deploying the device" on page 490](#)
- ["Confirming Deployment" on page 491](#)
- ["Deploying Android Enterprise Apps" on page 492](#)
- ["Configuring Business Apps" on page 496](#)

License: Silver

Android Enterprise is a program offered by Google that enables mobility administrators to:

- Separate work and personal data
- Secure and manage enterprise apps
- Control system apps (such as Camera and Gallery)
- Centrally provision and configure apps in the Android Enterprise container
- Prevent data loss (screen capture)

You can configure Ivanti Neurons for MDM as the UEM server that manages Android Enterprise. Android Enterprise requires at least Android 3.0. There are two supported configurations of Android Enterprise, Device Owner and Managed Profile – Employee Owned.

Supported Devices

Ivanti Neurons for MDM currently supports Android Enterprise only on devices that are running Android 5.0 and have Android Enterprise enabled by the manufacturer. Android Enterprise is required for Kiosk mode on devices running Android 5.0.

Prerequisite

If you have not already registered your domain with Google, you must first sign up for the program on the Google website:

<https://admin.google.com>.

During the process you will:

- Claim a domain (must match the domain for user email addresses)
- Receive a token
- Download a JSON client ID

Both items are required when you set up Android Enterprise on Ivanti Neurons for MDM.

After the process, you will receive an email containing instructions for verifying that you own the domain you claimed.

If the company has already used its domain name to sign up for Google Apps for Work, see <https://support.google.com/work/android/answer/6174062> for information on enabling Android Enterprise.

Connecting Ivanti Neurons for MDM with Android Enterprise

Once you have signed up for Android Enterprise, set up Ivanti Neurons for MDM as the UEM server.

Getting Your Android Enterprise Credentials

Procedure

-
1. Go to **Admin > Android Enterprise**.
 2. Click **Google Developers Console**.
 3. Click the first displayed link to go to the Google Developers Console.
 4. Select **Create a project** from the drop-down menu.
 5. Enter a name for the project.
 6. Accept the terms of service.
 7. Click **Create**.
 8. Click **API**.
 9. Select **APIs**.
 10. Type **emm** in the Search field to find the Google Play EMM.
 11. Click the **Google Play EMM API** link.
 12. Click **Enable API**.
 13. Click **Credentials**.
 14. Select **Service account**.
 15. Click **Create** to save the JSON file.

Adding your Android Enterprise MDM Token to Ivanti Neurons for MDM

Procedure

1. Log into <https://admin.google.com>.
2. Click **Security**.
3. If you do not see Android Enterprise Settings, click **Show More**.
4. Select **Android Enterprise Settings**.
5. Under **Manage enterprise mobility management provider**, copy the MDM token.
6. Return to the Ivanti Neurons for MDM portal.
7. Click **Done**.

-
8. In box 2, paste the MDM token you just copied.
 9. In the **Domain** field, enter the domain you claimed with Google.
 10. Click **Choose File** and upload the JSON file you downloaded.
 11. Click **Connect**.
The message **Connected to Google** displays when the connection is successful.
 12. In box 3 click **Authorize** to indicate that you want to give Ivanti Neurons for MDM access to your Google user data.
 13. Click **Accept**.
The message **Connected to Users** displays in the Ivanti Neurons for MDM portal.

Synchronizing user between Ivanti Neurons for MDM and Google

Before you deploy Android Enterprise to Android users managed by Ivanti Neurons for MDM, each user must have a corresponding record on the Google Admin Portal. The steps required for synchronizing the user information between Ivanti Neurons for MDM and the Google Admin Portal depend on whether you have set up an integration with your organization's directory services (AD/LDAP).

Active Directory/LDAP Users

If you have set up an AD/LDAP integration with Ivanti Neurons for MDM, then you must use Google Apps Directory Sync set up an AD/LDAP integration with the Google Admin Portal. See <https://support.google.com/a/answer/106368?hl=en> for more information.

Local Users

If you created only local users in Ivanti Neurons for MDM and do not intend to integrate it with a directory service, then complete the following steps to synchronize those users with the Google Admin Portal:

Procedure

1. Log into the Google Admin Portal at <https://admin.google.com>.
2. Click **Users**.
3. Click the **Add user** or **Add multiple users** icon in the lower right corner.

-
4. For each Ivanti Neurons for MDM user that will use Android Enterprise, add a Google user with the same username and email address as the Ivanti Neurons for MDM user.
 5. In the Ivanti Neurons for MDM portal for each Ivanti Neurons for MDM user that was just added to the Google Admin Portal:
 - a. Click the username link in the Users tab to display the user's details.
 - b. Select **Sync the User with Google User Directory**.
 - c. Click **Sync with Google User Directory**.
 - d. Confirm that Google Status is listed as Enabled.

Deploying Android Enterprise to Supported devices

Two configurations are required for deploying Android Enterprise:

- The Android Enterprise: Work Profile on Company Owned Device configuration enables Android Enterprise.
- A Lockdown & Kiosk configuration defines the Android Enterprise restrictions to apply.

Retiring Registered Devices

In BYOD scenarios, moving from Device Admin to Android Enterprise Work Profile on Company Owned Device does not require a retire and re-enroll of devices. A device wipe or retire is required only for moving from Device Admin to Device Owner mode.

When you select a device enrolled in Device Owner / Enhanced Profile Owner / Company-Owned Personally Enabled modes for Retire action, a pop-up appears on the screen indicating that the "Retire command is not supported for devices which are organizationally owned."

Deploying the device

Procedure

1. In the Ivanti Neurons for MDM portal, go to **Configurations**.
2. Click **Android Enterprise: Work Profile**.
3. Click **Edit**.
4. Click **Next**.
5. Select **All Devices** or **Custom**.

-
6. If you selected **Custom**, search for and select the device groups that should receive the Android for Work settings.
 7. Click **Done**.
 8. Click **Back to list** (upper left corner).
 9. Click **+Add**.
 10. Click **Lockdown & Kiosk: Android Enterprise**.
 11. In the **Name** field, enter text that identifies the configuration.
 12. Under **Choose Lockdown Type**, select **Work Profile**.
 13. Select the lockdown settings you want to apply to the target devices.
 14. Click **Next**.
 15. Select **All Devices** or **Custom**.
 16. If you selected Custom, search for and select the device groups that should receive the Android Enterprise settings.
 17. Click **Done**.



You cannot make changes to the resulting profile once it has been deployed. Instead, you need to create a new Android Enterprise configuration and deploy it.

Confirming Deployment

You can confirm that Android Enterprise has been deployed in the following ways:

- Under **Users > Users**, find the entry for a user, and then check that the **Google Status** is **Enabled**.
- Under **Devices > Devices**, click the link for a device, and then check that status for **Android Enterprise** is **Enabled**.

Google Status for a user should be listed as **Enabled**. If it is not Enabled, then the user will not be able to register devices.



For enterprises that are not GSuite subscribers, managed Google Play Accounts method allows users to be enrolled with Android Enterprise. If Android Enterprise was set up as managed Google Play Accounts, then the user is not shown as **Google Status: Enabled** until after an Android



Enterprise device is registered. See [Managed Google Play Accounts](#) for more information about managed Google Play Accounts.

Deploying Android Enterprise Apps

Any app developed for Android Enterprise may include options that you can configure through Ivanti Neurons for MDM.

Procedure

1. In the Ivanti Neurons for MDM portal, go to **Apps >App Catalog**.
2. Find the app in the Google Play Store.
3. Click the app entry.
4. Accept permissions on behalf of Android Enterprise users.
5. Click **Next**.
6. Select a distribution option.
7. Expand **Advanced Options & App Configuration**.
8. Use the following guidelines to complete the options:

Setting	Description
Install on Device	Select this option to start installation immediately after registration. The user will be prompted to confirm installation of the app except when the device is a Samsung Knox device and the silent installation option below has been selected.
Do not show app in end user App Catalog	Select this option if you do not want the user to see the app in the app catalog on the device.
Silently install on Samsung Knox devices	Select this option if you do not want the user prompted to confirm installation on Samsung Knox devices.

Setting	Description
Set App Install Priority	<p>For Android Enterprise apps you can prioritize downloading of specific apps before other apps. For example, you can prioritize the download of Tunnel and Email apps before other non-critical apps. The following are the available priority level options:</p> <ul style="list-style-type: none"><li data-bbox="867 982 959 1014">• High<li data-bbox="867 1052 1040 1167">• Medium (selected by default)<li data-bbox="867 1205 951 1236">• Low <p>This setting is applicable for In-House, Public, Private, and Web apps. The in-house apps are installed via the client and the public and private are installed via Google. The app</p>

Setting	Description
	priority is applied only to those apps that are installed via the same channel.
Install only when connected to Wi-Fi	Select this option to install the app only when the device is connected to the Wi-Fi.
Install only when charging	Select this option to install the app only when the charging of the device is in progress.
Install only when idle	Select this option to install the app only when the device is in idle (not actively used by the user).
Auto-launch on install	Select this option to launch an app automatically after installation. This functionality is available only if the app is newly installed on the device and not for a version update.

-
9. Click **Next**.
 10. Select a promotion option.
 11. Click **Done**.

Configuring Business Apps

Android Enterprise apps are available in the Business Apps section of the app catalog, including the following apps:

- [Divide Productivity](#)
- Email+
- Tunnel
- Gmail

Android Enterprise: Work Managed Device Non-GMS mode (AOSP)

Ivanti Neurons for MDM supports Device Owner registration of Work Managed Device Non-GMS mode (AOSP) devices without the need for Google Mobile Services (GMS). It is a system configuration and administrators cannot add the configuration. Admins can distribute or undistribute it.

Procedure

1. Log in to Ivanti Neurons for MDM with user credentials.
2. **Search Configurations** for Android Enterprise: Work Managed Device Non-GMS mode (AOSP).
3. Edit the configuration and distribute it to the appropriate device groups. For example: Android Devices.
4. Click **Done**.



For the Work Managed Device Non-GMS mode (AOSP) features to be fully functional, you must enable the Android Enterprise on your Ivanti Neurons for MDM tenant.

Android Work Challenge

This section contains the following topic:

- ["Creating the Android Work Challenge configuration:"](#) below
- ["Configuration Setup settings"](#) on page 501

License: Silver

An Android Work Challenge configuration defines secure passwords for users to access the Work Profile data and apps. Requires Android Enterprise Work Profile.

Implementation notes:

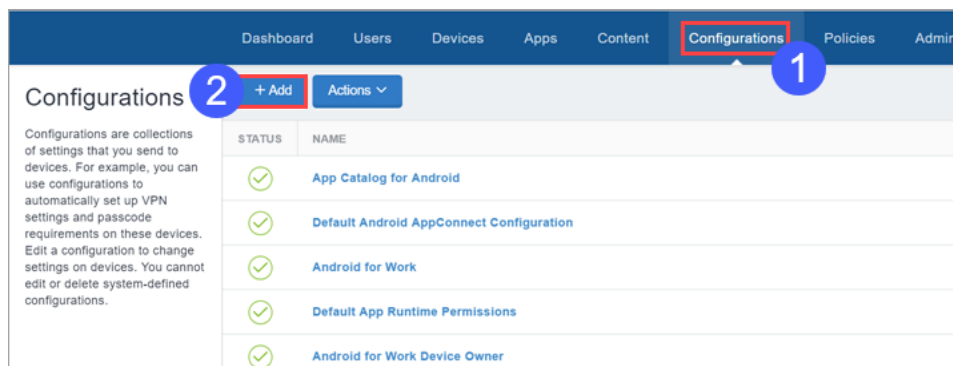
- Administrators can apply a device password policy and a work profile password policy independently.

Ivanti Neurons for MDM does not send this configuration to clients earlier than Android 7.0 because such devices do not support this feature.
- Ivanti Neurons for MDM only sends this configuration to devices with an Android Enterprise Work Profile.

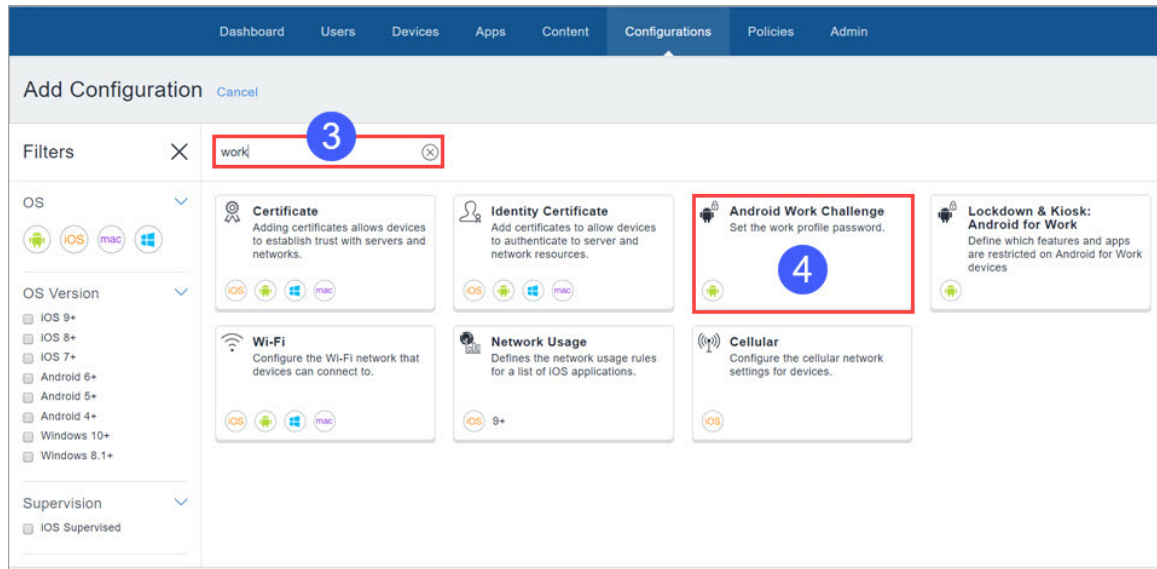
Creating the Android Work Challenge configuration:

Procedure

1. Click **Configurations**.



2. Click **+Add**.



3. Type "work" in the search field.
4. Select the **Android Work Challenge** configuration.

Create Android Work Challenge Configuration

Set secure passwords for users to access the Work Profile data and apps. Needs Profile Owner.

Name **5**

[+Add Description](#)

Configuration Setup

Android for Work - Work Challenge | Set the work profile password. Device passcode and work profile passcode can be set and implemented separately.

7 Android Work Profile **6**

Enable any lock method
Allow user choice of any lock method including pattern unlock. Requires a Work Profile lock to be configured and overrides all other passcode settings.

Minimum passcode length
Minimum number of passcode characters required

Allow simple values
Allow the passcode to contain repeating, ascending, or descending character sequences

Require alphanumeric value
Require the passcode to contain at least one letter and one number

Complex character and element type requirements:

<input checked="" type="radio"/>	None
<input type="radio"/>	Minimum of 1 non-alphanumeric character
<input type="radio"/>	Minimum of 2 non-alphanumeric characters
<input type="radio"/>	Minimum of 3 non-alphanumeric characters
<input type="radio"/>	Minimum of 4 non-alphanumeric characters

Fingerprint Unlock

Enable use of Fingerprint to unlock devices
Applicable for Android 5.0 and later.

General Settings

Maximum passcode age (1-730 days, or none)
 Days after which user must change their passcode

Auto-Lock

Device automatically locks after time period elapses

Passcode history (1-50 passcodes, or none)
 Number of unique passcodes before passcode reuse is allowed

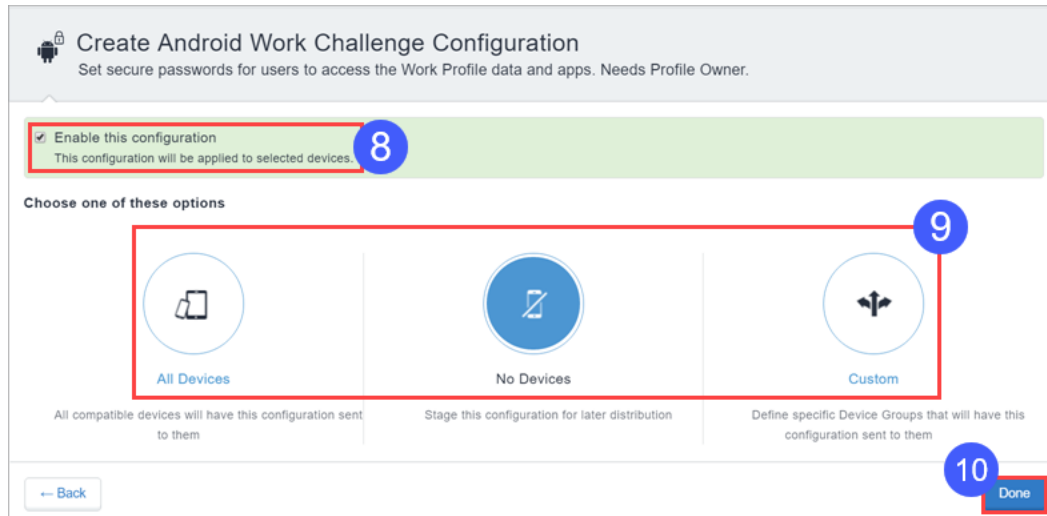
Maximum number of failed attempts

Warning: Devices will be wiped if the user exceeds the maximum number of password attempts

[-- Back](#) **7** [Next -->](#)

5. Enter a name for the configuration, and, optionally, a description.

- Use the Configuration Setup fields to create the configuration. Refer to [Configuration Setup settings](#) for details on the settings.
- Click **Next** ->.



- Enable the configuration if desired.
- Configure distribution settings, to all devices, no devices, or to a custom set of devices.
- Click **Done**.

Configuration Setup settings

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Enable any lock method	Allow user choice of any lock method, including pattern unlock. Overrides all other passcode settings.
Minimum passcode length	Select a minimum passcode length, from 4 to 16 characters.
Allow simple values	Enable to allow the passcode to contain repeating, ascending, or descending character sequences.

Setting	What To Do
Require alphanumeric value	Enable to require the passcode to contain at least one letter and one number.
Complex character and element type characteristics	Configure complex character and element type requirements, ranging from: <ul style="list-style-type: none"> • None • Minimum of 1 non-alphanumeric character • Minimum of 2 non-alphanumeric characters • Minimum of 3 non-alphanumeric characters • Minimum of 4 non-alphanumeric characters
Fingerprint unlock	Enable to allow users to unlock their devices with their fingerprint.
Maximum passcode age	Configure a maximum password age, from none to 730 days.
Auto-lock	Select a time period after which the device auto-locks. Times range from never to fifteen minutes.
Passcode history	Specify the number of unique passcodes required before passcode reuse is allowed, ranging from none to 50 passcodes.
Maximum number of failed attempts	Select the maximum number of failed attempts. WARNING: Ivanti Neurons for MDM wipes devices for which the user exceeds the maximum number of password attempts!

Certificate configuration

A certificate configuration identifies a certificate to be distributed to devices. Certificates enable devices to establish trust with server and network resources. Starting with release 76 we support only v3 certificates.

As an administrator, you can now generate Ivanti Neurons for MDM certificate for smart card logon and custom object IDs (OIDs). You can generate certificates for the following authentication options:

- Client Authentication - enabled by default
- IPSEC – optional, admin can enable
- Smart Card Logon – optional, admin can enable
- Custom OIDs - optional, admin can enable

This feature is only applicable for the following certificate authorities (CA):

- Local Certificate Authority
- Intermediate Certificate Authority
- External Certificate Authority - configure the application policies of CA template in NDES server to support IPSEC , Smart Card Logon, and custom OIDs
- On-premise SCEP Certificate Authority



Distributing the configuration

Starting from Ivanti Neurons for MDM release 91, global administrators can delegate space administrators to edit the Certificate Configuration for All Devices and for the Custom distribution option. For the certificate config, you can optionally select the Allow this configuration to be available in all Spaces option. This option makes Certificate config available to all Spaces and can be used in Exchange, Wifi, VPN, Per-App VPN and any other applicable configurations. This option can be used in scenarios where certificate config is only needed to be distributed to devices (in non default Spaces) as part of associated configurations and not to be distributed as an individual configuration.

Procedure

1. Enter a name in the Name field.
2. Upload the certificate file.

-
3. Click **Next**.
 4. Select the **Enable this configuration** option.
 5. Select one of the following distribution options:
 - **All Devices**. Select one of the following options:
 - **Do not apply to other spaces**.
 - **Apply to devices in other Spaces**.
 - Select **Allow Space Admin to Edit the Distribution** check box to allow the delegated space administrators to edit the distribution for the specific space.
 - **No Devices** (default)
 - **Custom** Select one of the following options:
 - **Do not apply to other spaces**.
 - **Apply to devices in other Spaces**.
 - Select **Allow Space Admin to Edit the Distribution** check box to allow the delegated space administrators to edit the distribution for the specific space.



Irrespective of spaces, the certificate configuration can be configured to all spaces, distributed to all devices, and applied to all devices in other device spaces.

6. Click **Done**.

Certificate settings

As an administrator, you can configure on-premise non-SCEP certificate authority.

Procedure

1. Log in to the Ivanti Neurons for MDM administrator portal.
2. Go to **Admin > Infrastructure > Certificate Management > Certificate Authority**.

-
3. Click **+Add**. The following options are listed:
- **Create the local certificate authority provided by Ivanti Neurons for MDM**
 - **Sign Ivanti Neurons for MDM's local CA with your own existing CA.**
 - **Connect to a publicly-trusted Cloud Certificate Authority.**
 - **Connect an on-premises SCEP Certificate Authority.**
 - **Connect an on-premises non-SCEP Certificate Authority.**
4. Complete the following fields as relevant:

Setting	What To Do
Name	Enter a name that identifies this configuration.
URL	OpenTrust CA URL that the administrator must procure from OpenTrust.
Password	Enter password for the Authentication Certificate
Authentication Certificate	Accepts .p12 file format that is provided by OpenTrust/ IDnomic.
TLS CA Certificate Chain	Accepts PEM file format that is provided by OpenTrust/ IDnomic.

5. Click **Done**.

After you configure on-premise non-SCEP certificate authority you must create the identity certificate. Based on the profile ID fill all the mandatory fields to complete the setup.

A notification is generated when SCEP CA Certificate generation fails due to the following two reasons and the Stage 2 timeout is reached:



1. Connector is not reachable
2. CA server is not reachable

Certificate Transparency

Applicable to: iOS 12.1.1, macOS 10.14.2, and tvOS 12.1.1 and supported newer version.

Controls Certificate Transparency enforcement which can only appear in a device profile. You can include multiple certificates and disable domains as needed.

Creating a Certificate Transparency configuration

Procedure

1. Select **Configurations**.
2. Click **+ Add**.
3. Type **certificate** in the search field, and then click the **Certificate Transparency** configuration.
4. Enter a name and describe the configuration.
5. Specify the **Domains that will be disabled**. Click **+ Add Domain** to add more than one domain. A leading period can be used to match subdomains, however a domain matching rule must not match all the domains within a top level domain. For example, ".example.com" and ".example.co.uk" are allowed while ".com" and ".co.uk" are not allowed. Wildcard domains are not supported.
6. Specify **Certificate Hash** after selecting an algorithm (SHA 256). Click **+ Add** to add more than one certificate hash.
7. Click **Next** to configure the distribution settings.
8. Click **Done**.

To generate the data specified by the Hash key in the subjectPublicKeyInfo dictionary, use the following command for a PEM-encoded certificate:

```
openssl x509 -pubkey -in example_certificate.pem -inform pem | openssl pkey -pubin -outform der | openssl dgst -sha256 -binary | base64
```

If your certificate is DER-encoded, use the following command:

```
openssl x509 -pubkey -in example_certificate.der -inform der | openssl pkey -pubin -outform der | openssl dgst -sha256 -binary | base64
```

For more information, see [How to create a configuration](#).

Certificate Revocation Checking Configuration

This configuration allows the administrators to check an array of certificates revoked from a device. Administrators can specify a certificate authority (CA) which allows the configuration to enable revocation checking for all the certificates which are linked to that CA.

Applicable to: iOS 14.2+

Procedure

1. Go to **Configurations** > **+Add**.
2. Type **certificate** in the search field, and then click the **Certificate Revocation Checking** configuration.
3. Enter a **Name** and **Description** of the configuration.
4. Select algorithm as **SHA 256** and enter the **Hash** of the root certificate.



In Hash, you have to enter a Base64 encoded (binary) SHA-256 hash of the certificate's public key. See [Apple documentation](#) for the available trusted root certificates for Apple operating systems. You can add multiple root certificates in this configuration.

5. Click **Next**.
6. Select **Enable this configuration** option.
7. Select one of the following distribution options:
 - All Devices
 - No Devices (default)
 - Custom.
8. Click **Done**.

Create Autonomous Single App Mode Configuration

The Autonomous Single App Mode configuration lets you ensure that only specific applications run on a device. Even if the user attempts to launch a different application, the configuration launches only the specific application.

Procedure

1. Go to **Configurations** > **Add** > **Autonomous Single App Mode**.
2. Use the following guidelines to define the app and related settings.

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Configuration Setup	Bundle Identifier - (Required) The unique bundle identifier. If two dictionaries contain the same BundleIdentifier value but a different TeamIdentifier value, this will be considered an error and the profile won't be installed.
	Team Identifier - (Required) The developer's team identifier, used when the app was signed.

3. Click **Next**.
4. In the **Distribution** screen, select the groups to receive this configuration.
5. Click **Done**.

Creating DNS Proxy Configuration

As the Ivanti Neurons for MDM administrator, you can configure DNS Proxy settings using the DNS Proxy Configuration for users of iPhone and iPad devices. You can use the DNS Proxy payload to specify the application that provides the DNS proxy network extension and other vendor-specific values.

Procedure

1. Log in to the Ivanti Neurons for MDM administrative portal.
2. Go to **Configurations**
3. Type **DNS** in the search field, and click **DNSProxy Configuration**.

-
4. Enter a name and describe the configuration.
 5. Enter the following DNS Proxy Configuration settings:
 - App Bundle Identifier (Required).
 - Provider Bundle Identifier.
 - Provider Configuration (Key-Value).
 6. Click **Next**.
 7. Select the **Enable this configuration** option.
 8. Select one of the following distribution options:
 - All Devices
 - No Devices (default)
 - Custom
 9. Click **Done**.

Device Logging configuration

The Device Logging configuration allows you to enable network and security logs for Android devices.

Creating a Device Logging configuration

Procedure

1. Select **Configurations**.
2. Click + **Add**.
3. In the search field, type **Device Logging** and select the configuration.
4. Enter a name and describe the configuration.
5. Under the **Configuration Setup** section, select one or both options:
 - Enable Network Logging
 - Enable Security Logging



For information on supported Android versions for Security and Network logging, refer to the tables under **Security Logging matrix** below.

6. Under the **App Usage** section, select **Enable Application usage data collection** option to collect data usage information. Enabling this option requires the user to allow the permission to collect data usage on the device.
 - Collect Application Usage data - Select to collect the application usage data for apps in App Catalog



App Usage data is collected once a day and shows the previous day's usage. The Present day usage is not reported. End users will be requested to provide permission to retrieve this information. Some device manufacturers may allow pre-granting this permission on Fully Managed devices using OEMConfig (Managed Configurations). This feature requires a Secure UEM Premium license.

7. Some device manufacturers may allow pre-granting this permission on Fully Managed devices using OEMConfig (Managed Configurations).
8. Click **Next** to configure the distribution settings.
9. Click **Done**.

Security Logging matrix

Device type	Supported Android versions
Work Managed Devices and Work Managed Device Non-GMS mode (AOSP)	7, 8, 9, 10, 11, 12, 13
Managed Devices with Work Profile	8, 9, 10
Work Profile	NA
Work Profile on Company Owned Device	11, 12, 13

Network Logging matrix

Device type	Supported Android versions
Work Managed Devices and Work Managed Device Non-GMS mode (AOSP)	8, 9, 10, 11, 12, 13
Managed Devices with Work Profile	8, 9, 10

Device type	Supported Android versions
Work Profile	12, 13
Work Profile on Company Owned Device	12, 13

After installing the Device Logging Configuration on the device, the user gets a notification which has info about the Device management and Network logging. Click **OK** to acknowledge the notification.

Requesting Debug Logs

Procedure

1. Log in to the Ivanti Neurons for MDM.
2. Go to **Devices > Device details**.
3. From the **Overview** section, click on the three vertical dots button next to the **Force Checkin** button.
4. Select **Request Debug Logs**.
5. Select one of the following two options:
 - Exclude Bug report - When you select this option and click Next, a confirmation window appears on the screen. Click **Request Debug Logs**. Users do not have to provide any consent for this option, and these logs would exclude bug report for the selected Android devices.
 - Include Bug report - When you select this option and click Next, a confirmation window appears on the screen. Click **Request Debug Logs**. Users must provide consent for sharing the bug report. In the case of Android devices, users will be prompted to submit the device logs, to include bug report.

Android Encryption

An encryption configuration defines device encryption requirements for Android devices in Device Admin mode. Device encryption ensures that sensitive corporate data cannot be accessed by known jailbreak or root exploits. Encryption stores the device's data in an unreadable form so that anyone who might steal the device cannot access the data.

Enabling encryption prompts the device user to encrypt the device and requires setting a device passcode. The passcode is what decrypts the data so that you can read it. Device encryption is automatically enabled on Android enterprise (work profile or managed devices) or iOS devices when a passcode is set. The device cannot be used while it is being encrypted. Once encryption is on, turning it off requires a factory reset of the device.

Encryption settings

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Enable Device Encryption	Select the setting to turn on encryption for all encryption-capable Android devices that receive this configuration.



Android Encryption Configuration is deprecated for Samsung devices in Device Admin mode on Android 11. This encryption is supported by default on Android Enterprise devices when a device passcode is set.

For more information, see [How to create a configuration](#).

Encrypted DNS

License: Gold

Applicable to:

- iOS 14.0 or supported newer versions.
- macOS 11.0 or supported newer versions.

Configure Encrypted DNS that will allow you to enhance security without needing to configure VPN.

This section contains the following topics:

- [Encrypted DNS configuration](#)
- [Encrypted DNS configuration settings](#)

Encrypted DNS configuration

Procedure

1. Select **Configurations**.
2. Click + **Add**.
3. Type **DNS** in the search field, and then click the **Encrypted DNS** configuration.
4. Enter a name and describe the configuration.
5. Enter the [Encrypted DNS configuration settings](#).
6. Click **Next**.
7. Select the **Enable this configuration** option.
8. Select one of the following distribution options:
 - All Devices
 - No Devices (default)
 - Custom

9. Click **Done**.

Encrypted DNS configuration settings

Use the settings in the following table to configure Encrypted DNS. For more information about these settings, see [Apple documentation](#).

Setting	Description
DNS Settings	A dictionary that defines a configuration for an encrypted DNS server.
DNS Protocol	Specify the encrypted transport protocol used to communicate with the DNS server. Select one of the following protocols: <ul style="list-style-type: none">• HTTPS• TLS
Server URL	The URI template of a DNS-over-HTTPS server, as defined in RFC 8484. This URL must use the https:// scheme, and the hostname or address in the URL will be used to validate the server certificate. If no Server Addresses are provided, the hostname or address in the URL will be used to determine the server addresses. This key must be present only if the DNS Protocol is HTTPS.
Server Addresses	An unordered list of DNS server IP address strings. These IP addresses can be a mixture of IPv4 and IPv6 addresses. Click Add to add one or more server addresses.
Supplemental Match Domains	A list of domain strings used to determine which DNS queries will use the DNS server. If this array is not provided, all domains will use the DNS server. Click Add to add one or more domains.
Prohibit users from disabling DNS Settings	Prohibits users from disabling DNS settings. This key is only available on supervised devices.
Demand Rules	An array of rules defining the DNS settings. If rules are not present, the system always applies the DNS settings. Click + Add Demand Rules to add one or more sets of demand rules.
Network	The action to take if this dictionary matches the current network. Select one of the following actions:

Setting	Description
	<ul style="list-style-type: none"> • Connect: Apply DNS Settings when the dictionary matches. • Disconnect: Do not apply DNS Settings when the dictionary matches. • Evaluate Connection: Apply DNS Settings with per-domain exceptions when the dictionary matches.
Evaluate Connection	<p>This network option has the following settings:</p> <ul style="list-style-type: none"> • Domain Action - The DNS settings behavior for the specified domains. Select one of the following actions: <ul style="list-style-type: none"> ◦ Never Connect - Do not use the DNS Settings for the specified domains. ◦ Connect if Needed - Allow using the DNS Settings for the specified domains. • Domains - The domains for which this evaluation applies. Click + Add to add one or more domains.
Rules	Click + Add to add one or more rules to match the following parameters with the corresponding specified values.
DNS Domain Match	An array of domain names. This rule matches if any of the domain names in the specified list matches any domain in the device's search domains list.
DNS Server Address Match	An array of IP addresses. This rule matches if any of the network's specified DNS servers match any entry in the array.
SSID Match	<p>An array of SSIDs to match against the current network. If the network is not a Wi-Fi network or if the SSID does not appear in this array, the match fails.</p> <p>Omit this key and the corresponding array to match against any SSID.</p>
Interface Type Match	<p>An interface type. If specified, this rule matches only if the primary network interface hardware matches the specified type. Select one of the following types:</p> <ul style="list-style-type: none"> • Ethernet • WiFi • Cellular
URL String Probe	A URL to probe. If this URL is successfully fetched (returning a 200 HTTP status

Setting	Description
	code) without redirection, this rule matches.

For more information, see [How to create a configuration](#).

Threat Defense

Applicable to:

- Go for iOS client version 3.2.0 or supported newer versions.
- Go for Android client version 52 or supported newer versions.

Ivanti Neurons for MDM includes the ability to distribute activation tokens to enable Threat Defense technology integrated into Go for Android and iOS clients. Threat Defense protects managed devices from mobile threats and vulnerabilities affecting device, network, and applications.

When this configuration is enabled in Ivanti Neurons for MDM and applied to the devices, the Threat Defense libraries are enabled on the Go clients. The Threat Defense service can be deactivated by removing the license token and resending the license configuration to the client.

Threat Defense monitors:

- On the device level: system parameters, configuration, firmware, and libraries to identify suspicious or malicious activity.
- On the network level: network traffic and suspicious connections to and from mobile devices.
- On the app level: leaky apps (potentially placing enterprise data at risk) and malicious apps, through risk assessment and code analysis.

Latest documentation

For the latest Threat Defense instructions, see the *Ivanti Neurons for MDM Threat Defense Solution Guide* in Product Documentation site at [Ivanti Neurons for MDM product documentation](#).


FileVault 2

License: Gold

FileVault 2 provides the ability to perform full XTS-AES 128 disk encryption on the contents of a volume.

When you Enable FileVault 2, the following settings are available for configuration:

Category	Settings
FileVault User Settings	<ul style="list-style-type: none">• Enable FileVault at SetupAssist Default: False• If true, and the payload is installed after enrolling with Ivanti Neurons for MDM in Setup Assistant, it requests the Setup Assistant to enable FileVault at setup time. Also, the system ignores all other keys in this payload, except for ShowRecoveryKey. Prerequisite:- Before you enable the file vault in the setup assistant, ensure that the Await Device Configuration during Device Enrollment Setup is enabled in the Device Enrollment Profile.• Defer enabling FileVault until the designated user logs out<ul style="list-style-type: none">• Always prompt user to enable FileVault• Maximum number of times a user can bypass enabling FileVault• Do not request enabling FileVault at user logout time
Output Path	Enter the path to the location where the recovery key and computer information plist will be stored.
Personal Recovery Key	<ul style="list-style-type: none">• Create a personal recovery key

Category	Settings
	<ul style="list-style-type: none"><li data-bbox="500 268 1057 338">• Display the personal recovery key to the user after FileVault is enabled <hr/> <p data-bbox="529 396 1019 548"> This option is visible only when Create a personal recovery key is enabled. By default the option is disabled.</p> <hr/> <ul style="list-style-type: none"><li data-bbox="500 600 1057 1087">• Enable Institutional Recovery Key: Using Keychain - if no certificate information is provided in this payload the keychain already created at /Library/Keychains/FileVaultMaster.keychain will be used. Select one of the following options:<ul style="list-style-type: none"><li data-bbox="540 915 781 947">• Upload Certificate<li data-bbox="540 989 691 1020">• Certificate<li data-bbox="540 1062 971 1094">• Use keychain on the Users System

FileVault Recovery Key

License: Gold

FileVault Recovery Key configuration determines redirecting and escrowing the FileVault recovery keys to a corporate server.



Exclude and Re-push of File Vault Recovery Key configuration is disabled as a macOS device stops sending recovery key on re-pushing the configuration.

You can set the following options:

Setting	Description
Name	Enter a name that identifies this configuration.
Description	(Optional) Enter a description that clarifies the purpose of this configuration.
Configuration settings for macOS < 10.13	
Store Recovery key to Ivanti Neurons for MDM Tenant	Select to enable Ivanti Neurons for MDM to store the keys on your tenant. When needed, the key can be decrypted from the Device Details page.
Redirect URL to Server	Enter the following settings: <ul style="list-style-type: none">• Enter Redirect URL to which FDE recovery keys should be sent instead of Apple. The URL must begin with https://.• Select a Certificate from the dropdown list. Only PKCS1 format certificate is supported.
Configuration settings for macOS 10.13+	
Location	(Required) Enter a short description of the location where the recovery key will be

Setting	Description
	escrowed. This text will be inserted into the message the user sees when enabling FileVault.
Device Key	(Optional) Enter a string to be included in the help text if the user appears to have forgotten the password.

FileVault Options Configuration

This configuration allows administrator to enable or disable FileVault and destroy FileVault key when the system goes into standby.

Applicable to: macOS 10.7+

Procedure


1. Go to **Configurations** > **+Add**.
2. Type **FileVault** in the search field, and then click the **FileVault Options** configuration.
3. Enter a **Name** and **Description** of the configuration.
4. In Configuration Setup, select the required options:
 - Destroy FileVault key when system goes into standby mode
 - Do not allow disabling Full Disk Encryption
 - Do not allow enabling Full Disk Encryption
5. Click **Next**.
6. Select **Enable this configuration** option.
7. Select one of the following distribution options:
 - All Devices
 - No Devices (default)
 - Custom.
8. Click **Done**.


Identity Certificate


This section contains the following topics:

- [Identity certificate settings](#)
- [Distributing the configuration](#)

An identity certificate configuration defines a certificate authentication mechanism for mobile devices. Identity certificates are X.509 certificates (.p12 or .pfx). Also, the identity certificates can be generated dynamically using the [Certificate Authority](#) as a source. Before beginning, you should already know how you plan to distribute certificates to your mobile devices. You should also have configured any necessary certificate authority.

 Starting from release 91, the Device Identity certificate for Apple devices is automatically renewed within 30 days of expiry. iOS devices receive renewed MDM certificates from Ivanti Neurons for MDM as part of the regular device check-in flow. However, iOS devices need to be re-enrolled with Ivanti Neurons for MDM when they are offline long enough for the MDM certificate to expire before a check-in that would have renewed the certificate before expiration.


-
- SHA-1 certificates are deprecated while creating the identity certificates. You can choose other algorithms. While updating the certificates, if the older certificates use SHA-1, the same SHA-1 algorithm can be used. If the older certificates use an algorithm above SHA-1, then switching to SHA-1 is not allowed.
 -  After configuring an identity certificate, you can click **Test Configuration and continue** to issue and verify the validity of the test certificate. An error may display by performing this test for a new or an existing dynamically generated identity certificate configuration if the subject name is the same as the local certificate authority. When this error message is displayed you should modify the identity certificate subject name which should be different from the local certificate authority subject name. For existing identity certificate configurations that are modified with the subject name, the certificates are re-issued and the configurations are re-pushed.
If you have setup the option to create a configuration without issuing test certificate for **Dynamically Generated** certificate distribution, click **Continue**.
-

- While editing an existing identity certificate configuration (which is in turn used in a Sentry profile for Tunnel or AppTunnel), from the **Actions** menu you can select the **Clear cached certificates and issue new ones with recent updates** option if required. Non-cached certificates will be re-issued automatically.
-  • When Identity certificates are assigned to Android apps, the user's app get Identity certificates without prompting the users to grant the permission (rather than app) to use the certificate. It includes all apps like Email+, Gmail, etc.
- Email+ can be configured with a user provided identity certificate and pushed and assigned as an app configuration to Android enterprise devices. It is applicable only to Work Profile on Company Owned Device and Device Owner modes.

Identity certificate settings

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Certificate Distribution	<p>Select the type of certificate distribution to set up:</p> <ul style="list-style-type: none"> • Single File: Upload an existing certificate for distribution to devices. • Dynamically Generated: Create certificates on request using a local or external certificate authority. • User provided: Create labels for the type of certificates to be uploaded by the user. When created, the user will be able to see the created labels (options) in the self-service portal, and upload certificates corresponding to these labels.


Setting	What To Do
	<ul style="list-style-type: none"> • Derived Credential : Specify one of the following usages for the derived credential: <ul style="list-style-type: none"> ◦ Authentication ◦ Encryption ◦ Signing ◦ Decryption • • SCEP Config: Specify how to request a certificate from a SCEP server. Select one of the following configurations: <ul style="list-style-type: none"> ◦ Apple Config ◦ Windows Config <p>Your selection determines which options display in the rest of the form.</p>
Allow All Apps to access Private Key (macOS 10.10+)	<p>Applicable to: Single file, Dynamically Generated, User Provided, and SCEP Apple Config identity certificates.</p> <p>(Optional) For PKCS#12 certificates, enable the Allow All Apps to access Private Key option to allow all apps access to the private key.</p> <p>For example, this key can be used in cases where a password is requested from the user to allow access to a certificate used for VPN.</p>
Single File	
Identity Certificate data	Drag the certificate file to the dotted box, or click Choose File to select it from your file system.
Password	Enter the password protecting the PKCS#12 certificate file. This password is used for installation

Setting	What To Do
	without prompting.
Dynamically Generated	
Source	Select the local certificate authority from the drop-down. You should have already created this CA under Admin > Certificate Management .
Create configuration without issuing test certificate	Select the check box to create a configuration without issuing test certificate.
Windows only - Target Certificate Store	Admins can now select the Target Certificate Store on Windows devices.
User Provided	
Certificate Display Name	Enter the name of the certificate. This certificate name is unique for a tenant and the user will be able to see the name in the self-service portal while uploading the certificate.
Delete the Private Key	<p>Select this option to delete the private key of the certificate after n (1-30) days.</p> <p>You can also use the APIs provided by Ivanti Neurons for MDM for these operations. Refer to the <i>Ivanti Neurons for MDM API Guide</i> for more information about the APIs.</p> <hr/> <p> If you try to use this certificate in any configuration (for example, to authenticate an application or to push a WiFi or a VPN configuration) after its private key has been deleted, the task will fail. Ensure that the task is performed before the private key is deleted.</p> <hr/>
Delete the	Select the number of days (1-30) after which private

Setting	What To Do
Private Key after Days	keys of the certificate are cleared. Default value is 2 days.
Derived Credential	
Derived Credential Usage	<p>Select any of the following options:</p> <ul style="list-style-type: none"> • Authentication - To specify that the derived credential is used for authentication. • Encryption - To specify that the usage of the derived credential is for encryption. • Signing - To specify that the derived credential is used for signing. • Decryption - To specify that the usage of the derived credential is for decryption.
Brand	<p>Select the Derived Credential Provider that you use from the following options:</p> <ul style="list-style-type: none"> • Entrust • Intercede • Purebred <p>To add custom derived credential providers that you use, see Derived Credential Providers.</p>
ACME Config - Applicable only to iOS/iPadOS16+ /macOS14+	
Client Identifier	A unique string identifying a specific device
Directory URL	(Required) The directory URL of the ACME server. The URL must use the https scheme.
Extended Key Usage	<p>The value is an array of strings. Each string is an OID in dotted notation. For instance, ["1.3.6.1.5.5.7.3.2", "1.3.6.1.5.5.7.3.4"] indicates client authentication and email protection.</p> <p>The device requests this field for the certificate that</p>

Setting	What To Do
	the ACME server issues. The ACME server may override or ignore this field in the certificate it issues.
Key Size	(Required) The valid values for KeySize depend on the values of KeyType and HardwareBound. See those keys for specific requirements.
Key Type	(Required) The type of key pair to generate.
Subject	<p>(Required) Enter an X.500 name represented as a comma-separated array of OIDs and values. Typically, the subject is set to the user's fully qualified domain name. For example, C=US,DC=com,DC=MobileIron,OU=InfoTech or CN=www.mobileiron.com.</p> <p>You can also customize the Subject by appending a variable to the OID. For example, CN=www.mobileiron.com-<code>{deviceGUID}</code>.</p> <p>For ease of configuration you can also use the <code>{userDN}</code> variable to populate the Subject with the user's FQDN.</p> <p>Do not use the backslash character () in the subject name.</p>
Subject Alternate Name	The Subject Alt Name that the device requests for the certificate that the ACME server issues. The ACME server may override or ignore this field in the certificate it issues.
Key Usage	<p>This value is a bit field.</p> <p>Bit 0x01 indicates digital signature.</p> <p>Bit 0x10 indicates key agreement.</p> <p>The device requests this key for the certificate that the ACME server issues. The ACME server may override or ignore this field in the certificate it issues.</p>
Hardware	If the Hardware bound is set to true the private key

Setting	What To Do
Bound	is bound to the device, and only then the Key Type must be ECSECPublicRandom and Key Size must be 256 or 384.
Attest	If true, the device provides attestations describing the device and the generated key to the ACME server. When Attest is true, Hardware Bound must also be true.
SCEP Config - Apple Config	
Identity Certificate (SCEP)	Select to specify a SCEP server.
Local Certificate Authority	Select to specify a local certificate authority that you have already created under Admin > Certificate Management . Select the local certificate authority from the drop-down that appears when you select this option.
URL	Enter the URL for the SCEP server.
CA Identifier	Enter the identifier provided by the certificate authority.
Subject	<p>Enter an X.500 name represented as a comma-separated array of OIDs and values. Typically, the subject is set to the user's fully qualified domain name. For example, C=US,DC=com,DC=MobileIron,OU=InfoTech or CN=www.mobileiron.com.</p> <p>You can also customize the Subject by appending a variable to the OID. For example, CN=www.mobileiron.com-\$DEVICE_CLIENT_ID\$.</p> <p>For ease of configuration you can also use the \$USER_DN\$ variable to populate the Subject with the user's FQDN.</p> <p>Do not use the backslash character (\) in the subject name.</p>

Setting	What To Do
Subject Alternate Name Type	Select RFC 822 Name, DNS Name, Uniform Resource Identifier or None, based on the attributes of the certificate template.
Subject Alternate Name Value	<p>Enter the value for the corresponding type. If you type '\$' as the first character, a drop-down list is displayed with possible custom LDAP and AAD attributes. Select the appropriate custom attribute from the list.</p> <hr/> <p> If AAD value is used, only 'onPremisesImmutableId' is supported. Enter fn:base64tohex (\${onPremisesImmutableId})</p> <hr/>
NT Principal Name	Enter a subject alt name for Microsoft environment. This would usually be configured to include the user's UPN (user principal name).
Challenge	(Optional) Used as a pre-shared secret for automatic enrollment.
Retries	Select from the list to set the number of times that authentication will be attempted after the first time a status of 'pending' is returned.
Retry delay	Select from the list to set the number of seconds to wait before a retry.
Key size	Select 1024, 2048, or 4096 bits.
Use as digital signature	Select if the certificate can be used for signing.
Use as key encipherment	Select if the certificate can be used for encryption.
CA Fingerprint	<p>If your certificate authority uses HTTP, enter the hex string to be used as the fingerprint of the CA's certificate. MD5 fingerprints is supported.</p> <p>If you prefer, you can create a fingerprint from the certificate. Just drag and drop the certificate to the</p>

Setting	What To Do
	designated area or click Create from Certificate to select the certificate from your file system.
SCEP Config - Windows Config	
CA (Certificate Authority)	Select to specify a certificate authority that you have already created under Admin > Certificate Management . Select the certificate authority from the drop-down that appears when you select this option.
Subject	<p>Enter an X.500 name represented as a comma-separated array of OIDs and values. Typically, the subject is set to the user's fully qualified domain name. For example, C=US,DC=com,DC=MobileIron,OU=InfoTech or CN=www.mobileiron.com.</p> <p>You can also customize the Subject by appending a variable to the OID. For example, CN=www.mobileiron.com-\$DEVICE_CLIENT_ID\$.</p> <p>For ease of configuration you can also use the \$USER_DN\$ variable to populate the Subject with the user's FQDN.</p> <p>Do not use the backslash character (\) in the subject name.</p>
Subject Alternate Name Type	Click + Add to select RFC 822 Name, DNS Name, Uniform Resource Identifier or None, based on the attributes of the certificate template.
Retries	Select from the list to set the number of times that authentication will be attempted after the first time a status of 'pending' is returned.
Retry delay	Select from the list to set the number of seconds to wait before a retry.
Key Length	Select key size in 1024, 2048, or 4096 bits.
Select usage	Select at least one option:

Setting	What To Do
	<ul style="list-style-type: none"> • Use as digital signature - Select if the certificate can be used for signing. • Use as key encipherment - Select if the certificate can be used for encryption.
Validity	Select validity in days, months, or years.
CA Thumbprint	<p>If your certificate authority uses HTTP, enter the hex string to be used as the fingerprint of the CA's certificate. MD5 fingerprints is supported.</p> <p>If you prefer, you can create a fingerprint from the certificate. Just drag and drop the certificate to the designated area or click Create from Certificate to select the certificate from your file system.</p>
Hash Algorithm Family	Select SHA-2 or SHA-3 algorithms.



When applying an Identity Certificate to a work profile on a device without setting a work challenge passcode, the device prompts for a device passcode, rather than a work challenge passcode.

For more information, see "[Working with Configurations](#)" on page 423.

Apple Activation Lock Configuration

License: Silver

This section contains the following topics:

- [Enabling the iOS Activation Lock](#)
- [Enable the iOS Activation Lock feature on supervised devices](#)
- [Enabling the macOS Activation Lock](#)
- [Enable the macOS Activation Lock feature on supervised devices](#)
- [Using the iOS Activation Lock bypass code](#)
- [Clearing the iOS Activation Lock bypass code](#)

Activation Lock is an Apple feature designed to prevent anyone from using a lost or stolen device. After Find My is enabled, a mapping between iCloud account and a hardware identifier for this device is saved to Apple's activation servers. From that point, no one can disable Find My, erase the device, or reactivate it without entering the existing Apple ID and password. If someone other than the user wipes the device and then tries to re-activate and use it, they will be prompted for the Apple ID and password in Setup Assistant.

Disabling Activation Lock will not disable this feature on supervised devices if the end-user has enabled Find My Device. The Setup Assistant will prompt the user to take action when the device is reset or remotely wiped.

Activation Lock provides administrators with more options for deterring theft of supervised devices. However, most corporate administrators are likely to leave Activation Lock disabled because it is primarily a consumer feature. The following table summarizes the options for corporate-liable deployments:

Device Type	Result
Corporate-liable and supervised	<ul style="list-style-type: none"> • Activation Lock is disabled for supervised devices by default. • Device users cannot turn on Activation Lock.
Corporate-liable and unsupervised	<ul style="list-style-type: none"> • Activation Lock will be enabled as soon as the end-user signs in to iCloud with their Apple ID and turns on Find My Device. • MDM servers, including Ivanti Neurons for MDM, cannot control Activation Lock on unsupervised devices. Device users can lock activation with their personal credentials, leaving you no recourse should they leave the company.

Enabling the iOS Activation Lock

Applicable to: iOS 7+ Supervised

This configuration will be applied to Supervised devices (iOS 7 and later) that have the [Find My](#) feature enabled. If an administrator or other user tries to Wipe, Activate, or disable Find My Device on the device, an Apple Activation Lock screen will be displayed. To proceed, iTunes credentials or a Bypass code must be entered.

The Bypass code for Supervised devices will be stored upon activation and can be viewed in device details. The Bypass code can be sent remotely using the "Clear Activation Lock" command for Supervised devices. However, the code must be entered manually when reactivating a device or turning off the Find My Device feature.



You can only create one Activation Lock Configuration for all spaces.

Enable the iOS Activation Lock feature on supervised devices

Procedure

1. Enable the **Find My** feature on your device.
2. Go to **Configurations**.
3. Select the **Apple Activation Lock** configuration from the list of existing configurations.
4. Click **Edit**.

-
5. In the iOS 7+ Supervised section, click **Enable Activation Lock**.
 6. Click **Done**.
 7. Register the device.

Enabling the macOS Activation Lock

Applicable to: macOS 10.15+ Supervised

This configuration will be applied to Supervised devices with macOS 10.15 and later. Activation Lock on macOS only applies to Macs that have an Apple T2 Security Chip. On Supervised devices, whether upgraded or freshly installed, and on upgraded currently registered devices, Activation Lock is off by default. Enabling Find My does not automatically enable Activation Lock on these devices

If an administrator or other user tries to Wipe, Activate, or disable Find My feature on the device, an Apple Activation Lock screen will be displayed. To proceed, iTunes credentials or a Bypass code must be entered. The Bypass code for Supervised devices will be stored upon activation and can be viewed in device details. The Bypass code can be sent remotely using the "Clear Activation Lock" command for Supervised devices. However, the code must be entered manually when reactivating a device or turning off the Find My feature.



You can only create one Activation Lock Configuration for all spaces.

Enable the macOS Activation Lock feature on supervised devices

Procedure

1. Enable the Find My feature on your device.
2. Go to **Configurations**.
3. Select the **Apple Activation Lock** configuration from the list of existing configurations.
4. Click **Edit**.
5. In the macOS 10.15+ Supervised section, click **Enable Activation Lock**.
6. Click **Done**.
7. Register the device.

Using the iOS Activation Lock bypass code

When the device is wiped with the iOS Activation Lock enabled, the bypass code is retained on the Apple Activation server and in the Ivanti Neurons for MDM Admin interface.

Procedure

1. Go to **Devices**.
2. Select the device.
3. Click **Actions > Wipe**. It may take a few minutes before the device restarts.
4. When the device prompts you for the Apple ID and password leave the **Apple ID** empty.
5. Enter the bypass code in the **password** field.
6. Click **Next**.
7. Proceed with the setup.

Clearing the iOS Activation Lock bypass code

When the iOS Activation Lock is cleared in the Ivanti Neurons for MDM Admin interface, the bypass code is removed from the Apple Activation server, but it is still present in the device details in the Ivanti Neurons for MDM Admin interface.

Procedure

1. Go to **Devices**.
2. Select the device.
3. Select **Configurations**.
4. Select **Apple Activation Lock**.
5. Click **Edit**.
6. In the iOS 7+ Supervised section, disable **Enable Activation Lock**.
7. Click **Done**.
8. Go to **Devices**.
9. Select the device.

-
10. Click **Actions > Wipe**. It may take a few minutes before the device restarts. The device can now be setup with the new user's AppleID and password.
 11. Proceed with the setup.

The status of the clear iOS Activation Lock is displayed on the interface as follows:

State	Result
Pending	<ul style="list-style-type: none">• Server is sending the Clear Activation Lock code to Apple.
Sent	<ul style="list-style-type: none">• Apple acknowledges receipt of the Clear Activation Lock code.
Failed	<ul style="list-style-type: none">• The server was unable to send the code to Apple.• Apple has reported an error.

iOS Custom Configuration

An iOS custom configuration enables you to upload and distribute an iOS configuration profile that was created by a different app, such as Apple's iPhone Configuration Utility.

iOS Custom settings

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
File data	Drag and drop the configuration file or click Choose File to select it from your file system.

For more information, see [How to create a configuration](#).

iOS Restrictions

iOS restrictions are settings that help the primary user of the device control what other users are allowed to do with an iOS device. These settings are defined by Apple and managed by Ivanti Neurons for MDM.

During the distribution of this configuration to [Shared iPads](#), you can select either the Device Channel or the User Channel . This is useful to distribute separate configurations and enforce restrictions that are applicable only to the device or the user channel.

iOS restrictions settings

Category	Setting	What To Do
	Name	Enter a name that identifies this configuration.
	Description	Enter a description that clarifies the purpose of this configuration.
Device functionality	iOS All Versions	Enable use of device features.
	Allow screenshots and screen recording	Select to allow the device user to take screen captures using the built-in iOS screen capture feature.
	Allow remote screen observation (iOS 9.3 and later)	Select to allow user to observe remote screen.
	Allow force unprompted managed classroom screen observation (Supervised only - iOS 10.3+)	(Applicable for iPads only) Select to allow unprompted message on the screen when a supervised iPad is configured with managed classes.
	Allow automatic sync while roaming	Select to allow synchronization of mail accounts while the device is outside of its home country.
	Allow Siri	Select to allow the personal assistant app on supported devices.

Category	Setting	What To Do
	Allow Siri while device is locked	Select to allow the personal assistant app to perform tasks even when the device is locked.
	Enable Siri profanity filter (Supervised only)	Select to enable the Siri profanity filter.
	Allow voice dialing	Select to allow users to dial a contact or number by talking to the device.
	Allow In-App Purchase	Select to allow users to make purchases through apps running on the device.
	Allow passbook while device is locked	Select to allow Passbook notifications to display while the device is locked.
	Allow lock screen Control Center	Select to allow access to Control Center from the lock screen.
	Allow lock screen Notifications view	Select to allow notifications to be displayed on the lock screen.
	Allow lock screen Today view	Select to allow access to the Today view from the lock screen.
	Allow Open In from managed to unmanaged apps	<p>Requires Gold license.</p> <p>Select to allow documents in managed apps and accounts to be opened in unmanaged apps and accounts. Disabling this option prevents exchange of documents from managed to unmanaged apps and accounts. For example, you might want to keep enterprise documents from being opened with personal apps. You can also use this option (disable) together with a managed domains configuration to ensure that data downloaded from managed domains can only be opened in a managed app.</p>

Category	Setting	What To Do
	Allow Open In from unmanaged to managed apps	<p>Requires Gold license.</p> <p>Select to allow documents in unmanaged apps and accounts to be opened in managed apps and accounts. Disabling this option prevents exchange of documents from unmanaged to managed apps and accounts. For example, you might want to keep users from sending personal documents using company email. You can also use this option (turn off) together with a managed domains configuration to ensure that data downloaded from unmanaged domains cannot be opened in a managed app.</p>
	Require passcode on first AirPlay pairing	Select to require the Apple TV to display a passcode that the user must enter on the iOS device to authorize the initial pairing of the devices.
	Force Password on AirPlay incoming requests (tvOS up to 10.1)	<p>Select to require the user to enter password for all incoming AirPlay requests.</p> <p>Default: Deselected</p>
	iOS All Versions Supervised	
	Allow Apple Books	Select to allow access to the Apple Books app.
	Allow explicit sexual content in iBooks Store (iOS and tvOS 11.3 and later)	Select to allow users to download iBooks store material that has been tagged as erotica.
	Allow account modification	Select to allow users with supervised iOS 7 devices to add email accounts and make changes to email accounts that have already been configured.

Category	Setting	What To Do
	Allow app cellular data modification	Select to allow users to make changes to cellular data settings for apps.
	Allow Find My Friends modification	Select to allow users to make changes to the Find My Friends app settings.
	Allow pairing with non-Configurator hosts	Select to allow host pairing for iTunes synchronization. In effect, enabling this option allows supervised devices to sync with iTunes on a Mac other than the supervision host. Disabling this option disables all host pairing with the exception of the supervision host. If no supervision host certificate has been configured, all pairing is disabled.
	Allow AirDrop	Select to allow use of AirDrop on the device. AirDrop is Apple's ad hoc Wi-Fi system that enables file sharing with nearby users. By restricting this feature, you ensure that sensitive documents are not leaked to unauthorized or unsecured devices.
	Allow Touch ID / Face ID to unlock device	Select to allow Touch ID or Face ID to unlock the devices.
	Allow Spotlight search to return Internet search results	Select to allow Spotlight search to return Internet search results.
	Allow app in single app mode	Enter comma separated list of bundle IDs for apps that can autonomously enter single app mode on iOS supervised devices. For example, you can specify custom exam apps for students. As soon as the student launches the app, the app enters single app mode to ensure that the student cannot use other resources while taking the exam. This feature applies to apps developed for

Category	Setting	What To Do
		autonomous single app mode. Supervision is established with Apple Configurator.
	iOS 8+	
	Allow Enterprise books to be backed up	Select to allow personal backup of iBooks, ePub, and PDF documents that were pushed to the device using MDM.
	Allow Enterprise books notes and highlights to be synced	Select to allow the notes and highlights added to Enterprise books to be synchronized to iTunes.
	Force Apple Watch wrist detection	Select to hide on-screen notifications unless someone is wearing the Apple Watch.
	iOS 8+ Supervised	
	Allow predictive keyboard	Select to allow users to enable iOS prediction of the word being typed, enabling users to tap one of three predictions to complete the word.
	Allow keyboard auto-correction	Select to allow use of auto-correction with Bluetooth keyboards.
	Allow keyboard spell check	Select to allow use of spell check with Bluetooth keyboards.
	Allow keyboard definition lookup	Select to allow definition lookup with Bluetooth keyboards.
	Allow modifying Touch ID fingerprints / Face ID faces	Select to allow Touch ID or Face ID settings to be changed.
	iOS 9+ Supervised	
	Allow keyboard shortcuts on iPads	Select to allow use of keyboard shortcuts on the iPad.


Category	Setting	What To Do
	Allow modification of wallpaper	Select to allow users to change wallpaper images.
	Allow pairing with Apple watch	Select to allow pairing of the iPhone with the Apple watch.
	Allow modification of device name	Select to allow user to change the name of the device.
	Allow modification of enterprise app trust setting	Select to allow user to change the enterprise app trust settings.
	iOS 9.3+ Supervised	
	Allow modification of notifications settings	Select to allow user to change notification settings.
	iOS 9.3.2+ Supervised	
	Allow diagnostic submission modification	Select to allow user to change settings related to submission of diagnostic data to Apple.
	iOS 10+ Supervised	
	Allow Bluetooth modification	Select to allow user to modify the Bluetooth setting on supervised devices. Useful in such cases as shared iPads used for the Classroom app for Education where Bluetooth is required to run the app.
	iOS 10.3+ Supervised	
	Allow dictation	Select to allow the user to talk to the iPhone or iPad instead of typing.
	iOS 11+ Supervised	
	Allow AirPrint	Select to allow AirPrint feature for wireless printing.

Category	Setting	What To Do
	Allow AirPrint Credential Storage	Select to allow keychain storage of username and password for the AirPrint.
	Allow Airprint iBeacon Discovery	Select to allow the user to set iBeacon discovery of AirPrint printers.
	Allow adding VPN configurations	Select to allow the user to create VPN configuration
	Force Airprint Trusted TLS Requirement	Select to allow trusted certificates for TLS printing communication. Default: Deselected
	Allow System App Removal	Select to allow the removal of system app.
	Allow modifying cellular plan settings	Select to allow users to modify cellular plan settings.
	Allow setting up new nearby devices	Select to allow users to setup new nearby devices.
	Automatically join Classroom classes without prompting	Select to allow users to automatically join classroom classes without any prompt. Default: Deselected
	Allow Classroom to lock an app and lock the device without prompting	Select to allow classroom to lock an app and the device without prompting the user. Default: Deselected
	Force the user to authenticate before passwords or credit card information can be autofilled in Safari and apps	Device owner must authenticate before passwords or credit card information can be auto filled in Safari browser and in applications. Default: False
	iOS 11.3+	

Category	Setting	What To Do
	Allow pairing with Remote app (tvOS 11.3 and later)	Select to allow pairing the device with the Remote app.
	Allow incoming AirPlay requests (tvOS 11.3 and later)	Select to allow incoming AirPlay requests.
iOS 11.3+ Supervised		
	Allow USB restricted mode	Select to allow user to access USB restricted mode.
	Defer software updates for 30 days (for iOS 11.3, tvOS 12.2 and later with supervised devices only)	Select to enter the number of days by which you want to defer software updates. The default is 30 days, and the maximum is 90 days. Default: Deselected
	Require teacher permission to leave Classroom unmanaged classes	Select to allow user to get the required teacher permission to leave classroom unmanaged classes.
iOS 12+ Supervised		
	Force automatic Date & Time (iOS 12.0 & tvOS 12.2 and later)	Select to turn on the Date & Time "Set Automatically" feature. It cannot be turned off by the user. Default: False
	Allow modifying eSIM settings (iPhone XS, iPhone XS Max, & iPhone XR - iOS 12.1 and later versions)	Select to allow user to modify the eSim configuration on supported devices. This option also prevents users from adding or removing a cellular plan in Settings on their devices. Default: True

Category	Setting	What To Do
	iOS 12.2+ Supervised	
	Allow modifying Personal Hotspot settings	Select to allow the user to modify Personal Hotspot settings. Default: True
	iOS 13.0+	
	Allow Files Network Drive Access	Select to allow the user to connect to network drives in the Files app. Default: True
	Allow Files USB Drive Access	Select to allow the user to connect to any connected USB devices in the Files app. Default: True
	iOS 13.0+ Supervised	
	Allow Continuous Path Keyboard	Select to enable continuous path keyboard (swipe or trace typing). Default: True
	Allow Device Sleep	Select to enable device sleeping. Default: True
	Allow Find Device	Select to enable Find My Device in the Find My app. Default: True
	Allow Find My Friend	Select to enable Find My Friends in the Find My app. Default: True
	Force WiFi Power On	Select to enable WiFi power to be in the on state.

Category	Setting	What To Do
		Default: False
	iOS 13.4+	
	Allow Guest Session for shared iPad	If false, temporary sessions are not available on Shared iPad. Default: True
	iOS 14.0+	
	Allow Apple Personalized Advertising	If false, limits Apple personalized advertising. This will prevent Apple from using the user's information for targeting ads. This may not reduce the number of ads received, but the ads will be less relevant to the user. Default: True
	iOS 14.0+ Supervised	
	Allow App Clips	If false, prevents a user from adding any App Clips, and removes any existing App Clips on the device. Default: True
	iOS 14.2+ Supervised	
	Allow NFC	If false, disables NFC. Requires a supervised device. Available in iOS 14.2 and later. Default: True
	iOS 14.5+	
	Allow Auto Unlock	Administrators can use the existing allowAutoUnlock restriction to manage this feature. If false, disallows auto unlock.


Category	Setting	What To Do
		Available in macOS 10.12 and later, and iOS 14.5 and later. Default: true
	Force on Device only Dictation	If true, disables connections to Siri servers for the purposes of dictation. Default: false
	iOS 14.5+ Supervised	
	Allow unpaired external boot to recovery	If true, allows devices to be booted into recovery by an unpaired device. Default: false
	Force WiFi to allowed networks only	If true, limits device to only join WiFi networks set-up via configuration profile. Default: false <hr/> <p> If the Force WiFi to allowed networks only restriction is enabled and WiFi configuration is not distributed to the device, the WiFi connection is lost.</p> <hr/>
	iOS 15+	
	Force on Device only Translation	If true, the device won't connect to Siri servers for the purposes of translation. Default: false
	Require Managed Pasteboard	If true, copy and paste functionality respects the <code>allowOpenFromManagedToUnmanaged</code> and <code>allowOpenFromUnmanagedToManaged</code> restrictions.

Category	Setting	What To Do
		Default: false
	iOS 15.2+	
	Allow Mail Privacy Protection	<p>If false, disables Mail Privacy Protection on the device. Available in iOS 15.2 and later.</p> <p>When the Allow Mail Privacy Protection configuration is installed and enabled from the Ivanti Neurons for MDM administrative portal, the Protect Mail Activity toggle is enabled on the device and the following options are visible:</p> <ul style="list-style-type: none"> • Hide IP Address - The email sender cannot link the email to your online activity or determine your location • Block All Remote Content - Prevents the email sender from seeing your email activities <p>Default: true</p>
	iOS 15.4+	
	Allow Apple TV's automatic screen saver (tvOS 15.4 and later)	<p>If false, disables Apple TV's automatic screen saver. Available in tvOS 15.4 and later.</p> <p>Default: true</p>
	iOS 16.0+	
	Allow Rapid Security Response Installation	To disable the responses. The user cannot install rapid security responses.
	Allow Rapid Security Response Removal	To block the user from being able to undo the responses. The user cannot remove rapid security responses.
	iOS 17.0+ Supervised	

Category	Setting	What To Do
	Allow iPhone Widgets on Mac	If false, disallows iPhone widgets on a Mac that has signed in the same AppleID for iCloud. Supervised only.
Applications	iOS All Versions	Enable access to applications on the devices.
	Allow installing apps	Select to enable the user to install applications from the Apple App Store. Deselect to disable the App Store and remove its icon from the Home Screen.
	All use of camera	Select to enable the user to operate the camera. Deselect to disable the camera and remove its icon from the Home screen.
	Allow use of Safari	Select to allow use of the Safari web browser. Deselect to disable the Safari web browser, remove its icon from the Home screen, and prevent users from opening web clips.
	Enable autofill	Select to turn on the autofill feature for fields displayed in Safari.
	Force fraud warning	Select to prompt Safari to attempt to prevent the user from visiting websites identified as being fraudulent or compromised.
	Enable JavaScript	Select to turn on Javascript support for Safari.
	Block pop-ups	Select to block pop-ups for Safari.
	iOS All Versions Supervised	
	Allow removing apps	Select to allow users to remove apps from the device.
	Allow use of Game Center	Select to allow access to Game Center.

Category	Setting	What To Do
	Allow adding Game Center friends	Select to allow users to add friends to Game Center.
	Allow multiplayer gaming	Select to allow users to play games that include other users.
	Allow iMessage	Select to allow use of iMessage.
	Accept cookies	Select Never, Always, or From Visited sites.
	Allow FaceTime	Select to allow the user to run FaceTime if the camera is enabled.
	iOS 8+	
	Allow managed applications to use cloud sync	Select to allow managed apps to use cloud sync.
	Allow Activity Continuation	Select to allow activity continuation in apps supporting Handoff.
	iOS 8+ Supervised	
	Allow use of Podcasts	Select to allow use of Podcasts.
	iOS 9+	
	Allow trusting of new enterprise app authors	Select to allow user to access new enterprise apps.
	iOS 9+ Supervised	
	Allow App Store	Select to allow user access to the Apple App store.
	Allow automatic app download	Select to allow the app to download files, data, updates with prompting the user.
	Allow News app	Select to allow use of the News app.
	iOS 9.3+ Supervised	

Category	Setting	What To Do
	Allow iTunes Radio	Select to allow use of iTunes radio.
	Allow Apple Music	Select to allow use of Apple Music.
	Allow Listed App Bundle IDs	Select to allow only bundle IDs listed in the array to be shown or launchable. Include the value com.apple.webapp to allow all webclips.
	Blocked App Bundle IDs	Select to prevent bundle IDs listed in the array from being shown or launchable. Include the value com.apple.webapp to restrict all webclips.
	iOS 13.0+ Supervised	
	Allow use of iTunes Store	Select to allow use of the iTunes Music Store. Deselect to disable iTunes Music store and remove its icon from the Home screen.

Category	Setting	What To Do
iCloud	iOS All Versions	Enable access to iCloud services.
	Allow backup	Select to allow the device to back up data via Apple's iCloud service.
	Allow document sync	Select to allow documents to be synchronized via Apple's iCloud service.
	Allow Photo Stream	Select to allow photos to be synchronized to your other iOS devices via Apple's iCloud.
	Allowed shared Photo Streams(disallowing can cause data loss)	Select to allow synchronization of shared photos. <hr/>  Deselecting this option can result in loss of photos. <hr/>
	Allow Keychain sync	Select to allow synchronization of your keychain.
	iOS 9+	
	Allow iCloud Photo Library	Select to allow access to iCloud photo library.
	iOS 15+ Supervised	
	Allow cloud private relay	If false, disables iCloud Private Relay. Default: true

Category	Setting	What To Do
Security and Privacy	iOS All Versions	Enable security and privacy policies.
	Allow over-the-air certificate updates	Select to allow over-the-air updates of root certificates.
	Force limit ad tracking	Select to require use of the limit ad tracking feature.
	iOS All Versions Supervised	
	Allow configuration profile installation	Select to allow users to install configuration profiles and certificates interactively.
	Allow assistant user generated content	Select to allow Siri to query user-generated content from the web.
	iOS 8+ Supervised	
	Allow user to erase all content and settings in Reset UI	Select to enable the "Erase All Content And Settings" option in the iOS Reset UI on the device.
	Allow Screen Time	Select to allow screen time (Settings > Screen Time).
	Allow diagnostic data to be sent to Apple	Select to allow automatic submission of diagnostic data to Apple.
Allow user to accept untrusted TLS certificates	Select to allow the device user to accept untrusted HTTPS certificates. If this option is not selected, then the device will automatically reject untrusted HTTPS certificates without prompting the device user.	
Force encrypted backups	Select to require encrypted backups via iTunes. Automatically selected due to SCEP requirements.	

Category	Setting	What To Do
	Force user to enter iTunes Store password for all transactions	Select to force device users to enter their iTunes password for each App Store transaction. If this option is not selected, then the device user can make multiple transactions on a single authentication.
	iOS 9+	
	Treat AirDrop as unmanaged destination	Select to allow user access to AirDrop file sharing. Default: False
	iOS 9+ Supervised	
	Allow modification of device passcode	Select to allow user to change the passcode for the device.
	iOS 12+	
	Allow managed apps to write contacts to unmanaged contact accounts	Select to allow managed apps to write contacts to unmanaged contacts accounts. Default: False
	iOS 12+ Supervised	
	Allow autofill passwords	Select to allow users to use the AutoFill Passwords feature on iOS and be prompted to use a saved password in Safari or in apps.
	Allow nearby devices to share requests for a password	Select to allow user's device to request passwords from nearby devices.
	Allow password sharing	Select to allow users to share their passwords with the Airdrop Passwords feature.
	Allow unmanaged apps to read contacts from managed contact accounts	Select to allow unmanaged apps to read from managed contacts accounts. Default: False

Category	Setting	What To Do
Content Ratings		Control access to apps and media.
	Allow playback of explicit music, podcasts & iTunes U media (iOS 13+ Supervised only and tvOS 11.3 and later)	Explicit content is marked as such by content providers, such as record labels, when sold through the iTunes Store.
	Ratings region	Select a region from the drop-down list to change the region associated with the rating selections for applications, TV shows, and movies.

	Movies	Select a rating limit for movies stored on the device: <ul style="list-style-type: none">• Do not Allow Movies• G• PG• PG-13• R• NC-17• Allow All Movies
	TV Shows	Select a rating limit for TV shows stored on the device: <ul style="list-style-type: none">• Do not Allow TV Shows• TV-Y• TV-Y7• TV-G• TV-PG• TV-14• TV-MA• Allow All TV Shows

	Apps	Select a rating limit for applications on the device: <ul style="list-style-type: none">• Do not Allow Apps• 4+• 9+• 12+• 17+• Allow All Apps
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For more information, see [How to create a configuration](#)

Conference Room Display

Applicable to: tvOS 10.2 and supported newer version.

This configuration will turn on the Conference Room Display mode on Apple TV. Conference Room Display mode locks Apple TV into that mode, to prevent other types of usage.

Beginning with tvOS 10.2, you can set supervised Apple TV devices to Conference Room Display mode. Conference Room Display locks scoped Apple TV devices to a black wallpaper screen and downloads a default screen saver, unless a background image and screen saver are manually defined in the Apple TV device settings. This mode can also display a message as configured in the Conference Room Display configuration.

The Conference Room Display configuration can be deployed automatically and apps can install while devices are in this mode. A device set to Conference Room Display mode that reboots will automatically resume locked screen without first showing the Home screen.



If an Apple TV device is running in Single App Mode or if Single App Mode is deployed with Conference Room Display, Conference Room Display will override Single App Mode. In addition, if an Apple TV device is connected to a network via Ethernet, Conference Room Display will not automatically display a Wi-Fi network to join for AirPlay sharing. This instruction can be displayed on the screen using the Custom Message field of the Conference Room Display configuration.

Creating a Conference Room Display configuration

Procedure

1. Select **Configurations**.
2. Click **+ Add**.
3. Type **conference** in the search field, and then click the **Conference Room Display** configuration.
4. Enter a name and describe the configuration.
5. Specify the **Custom Message**. This is the custom message displayed on the screen in Conference Room Display mode.
6. Click **Next** to configure the distribution settings.
7. Click **Done**.

For more information, see [How to create a configuration.](#)

Lockdown & Kiosk: Android Device Admin Mode



A Lockdown & Kiosk: Android Device Admin mode configuration disables certain features of Android devices and creates a Allowlist of apps that will be available to users in Kiosk mode.





The Android Device Admin Mode Configuration is deprecated and not supported for devices on Android 8 and later versions. It is recommended to use Android Enterprise Lockdowns for Kiosk Lockdowns on Android 8 and later versions.

You can restrict the option to modify settings or apps when an Android device is in Kiosk mode.

- Add apps and select settings in the Create Lockdown & Kiosk: Android Device Admin Mode Configuration page.
- The option to change the settings using the Settings icon will be available in Kiosk mode.
- Select apps without choosing any settings configuration options and the settings icon will not be displayed in Kiosk mode.
- If you choose not to include any apps in the configuration, then the settings icon will be displayed.

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Lockdown Settings: Disable features for all Android devices.	
Disable Wi-Fi	Select to turn off access to wireless LANs.
Disable Camera	Select to turn off camera access.
Disable Bluetooth	<p>Select to turn off Bluetooth features.</p> <hr/> <p> Use caution when using this option. Ivanti recommends against disabling audio because hands-free Bluetooth access is disabled. Legal requirements for hands-free use of devices while driving is becoming more widespread.</p> <hr/>
Kiosk Mode Settings: Enables the device to be used as a kiosk, with operation restricted to a few specific apps.	
<hr/> <p> Kiosk mode settings will not be applied to a device with Android 8.0 and above. For such devices, the Kiosk Status in device details page reports UNSUPPORTED_ON_DEVICE as Kiosk Status.</p> <hr/>	
Enable Kiosk Mode	Select to configure Kiosk Mode on Android devices.
Disable Quick Settings	Select to disable Quick Settings in Kiosk mode.
Allow User to Access Wi-Fi Settings	Select to allow a user to change Wi-Fi settings and access preferred wireless networks.
Allow User to Access Bluetooth Settings	Select to allow a user to change the Bluetooth settings and pair additional Bluetooth devices.

Allow User to Access Location Settings	Select to allow a user access to the location settings.
Allow User to Delay Application Updates	Select to allow a user to delay application updates.
Kiosk Exit PIN	Enter the four-digit code that the end user must type in order to exit Kiosk Mode.
<p>Create a Allowlist of apps: These apps will be available to users in Kiosk Mode by adding apps to the allowed apps list. Drag and Drop to arrange the apps in the order they should appear in the Kiosk Mode launcher.</p> <hr/> <p> Adding an application to the list of allowed apps will not install the app on device. Be sure to distribute each app to the appropriate users and user groups in the App Catalog.</p> <hr/>	
Built-In Apps	<p>Click +Add to include listed native apps in the group of apps allowed in Kiosk Mode.</p> <hr/> <p> If you have disabled Dialer or Camera in Lockdown settings above, they cannot be added to the Allowed Apps list.</p> <hr/>
App Catalog	Click +Add to included listed apps from the app catalog in the group of apps allowed in Kiosk Mode.
Other Apps	Click +Add to include the package name of an app that is not available on the Google Play Store.
Kiosk Mode Allowed Apps	Click X to remove an app from the group of apps allowed in Kiosk Mode. Drag and drop to change the order in which apps appear on kiosk devices.

 For Samsung devices with Knox Standard 4.0 or higher, the multi-user feature is automatically locked down in kiosk mode.

For non-Samsung devices, Kiosk mode is not supported on Android 8.0 or higher. Ivanti recommends using Android Enterprise lockdowns for Kiosk mode on Android 8.0 or later.

Related topics:

- [Setting Up Kiosk Mode for Android](#)
- [How to create a configuration](#)

Setting up Kiosk Mode for Android

This section contains the following topics:

- [Launching Kiosk Mode remotely](#)
- [Exiting Kiosk Mode](#)

License: Silver

Kiosk Mode for Android devices enables you to restrict use of a device to specific apps. You might use Kiosk Mode to set up devices for employees who will use only work-specific apps.

When preparing Android devices for Kiosk mode or Device Owner with Kiosk mode, you will need to [create a Allowlist of apps](#) that you want to be available to users in Kiosk Mode. For devices using Device Owner you can add apps to the allowed apps list by dragging and dropping to arrange the apps in the order they should appear in the Kiosk Mode launcher when configuring the app. See [Lockdown & Kiosk configuration](#) for more information.

Prerequisites

Before you configure Kiosk Mode for Android devices, ensure that you have performed the following tasks:

- Installed the Go on the devices.
- Configured the app catalog with the apps that your kiosk configuration will need.
- Distributed the app catalog to the devices that will run in Kiosk Mode.



SonimXP5S devices do not support Kiosk mode.

- Installed the apps that your kiosk configuration will need.
- (Optional) Set up [Android kiosk branding](#).



Kiosk mode is supported on Android 5.1 and 6.0. Non- Samsung Knox must be placed in Device Owner mode to prevent the use of undesired applications.

Important: Some devices have features which can cause the device to draw over the screen or otherwise create an escape from Kiosk Mode. The People Edge feature of the Samsung Galaxy S6 Edge is an example

of such a feature. We recommend that these types of features be turned off by an administrator before the device is deployed.

Procedure

1. Go to **Configurations**.
2. Click **+Add**.
3. Click **Lockdown & Kiosk: Android Device Admin Mode**.
4. In the **Create Settings** screen, complete at least the **Kiosk Mode Settings** section.
5. In the **Distribution** screen, select the device groups to receive this configuration.
6. Click **Done**.
7. For non-Samsung devices, continue with the following steps:
 - a. Go to **Devices > Devices**.
 - b. Select the devices you want to enable for kiosk mode.
 - c. Select **Actions Force Check-in**.
 - d. On the devices, tap the **Kiosk Mode** button.
 - e. Press the **Home** button on the device.
 - f. If a **Choose Launcher** dialog appears, tap **Go Kiosk Launcher** and select **Always**. This step is necessary to ensure that the proper launcher will be used for this feature. Otherwise, the user would be prompted to select a launcher.

Launching Kiosk Mode remotely

Procedure

1. Go to **Devices > Devices**.
2. Add the Kiosk Mode column to the display.
3. Select devices that have Kiosk mode enabled, but are not currently in Kiosk mode.
4. Select **Actions > Enter Kiosk Mode**.

Exiting Kiosk Mode

You can exit Kiosk Mode on the device if you set a PIN in the configuration.

Procedure

1. Tap the **Settings** icon.
2. Select **Exit Kiosk Mode**.
3. Tap in the **Kiosk PIN** field when prompted.
4. Enter the kiosk PIN.

You can exit Kiosk Mode for a specific device from the portal:

Procedure

1. Go to **Devices > Devices**.
2. Display the details for the device.
3. Select **Actions > Exit Kiosk Mode**.

You can also use the following methods to exit Kiosk Mode:

- Delete the configuration
- Disable the configuration
- Remove the device group from the configuration

Setting up Android shared device kiosk

For task-worker deployments, companies may offer dedicated Android devices that are customized for a specific user role. Depending on a user's profile different apps and configurations may be presented on a device. For example, a user in a technical role may have a specific set of apps presented for their use, while another user in a maintenance role may have access to a different set of apps.

The Android shared device kiosk mode acts as an app filter for different groups of users who share devices. A user who is logged in to the shared device kiosk is only able to view the apps appropriate for their role. One of the main advantages to the shared device kiosk is that you can allow different user groups access to different sets of apps from the same device. When a user logs out of a Android shared device kiosk mode, their apps and user data, including history, are cleared from the display of the next user who logs onto the device (if the app marked for is re-installation). The shared device kiosk is only available to Android enterprise deployments with Managed Google Play accounts.

The shared device kiosk requires two types of users, a staging user and a shared kiosk user, and at least two policies that correspond to these users. The staging user is used to prompt the login screen to appear on a shared device. Also, the staging user is a special type of admin user who allows other users to login to the actual kiosk device. After the shared device kiosk user logs in successfully, then the staging policy is replaced by a shared kiosk policy. The kiosk user has access to the apps installed on the device according to the policy assigned to it. Although you can create multiple shared kiosk policies, there is only one kiosk policy active on a kiosk device at a time. When the kiosk user logs out of the shared kiosk, the device reverts to the staging user and, consequently, the staging policy.

The staging user only has the ability to access the login page. As a result, you need to create staging policy that is dedicated to this user. In contrast, the shared device kiosk users are able to access the set of apps that you define in their policy. (Naturally, you also need to install the permitted apps on the shared device kiosk devices.) The shared device kiosk policy allows you to create a filter of permitted apps from all the apps you have installed previously. You cannot directly upload apps into a Android shared kiosk policy. Often you want to dedicate a shared kiosk policy to a type of shared kiosk user, or user group, depending on your organization. For example, a company may have day-shift and night-shift employees who have different roles and require access to separate set of apps. In this case, you need to create a day-shift policy and a night-shift policy.

For more information on enabling shared device kiosk, see ["Lockdown & Kiosk: Android Enterprise" on page 571](#)



Lockdown & Kiosk: Android Enterprise

Lockdown & Kiosk: Android Enterprise configuration disables certain features of Android Enterprise devices and creates an Allowlist of apps that will be available to users in kiosk mode.

This section contains the following topics:

- [Lockdown Settings](#)
- [Work Profile](#)
- [Work Managed Devices \(Device Owner and kiosk mode settings\)](#)
- [Managed Device with Work Profile/Work Profile on Company Owned Device Lockdown Settings](#)



Lockdown Settings


Setting	Description
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Choose Lockdown Type	<p>Select the type of lockdown settings you want to configure:</p> <ul style="list-style-type: none">• Work Profile• Work Managed Devices (Device Owner and kiosk mode settings)• Managed Device with Work Profile/Work Profile on Company Owned Device Lockdown Settings <hr/> <p> Work Profile on Company Owned Device Lockdown Settings is applicable only for Android 11+ devices.</p> <hr/> <p>Only one type is allowed per configuration. The options displayed depend on the type you select.</p> <hr/> <p> if a Work Managed Device (Device Owner) and a Managed Device with Work Profile on Company Owned Device configuration is distributed to the same device, the Managed Device with Work Profile takes precedence.</p> <hr/>


Work Profile

Disable certain features on Android Enterprise devices.


Setting	What To Do	For Devices
Disable Screen Capture	Select to turn off the ability to use the device's built-in screen capture feature.	<ul style="list-style-type: none"> Android 5.0+
Disallow Apps Control	Select to prevent a user from modifying applications in Settings or launchers.	<ul style="list-style-type: none"> Android 5.0+
Disallow Config Credentials	Select to prevent a user from configuring user credentials.	<ul style="list-style-type: none"> Android 5.0+
Disallow Cross Profile Copy Paste	Select to prevent copy/paste of information between profiles.	<ul style="list-style-type: none"> Android 5.0+
Disallow Modify Accounts	Select to prevent a user from adding or removing accounts.	<ul style="list-style-type: none"> Android 5.0+
Disallow Outgoing Beam	Select to prevent a user from using NFC to transfer the app data.	<ul style="list-style-type: none"> Android 5.1+
Disallow Share Location	Select to prevent a user from revealing the device location to apps.	<ul style="list-style-type: none"> Android 5.0+
Disallow Debugging Features	Select to disable debugging features on devices. By default, this option is turned on.	<ul style="list-style-type: none"> Android 5.0+

Setting	What To Do	For Devices
Ensure Verify Apps	<p>Select to allow application verification features on devices. By default, this option is turned on.</p> <hr/> <p> When this option is turned off, the device goes back to its default behavior which may vary from device to device.</p> <hr/>	<ul style="list-style-type: none"> • Android 5.0+
Disable Unknown Sources on Device	<p>Select to prevent the device from installing apps from unknown sources.</p> <hr/> <p> This setting, to take effect on the device, is dependent on an expected Google Play update to enable this feature.</p> <hr/>	<ul style="list-style-type: none"> • Android 5.0+

Setting	What To Do	For Devices
Restrict Input Methods	<p>Select to restrict Allowlisted IME package names by designating a list of Allowlisted package names via the Package Name field. The devices will have both Allowlisted package input methods and the default system input methods available to use.</p> <p>The user can switch between default system input methods and Allowlisted packages input methods.</p> <hr/> <p> For Android 10+, Allowlisting is applicable for IME apps on the work profile side only. For older Android versions, Allowlisting is applicable for IME apps device wide (both inside and outside the work profile).</p> <hr/>	<ul style="list-style-type: none"> • Android 5.0+

Setting	What To Do	For Devices
Restrict Accessibility Services	Select to restrict accessibility services for work apps by designating a list of Allowlisted package names via the Package Name field. If there are no Allowlisted packages, then only system accessibility services will be allowed.	<ul style="list-style-type: none"> • Android 5.0+
Disable unknown sources inside work profile	Select to disallow download from unknown sources within the work profile.	<ul style="list-style-type: none"> • Android 5.0+
Enable/Disable System Apps	<p>Select to enable and disable system applications to be deployed by designating two lists of package names via the System App Package Name fields.</p> <p>Use this feature to manage access to system applications that are not published in Google Play.</p> <hr/> <p> Adding an app to the app catalog and also to a system apps list is not supported.</p> <hr/>	<ul style="list-style-type: none"> • Android 5.0+
Disable Caller ID	Sets whether caller ID information from the work profile will be shown in the device for incoming calls.	<ul style="list-style-type: none"> • Android 6.0+


Setting	What To Do	For Devices
Disable Contact sharing via Bluetooth	Select to prevent the device from sharing contacts with other devices via Bluetooth.	<ul style="list-style-type: none">• Android 6.0+
Disable Contact sharing via Search	Select to prevent the users from searching for work contacts from the personal phone dialer.	<ul style="list-style-type: none">• Android 7.0+
Disallow auto-fill	Select to disallow auto-fill	<ul style="list-style-type: none">• Android 8.0+
Disallow work app notifications in personal profile	Select to restrict work profile notifications.	<ul style="list-style-type: none">• Android 8.0+
Disallow printing	Select to restrict printing from all apps.	<ul style="list-style-type: none">• Android 9.0+
Disallow share into Profile	Select to prevent users from sharing personal data into a work profile on the device.	<ul style="list-style-type: none">• Android 9.0+



Setting	What To Do	For Devices
Allow Access to work profile calendars	<p>Select any of the following options to allow all apps or select a set of apps on the personal side to access the calendar information present in the work profile:</p> <ul style="list-style-type: none"> • All Apps on Personal Profile- allow all apps to access the calendar information present in the work profile • Only the following apps on Personal Profile- In the text field below, enter the bundle IDs of the apps separated by a comma. Only these selected apps on the personal side will be allowed to access the calendar information present in the work profile. <hr/> <p> The app on the personal side should implement specific APIs to be able to access shared calendar.</p> <hr/>	<ul style="list-style-type: none"> • Android 10.0+


Setting	What To Do	For Devices
Enable Cross profile Allowlisting of Apps	<p>Select the checkbox to enable users to share information from specific apps from within the work profile to the personal side of the device.</p> <p>In the Allowlisted Apps field, type the Package IDs of the apps to be Allowlisted, separated by commas.</p> <p>By default, this option is disabled.</p>	<ul style="list-style-type: none"> • Android 11.0+
Enable 5G Network Slicing	<p>Select to provide a 5G network slicing option on work profile of the company-owned devices.</p> <p>By default, this option is disabled.</p>	<ul style="list-style-type: none"> • Android 12.0+
Disallow Sharing Admin Configured Wi-Fi	<p>Select to prevent users from sharing Wi-Fi configurations set by the administrator.</p>	<ul style="list-style-type: none"> • Android 13.0+




Work Managed Devices (Device Owner and kiosk mode settings)




Disable certain features on work managed devices (Device Owner) for Android 5.0+.



Setting	Description
Disable Wi-Fi	Select to turn off access to wireless LANs.
Disable Wi-Fi Settings	Select to turn off access to wireless settings.
Disable Camera	Select to turn off camera access.
Disable Bluetooth (Android 8.0+)	<p>Select to turn off Bluetooth features.</p> <hr/> <p> Use caution when using this option. Ivanti recommends against disabling audio because hands-free Bluetooth access is disabled. Legal requirements for hands-free use of devices while driving is becoming more widespread.</p> <hr/>
Disallow Bluetooth Settings (Android 8.0+)	Select to turn off access to Bluetooth settings.
Disable Screen Capture	Select to turn off the ability to use the device's built-in screen capture feature.
Disable Network Reset	Select to prevent resetting network. (Applicable to Android 7.0+ devices and not supported in Work Profile on Company Owned device mode).
Mute Master Volume	Select to mute master volume.
Disallow Apps Control	Select to prevent a user from modifying applications in Settings or launchers.
Disallow Credentials	Select to prevent a user from configuring user credentials.
Disallow Emergency Broadcasts	Select to prevent emergency broadcasts.




Setting	Description
Disallow Mobile Networks	Select to turn off access to mobile networks. <hr/>  This cannot be disabled if Wi-Fi is disabled. <hr/>
Disallow Tethering	Select to turn off tethering as an option for using the internet connection of one device to provide internet access to another device.
Disallow VPN	Select to turn off VPN connections.
Disallow Factory Reset	Select to prevent users from returning the device to factory defaults.
Enable Factory Reset Protection	Select to allow users from returning the device to factory defaults. <hr/>  You can optionally specify a list of authorized Google account IDs (an integer value) that can provision the device after factory reset or hover over the help icon to view help for retrieving authorized account IDs. <hr/>
Disallow Modify Accounts	Select to prevent a user from adding or removing accounts.
Disallow NFC (Outgoing Beam)	Select to prevent a user from using NFC to transfer app data.
Disallow Outgoing Calls	Select to prevent a user from making outgoing calls.
Disallow Safe Boot (Android 6.0+)	Select to prevent a user from rebooting a device into safe boot mode.
Disallow Share Location	Select to prevent a user from revealing the device location to apps.
Disallow Debugging Features	Select to disable debugging features on devices. By default, this option is turned on.

Setting	Description
Ensure Verify Apps	<p>Select to allow application verification features on devices. By default, this option is turned on.</p> <hr/> <p> When this option is turned off, the device goes back to its default behavior which may vary from device to device.</p> <hr/>
Disallow SMS	Select to prevent a user from sending and receiving SMS messages.
Disallow Unmute Microphone	Select to prevent a user from unmuting the device's microphone.
Disallow Auto Time	Select to prevent a user from enabling automatic time changes.
Disallow Auto Time Zone	Select to prevent a user from enabling automatic device time adjustment with time zone changes.
Sync time with server (Android 9.0+)	Select to allow devices to sync time with the Ivanti Neurons for MDM servers first time on registration and thereafter once every 24 hours after each check-in. This option will be available only if the Disable Auto-Time is selected.
Set timezone (Android 9.0+)	Specify timezone string in Olson Time Zone ID format (for example, Pacific/Midway).
Disable Data Roaming	Select to turn off data exchange while the device is roaming.
Disable Wi-Fi Sleep	Select to keep Wi-Fi on while the device is in Sleep mode.


Setting	Description
Restrict Input Methods	<p>Select to restrict Allowlisted IME package names by designating a list of Allowlisted package names via the Package Name field. The devices will have both Allowlisted package input methods and the default system input methods available to use.</p> <p>The user can switch between default system input methods and Allowlisted packages input methods.</p> <hr/> <p> For Android 10+, Allowlisting is applicable for IME apps on the device side only. For older Android versions, Allowlisting is applicable for IME apps device wide.</p> <hr/>
Restrict Accessibility Services	<p>Select to restrict accessibility services for work apps by designating a list of Allowlisted package names via the Package Name field. If there are no Allowlisted packages, then only system accessibility services will be allowed.</p>
Disable USB file transfer	<p>Select to disable USB file transfer.</p>
Disable external media	<p>Select to disable external media.</p>
Disable keyguard (no effect if PIN/Passcode is set)	<p>Select to disable the keyguard. This option has no effect if a password, PIN, or pattern is currently set.</p> <hr/> <p> If a password, PIN or pattern is set after the keyguard is disabled, the keyguard stops being disabled.</p> <hr/>
Keep screen on while connected to power.	<p>Select to keep the screen ON when connected to power. The screen may dim but does not turn off while the device is connected to a power source.</p> <hr/> <p> This setting will only take effect only if auto-lock or inactivity timeout in the passcode configuration is not used to set a timeout.</p> <hr/>
Disallow create windows	<p>Select to prevent apps from displaying certain types of overlay windows, such as alerts and toasts.</p>


Setting	Description
Skip first use hints	Select to enable the system recommendation for apps to skip the user tutorial and other introductory hints on first start-up.
Disallow unknown sources on device	Select to disallow user from installing apps from unknown sources.
Set lock screen message (Android 7.0+)	<p>Select to set the lock screen message to be displayed on the device. Type the lock screen message (maximum of 256 characters) in the text field. By enabling this option, the user is blocked from setting the message in Settings and the message that is set by the admin is displayed to the user.</p> <p>If the admin does not provide any lock screen message after enabling 'Set lock screen message', the user is blocked from setting the message in Settings, but no message is displayed to the user.</p>
Set screen brightness	<p>Select to set brightness of your device's screen.</p> <ul style="list-style-type: none"> • Manual - Select to enter a number manually (0 to 255) • Adaptive - Select to allow the device to set the brightness <hr/> <p> It is recommended to enable the "Disallow config brightness" option before setting the screen brightness of your device.</p> <hr/>
Set screen timeout	<p>Select to set screen timeout duration (in seconds).</p> <hr/> <p> It is recommended to enable the "Disallow config screen timeout" option before setting the screen brightness of your device.</p> <hr/>
Set screen orientation	<p>Select to set screen orientation. You can set the screen orientation to 0, 90, 180, or 270 degrees from the drop down list.</p> <hr/> <p> By default, this option is not selected. For Go app 89 and later versions, you must select this option and set the value to 0 to keep the device in Portrait mode in Kiosk.</p> <hr/>




Setting	Description
Enable/Disable System Apps	<p>Select to enable and disable system applications to be deployed by designating two lists of package names via the System App Package Name fields. Use this feature to manage access to system applications that are not published in Google Play.</p> <hr/> <p> Adding an app to the App Catalog and also to a system apps list is not supported.</p> <hr/>
Android 8.0+	
Disallow auto-fill	Select to disallow the user from using auto-fill services.
Disallow Bluetooth Sharing	Select to disallow the user from sharing outgoing bluetooth on the device.
Disable backup service	Select to disable the backup service.
Android 9.0+	
Disallow printing	Select to disallow the user to print.
Disallow airplane mode	Select to disable airplane mode on the entire device.
Disallow ambient display	Select to disallow the ambient display for the user.
Disallow config brightness	<p>Select to disallow the user from configuring the brightness.</p> <hr/> <p> It is recommended to define the "Set screen brightness mode" mode before selecting this option.</p> <hr/>
Disallow config date time	Select to disallow date, time and timezone configuration.
Disallow config location	Select to disallow the user from disabling location providers.

Setting	Description
Disallow config screen timeout	<p>Select to disallow the user from changing screen off timeout.</p> <hr/> <p> It is recommended to define the "Set screen timeout" value before selecting this option.</p> <hr/>
Android 12.0+	
Enable USB for charging only	Select to enable the USB port for charging only.
Android 13.0+	
Set Minimum Required Wi-Fi Security	<p>Use this option to set minimum required Wi-Fi security:</p> <ul style="list-style-type: none"> • No minimum security required – Select this option if no minimum security is required • Personal Network Based Security – Select this option to block personal Wi-Fi networks such as WEP, WPA/WPA2/WPA3, etc. • Enterprise EAP Network Based Security – Select this option to block EAP protocol-based Wi-Fi networks • Enterprise 192 Network Based Security - Select this option to block EAP corporate-based Wi-Fi networks <hr/> <p> All the existing devices that do not meet the minimum criteria will be disconnected.</p> <hr/> <p> Device details will show the Minimum Required Wi-Fi Security level (if available) under the General > Wi-Fi Security Level.</p> <hr/>
Disallow Sharing Admin Configured Wi-Fi	Select to prevent users from sharing Wi-Fi configurations set by the administrator.
Kiosk Mode Settings: Kiosk mode applies additional restrictions to the devices including limited access to apps via a customized launcher.	


Setting	Description
Enable Kiosk Mode	<p data-bbox="483 283 1084 315">Select to configure kiosk mode on Android devices.</p> <hr data-bbox="483 346 1367 350"/> <ul data-bbox="625 373 1351 714" style="list-style-type: none"><li data-bbox="625 373 1351 525">• When a user logs into the Shared Kiosk mode and logs out, the user name remains available with Go client for future logins. In shared Kiosk mode, the Go client preserves recently used seven user names.<li data-bbox="625 562 1351 714">• The shared kiosk mode supports IDP Authentication now. So, if Ivanti Neurons for MDM is configured with IDP, then the Shared Kiosk mode can be used with IDP Authentication. <hr data-bbox="483 730 1367 735"/>


Setting	Description
Enable Lock Task Mode	<p>Select to enable lock task mode on Android devices. When enabled, the devices can display keyguard, status bar and safe mode. This option is disabled by default.</p> <p>The following are the additional settings displayed when lock task mode is enabled for Android 9 or supported newer versions:</p> <p>Settings icon - Allows apps to have access to system functions that are dependent on the Device Settings app. Allowing Device Settings helps to avoid the Lock Task Mode violations in scenarios such as Bluetooth pairing from an app. It is recommended to keep this setting enabled for specific apps.</p> <p>System Info- Displays the date/time, connectivity, battery, and vibration mode on the status bar. This option is disabled by default.</p> <p>Keyguard(Enabled by default) - Enables the keyguard during lock task mode.</p> <p>Global Actions(Enabled by default) - Enables the menu that is displayed when the user long-presses the power button. If this option is disabled, the user may not be able to power off the device.</p> <p>Home button- Enables the home button. This option is disabled by default. When enabled, the following sub-options are displayed:</p> <ul style="list-style-type: none"> • Overview Button(Disabled by default) - Enables the Overview button and the Overview screen during lock task mode • Notifications(Disabled by default) - Enables notifications during lock task mode. This includes notification icons on the status bar, heads-up notifications, and the expandable notification shade. <hr/> <p> If Home Button option is not enabled, the user will not be able to use the multi window feature.</p> <hr/>
Enter Kiosk automatically (on initial setup only)	<p>Select to automatically allow kiosk mode when the configuration is applied.</p>


Setting	Description
Disable Quick Settings for Android 5 devices	Select to disable Quick Settings in kiosk mode for devices running on Android 5.
Disable Quick Settings for Android 6+ and all Samsung devices	<p>Select to disable Quick Settings in kiosk mode for Android Enterprise devices from version 6 through the most recently released version and for all Samsung devices.</p> <hr/> <p> Disabling this setting does not block notification icons and sounds on the device.</p> <hr/>
Allow User to Access Wi-Fi Settings	Select to allow a user to change Wi-Fi settings and access preferred wireless networks.
Allow User to Access Bluetooth Settings	Select to allow a user to change the Bluetooth settings and pair additional Bluetooth devices.
Allow User to Access Location Settings	Select to allow a user access to the location settings.
Allow User to Delay Application Updates	Select to allow a user to delay application updates.
Allow User to Access Date and Time Settings	Select to allow a user to access date and time settings.
Allow User to Access Mobile Network Settings	Select to allow a user to access mobile network settings.
Allow User to Select Language	Select to allow the user to access language settings.


Setting	Description
Enable Shared Device	<p>In a shared device kiosk, the device is shared among multiple end users. This option enable a device for sharing while the device is in kiosk mode:</p> <ul style="list-style-type: none"> Enable Login: This option is for a kiosk admin user. When a device is configured with this option, the user login screen will be displayed, allowing an end user to log in to the shared device kiosk. <hr/> <p> Enable Login option will be visible if and only if user is created as Android Enterprise Device Account user (staging user).</p> <hr/> <p>Select Use domain substitution and enter the domain appropriately. This option checks the username for domain suffix. If the domain suffix is missing, the system automatically appends the domain suffix to the username.</p> <ul style="list-style-type: none"> Enable Logout: When a device is configured with this option, the logged in end user will have access to the Allowlisted apps. This user can see the option to log out, but cannot exit kiosk. When a user logs out of the shared device kiosk, another user can login to the shared device kiosk and view the apps as configured by the admin. Apps appear with a Recycle icon, which is used for enforcing reinstallation of an app on every login. This option can be used for those apps that are locally cache data. <hr/> <p> User can exit kiosk mode if admin provides the exit kiosk PIN.</p> <hr/> <ul style="list-style-type: none"> Timeout: Specify the timeout duration in hours. For example, when the timeout duration is configured for 2 hours and the end user fails to logout of the shared device kiosk, the logout action will be automatically performed on the device after 2 hours. <hr/> <p> The Timeout field is displayed only when the Enable Logout option is selected and it is optional.</p> <hr/>

Setting	Description
	You can also logout end users from shared kiosk mode by clicking the Sign out Android enterprise kiosk option in the device details page.
Allow FIDO Auth (Requires Google Chrome app on device)	<p>Select this option to use the FIDO-authentication for users when using the shared kiosk. Allow users to use FIDO-Keys for logging into the device.</p> <p>Google Chrome is the only supported browser and it must be available on the device for FIDO-authentication to be available in shared kiosk.</p>
Allow user to configure brightness and auto rotate	Select to allow user to configure brightness and auto rotate.
Enable Multi Window	<p>Select to allow the display of more than one app at the same time with Samsung devices(Device Owner kiosk).</p> <p>To allow multi window in lock task mode, the following lock task mode options should also be enabled:</p> <ul style="list-style-type: none"> • Home Button • Overview Button
Enable Inactivity Protection	Select to enable the inactivity protection in Kiosk mode. If selected, the default value is 30 seconds until which the Kiosk screen will remain active. You can set any value between 30 and 3600.
Kiosk Branding	Select the default or custom branding options from the drop-down list.

Setting	Description
Kiosk Exit PIN	<p>Enter the 6-digit PIN that the user must type to exit the Kiosk mode. The PIN must have a minimum of 6 digits and a maximum of 10 digits. This PIN applies to all the devices in kiosk mode.</p> <p>Previously, the Kiosk PIN length was 4 digits. The user can continue to use the 4-digit PIN even after upgrading from a previous version to Ivanti Neurons for MDM 82. However, if there are any configuration changes, the PIN length must be set as per the new requirement (i.e., min 6 digits and max 10 digits).</p> <p>The Go app will protect the device against brute force attacks. For more information, see Go for Android documentation.</p>
Enable Single App launcher Kiosk	<p>Select to use the Kiosk mode to keep an app in foreground on GMS and non-GMS devices. You need to select an app from the App Catalog or enter a package ID.</p>
<p>Create a Allowlist of apps: These apps will be available to users in kiosk Mode by adding apps to the allowed apps list. Drag and Drop to arrange the apps in the order they should appear in the kiosk Mode launcher.</p> <hr/> <p> Adding an application to the list of allowed apps will not install the app on device. Be sure to distribute each app to the appropriate users and user groups in the App Catalog.</p> <hr/>	

Setting	Description
Built-In Apps	<p>Click +Add to include listed native apps in the group of apps allowed in kiosk mode.</p> <p>Under settings for the Kiosk Mode Allowed Apps, the following options are available:</p> <ul style="list-style-type: none"> • Clear app user data: Enabling this option lets all the application data to be automatically cleared without any prompts when the user logs out of the kiosk. Select Enable Shared Device in the Kiosk mode settings for this option to be available with the applications. <ul style="list-style-type: none"> ○ App data is not cleared for Google Chrome and webview package even if they are added in the app Allowlist with clear user data enabled. This is because Kiosk might crash if app data is cleared for these 2 packages. ○ App data is not cleared for System apps for which app launcher is not available (both inside and outside kiosk). • Make hidden: Enabling this option lets the application to be accessible by other apps but is not available in the Kiosk launcher. <hr/> <p> If you have disabled Dialer or Camera in Lockdown settings above, they cannot be added to the Allowed Apps list.</p> <hr/>
App Catalog	Click +Add to included listed apps from the app catalog in the group of apps allowed in kiosk Mode.



Setting	Description
Other Apps	<p>Click +Add to include the package name of an app that is not available on the Google Play Store.</p> <hr/> <p> For Samsung devices, admins should Allowlist the following dialer/system packages to make them functional in Kiosk mode for enabling dialer functionality in Kiosk mode.</p> <hr/> <ul style="list-style-type: none"> • Call – com.samsung.android.incallui • Phone – com.samsung.android.dialer (should be Allowlisted and the admin should select hide option for this package to avoid issues with two dialer options for the user) • Call – com.sec.phone • Call Setting – com.samsung.android.app.telephonyui • Assisted Dialing – com.sec.providers.assisteddialing • Call Log Backup / Restore – com.android.callogbackup • Dialer Storage – com.android.providers.telephony • Phone – com.android.server.telecom • Phone – com.android.phone • Smart Call – com.samsung.android.smartcallprovider • WiFi Calling – com.sec.unifiedwfc
Kiosk Mode Allowed Apps	<p>Click X to remove an app from the group of apps allowed in kiosk mode. Drag and drop to change the order in which apps appear on kiosk devices.</p> <p>Add Folder - You can use this option to create a folder under this section and move one or more apps to this folder. You can create folders up to two levels. The apps that are copied to one folder cannot be copied to another. Only 25 apps are supported within a folder.</p>


 For Samsung devices with Knox Standard 4.0 or higher, the multi-user feature is automatically locked down in kiosk mode.


Managed Devices with Work Profile





Disable certain features on managed device with work profile for Android 8.0+.





Certain features can be disabled for work profile on company owned devices (applicable for Android 11+ devices).

Setting	Description
Managed Device Lockdown Settings	
Disable Wi-Fi	Select to turn off access to wireless LANs.(Not applicable to Android 11+ devices)
Disable Wi-Fi Settings	Select to turn off access to wireless settings.
Disable Camera	Select to turn off camera access.
Disable Bluetooth	Select to turn off Bluetooth features. <div style="border: 1px solid red; padding: 5px;">  Use caution when using this option. Ivanti recommends against disabling audio because hands-free Bluetooth access is disabled. Legal requirements for hands-free use of devices while driving is becoming more widespread. </div>
Disallow Bluetooth Settings	Select to turn off access to Bluetooth settings.
Disable Network Reset	Select to prevent resetting network (applicable to devices on Android 7.0 and later versions).
Mute Master Volume	Select to mute master volume. (Not applicable to Android 11+ devices)
Disallow Emergency Broadcasts	Select to prevent emergency broadcasts.
Disallow Mobile Networks	Select to turn off access to mobile networks. <div style="border: 1px solid red; padding: 5px;">  This cannot be disabled if Wi-Fi is disabled. </div>
Disallow Tethering	Select to turn off tethering as an option for using the internet connection of one device to provide internet access to another device.
Disallow VPN	Select to turn off VPN connections. (Not applicable to Android 11+ devices)



Setting	Description
Disable Factory Reset	Select to prevent users from returning the device to factory defaults. (Not applicable to Android 11+ devices)
Enable Factory Reset Protection	Select to allow users to return the device to factory defaults. <div style="border: 1px solid red; padding: 5px;">  You can optionally specify a list of authorized Google account IDs (an integer value) that can provision the device after factory reset or hover over the help icon to view help for retrieving authorized account IDs. </div>
Disallow Outgoing Calls	Select to prevent a user from making outgoing calls.
Disallow Safe Boot (Android 6.0+)	Select to prevent a user from rebooting a device into safe boot mode.
Disallow Debugging Features	Select to disable debugging features on devices. By default, this option is turned on.
Ensure Verify Apps	Select to allow application verification features on devices. By default, this option is turned on. <div style="border: 1px solid red; padding: 5px;">  When this option is turned off, the device goes back to its default behavior which may vary from device to device. </div>
Disallow SMS	Select to prevent a user from sending and receiving SMS messages.
Disallow Unmute Microphone	Select to prevent a user from unmuting the device's microphone.
Disallow Auto Time	Select to prevent a user from enabling automatic time changes.
Disallow Auto Time Zone	Select to prevent a user from enabling automatic device time adjustment with time zone changes.
Disable Data Roaming	Select to turn off data exchange while the device is roaming.



Setting	Description
Sync time with server (Android 9.0+)	Select to allow devices to sync time with the Ivanti Neurons for MDM servers first time on registration and thereafter once every 24 hours after each check-in. This option will be available only if the Disable Auto-Time is selected.
Set timezone (Android 9.0+)	Specify timezone string in Olson Time Zone ID format (for example, Pacific/Midway).
Disable Wi-Fi Sleep	Select to keep Wi-Fi on while the device is in Sleep mode. (Not applicable to Android 11+ devices)
Restrict Input Methods	<p>Select to restrict input methods for work apps by designating a list of Allowlisted package names via the Package Name field.(Not applicable to Android 11+ devices)</p> <p>The devices will have both Allowlisted package input methods and the default system input methods available to use.</p> <p>The user can switch between default system input methods and Allowlisted packages input methods.</p> <p>In Android 10+, the input methods are applicable only for the device side, else they are restricted to the entire device.</p>
Restrict Accessibility Services	<p>Select to restrict accessibility services for work apps by designating a list of Allowlisted package names via the Package Name field. If there are no Allowlisted packages, then only system accessibility services will be allowed.</p> <hr/> <p> In Android 10+, the input methods are restricted to Work Apps only, else they are restricted to the entire device.</p> <hr/>
Disable USB file transfer	Select to disable USB file transfer.
Disable external media	Select to disable external media.

Setting	Description
Disallow Unknown Sources on device	<p>Select to prevent the device from installing apps from unknown sources.</p> <hr/> <p> This setting, to take effect on the device, is dependent on an expected Google Play update to enable this feature.</p> <hr/>
Set lock screen message (Android 7.0+)	<p>Select to set the lock screen message to be displayed on the device. Type the lock screen message (maximum of 256 characters) in the text field. By enabling this option, the user is blocked from setting the message in Settings and the message that is set by the admin is displayed to the user.</p> <p>If the admin does not provide any lock screen message after enabling 'Set lock screen message', the user is blocked from setting the message in Settings, but no message is displayed to the user.</p>
Set screen brightness	<p>Select to set brightness of your device's screen.</p> <ul style="list-style-type: none"> • Manual - Select to enter a number manually (0 to 255) • Adaptive - Select to allow the device to set the brightness <hr/> <p> It is recommended to enable the "Disallow config brightness" option before setting the screen brightness of your device.</p> <hr/> <p> If the user is allowed to make changes, these settings will be reset to the admin defined settings on next check-in.</p> <hr/> <p> This setting is not supported on devices with Android 11 and later versions for Work Profile on Company Owned Device mode.</p> <hr/>


Setting	Description
Set screen timeout	<p>Select to set screen timeout duration (in seconds).</p> <hr/> <p> It is recommended to enable the "Disallow config screen timeout" option before setting the screen brightness of your device.</p> <hr/> <p> If the user is allowed to make changes, these settings will be reset to the admin defined settings on next check-in.</p> <hr/> <p> This setting is not supported on devices with Android 11 and later versions for Work Profile on Company Owned Device mode.</p> <hr/>
Set screen orientation	<p>Select to set screen orientation. You can set the screen orientation to 0, 90, 180, or 270 degrees from the drop down list.</p> <hr/> <p> This setting is not supported on devices with Android 11 and later versions for Work Profile on Company Owned Device mode.</p> <hr/>
Disallow auto-fill (Android 8.0+)	Select to disallow auto fill. (Not applicable to Android 11+ devices)
Disallow Bluetooth Sharing (Android 8.0+)	Select to disallow the user from sharing outgoing bluetooth on the device.
Disable backup service (Android 8.0+)	Select to disable the backup service. (Not applicable to Android 11+ devices)
Disallow printing (Android 9.0+)	Select to restrict printing from all apps.(Not applicable to Android 11+ devices)
Disallow airplane mode (Android 9.0+)	Select to disable airplane mode on the entire device.
Disallow ambient display (Android 9.0+)	Select to disallow the ambient display for the user. (Not applicable to Android 11+ devices)

Setting	Description
Disallow config brightness (Android 9.0+)	Select to disallow the user from configuring the brightness (Not applicable to Android 11+ devices).  It is recommended to define the "Set screen brightness mode" before selecting this option.
Disallow config date time (Android 9.0+)	Select to disallow date, time and timezone configuration.
Disallow config location (Android 9.0+)	Select to disallow the user from disabling location providers.
Disallow config screen timeout (Android 9.0+)	Select to disallow the user from changing screen off timeout. (Not applicable to Android 11+ devices)  It is recommended to set the "Set screen timeout" values before selecting this option.
Disallow system error dialogs (Android 9.0+)	Select to disallow system error dialogs.(Not applicable to Android 11+ devices)
Disable Screen Capture (Android 11.0+)	Select to turn off the ability to use the device's built-in screen capture feature. When selected, screen capture is disabled on the personal side of the device.
Android 12.0+	
Enable USB for charging only	Select to enable the USB port for charging only.
Android 13.0+	

Setting	Description
Set Minimum Required Wi-Fi Security	<p>Use this option to set minimum required Wi-Fi security:</p> <ul style="list-style-type: none"> • No minimum security required – Select this option if no minimum security is required • Personal Network Based Security – Select this option to block personal Wi-Fi networks such as WEP, WPA/WPA2/WPA3, etc. • Enterprise EAP Network Based Security – Select this option to block EAP protocol-based Wi-Fi networks • Enterprise 192 Network Based Security - Select this option to block EAP corporate-based Wi-Fi networks <hr/> <p> All the existing devices that do not meet the minimum criteria will be disconnected.</p> <hr/> <p> Device details will show the Minimum Required Wi-Fi Security level (if available) under the General > Wi-Fi Security Level.</p>
Disallow Sharing Admin Configured Wi-Fi	Select to prevent users from sharing Wi-Fi configurations set by the administrator.
Work Profile Lockdown Settings	
Disable Screen Capture	Select to turn off the ability to use the device's built-in screen capture feature.
Disallow Apps Control	Select to prevent a user from modifying applications in Settings or launchers.
Disallow Config Credentials	Select to prevent a user from configuring user credentials.
Disallow Cross Profile Copy Paste	Select to prevent copy/paste of information between profiles.

Setting	Description
Disallow Modify Accounts	Select to prevent a user from adding or removing accounts.
Disallow NFC (Outgoing Beam) (Android 5.1+)	Select to prevent a user from using NFC to transfer app data.
Disallow Share Location	Select to prevent websites and apps from prompting the device user to share device location.
Disallow Debugging Features	Select to disable debugging features on devices. By default, this option is turned on.
Ensure Verify Apps	<p>Select to allow application verification features on devices. By default, this option is turned on.</p> <hr/> <p> When this option is turned off, the device goes back to its default behavior which may vary from device to device.</p> <hr/>
Disable unknown sources inside work profile	Select to disallow download from unknown sources within the work profile.
Enable/Disable System Apps	<p>Select to enable and disable system applications to be deployed by designating two lists of package names via the System App Package Name fields. Use this feature to manage access to system applications that are not published in Google Play.</p> <hr/> <p> Adding an app to the app catalog and also to a system apps list is not supported.</p> <hr/>
Disable Caller ID (Android 6.0+)	Sets whether caller ID information from the work profile will be shown in the device for incoming calls.
Disable Contact sharing via Bluetooth (Android 6.0+)	Select to prevent the device from sharing contacts with other devices via Bluetooth.
Disable Contact sharing via Search (Android 7.0+)	Select to prevent the users from searching for work contacts from the personal phone dialer.

Setting	Description
Disallow auto-fill (Android 8.0+)	Select to disallow auto fill. (Not applicable to Android 11+ devices)
Disallow work app notifications in personal profile (Android 8.0+)	Select to restrict work profile notifications.
Disallow printing (Android 9.0+)	Select to restrict the printing from all apps. (Not applicable to Android 11+ devices)
Disallow share into Profile (Android 9.0+)	Select to prevent users from sharing personal data into a work profile on the device.
Restrict input methods (Android 10.0+)	<p>Select to restrict Allowlisted IME package names by designating a list of Allowlisted package names via the Package Name field (Not applicable to Android 11+ devices).</p> <p>The devices will have both Allowlisted package input methods and the default system input methods available to use.</p> <p>The user can switch between default system input methods and Allowlisted packages input methods.</p> <p>The input methods will apply for IME apps installed on the work profile side. Even if the apps installed on the device side are Allowlisted for this lockdown, those will not be available for apps to use on the work profile side.</p>

Setting	Description
Allow Access to work profile calendars (Android 10.0+)	<p>Select any of the following options to allow all apps or select a set of apps on the personal side to access the calendar information present in the work profile :</p> <ul style="list-style-type: none"> • All Apps on Personal Profile- allow all apps to access calendar information present in the work profile • Only the following apps on Personal Profile- In the text field below, enter the bundle IDs of the apps separated by a comma. Only these selected apps on the personal side will be allowed to access the calendar information present in the work profile. <hr/> <p> The app on the personal side should implement specific APIs to be able to access shared calendar.</p>
Enable Cross profile Allowlisting of Apps (Android 11.0+)	<p>Select the checkbox to enable users to share information from specific apps from within the work profile to the personal side of the device.</p> <p>In the Allowlisted Apps field, type the Package IDs of the apps to be Allowlisted, separated by commas.</p> <p>By default, this option is disabled.</p>
Enable Maximum Profile Timeout (Android 11.0+)	<p>Select to set a maximum time window the work profile can be turned off before Ivanti Neurons for MDM suspends personal apps on the device. You can set a time between 72 and 8760 hours. 8760 hours is one year of time.</p> <p>Default value is set to 72 hrs if the option is selected.</p> <p>The device user sees a message prompting to turn on the work profile to enable suspended apps. Available for Android 11+ devices in Work Profile on Company Owned Device.</p>
Enable 5G Network Slicing (Android 12.0+)	<p>Select to provide a 5G network slicing option on Work-Profile of the company-owned devices.</p> <p>By default, this option is disabled.</p>

For more information, see [How to create a configuration](#)

Lockdown & Kiosk: Samsung Knox Standard

A Lockdown & Kiosk: Samsung Knox Standard configuration disables certain features of Samsung Knox Standard devices and creates a Allowlist of apps that will be available to users in Kiosk mode.






Samsung KNOX Standard Configuration is deprecated and not supported on devices with Android 9 and later versions.

Lockdown settings

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Samsung Knox Lockdown Settings: Disable certain features on Samsung Knox devices only.	
Disable Wi-Fi	Select to turn off access to wireless LANs.
Disable Camera	Select to turn off camera access.
Disable Bluetooth	Select to turn off Bluetooth features.
Allow Bluetooth Audio-only	Select to turn on Bluetooth audio features only.
Disable Mobile Data	Select to turn off exchange of data when one device touches another. <hr/> This cannot be disabled if Wi-Fi is disabled.
Disable GPS	Select to turn off GPS.
Disable Phone Dialer	Select to turn off the phone app.
Disable SD Card	Select to turn off SD card access.
Disable Google Backup	Select to turn off backups to Google servers.
Disable Copy/Paste	Select to turn off access to copy/paste functions.
Disable NFC	Select to turn off NFC (Near-field Communication) data exchange when the device touches another device.
Disable Microphone	Select to turn off app access to the device microphone.
Disable Screen Capture	Select to turn off the ability to use the device's built-in screen capture feature. Turning on this option does not

	allow screen captures of Go. Such screen captures are disallowed.
Disable Bluetooth Tethering	Select to turn off Bluetooth tethering as an option for using the internet connection of one device to provide internet access to another device.
Disable USB Debug	Select to turn off the USB debugging feature.
Disable USB Tethering	Select to turn off USB tethering as an option for using the internet connection of one device to provide internet access to another device.
Disable Wi-Fi Tethering	Select to turn off Wi-Fi tethering as an option for using the internet connection of one device to provide internet access to another device.
Disable Native Browser	Select to prevent users from accessing the Android browser.
Disable YouTube	Select to prevent users from accessing YouTube.
Disable Factory Reset	Select to prevent users from returning the device to factory defaults.
Disable OTA Upgrade	Select to turn off over-the-air upgrades of the device firmware. Warning: Do not disable Disable Setting Changes if OTA Upgrade is enabled. Disabling Setting Changes when OTA Upgrade is enabled can result in a non-functional device because setting changes are required for upgrade.
Disable Voice Roaming	Select to turn off access to voice calls while the device is roaming.
Disable USB Media Player	Select to turn off the USB media player.
Disable Google Play	Select to turn off access to Google Play.
Disable Data Roaming	Select to turn off data exchange while the device is roaming.
Disable Unknown Sources	Select to disable installing apps from anywhere but the Google Play Store, except for the Go app.
Disable Device Admin Privileges Removal	Select to prohibit users from turning off device admin privileges from Go.
Disable Setting Changes	Select to turn off access to the device Settings app.

	Warning: Do not disable Disable Setting Changes if OTA Upgrade is enabled. Disabling Setting Changes when OTA Upgrade is enabled can result in a non-functional device because setting changes are required for upgrade.
Kiosk Mode Settings: Kiosk Mode applies additional restrictions to the devices including limited access to apps via a customized launcher.	
 Applicable to Android versions up to 8.1. For Android versions 9.0, use Android Enterprise Managed Device Kiosk configuration.	
Enable Kiosk Mode	Select to configure Kiosk Mode on Android devices.
Allow User to Access Wi-Fi Settings	Select to allow a user to change Wi-Fi settings and access preferred wireless networks.
Allow User to Access Bluetooth Settings	Select to allow a user to change the Bluetooth settings and pair additional Bluetooth devices.
Allow User to Delay Application Updates	Select to allow a user to delay application updates.
GPS Location Settings	Select one of the following GPS location settings: <ul style="list-style-type: none"> • Disable Location • Enable Location • Allow User to Select
Kiosk Exit PIN	Enter the four-digit code that the end user must type in order to exit Kiosk Mode.
Create a Allowlist of apps: These apps will be available to users in Kiosk Mode by adding apps to the allowed apps list. Drag and Drop to arrange the apps in the order they should appear in the Kiosk Mode launcher.	
 Adding an application to the list of allowed apps will not install the app on device. Be sure to distribute each app to the appropriate users and user groups in the App Catalog.	
Built-In Apps	Click +Add to include listed native apps in the group of apps allowed in Kiosk Mode.
	 If you have disabled Dialer or Camera in Lockdown settings above, they cannot be added to the Allowed Apps list.

App Catalog	Click +Add to included listed apps from the app catalog in the group of apps allowed in Kiosk Mode.
Other Apps	Click +Add to include the package name of an app that is not available on the Google Play Store.
Kiosk Mode Allowed Apps	Click X to remove an app from the group of apps allowed in Kiosk Mode. Drag and drop to change the order in which apps appear on kiosk devices.



Using Kiosk mode on Android 4.4 or supported newer versions, Samsung devices that support multiple users, will automatically lock down the multi-user feature while in Kiosk mode.

For more information, see [How to create a configuration](#)

macOS Firewall

License: Gold

macOS Firewall manages the Application Firewall settings that are accessible in the Security Preferences pane on macOS devices.

Applicable to: macOS 12.3+

- **Allow built-in software to receive incoming connections** - If true, allows the built-in software to receive incoming connections.
- **Allow downloaded signed software to receive incoming connections** - If true, allows downloaded signed software to receive incoming connections.

Applicable to: macOS 12.0+

- **Enable logging** - If true, enables logging
- **Specify the type of logging**
 - **Throttle**
 - **Brief**
 - **Detail**

Applicable to: macOS 10.12+

When you click **Enable Firewall**, you can select one or more of the following options:

- **Block All Incoming** - If true, enables blocking of all incoming connections
- **Enable Stealth Mode** - If true, enables stealth mode
- **Applications** - The list of applications with connections controlled by the firewall



- The configuration must exist in a system-scoped profile. If more than one profile contains this configuration, then the most restrictive union of settings will be used.
 - The **Automatically allow signed downloaded software** and the **Automatically allow built-in-software** options are not supported. However, both the options will be forced ON when this configuration is available.
-



- The Administrator can enable the stealth mode by specifying a device that cannot be discovered by the ping command.
-

macOS Restrictions

License: Gold

macOS restrictions determine which restrictions are enabled on macOS devices.

You can set the following features to be enabled or disabled on macOS devices:

macOS Version	Features
10.11+	<ul style="list-style-type: none"> • Allow Camera • Allow iCloud Document Sync <p>Supervised only:</p> <ul style="list-style-type: none"> • Allow Spotlight Internet Results
10.11.2+	Allow Definition Lookup
10.12+	<ul style="list-style-type: none"> • Allow iCloud Keychain Sync • Allow Back to my Mac • Allow Find my Mac • Allow sharing to Notes, Reminders, or LinkedIn • Allow Bookmark Sync • Allow macOS mail iCloud Service • Allow macOS iCloud Calendar Service • Allow macOS iCloud Address Book Service • Allow iCloud Reminder Service • Allow Auto Unlock <p>Supervised only:</p> <p>Allow Apple Music</p>
10.12.4+	<ul style="list-style-type: none"> • Allow Finger Print for Unlock

macOS Version	Features
10.13+	<ul style="list-style-type: none"> • Allow iTunes File Sharing • Allow Content Caching • Allow modification of Wallpaper <p>Supervised only:</p> <ul style="list-style-type: none"> • Allow AirPrint • Allow AirPrint iBeacon Discovery • Force AirPrint Trusted TLS Requirement • Allow AirDrop • Allow Game Center
10.13.4+	<p>Supervised only:</p> <p>Defer software updates for a range of days (30 to 90 days)</p> <p>Default: 30 days.</p>
10.14+	<p>Supervised only:</p> <p>Allow nearby devices to share requests for a password</p>

macOS Version	Features
10.14.4+	<ul style="list-style-type: none"> • Allow Screenshots • Allow remote screen observation <p>Supervised only:</p> <ul style="list-style-type: none"> • Allow automatically to join classroom • Allow classroom to request permission to leave classes • Allow classroom to lock an app and lock the device without prompting • Allow force unprompted managed classroom screen observation
11.0+	<p>Supervised only:</p> <p>Allow to force delay App Software Updates</p>
11.3+	<p>Enforced Fingerprint timeout</p> <p>Default: 48 hours</p> <p>Prerequisite: Touch ID must be configured on the device</p>
11.3+	<p>Supervised only:</p> <ul style="list-style-type: none"> • Enforced Software Update Major OS Deferred Install Delay • Enforced Software Update Minor OS Deferred Install Delay • Enforced Software Update Non OS Deferred Install Delay • Force Delayed Major Software Updates

macOS Version	Features
12+	Supervised only: <ul style="list-style-type: none"><li data-bbox="943 344 1386 375">• Allow Erase Content and Settings<li data-bbox="943 411 1468 611">• allowCloudPrivateRelay: If you set the Private Relay ON in a macOS device, the network traffic is encrypted so that the internet activity is private and secure. This restriction requires a supervised device.<li data-bbox="943 646 1308 678">• Allow iCloud Photo Library
macOS 13.0+	

macOS Version	Features
	<ul style="list-style-type: none"> • Allow Rapid Security Response Installation - To disable the responses. The user cannot install rapid security responses. • Allow Rapid Security Response Removal - To block the user from being able to undo the responses. The user cannot remove rapid security responses. • Allow Universal Control - <ul style="list-style-type: none"> ◦ If True, the configuration lets you use the input devices of the primary device to control the secondary display device. ◦ If False, you can add a secondary display device but cannot control it with the primary input devices. • Allow UI Configuration Profile Installation - If False, the configuration does not allow the installation of profile, configuration, or certificates on the macOS device. • Allow USB Restricted Mode - If True, the configuration locks the device from using remotely connected input devices. The Allow Accessories to Connect options are greyed out on the device.

macOS AppStore Restrictions

License: Gold

macOS AppStore Restrictions define which restrictions are enabled in macOS AppStore.

You can set the following options:

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Configuration Setup	
macOS Version	Features
10.9+	Restrict app installations to admin users.
10.10+	<ul style="list-style-type: none">• Restrict app installations to software updates only.• Disable app adoption by users.• Disable software update notifications.
10.11+	Restrict App installation to MDM-installed apps and software updates.

Distributing the configuration

Procedure

1. Set the options using the preceding table.
2. Click **Next**.
3. Select the **Enable this configuration** option.

4. Select one of the following distribution options:

- All Devices
- No Devices (default)
- Custom

5. Click **Done**.

macOS Disk Burning Restrictions

License: Gold

macOS Disk Burning Restrictions manage disk burning restrictions in macOS. You can configure the [macOS Finder Settings](#) to enable or disable disc burning options from the Finder app on macOS.

You can set the following options:

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Configuration Setup	
Setting	What To Do
Allow Disk Burning	<ul style="list-style-type: none">• ON• OFF• Require Authentication

Distributing the configuration

Procedure

1. Set the options using the preceding table.
2. Click **Next**.
3. Select the **Enable this configuration** option.
4. Select one of the following distribution options:
 - All Devices
 - No Devices (default)

-
- Custom


5. Click **Done**.

Allowed Media Control

License: Gold

Allowed Media Control configuration manages mounting, unmounting, and eject on logout for various physical media in macOS.

You can set the following options:

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Configuration Setup	
Mount control for media types	
Turn on the mount control for each media type and set the mount settings. If you turn off the mount control, then OS default setting will apply.	
Media Type	Mount Settings
<ul style="list-style-type: none"> • CD • DVD • BD 	<ul style="list-style-type: none"> • Read-only with authentication • Deny Mount • Eject Media
<ul style="list-style-type: none"> • Blank CD • Blank DVD • Bland BD • DVD-RAM • Disk Image • Internal Hard Disk • External Hard Disk • Network Disk 	<ul style="list-style-type: none"> • Read-only • Deny Mount • Eject Media • Authenticate
<div style="border: 1px solid red; padding: 5px;">  <ul style="list-style-type: none"> • External Hard Disk includes USB HDD, USB Flash Drive storage, and SD-Cards. • Read-only media such as CD, DVD, and BD are mounted as read-only by default. </div>	
Unmount control for media types	
Turn on the unmount control for each media type and set the unmount settings. If you turn off the Unmount control, then OS default setting will apply. Exercise caution when you set Deny Unmount setting for media types.	

Setting	What To Do
Media Type <ul style="list-style-type: none"> • CD • DVD • BD • Blank CD • Blank DVD • Bland BD • DVD-RAM • Disk Image • Internal Hard Disk • External Hard Disk • Network Disk 	Mount Settings <ul style="list-style-type: none"> • Deny Unmount • Authenticate
Eject on logout settings	

Setting	What To Do
Media types to be ejected automatically when the user logs out.	
Media Type	
<ul style="list-style-type: none">• CD• DVD• BD• Blank CD• Blank DVD• Bland BD• DVD-RAM• Disk Image• External Hard Disk• Network Disk	

Distributing the configuration

Procedure

1. Set the options using the preceding table.
2. Click **Next**.
3. Select the **Enable this configuration** option.
4. Select one of the following distribution options:
 - All Devices
 - No Devices (default)
 - Custom
5. Click **Done**.

macOS Finder Settings

License: Gold

macOS Finder Settings manage settings of Finder app in macOS.

You can set the following options:

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Configuration Setup	
Setting	What To Do
Disable Disc burn support in Finder	<ul style="list-style-type: none">• Turn ON• Turn OFF

Distributing the configuration

Procedure

1. Set the options using the preceding table.
2. Click **Next**.
3. Select the **Enable this configuration** option.
4. Select one of the following distribution options:
 - All Devices
 - No Devices (default)
 - Custom
5. Click **Done**.

macOS Kernel Extension Policy

Applicable to: macOS 10.13.2 or or supported newer versions.

Controls restrictions and settings for loading user-approved Kernel Extensions.

Creating a macOS Kernel Extension Policy configuration

Procedure

1. Select **Configurations**.
2. Click + **Add**.
3. Type **kernel** in the search field, and then click the **macOS Kernel Extension Policy** configuration.
4. Name and describe the configuration.
5. Select the **Allow User Overrides** option to allow users to approve additional kernel extensions not explicitly allowed by the following configuration.
6. In the Allowed Team Identifiers and Kernel Extensions section, click + **Add** to add allowed team identifiers and kernel extensions. A kernel extension is the bundle identifier of a package. For each team identifier, you can add several validly signed kernel extension names in the pop-up window.
7. Click **Add**.
8. Click **Next** to configure the distribution settings.
9. Click **Done**.

For more information, see [How to create a configuration](#)

Mobile@Work for macOS

This section contains the following topics:

- [Mobile@Work for macOS configuration and scripts execution workflow](#)
- [Creating a Mobile@Work for macOS configuration](#)
- [Enabling User Onboarding for macOS devices](#)
- [Creating a Mobile@Work for macOS Script configuration](#)
- ["Perform a clean uninstall of Mobile@Work for macOS" on page 634](#)

Ivanti Neurons for MDM allows you to create your own macOS shell scripts, which you can then upload to Ivanti Neurons for MDM and run on managed macOS devices. For information about creating, uploading, and managing the scripts repository, see [All Scripts](#).

A macOS device user can initiate the device to be retired using Mobile@Work for macOS 1.1 or later. The retire option is available when you click **Uninstall** from the About Mobile@Work screen. In Ivanti Neurons for MDM, you can verify the status of the device in the **Devices** page and on the device details page.

Mobile@Work for macOS 1.5 or later opens Apps@Work immediately after registration without waiting for the MDM registration to complete.

In Mobile@Work for macOS, click on an application tile to display the App Details page for that application. The page includes app description, screen shots, ratings, and reviews.

Mobile@Work for macOS notifies the Ivanti Neurons for MDM server if the Packager in-house macOS apps are installed or not installed in the inventory report.

Prerequisites

In the [App Catalog](#), the Mobile@Work for macOS client is available as a business app. Before you can run shell scripts on macOS devices, instruct the users to register their devices with Ivanti Neurons for MDM using Mobile@Work for macOS.

Procedure

-
1. Download the Mobile@Work for macOS application. It is available as a PKG file at <https://support.mobileiron.com/support/CDL.html>. See [this Ivanti customer forums article](#) for information on getting credentials for the download site.
 2. Upload the PKG file for Mobile@Work for macOS to a secure server. This server must be accessible to device users.
 3. Share the URL of the installation file for Mobile@Work for macOS with the device users via an e-mail or a message.
 4. Instruct the users to:
 - a. Download and install Mobile@Work for macOS on their device.
 - b. Register the devices with Ivanti Neurons for MDM using Mobile@Work for macOS.

Mobile@Work for macOS configuration and scripts execution workflow

Procedure

1. Set up and distribute a Mobile@Work for macOS configuration.
2. Set up and distribute a Mobile@Work for macOS Script configuration to upload the script to Ivanti Neurons for MDM. The scripts are encrypted and signed using a signed certificate, which is unique per tenant. The key to decrypt the script is sent to the device along with download URL to the script, which is encrypted and signed.
3. Ivanti Neurons for MDM executes the scripts on macOS devices using Mobile@Work for macOS. Mobile@Work for macOS polls Ivanti Neurons for MDM periodically to check whether there are any scripts awaiting execution. If there are scripts in the queue, Mobile@Work downloads and runs the scripts on macOS devices according to settings you define on Ivanti Neurons for MDM.
4. Mobile@Work for macOS returns the script execution results to Ivanti Neurons for MDM, which are shown in the device logs. You can check the device logs from the device details page of the macOS device, in the **Logs** tab.

Creating a Mobile@Work for macOS configuration

A default system configuration for the Mobile@Work for macOS configuration is available. However, it is not distributed to any devices by default.

Procedure

-
1. Select **Configurations**.
 2. Click **+ Add**.
 3. Type **work** in the search field, and then click the **Mobile@Work for macOS** configuration.
 4. Name and describe the configuration.
 5. Enter **Max Run Time** in seconds to specify how long a script can run. The default value is 60 seconds.
 6. Enter **Max Response Size** in kilobytes (KB) to specify the maximum response size limit of the output of the script that is returned to Ivanti Neurons for MDM. This is the stdout or stderr data that is returned when running the script. The default value is 1 KB.
 7. Enter **Check-in Frequency** in minutes to specify how often the Mobile@Work for macOS app must check-in with Ivanti Neurons for MDM. The default value is 15 minutes.
 8. (Optional) You can enable user onboarding for macOS devices using the [Enabling User Onboarding for macOS devices](#) section.
 9. Click **Next** to configure the distribution settings.
 - a. Choose a distribution level:
 - b. **To everyone** - The app is added to all the user compatible devices.
 - c. **To no one** - The app is staged for distribution at a later date.
 - d. **Custom Distribution** - Select any of the following options:
 - **User/User Groups** - The app is distributed to only the users or user groups you choose.
Click the **Users** tab to select the user(s).
Click the **User Groups** tab to select the user group(s).
 - **Device/Device Groups** - The app is distributed to only the devices or device groups you choose
Click the **Devices** tab to select the device(s).
Click the **Device Groups** tab to select the device group(s).
 10. Click **Done**.

Enabling User Onboarding for macOS devices

You can enable user onboarding for macOS devices during the automated Device Enrollment process as follows:

- As soon as the Device Enrollment is completed, Mobile@Work for macOS (version 1.68 or later is required) is pushed to the device along with the profiles, configurations, and apps.
- The Mobile@Work for macOS client and other apps are pushed to the devices only if:
 - The apps are either in-house PKG apps or Apple Apps and Books public apps.
 - The silent installation setting for the apps is set to true. The setting is available from the **Apps** > [app details](#) > **App Configuration** > **Install on device** page.
 - The [priority for the apps](#) is set to High. By default, the priority of the Mobile@Work for macOS client app is set to high (and it cannot be modified), **without which the user onboarding process may fail**.
 - The apps are configured to be distributed to the devices, user groups, or device groups.
- After Mobile@Work for macOS is installed and registered, the macOS device enters the kiosk mode (user has no control of the device) until the remaining profiles, configurations, and apps are configured and installed. The progress is displayed in steps.

For Mobile@Work for macOS 1.73 or later versions as supported by Ivanti Neurons for MDM, the following additional features are supported:

- The user onboarding process is completed soon after the Device Enrollment is completed for a device. The user onboarding process does not start after the time window to trigger user onboarding is expired (typically 20 minutes after device registration) even if an administrator enables user onboarding in the Mobile@Work configuration. This prevents a device from entering the user onboarding kiosk mode when the device is in regular usage.
- The user onboarding process is displayed in steps in the Mobile@Work for macOS client. Configurations will be installed as part of the first step.
- High-priority apps will be installed initially. Each high-priority app will be counted as one step. Packager apps are not counted as part of the steps.
- Remaining apps will continue to be installed in the background even after user onboarding is complete. Applications are marked as installed after the installation is initialized on a device or after the application is actually installed on the device.

-
- After user onboarding, you can go to the device details page to verify the configurations and apps pushed to each device. More information is available in the logs.

Procedure

1. Create a Mobile@Work for macOS configuration using [Creating a Mobile@Work for macOS configuration](#).
2. Select the **Enable User Onboarding** option.
3. Enter the following details:
 - **User Onboarding Timeout Value** - Enter the approximate time that the device will take to install the app and configurations during the initial device setup. By default, the user onboarding process on a macOS device times out in 120 seconds, which you can modify as required.
 - **User Landing Page URL** - Provide a landing page URL to be displayed to the user after onboarding is completed.
4. Click **Next** to configure the distribution settings.
5. Click **Done**.

Creating a Mobile@Work for macOS Script configuration

You can create and distribute multiple Mobile@Work for macOS Script configurations to the devices. Using this configuration, you can select a script from the repository (**Admin** > [All Scripts](#)) to distribute to Mobile@Work for macOS.

You can schedule script executions on devices with Mobile@Work for macOS 1.66 or later versions. If you schedule a script execution to run on devices with Mobile@Work for macOS client versions earlier than 1.66, then the script is executed only once. If the Mobile@Work for macOS client is upgraded from 1.4 to 1.66, then all the macOS client configurations will be redistributed to the devices.

Prerequisites

- Go to **Admin** > [All Scripts](#) to upload and manage scripts that can be used in this configuration and distributed to devices.
- Configure and distribute the Mobile@Work for macOS configuration on devices. Otherwise, the Mobile@Work for macOS Script configuration will be in the Error state.

Procedure

-
1. Select **Configurations**.
 2. Click **+ Add**.
 3. Type **work** in the search field, and then click the **Mobile@Work for macOS Script** configuration.
 4. Name and describe the configuration.
 5. In the **Select Script** field, enter the name of the script to find and select the script from the drop-down list.
 6. In the Script Input section, the script input labels and script variables associated with the script are displayed. If you need to override them, enter alternate script variables (for example, `{UserWorkEmailAddress}`) and their alternate default values (for example, `john.doe@company.com`).
 7. In the Script Execution section, select one of the following scheduling options:
 - Execute Once On Deployment
 - Recurring Execution
 8. If you choose Recurring Execution, specify the following details:
 - Timezone to use - Select Device's Local Time or UTC Time. The script will be executed at the time selected in this field.
 - Execution Starts on - Select the start date.
 - Execution Ends on - Select the end date (greater than or equal to the start date).
 - Execute Script - Select Daily or Weekly and enter the hours (in 24 hours format), minutes, and days as applicable.
 9. Click **Next** to configure the distribution settings.
 10. Click **Done**.

Perform a clean uninstall of Mobile@Work for macOS

If you have enabled the option **Remove apps on un-enrollment(Applicable to managed apps only)** during installation of Mobile@Work for macOS and if you initiate the device to be retired from the Ivanti Neurons for MDM administrator portal, then the Mobile@Work for macOS application and the uninstall script is just deleted from the device. To avoid the processes and scripts from running in the back end, ensure that during device registration of new users or retirement of existing users, you deselect the

following option from the Ivanti Neurons for MDM administrator portal to ensure that the uninstall script runs and deletes the associated processes and scripts from the back end.

Procedure

1. Log in to the Ivanti Neurons for MDM administrator portal.
2. Go to **Apps > Mobile@Work > App Configurations > App Configurations Summary list > Apple App Settings > Apple Application Management configuration settings**.
3. From the **Configuration Setup** page deselect the following option:
 - **Remove apps on un-enrollment (Applicable to managed apps only)**.

Related topics:

- [Admin > All Scripts](#)
- [How to create a configuration](#)

macOS Software Update Rules Configuration

Administrators can configure the software update policy of a device by defining the "[macOS Software Update Rules](#)" below.

Applicable to: macOS 10.7+

Procedure

1. Go to **Configurations** > **+Add**.
2. Type **macOS** in the search field, and then click the **macOS Software Update Settings** configuration.
3. Enter a **Name** and **Description** of the configuration.
4. Select the required configurations from "[macOS Software Update Rules](#)" below.
5. Click **Next**.
6. Select **Enable this configuration** option.
7. Select one of the following distribution options:
 - All Devices
 - No Devices (default)
 - Custom.
8. Click **Done**.

macOS Software Update Rules

Admins can select from the list of rules as follows:



Users cannot change these settings when these rules are applied on the device.

-
- Allowing pre-release software installation.
 - Automatically:
 - Check for updates
 - Download new updates when available
 - Install macOS updates
 - Install app updates from app store
 - Install system data files and security updates.
 - Restrict App installations to admin users.
 - Option to add URL of the software update catalog (unsupported on macOS 11+).

Certificate Preference

Applicable to: macOS 10.12 or supported newer versions.

Identify a Certificate preference item in the user's keychain that references a Certificate payload included in the same profile.

This configuration is used to bind a certificate to either an email address or a URL. After you bind a certificate to an email address, the Mail app will use it for that email account. If an SSL Certificate for a website is not trusted, adding a Certificate preference will ensure that the browser does not prompt you with a warning message when you try to access the website.

Creating an Certificate Preference configuration

Procedure

1. Select **Configurations**.
2. Click **+ Add**.
3. Type **preference** in the search field, and then click the **Certificate Preference** configuration.
4. Name and describe the configuration.
5. In the Configuration Setup section, in the **Name** field, enter an email ID or a name for which a preferred certificate is requested.
6. In the **Certificate UUID** field, select a certificate.
7. Click **Next** to configure the distribution settings.
8. Click **Done**.

Related topics:

- ["Identity Preference" on page 643](#)
- [How to create a configuration](#)

Active Directory (macOS)

Applicable to: macOS 10.9 or supported newer versions.

Configure advanced options to bind macOS devices to an Active Directory (AD) domain in order to access software services that rely on AD for authentication and security.

This section contains the following topics:

- [Creating an Active Directory configuration](#)
- [Active Directory settings](#)

Creating an Active Directory configuration

Procedure

1. Select **Configurations**.
2. Click + **Add**.
3. Type **privacy** in the search field, and then click the **Active Directory** configuration.
4. Name and describe the configuration.
5. Enter the settings as described in the following Active Directory settings table.
6. Click **Next** to configure the distribution settings.
7. Click **Done**.

Active Directory settings

Setting	What To Do
Active Directory Settings - Basic	
Hostname	(Required) Enter the host name, which is the Active Directory domain to join.
Username	Enter the user name of the account used to join the

Setting	What To Do
	domain.
Password	Enter the password of the account used to join the domain.
AD Organizational Unit	Enter the organizational unit (OU) where the joining computer object is added.
AD Mount Style	Select one of the following options to indicate the network home protocol to use: <ul style="list-style-type: none"> • AFP • SMB
Active Directory Settings - Advanced	
Enable ADCreateMobileAccountAtLogin key	Enable or disable the ADCreateMobileAccountAtLogin key. Additional option: Create mobile account at login.
Enable ADWarnUserBeforeCreatingMA key	Enable or disable the ADWarnUserBeforeCreatingMA key. Additional option: Warn user before creating mobile account.
Enable ADForceHomeLocal key	Enable or disable the ADForceHomeLocal key. Additional option: Force local home directory.
Enable ADUseWindowsUNCPath key	Enable or disable the ADUseWindowsUNCPath key.

Setting	What To Do
	Additional option: Use UNC path from AD to derive network home location.
Enable ADAllowMultiDomainAuth key	<p>Enable or disable the ADAllowMultiDomainAuth key.</p> <p>Additional option: Allow authentication from any domain in the forest.</p>
Default user shell	Enter the default user shell such as /bin/bash.
Map user UID to attribute	Select to map the user UID to the specified attribute.
Map user GID to attribute	Select to map the user GID to the specified attribute.
Map group GID to attribute	Select to map the group GID to the specified attribute.
Preferred Domain Server	Prefer this domain server.
Namespace convention	<p>Select one of the following user account naming conventions:</p> <ul style="list-style-type: none"> • Domain (default) • Forest
Packet Signing	<p>Select one of the following packet signing options:</p> <ul style="list-style-type: none"> • Allow (default) • Disable • Require
Packet Encryption	Select one of the following packet encryption options:

Setting	What To Do
	<ul style="list-style-type: none"> • Allow (default) • Disable • Require • SSL
Allow administration by specified Active Directory groups	<p>Select to allow administration by specified Active Directory groups.</p> <p>Click Add to add one or more groups.</p>
Restrict Dynamic DNS	<p>Select to restrict dynamic DNS updates to the specified interfaces (for example, en0, en1, etc).</p> <p>Click Add to add one or more interface names.</p>
Change Password Interval	<p>Specify how often (in days) a change of the computer trust account password is required. The zero value is disabled.</p>

For more information, see [How to create a configuration](#)

Identity Preference

Applicable to: macOS 10.12 or supported newer versions.

Identify an Identity Preference item in the user's keychain that references an identity payload included in the same profile.

On a macOS device, an Identity Preference allows you to choose the identity (key-value pair) you want to use with a website. Once you have pushed an Identity Preference (which consists of the URL and identity) to the device, it is listed in **Keychain access > All Items** (the "Kind" will be "Identity Preference"). The next time you try to connect to that URL from Safari, the device will present the configured certificate.

Ivanti Neurons for MDM creates a default system Identity Preference configuration with a payload for the AppStore URL and the certificate to use.

While accessing the macOS App Catalog using Safari on macOS 10.12 and later versions, the user will get a system password prompt to cache the identity certificate. Users need to select 'Always allow' for the first time to avoid subsequent prompts while accessing the macOS App Catalog.

Safari with macOS version less than 10.12 and other browsers will show certificate and system password prompts while accessing the macOS App Catalog on a new browser session from macOS devices.

Creating an Identity Preference configuration

Procedure

1. Select **Configurations**.
2. Click + **Add**.
3. Type **preference** in the search field, and then click the **Identity Preference** configuration.
4. Name and describe the configuration.
5. In the Configuration Setup section, in the **Name** field, enter an email ID, a DNS host name, or a name that uniquely identifies the service.
6. In the **Certificate UUID** field, select a certificate.
7. Click **Next** to configure the distribution settings.
8. Click **Done**.

Related topics:

-
- "Certificate Preference" on page 638
 - [How to create a configuration](#)

Office 365 Auto Account Creation (macOS)

Applicable to:

- Supported macOS devices.
- Recommended Microsoft Office 365 apps versions to be 16.13.x or later.

Configure user information and options to setup initial configuration for all Microsoft Office 365 applications.

This section contains the following topics:

- [Creating a Office 365 Auto Account Creation configuration](#)
- [Office 365 Auto Account Creation settings](#)

Creating a Office 365 Auto Account Creation configuration

Procedure

1. Select **Configurations**.
2. Click + **Add**.
3. Type **office** in the search field, and then click the **Office 365 Auto Account Creation** configuration.
4. Name and describe the configuration.
5. Enter the settings as described in the following Office 365 Auto Account Creation settings table.
6. Click **Next** to configure the distribution settings.
7. Click **Done**.

Office 365 Auto Account Creation settings

Setting	What To Do
Office Activation Email Address	Enter the user email address.
Office Auto SignIn	Select to suppress first-run windows. Only prompts user for required information such as O365 authentication.
Default to local Open Save	Select to force the open/save panel to 'On My Mac' instead of 'Online Locations'.
Show what's new on Launch	Select to display new feature information at the launch.
Visual Basic Macro Execution state	Select one of the following options: <ul style="list-style-type: none">• Disabled with warnings• Disabled without warnings• Enabled without warnings
Disable Visual Basic External Dyllibs	Select to disable Visual Basic external dependencies.
Allow Visual Basic To Bind System	Select to allow the macros to use a DECLARE to bind to the system() OS API. This API allows the macros to execute arbitrary external processes and pass them arbitrary data on the command line.
Disable Visual Basic To Bind To Popen	Select to allow the macros to use a DECLARE to bind to the popen() OS API. This API allows the macros to execute arbitrary external processes and pass them arbitrary data on the command line.
Disable Visual Basic Mac Script	Select to allow the macros to invoke the Apple Script Visual Basic API.

For more information, see [How to create a configuration](#)

Authenticate

Applicable to:

- macOS 10.13 and supported newer version.
- Windows 10 and supported newer version.

Use the Authenticate configuration to provide password-less authentication for cloud services and/or desktop logins. Each device will have only one Authenticate configuration.

Prerequisites

- Zero Sign-On license is required.
- Ivanti Neurons for MDM should be registered with Access (Access profile should be configured).



- After configuring the Authenticate configuration, you cannot de-register Access profile as the Access profile will be referenced by the Authenticate configuration.
 - If the Access profile has any changes, re-distribute the Authenticate configuration to the macOS devices. For Windows devices, copy and use the new CLI values in the new apps.
-

Creating a Authenticate configuration

Procedure

1. Select **Configurations**.
2. Click + **Add**.
3. Type **auth** in the search field, and then click the **Authenticate** configuration.
4. Name and describe the configuration.
5. Select a **Desktop Identity Certificate** from the drop-down list.
6. Select one or both of the following OS option(s):
 - macOS
 - Windows

-
7. For macOS:
 - a. In the Custom Data region, click + **Add** to add keys and string values for custom data to be pushed to the devices.
 - b. Click **Next** to configure the distribution settings.
 - c. Click **Done**.
 8. For Windows 10 devices, this configuration helps in generating Command-Line arguments for the Authenticator MSI app for Windows as follows:
 - a. Click **Done** to complete the Authenticate configuration.
 - b. From the **Configurations** page, view the Authenticate configuration to copy the displayed command line text. This text is required when distributing the Authenticate app for Windows devices.



When the Authenticate configuration is applied to Windows devices, the configuration stays in Pending Install state. You can ignore this as there will be no impact on the functionality.

For more information, see [How to create a configuration](#)

Apple App Catalog

Applicable to: iOS and macOS

The Apple App Catalog configuration manages access to the Apple App Catalog via a web clip. Starting from Ivanti Neurons for MDM release 83, you can transition to Apps@Work native experience from Go application. For newly created tenants the Apps@work Webclip configuration is not distributed by default for iOS devices that are installed through iReg or client. The administrator has to manually distribute the webclip config to the devices that are registered through iReg or client.



The Apps@Work webclip search result displays only 10 applications on iOS and iPad devices even if the search request has rows parameter as more than 10.

Procedure

Admins can edit the distribution of this system-defined configuration as follows:

1. Go to **Configurations**.
2. Click **Apple App Catalog**.
3. Click **Edit Distribution**.
4. Select one of the following distribution options:
 - All Devices - all compatible devices will have this configuration sent to them.
 - No Devices - disable access to Apple App Catalog or stage this configuration for later distribution.
 - Custom - define specific device groups that will have this configuration sent to them.
5. Click **Save**.

Managed Domains

License: Silver

A managed domain configuration enables you to specify which domains are trusted for Mail and Safari on iOS 8+ devices. Once the configuration is applied to the device, domains that are not specified in the configuration will be highlighted (untrusted) in Mail and Safari on the device. Use this configuration combined with a [restrictions configuration](#) to control the data downloads allowed in Safari.

Managed domains settings


Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Managed Email Domains	Click +Add to enter a domain, as in mycompany.com.
Managed Web Domains	Click +Add to enter a domain, as in mycompany.com.

For more information, see [How to create a configuration](#)

Passcode Configuration


One of the first things you set up in Ivanti Neurons for MDM (using the startup wizard) is a passcode configuration. This configuration defines settings for the screen lock feature on devices.


Passcode settings

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Allow simple values	<p>Restricts whether the PIN or Password contains ordered characters or digits.</p> <p>For iOS and Android: Select to allow pin or passcodes that are less secure because they contain repeated, ascending, or descending character sequences.</p> <p>Examples: 1111, 1234, abcd.</p> <hr/> <p> Deselecting this option for Android devices will enforce passcodes with complex PINs. For example, users cannot configure repeated, ascending, or descending character sequences.</p> <hr/> <p>For Windows 10+: Select to allow passcodes that are less secure because they contain repeated or ascending numeric sequences.</p> <p>Examples: 1111, 1234</p>
Require alphanumeric	Requires the passcode to contain at least

Setting	What To Do
value	<p>one letter and one number.</p> <p>For iOS and Android: Select to ensure that passcodes include letters and numbers.</p> <p>For Windows 10+: Select to ensure a strong password based on Microsoft's standard.</p>
Minimum passcode length	<p>Select a number from the list to set a minimum passcode length.</p> <p>For Windows 10 Desktop: Local accounts will enforce minimum passcode length 6.</p>
Minimum number of complex characters	<p>For iOS and Android: Select a number from the list to set a minimum number of characters that are not numbers or letters.</p> <p>For Windows 10+: Local accounts will enforce 3 complex characters.</p>
Maximum passcode age	<p>Enter a number to the number of days after which the device user must reset the passcode. If you do not want to set the a passcode age, then leave this field blank.</p>
Auto-Lock	<p>Select an interval from the list to define how long the device can stay idle before it automatically sets the screen lock.</p>
Any Lock Method	<p>Android only. Allows user choice of any lock method, including pattern unlock. The passcode settings above will not be applied to this device.</p>
Passcode history	<p>Enter a number to set the number of unique passcodes a user must enter before reusing a passcode. For example, if you set this field to 4, then the user must set 4 passcodes before being able to reuse the first passcode.</p>

Setting	What To Do
Grace period for device lock	Select an interval from the list to set the amount of time between the appearance of the lock screen and the point at which the device user needs to enter a passcode to unlock the device.
Maximum number of failed attempts	Select a number from the list to set the number of times the device user can consecutively enter the wrong passcode before the device is reset and wiped. Warning: Devices will be wiped if the user exceeds the maximum number of password attempts. Use caution with this option.
(macOS Only) Enable Passcode Regular Expression (macOS 14+)	Specify the expression string that matches with the password to determine whether it matches with the policy.
(macOS Only) Language	Specify the language of the Description.
(macOS Only) Description	Describe the password complexity. For example, numbers, special characters, string, and so on.
(macOS Only) Enforce passcode rule at next login	Select to enable macOS to prompt the user to change the password to make the password compliant with the password policy next time the user logs in. By default, this option is not selected. Applicable for macOS 10.13 and later versions.
(macOS Only)	Specify the minutes before the login is reset after the maximum number of unsuccessful

Setting	What To Do
Minutes until failed login reset	<p>login attempts is reached.</p> <hr/> <p> Ensure that the Maximum number of failed attempts number is set to enable this field. Available in macOS 10.10 and later.</p> <hr/>
SmartLock	<p>For Android 5.0 devices except in Android enterprise work profiles:</p> <p>For Android 6.0 or later:</p> <p>Allows or disallows a user to choose the SmartLock feature to unlock a device. The SmartLock feature automatically unlocks a device in certain circumstances such as the user's proximity to the device, device at a location, or when the device is paired with a trusted device.</p>
Fingerprint Unlock	<p>For Android 5.0 devices except in Android enterprise work profiles:</p> <p>For Android 6.0 or later:</p> <p>Allows or disallows the user to choose Fingerprint to unlock a device.</p>
Lock Screen Notifications (for Android enterprise only)	<p>Enable Notifications for Work Managed Devices (for Device Owner)</p> <p>Allow or disallow notifications on the lock screen for work managed devices</p> <p>Enable Unredacted Notifications for Work Profile</p> <p>For Android 6.0 or later:</p>

Setting	What To Do
	<p data-bbox="537 268 1065 338">Allow or disallow unredacted notifications on the lock screen for work profile devices.</p> <hr data-bbox="537 369 1065 373"/> <p data-bbox="537 394 1065 621"> After you enable this setting, you will receive the notification but the content appears as 'Content hidden by policy' You can view the content (mail/ push notification) only from the app.</p> <hr data-bbox="537 636 1065 640"/>

For more information, see [How to create a configuration](#)

Privacy Preference (macOS)

Applicable to: macOS 10.14 or supported newer versions.

Configure which applications are allowed to gain access to system services, system files, and system resources. This configuration controls the settings on a macOS device under System Preferences > Security & Privacy > Privacy.

Creating a Privacy Preference configuration

Procedure

1. Select **Configurations**.
2. Click + **Add**.
3. Type **privacy** in the search field, and then click the **Privacy Preference** configuration.
4. Name and describe the configuration.

-
5. Navigate to one of the applications listed on the page. See [Apple documentation](#) for related information.
- a. For macOS 10.14+, the applications and settings available for configuration include:
- Accessibility - Specifies the policies for the app via the Accessibility subsystem.
 - Address Book - Specifies the policies for contact information managed by the Contacts.app.
 - Apple Events - Specifies the policies for the app sending restricted AppleEvents to another process.
 - Calendar - Specifies the policies for calendar information managed by the Calendar.app.
 - Camera - A system camera. Access to the camera cannot be given in a profile; it can only be denied.
 - Microphone - A system microphone. Access to the microphone cannot be given in a profile; it can only be denied.
 - Photos - The pictures managed by the Photos app in ~/Pictures/.photoslibrary.
 - Post Event - Specifies the policies for the application to use CoreGraphics APIs to send CGEvents to the system event stream.
 - Reminders - Specifies the policies for reminders information managed by the Reminders app.
 - System Policy (All Files) - Allows the application access to all protected files, including system administration files.
 - System Policy (Admin Files) - Allows the application access to some files used in system administration.

b. For macOS 10.15+, the applications and settings available for configuration include:

- File usage - Allows a File Provider application to know when the user is using files managed by the File Provider.
- Listen Event from all processes - Allows the application to use CoreGraphics and HID APIs to listen to (receive) CGEvents and HID events from all processes. Access to these events cannot be given in a profile; it can only be denied. Uncheck the Allowed option.
- Access Media Library - Allows the application to access Apple Music, music and video activity, and the media library.
- Screen Capture of the system display - Allows the application to capture (read) the contents of the system display. Access to the contents cannot be given in a profile; it can only be denied. Uncheck the Allowed option.
- Recognize and send speech data to Apple - Allows the application to use the system Speech Recognition facility and to send speech data to Apple.
- Access files in the user's Desktop folder - Allows the application to access files in the user's Desktop folder.
- Access files in the user's Documents folder - Allows the application to access files in the user's Documents folder.
- Access files in the user's Downloads folder - Allows the application to access files in the user's Downloads folder.
- Access files on network volumes - Allows the application to access files on network volumes.
- Access files on removable volumes - Allows the application to access files on removable volumes.

6. For each application you want to configure, click **Actions > Add**.

-
7. Enter the values for the following identity dictionary keys:
 - Identifier - Name of the settings. For example: "us.zoom.ZoomPresence."
 - Identifier Type - Select either Bundle ID or Path. For example: "Bundle ID."
 - Code Requirement - Specify the value for Bundle ID or Path. For example: "identifier "us.zoom.ZoomPresence" and anchor apple generic."
 - Static Code (True or False)
 - Allowed (True or False)
 - Comment
 8. Click **Save**.
 9. (Optional) Under any application, click **Actions > Delete** to remove any existing privacy preference settings.
 10. Click **Next** to configure the distribution settings.
 11. Click **Done**.

For more information, see [How to create a configuration](#)

Client Privacy

Configure to collect anonymous data from end-users including device and usage information that will capture product issues and maintain a high quality of services.

Applicable to:

- Mobile@Work for macOS 1.67 or supported newer versions.
- Go for iOS 3.5.0 or supported newer versions.

Creating a MI Client Privacy configuration

Procedure

1. Select **Configurations**.
2. Click + **Add**.
3. Type **privacy** in the search field, and then click the **Client Privacy** configuration.
4. Name and describe the configuration.
5. Under Location based Wakeups, select the **Enable SLC** option. The significant-change location service offers a more power-friendly alternative to deliver location updates to the Go for iOS app only when the user's position changes by a significant amount, after a minimum of 15 minutes (default interval). If this service is enabled, then on location change the Go app wakes up in the background and checks in.
6. Under Data Collection via MixPanel, select the **Enable MixPanel status** option if it has been disabled. By default, this option is enabled.
7. Click **Next** to configure the distribution settings.
8. Click **Done**.

For more information, see [How to create a configuration](#)

Privacy Configuration


A privacy configuration defines whether:

- location data is collected on the device and sent to the device management system
- administrators are allowed to wipe the device
- app inventory is collected for all apps or just those that appear in the app catalog

Privacy settings



Device Wipe action and collecting Inventory for all apps on device is not applicable for User Enrolled devices.

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Collect Location Data	<p>Select to enable the collection of location data. View device location in the Devices page.</p> <ul style="list-style-type: none"> • For iOS devices, the location displayed for a device is based on the network location only. • For Android devices, the location is based on both network location and GPS location (if available). • For Windows devices, the location is based on the latitude and longitude values obtained during a device checkin. <p>When location collection is enabled on a device, the current location is updated every 4 hours. Location data is removed from the device management system when the device is retired or the privacy configuration is disabled or removed.</p> <hr/> <p> Device users can turn off collection of location data on the device.</p> <hr/>
Disable Device Wipe Action	Select to prevent administrators from wiping the device. Consider selecting this option for devices that are owned by the user (employee owned).

Prompt user to enable location services

Select to allow the users to optionally enable the ability to allow or disallow the use of location services including locating the devices, Wi-Fi and MTD, as needed. In the case of fully managed devices, this can be auto granted if the administrator chooses to disable the option.

Collect App Inventory

Select **Collect App Inventory** to collect information on all apps installed on the device, regardless of whether an app is present in the app catalog.

Select **For Apps on the Device that are in the App Catalog** to collect information on only those apps installed on the device and present in the app catalog.

Select **For All Apps on the Device** to collect information on all apps on the device. This option is applicable to Windows 10+ devices. The following app source type inventories are displayed and selected by default.

- **Enable Non App Store Inventory** - for In house apps(Universal apps) pushed through MDM or installed by end-user directly on device by manually unpacking the app and installing it locally.
- **Enable App Store Inventory** - for the apps installed from Microsoft Store manually or via Apps@work store-front.
- **Enable System Inventory** - for the apps reported as pre-installed along with Windows 10 OS by Microsoft.

-
- **Enable Win32 inventory** - for the system 32 based apps like apps like MSI, EXE, Win32 Store apps, and so on that are installed by pushing through MDM or installed directly on device by the end-user.

You can optionally select only those app source type inventories to collect information on selective apps.

MDM-installed apps appear in the App Inventory, even if you don't select Non App Store or Win32 app inventory.



The EXEs inventory is also collected when the Privacy configuration is using the default configuration to collect App Inventory only for AppCatalog. The inventory must be collected consistently for all apps when collecting only for the AppCatalog apps.



The inventory for Modern, MSI, and EXE apps available in the App Catalog; will be pulled only when at least one app belonging to each of these variants is distributed.

Settings for Android Enterprise devices (7.0+)	
Configure the settings given below to set the privacy policy to Android Enterprise devices.	
Organization name	Enter the name of the organization managing the device.
Organization color	Select the organization color that should be displayed in the background of the user's screen.
Short message	Enter a short message that should be displayed when the user attempts to use a function that is locked down by the administrator.
Long message	Enter the long message that should be displayed when the user clicks on the short message. This message provides more details on the restriction given to the user.
Keep Go app screens hidden	<p>Select True or False from the list.</p> <ul style="list-style-type: none"> • True - During remote share, Ivanti Go app screens will not be visible. • False - During remote share, Ivanti Go app screens will be visible for any assistance with troubleshooting and also to view the documentation.

For more information, see [How to create a configuration](#)

Client Privacy Statement Information

Applicable to: Android, Android enterprise, and iOS devices or supported newer versions.

Configuration to distribute the Privacy Statement information to the users in Go clients. This is a system-defined configuration that can be edited to configure only the distribution settings.

The information displayed to the user includes the details configured as part of the following configurations:

- Privacy
 - Collecting location data
 - Collecting app inventory
 - Android 7.0+:
 - Organization name
 - Organization color
 - Short message
 - Long message
- Client Privacy
 - SLC - Significant Location Change to periodically wakeup the device
 - Minimum Location based Wakeups Interval
 - Enable MixPanel status
- Mobile Device Management - MDM Access Rights (Not applicable to User Enrolled devices)
 - Device Lock and passcode removal
 - Device erase
 - Network Information (phone/SIM numbers, MAC Addresses)

Software Updates

Applicable to: <add checkbox related info for 95>

- iOS 10.3+ and tvOS 12.0+ supervised devices
- macOS devices
- Windows 10+ devices

Create and distribute rules for OS updates.

This section contains the following topics:

- [Configuring software updates for iOS/tvOS devices](#)
- [Configuring software updates for Non-DEP and DEP macOS devices](#)
- [Configuring software updates for Windows devices](#)

Configuring software updates for iOS/tvOS devices

Procedure

To allow iOS/tvOS devices to have OS updates sent to them if they are in supervised mode:

1. Go to **Configurations**.
2. Click + **Add**.
3. Click **Software Updates**.
4. Click **iOS/tvOS** to view the Configuration Setup section.
5. Select the **Allow OS updates to be automatically installed on supervised devices** option.
6. Select one of the following options:
 - Update to latest version
 - Update to specific version - For example, enter iOS version number as 11.3.0.

-
7. Select one of the following install actions:
 - Default
 - Download Only
 - Install ASAP
 8. Select the following time options for the updates to happen:
 - Start Time
 - End Time
 - Timezone
 9. Click **Next**.
 10. Select the **Enable this configuration** option.
 11. Select one of the following distribution options:
 - All Devices
 - No Devices (default)
 - Custom
 12. Click **Done**.

-
- When installing a specific version of OS update for iOS devices, you must select a version that is available for the device. If you select an invalid or an unavailable version, software update of the device will be ignored.
 - If the device has a passcode, after MDM sends the update to the device, the device queues the update and the user is prompted to enter their passcode in order to start the installation.
 - Enable `enforcedSoftwareUpdateDelay` in "[iOS Restrictions](#)" on page 539 to make sure the manual scan on devices for software updates will not delete the specific versions downloaded by this configuration.
-

Configuring software updates for Non-DEP and DEP macOS devices

Device Enrollment profile is part of Apple Business Manager that enables customers to purchase devices in bulk and automatically enroll the devices in MDM during activation. For more information, see "[Device Enrollment](#)" on page 1177.

The following procedure helps you send OS updates to Non-DEP and DEP macOS devices.

Procedure

1. Go to **Configurations**.
2. Click + **Add**.
3. Click **Software Updates**.
4. Click **macOS** to view the Configuration Setup section.
5. Select the **Enable macOS Software Updates** option.

6. Select the type of updates for the device. For each of these updates, you can also select updates that do not require restart.

- OS Updates
- Critical Updates
- Configuration Data Updates
- Firmware Update
- Non Critical Updates




Admin can manage(install/schedule) non critical macOS updates by enabling **Enable Non Critical Updates**. This option is disabled by default for the existing tenants and needs to be enabled by admin explicitly post upgrade if required.



In **OS updates**, Administrators can update the device to a specific version of macOS.

All macOS updates can be configured with actions as follows:

- Default
 - Notify Only
 -  • Install Later
 - Install Force Restart
 - Download Only
 - Install ASAP
-

- Priority
Default - Low
Possible values - Low, High
- Max User Deferrals
Possible value - Integer
Only supported when Install Later option is selected.

-
7. Select the following time options for the updates to happen:
 - Start Time
 - End Time
 - Timezone
 8. Click **Next**.
 9. Select the **Enable this configuration** option.
 10. Select one of the following distribution options:
 - All Devices
 - No Devices (default)
 - Custom
 11. Click **Done**.

Configuring software updates for Windows devices

Procedure

To configure your Windows installation update schedule:

1. Go to **Configurations**.
2. Click + **Add**.
3. Click **Software Updates**.
4. Click **Windows** to view the Configuration Setup section.
5. Enter the following options depending on the version of your Windows devices.
6. Click **Next**.
7. Select the **Enable this configuration** option.
8. Select one of the following distribution options:

-
- All Devices
 - No Devices (default)
 - Custom

9. Click **Done**.

Software updates for Windows 10+ devices

- Update Sources - Select one of the following sources:
 - Enterprise WSUS
 - Microsoft Update and/or Enterprise WSUS
- URL to Enterprise WSUS Server
- Alternate intranet Microsoft update server
- Allow Updates from 'Trusted Publishers' - Limit sources for updates to trusted publishers only.
- Auto Update Strategy - Select one of the options from the pull-down menu.
- Scheduled Installation Day - Set the frequency of updates.
- Scheduled Installation Time - Select an installation time for updates.
- Allow updates to be downloaded automatically over metered connections - Enable or disable the option.
- Do not allow update deferral policies to cause scans against Windows Update - Enable or disable the option.
- Engaged restart deadline - Select the number of days to restart deadline.
- Snooze engaged restart deadline - Select the number of days to snooze the engaged restart deadline.
- Engaged restart transition schedule - Select the number of days to restart transition schedule.
- Update/Fill empty content URLs.

-
- MO App download limit - Select one of the following options:
 - Do not ignore MO download limit for apps and their updates
 - Ignore MO download limit (allow unlimited downloading) for apps and their updates
 - MO update download limit - Select one of the following options:
 - Do not ignore MO download limit for OS updates
 - Ignore MO download limit (allow unlimited downloading) for OS updates
 - Manage preview builds - Select one of the following options:
 - Disable Preview builds
 - Disable Preview builds once the next release is public
 - Enable Preview builds
 - Auto-restart warning notification schedule for updates - Select the minutes to be taken to auto-restart warning notification.
 - Restart warning reminder - Select the hours to set the restart warning reminder.
 - Automatic update schedule - Select the frequency of automatic updates.
 - Auto-restart notification for updates - Turn on the auto-restart notification for updates.

Software updates for pre-Windows 10.0.14393 devices

The following settings will not work if Telemetry Restriction is disabled on a device:

- Pause Upgrade/Updates - Turn on to delay changes to a later date
- Defer Updates for - Choose to delay up to 4 weeks
- Defer Upgrades - Turn on to defer upgrades
- Defer Upgrades for - Choose to delay up to 8 months

Software updates for Windows 10.0.14393+ devices

- Branch to install updates from - Allows the IT admin to set which branch a device receives their updates from.
 - Semi-annual Channel (Targeted)
 - Semi-annual Channel
- Feature Updates (upgrades) - Supported only in Windows Professional, Windows Enterprise, and Windows Education.
 - Pause updates
 - Defer for - Choose to delay up to 180 days.
- Quality Updates (updates) - Supported only in Windows Professional, Windows Enterprise, and Windows Education.
 - Pause updates
 - Defer for - Choose to delay up to 30 days.

Software updates for Windows 10.0.17083+ devices

- Feature Updates:
 - Feature update uninstall period - Select the number of days to be taken to uninstall a feature update.

Software updates for Windows 10.0.17763+ devices

- Disable "Pause Updates" access by users
- Disable UXWU Access by users (Windows Update Scan, download and install)
- Update notification level - Select one of the following options:
 - Use the default Windows Update notifications
 - Turn off all notifications, excluding restart warnings
 - Turn off all notifications, including restart warnings

-
- Feature updates:
 - Deadline before auto-restart for update installation - Select the number of days for the deadline before auto-restart for update installation.
 - Engaged restart deadline - Select the number of days for the engaged restart deadline.
 - Snooze engaged restart deadline - Select the number of days to snooze the engaged restart deadline.
 - Engaged restart transition schedule - Select the number of days to restart transition schedule.

Security Preferences Configuration

Administrators can manage and control user changes to Firewall settings, Lock Messages and Password Changes on the device with the Security Preferences Configuration.

Applicable to: macOS 10.10+

Procedure

1. Go to **Configurations** > **+Add**.
2. Type **Security** in the search field, and then click the **Security Preferences** configuration.
3. Enter a **Name** and **Description** of the configuration.
4. Select the required configurations:
 - Disable changes to the firewall settings
 - Disable changes to the lock message
 - Disable changes to the password
5. Click **Next**.
6. Select **Enable this configuration** option.
7. Select one the following channel options to apply the configuration:
 - Device channel (most common)
 - User channel (Current registered user)
8. Select one of the following distribution options:
 - All Devices
 - No Devices (default)
 - Custom.
9. Click **Done**.

Time Server

Applicable to: macOS 10.12.4 and supported newer version.

Create Time Server configuration to allow devices to connect to custom time servers.

Creating a Time Server configuration

Procedure

1. Select **Configurations**.
2. Click + **Add**.
3. Type **time** in the search field, and then click the **Time Server** configuration.
4. Enter a name and describe the configuration.
5. Specify **NTP Server**.
6. Specify **Time Zone** string in Olson Time Zone ID format (for example, Pacific / Midway). To get the Olson Time Zone format, run the `"/usr/sbin/systemsetup -listtimezones"` command on the administrator's macOS device.
7. Click **Next** to configure the distribution settings.
8. Click **Done**.


For more information, see [How to create a configuration](#)


Web Content Filter

License: Silver

A web content filter configuration limits web access for iOS 7+ devices.

Web content filter settings

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Allowed websites	<p>Limited Adult Content: Select this option if you want to block access to web sites based on iOS automatic filters. These filters attempt, with a high degree of accuracy, to block websites with inappropriate content.</p> <p>Specific Web Sites Only: Select this option if you want to manually list the accessible web sites.</p> <p>Plug-in (iOS8 Supervised Only): Select this option to use a third-party plug-in.</p>
Permitted URLs	<p>This option is available only if you selected Limit Adult Content.</p> <p>Enter the permitted URLs. Each URL must begin with either:</p> <ul style="list-style-type: none">• http://• https:// <hr/> <p> If you want to permit both http:// and https:// for the same site, include two separate URLs.</p> <hr/> <p>All URLs for which the initial characters match the given permitted URL are accessible.</p>

Setting	What To Do
	<p>Example: http://www.someCompanySite.com permits access to the following:</p> <ul style="list-style-type: none"> • http://www.someCompanySite.com • http://www.someCompanySite.com/jobs <p>These URLs are accessible even if the iOS automatic filters block them.</p>
Use Deny List URLs	<p>This option is available only if you selected Limit Adult Content.</p> <p>Enter the Blockedlisted URLs. Each URL must begin with either:</p> <ul style="list-style-type: none"> • http:// • https:// <hr/> <p> If you want to block both http:// and https:// for the same site, include a row for each URL.</p> <hr/> <p>All URLs for which the initial characters match the given Blockedlisted URL are blocked.</p> <p>Example: http://www.someCompanySite.com blocks access to the following:</p> <ul style="list-style-type: none"> • http://www.someCompanySite.com • http://www.someCompanySite.com/jobs <p>These URLs are blocked even if the iOS automatic filters allow them.</p>
Allowlisted bookmarks	<p>This option is available only if you selected Specific Websites Only.</p> <p>Optionally enter the folder into which the</p>

Setting	What To Do
	<p>bookmark should be added in Safari.</p> <p>Example:</p> <p>/Sales/Products/</p> <p>If absent, the bookmark is added to the default bookmarks directory.</p>
Filter Name	<p>This option is available only if you selected Plug-in.</p> <p>Enter text that will be displayed to identify this filter.</p>
Identifier	<p>This option is available only if you selected Plug-in.</p> <p>Enter the bundle ID of the plug-in providing the filtering service.</p>
Service Address	<p>This option is available only if you selected Plug-in.</p> <p>Optional: Enter any server address necessary for use by the plug-in. Consult the documentation for the plug-in to determine if this value is necessary.</p>
Organization	<p>This option is available only if you selected Plug-in.</p> <p>Optional: Enter any organization string required by the plug-in. Consult the documentation for the plug-in to determine if this value is</p>

Setting	What To Do
	necessary.
Username	<p>This option is available only if you selected Plug-in.</p> <p>Optional: Enter any username required by the plug-in service. Consult the documentation for the plug-in to determine if this value is necessary.</p>
Password	<p>This option is available only if you selected Plug-in.</p> <p>Optional: Enter any password required by the plug-in service. Consult the documentation for the plug-in to determine if this value is necessary.</p>
Certificate	<p>This option is available only if you selected Plug-in.</p> <p>Optional: Enter any certificate required by the plug-in service to authenticate the user. Consult the documentation for the plug-in to determine if this value is necessary.</p>
Filter Webkit Traffic	<p>This option is available only if you selected Plug-in.</p> <p>Select to include Webkit traffic in the filter.</p>
Filter Socket Traffic	<p>This option is available only if you selected Plug-in.</p>

Setting	What To Do
	Select to include socket traffic in the filter.
Custom Data	<p>This option is available only if you selected Plug-in.</p> <p>Optional: Add any key/value pairs required by the plug-in service. Consult the documentation for the plug-in to determine if this value is necessary.</p>

For more information, see [How to create a configuration](#).

Windows Firewall

The Windows Firewall configuration allows you to configure Windows firewall profile settings as well as the desired set of custom rules to be enforced on the device. This configuration can be used to manage non-domain devices, and reduce the risk of network security threats across all systems connecting to the corporate network.

Configure Windows Firewall configuration

Procedure


1. Go to **Configuration > +Add**.
2. Select **Firewall** configuration.
3. Click on the **Windows** icon.
4. Enter a name for the configuration.
5. Enter a description for the firewall configuration.

-
6. In the Configuration Setup section, specify the remaining settings as described in the following table.

Setting	What To Do
Profiles	
Enable	Slide the switch to ON to enable the profile.
Type	Displays the type of profile. Example: Domain.
Default Inbound Action	Select a option for a default action that should be performed on inbound traffic. Allow: To allow the traffic Block: To block the traffic.
Default Outbound Action	Select the default action that should be performed on outbound traffic. Allow: To allow the traffic Block: To block the traffic.

7. To add Rules, click **+Add** and configure the following settings:

Setting	What To Do
Rules	
ON	Slide the switch to enable the profile.
Rule Name	Enter a name that identifies this rule.
Description	Enter a description that clarifies the purpose of this rule.
Direction	Select the direction of the traffic to which the rule should be applied: <ul style="list-style-type: none">• In: For inbound traffic• Out: For outbound traffic• Both: Both directions.
Action	Select the action to be performed <ul style="list-style-type: none">• Allow: To allow the traffic• Block: To block the traffic.
Profile	Select the profile(s) to which the rule should be applied: <ul style="list-style-type: none">• All• Domain• Private• Public
App	Type the package family name(PFN) or full path to the app executable.
Protocol	Select any of the following protocol to which the rule should be applied:

Setting	What To Do
	<ul style="list-style-type: none"> • TCP • UDP • ICMP
Local Address Ranges	Type the local IPv4/IPv6 address ranges or subnet masks.
Local Port Ranges	Type comma separated list of remote ports or port ranges. Example: 20,50,100-120.
Remote Address Ranges	Type the remote IPv4/IPv6 address ranges or subnet masks.
Remote Port Ranges	Type comma separated list of remote ports or port ranges. Example: 20,50,100-120.
Interface Types	<p>Select any of the following interface type options:</p> <ul style="list-style-type: none"> • All • Remote Access • Wireless • Lan • Mobile Broadband <hr/> <p> The default option All is applied if no interface type option is selected.</p> <hr/>

8. Click **Next**.

9. Select one of the following distribution options:

- All Devices
- No Devices(default)
- Custom

10. Click **Done**.

Windows Information Protection

License: Gold

Applicable to: Windows 10+

A Windows Information Protection (WIP) configuration defines WIP settings to protect enterprise data. This configuration can be applied to devices enrolled under management. You can also view WIP details for a configured device on the overview page of that device.

Setting Up Windows Information Protection for Windows

Procedure


1. Go to **Configuration > +Add**.
2. Select the **Windows Information Protection** configuration.
3. Enter a name for the configuration.
4. Enter a description.
5. In the Configuration Setup section, specify the remaining settings as described in the following table.
6. Click **Next**.
7. Select a distribution for this configuration.

Category	Setting	What To Do
	Name	Enter a name that identifies this configuration.
	Description	Enter a description that clarifies the purpose of this configuration.
Enterprise Information	All Versions (Windows 10+)	
	Protected Domain Names	<p>Specify the list of identities for which Data Protection policies are configured. Emails and other data associated with these identities will be considered enterprise and protected.</p> <ul style="list-style-type: none"> This is a list of domains separated by with the first domain in the list considered the primary identity for the purposes of Windows UI. For example: "domain1.com domain2.co.uk"
	Network Domain names	<p>Specify the list of domains that comprise the boundaries of the enterprise. Data from one of these domains that is sent to a device will be considered enterprise data and protected.</p> <ul style="list-style-type: none"> These locations will be considered a safe destination for enterprise data to be shared to. This is a comma-separated list of domains. For example: "mail.domain3.com, domain4.com"

Category	Setting	What To Do
	Cloud Resources	<p data-bbox="727 285 1219 548">Contains a list of Enterprise resource domains hosted in the cloud that need to be protected. Connections to these resources are considered enterprise data. Specify one or more domain names with optional proxy addresses in brackets.</p> <ul data-bbox="776 625 1214 1115" style="list-style-type: none"><li data-bbox="776 625 1214 695">• For example: "domainname1.com, domainname2 (10.0.0.1)".<li data-bbox="776 730 1214 926">• If a proxy is paired with a cloud resource, traffic to the cloud resource will be routed through the enterprise network via the specified proxy server (on Port 80).<li data-bbox="776 961 1214 1115">• All proxy addresses specified in this field should also be entered in the following Internal Proxy Servers field.

Category	Setting	What To Do
	IP Range	<p>Sets the enterprise IP ranges that define the computers in the enterprise network. Data that comes from those computers will be considered part of the enterprise and protected. These locations will be considered a safe destination for enterprise data to be shared to. This is a comma-separated list of IPv4 and IPv6 ranges.</p> <ul style="list-style-type: none"> • This is a comma-separated list of IPv4 and IPv6 ranges. • Select the IP Ranges are authoritative option when the client must accept the configured list and not use heuristics to attempt to find other subnets.
	Neutral Resources	<p>Specifies the list of domain names that can be used for work or personal resource.</p>
	Proxy Servers	<p>Specifies the comma-separated list of proxy servers. Any server on this list is considered non-enterprise.</p> <ul style="list-style-type: none"> • For example: "157.54.14.28, 157.54.11.118, 10.202.14.167, 157.53.14.163, 157.69.210.59". • Select the Proxy Servers are authoritative option when the client must accept the configured list of proxies and not try to detect other work proxies.

Category	Setting	What To Do
	Internal Proxy Servers	<p>Specifies the comma-separated list of internal proxy servers.</p> <ul style="list-style-type: none"> • For example "157.54.14.28, 157.54.11.118, 10.202.14.167, 157.53.14.163, 157.69.210.59". • These proxies have been configured by the admin to connect to specific resources on the Internet. They are considered to be enterprise network locations. The proxies are only leveraged in configuring the EnterpriseCloudResources policy to force traffic to the matched Cloud Resources through these proxies.
Data Protection	All Versions (Windows 10+)	

Category	Setting	What To Do
	Enforcement Level	<p>Choose one of the following enforcement levels:</p> <ul style="list-style-type: none"> • Off - No protection (previously encrypted data will be un-encrypted). • Silent - Encrypt the data and audit activities on the device after data is being protected. The user is not prompted on account of any negative data/app information. • Override - Similar to the Silent mode. In addition, if an app or data is being used incorrectly, the user is prompted to either proceed or cancel the operation the user is currently performing. • Block - Similar to the Silent mode. In addition, if an app or data is being used incorrectly, the operation the user is currently performing is blocked and the user is warned with the reason for blocking the operation. <hr/> <p> Except in the Off mode, any data or app that was not supposed to use enterprise data or resources will be logged on the device. That data can be removed from the device using another configuration service provider (CSP).</p> <hr/>

Category	Setting	What To Do
	Data Recovery Certificate	<p>Specify a recovery certificate that can be used for data recovery of encrypted files.</p> <ul style="list-style-type: none"> This is the same as the data recovery agent (DRA) certificate for encrypting file system (EFS). However, this certificate is delivered through MDM instead of through the Group Policy. <p>You can also select one or more of the following options:</p> <ul style="list-style-type: none"> Allow User Decryption Revoke On Unenroll Show EDP Icons Require Protection Under Lock (Windows 10 Mobile only)
RMS	All Versions (Windows 10+)	
	Allow Azure RMS	Specify whether to allow Azure Rights Management (Azure RMS) encryption for WIP.
	RMS Template ID	Specify TemplateID GUID to use for RMS encryption. The RMS template allows the admins to configure the details about who has access to RMS-protected file and how long they have access.
App Control	All Versions (Windows 10+)	
	Specify a collection of apps that are built under the Apps > App Catalog page with a value of WIP. Specify the rule definitions for the apps using the following set of parameters:	

Category	Setting	What To Do
	App Type	Select one of the following app types: <ul style="list-style-type: none">• Publisher/PFN Equals - applies to Windows 10+ supporting PFN.• EXE/Win32 Equals - applies to Windows Desktop only.
	App Identifier	Select the app from the choices displayed to add it to the App Identifier. You can also click Lookup Apps .
	App Description	Enter a description for the app.

Windows Restrictions

Windows restrictions determine which features are enabled on Windows 10+ devices.



Windows Restrictions settings

Category	Setting	What To Do
	Name	Enter a name that identifies this configuration.
	Description	Enter a description that clarifies the purpose of this configuration.
Device Capabilities	All Versions (Windows 10+)	
	Disable Wi-Fi offloading	Select to prevent the device from accessing compatible networks to carry data intended for authorized wireless networks.
	Disable internet sharing	Select to prevent the device from accessing the internet by means of another wireless device.
	Disable location	Select to disable location services.
	Disable cellular data roaming	Select to disable data roaming when the device is in cellular mode.
	Disable bluetooth	Select to prevent the device from establishing bluetooth connections.
	Disable VPN when roaming or on a cellular network	Select to prevent the device from establishing VPN connections when not on WiFi.
	Disable manual configuration of Wi-Fi	Select to prevent the user from manually configuring the Wi-Fi settings on the device.
	Disable Wi-Fi	Select to allow or deny WiFi connection.
Telemetry - Allow device to send diagnostic and usage telemetry data.	Windows 10 only	

Category	Setting	What To Do
	Telemetry level	<p>Select one of the following telemetry levels of data reporting:</p> <ul style="list-style-type: none"> • Security - Send information about the Connected User Experience, Telemetry Component Settings, the Malicious Software Removal Tool, and Windows Defender. • Basic - Send basic device information that includes quality-related data, app compatibility, app usage data, and data from the Security level. • Enhanced - Send more information that includes usage and performance of Windows, Windows Server, System Center, and apps. Also includes advanced reliability data, and data from both the Basic and the Security levels. • Full (Default) - Send all data to identify and help fix the problems, plus data from the Security, Basic, and Enhanced levels.
Data Loss Prevention (DLP)	All Versions (Windows 10+)	
	Disable camera	Select to prevent the end user from using the camera app.
	Disable access to storage (SD) card	Select to prevent the device from accessing a storage card.
	Disable screen capture (Desktop only)	Select to prevent from capturing the screen using screen capture apps within the device.
	Disable USB mass storage (HoloLens	Select to prevent HoloLens from accessing mass storage devices.

Category	Setting	What To Do
	only)	
Data Usage	Windows 10+	
	Cost of 3G Connections	Select one of the following options: <ul style="list-style-type: none"> • Unrestricted - Connection is unlimited and not restricted by usage charges and capacity constraints.
	Cost of 4G Connections	<ul style="list-style-type: none"> • Fixed - Connection is restricted by usage charges and capacity constraints after a certain data limit. • Variable - Connection is charged on a per byte basis.
Defender	Windows 10+	
	Disable Defender RealTime Monitoring functionality	Select to disable Windows Defender Realtime Monitoring functionality
DeviceGuard	Windows 10+	
	Disable virtualization based security(VBS)	Select to prevent virtualization based security from providing support for security services.
	Credential Guard with virtualization-based security	Select one of the following options: <ul style="list-style-type: none"> • Disabled - Disable Credential Guard with virtualization-based security. • Enabled with UEFI lock - Enable Credential Guard with virtualization-based security with Unified Extensible Firmware Interface (UEFI) lock. • Enabled without lock - Enable Credential Guard with virtualization-based security without UEFI)lock.
	Platform Security Level (Require Platform	Select one of the following options:

Category	Setting	What To Do
	Security Features)	<ul style="list-style-type: none"> • VBS with Secure Boot - Select this option to enable virtualization-based security with secure boot. • VBS with Secure Boot and Direct memory Access - Select this option to enable virtualization-based security with secure boot and direct memory access(DMA).
Privacy	Windows 10+	
	Disable the Advertising ID	Select to disable Advertising ID.
	Disable to publish the activity feed by Apps/OS	Select to prevent Apps/OS to publish to the activity feed.
Windows and Application	All Versions (Windows 10+)	
	Disable Microsoft accounts for service other than email	Select to prevent the end user from using Microsoft accounts for authenticating to non-email services.
	Disable non-Microsoft accounts	Select to prevent the end user from configuring email using non-Microsoft accounts.
	Disable Cortana personal assistant	Select to prevent the end user from accessing Microsoft's personal assistant.
	Disable location-based search	Select to prevent searches from leveraging the device location.
	Disable developer unlock	Select to prevent the end user from enabling sideloading of apps. The default mode when a device is enrolled in MDM is SideLoad enabled.
	11+ Supported Editions only	

Category	Setting	What To Do
	Configuration of the Teams Chat Icon on the taskbar	<p>Select one of the following options:</p> <ul style="list-style-type: none"> • Show: Chat icon appears on the taskbar by default. Users can show or hide it in Settings. • Hide: Chat icon hidden by default. Users can show or hide it in Settings. • Disabled: Chat icon not displayed, and users cannot show or hide it in Settings. • Not Configured: Chat icon behaves according to the defaults for your Windows edition. <hr/> <p> Changes do not take effect until restart of the Windows device.</p>
Windows 10+ Supported Versions only		
	Disable automatic update of apps from Microsoft Store	Select to prevent automatic update of apps from the Microsoft Store.
	Disable the launch of all apps from Microsoft Store that came preinstalled or were downloaded	<p>Select to prevent the end user from launching all pre-installed or downloaded apps from Microsoft Store.</p> <hr/> <p> Supports only Enterprise and Education Windows editions.</p>
	Let apps run in the background	<p>Select one of the following options:</p> <ul style="list-style-type: none"> • User in control: allows the user to control the running of apps in the background.

Category	Setting	What To Do
		<ul style="list-style-type: none"> • Force allow: allows running apps in the background. • Force deny: prevents running of apps in the background.
Other Restrictions	All Versions (Windows 10+)	
	Disable ability to unenroll from UEM and delete the workplace account.	Select to prevent the end user from unenrolling from UEM and deleting company account image.
	Disable user from setting the device lock grace period (HoloLens only).	Select to prevent the user from setting the device lock grace period.
	Windows 10+ Supported Versions only	
	Disable user to factory reset the device by using control panel and hardware key combination	Select to prevent the end user from setting the device lock grace period.
	Require users to connect to network during device set up (Autopilot profile is required)	Select this option to enable TenantLockdown to lock all the Windows devices that are enrolled using the Autopilot feature.

Windows Desktop restrictions

Applicable to: Windows 10 Desktops

This section contains the following topics:

- [Configure Windows Desktop restrictions](#)
- [Creating a Allowlist for removable storage devices](#)

Administrators can control OS information on managed Windows 10 Desktop devices by restricting user access to the following areas on a device:

- Control Panel
- Task Manager
- File Explorer
- Registry Editor

The above functions enables a user to make a lot of changes to their device. Using this feature, administrators have the ability to restrict access to these system level controls and thereby secure the access.

This feature requires Bridge. See "[Ivanti Bridge](#)" on [page 409](#) for details.

Configure Windows Desktop restrictions

Procedure

1. Go to **Configuration > +Add**.
2. Select **Windows Desktop Restrictions** configuration.
3. Enter a name for the configuration.
4. Enter a description.

In the Configuration Setup section, specify the remaining settings as described in the following table.

5.

Setting	What To Do
Task Manager	Select the Deny access checkbox for the setting for which the access should be denied.
Control Panel	
Registry Editor	
File Explorer	Select the Restrict Capabilities checkbox to restrict capabilities of File Explore. Example: Removal of map network drive. Click on the link provided to view the list of capabilities that are restricted.
Removable storage	
Access mode for Removable Storage	<ul style="list-style-type: none">• Restrict Read Access: This prevents any access and is the most restrictive configuration.• Restrict Write Access: This allows limited access, but prevents unauthorized removal of data or the ability to add viruses, etc. to the device.

6. Click **Next**.

7. Select one of the following distribution options:

- All Devices
- No Devices(default)
- Custom

8. Click **Done**.



For the configuration to take complete effect, the device should be rebooted after applying the configuration.

Creating a Allowlist for removable storage devices

If you want to create a Allowlist of permitted storage devices, complete the following steps first:

- Attach the USB storage devices you want to allow to a PC.
- Open Device Manager and click on the USB controller.
- Look at the settings for each controller for device information.
- Store the device information to use when creating your Allowlist.

To create Allowlist for removable storage device:

Procedure

1. In the **Windows Desktop Restrictions** configuration page, click **+Add** under **Allowlisted Removable Storage** section.
2. In the **Add hardware IDs** window, enter the hardware ID for one or more devices that you wish to add to the Allowlist.
3. Click **Add hardware IDs**. The list of Allowlisted hardware IDs are displayed under **Allowlisted Removable Storage** section.



To edit or delete a hardware ID from the list, select the Edit or Delete option under the **Actions** column.

For the configuration to take complete effect, the device should be rebooted after applying the configuration.

Desktop Settings for Windows 10

The Desktop Settings for Windows 10 configuration allows you to customize the desktop settings and push them to Windows 10 devices. Using this configuration, you can configure the following desktop settings:

- Desktop background image
- Lock screen image
- Upload a custom Screen Saver
- Desktop shortcuts





This feature requires Bridge. See ["Ivanti Bridge" on page 409](#) for details.

Procedure

1. Under **Configuration**, click **+Add**.
2. Select **Desktop Settings for Windows 10** configuration. The **Desktop Settings for Windows 10** page is displayed.
3. In the **Name** field, type an appropriate name for the settings.

4. (Optional) Click the **+Add Description** link to add a description for the configuration.

5. In the **Configuration Setup** section, configure the following settings:

Setting	Description
File Delivery	Select any of the following file delivery options for Desktop Settings: <ul style="list-style-type: none">• Upload File - Upload settings to Ivanti Neurons for MDM.• Override URL - Provide override URLs with the settings files to download.
Desktop Wallpaper Settings	Click Choose File to locate and upload a wallpaper image.: Supported file formats are BMP, JPG, JPEG, PNG.
Lock screen Wallpaper Settings (The Lock screen Wallpaper setting is NOT supported on Windows 10 Pro devices)	Click Choose File to locate and upload a wallpaper image. <hr/>  Supported file formats are BMP, JPG, JPEG, PNG. <hr/>
Screen Saver Settings	Click Choose File to locate and upload a screen saver file. <hr/>  Upload only Windows compatible .SCR files. <hr/> <p>Select Password protect for Screen Saver if you want to set password to unlock the Screen Saver mode.</p> <p>Select a Screen Saver Timeout period (in minutes).</p>

Setting	Description
Desktop shortcuts	<p>Click Add Shortcut to set up desktop shortcuts to add to device desktops. The Add Shortcut window is displayed. Fill out the table using the following options:</p> <ul style="list-style-type: none">• Location - Type the location where the shortcut is to appear on the Windows device.• Target Path - Type the local path, or UNC path or the drive letter to which the shortcut will lead. Target path can also be a URL.• Arguments - Type any argument to be used when opening the target file.• Working Directory - Type the folder path that contains files required by the target.• Icon File - Upload valid Windows .ico files. <p>After configuring the options, click Add Shortcut.</p>

6. Click **Next**.
7. Select one of the following distribution options:
 - All Devices
 - No Devices (default)
 - Custom
8. Click **Done**.

Windows Hello for Business Configuration

This configuration allows the administrators to set-up Windows Hello in the devices. Setting up Windows Hello requires to set up a PIN to sign-in to the device.

Applicable to: Windows 10

Procedure

1. Go to **Configurations** > **+Add**.
2. Type **windows** in the search field, and then click the **Windows Hello for Business** configuration.
3. Enter a **Name** and **Description** of the configuration.
4. Toggle the **Enable/Disable Windows Hello for Business for Windows 10 Devices** to **On**.



The toggle is set to On by default. Disabling Windows Hello for Business does not remove the PIN from the devices.

5. Set the **PIN Complexity**.
6. Select the required configurations:
 - Requires a Trusted Platform Module (TPM) for Windows Hello for Business
 - Use Windows Hello for Business certificates as smart card certificates
 - Use of biometric gestures, such as face and fingerprint, as an alternative to the PIN gesture for Windows Hello for Business
 - Requires enhanced anti-spoofing for facial feature recognition on Windows Hello face authentication
 - Dynamic Lock
 - Enables users to sign-in with a FIDO2 security key.
7. Click **Next**.
8. Select **Enable this configuration** option.

9. Select one of the following distribution options:

- All Devices
- No Devices (default)
- Custom.

10. Click **Done**.

Play Integrity (Previously SafetyNet Attestation)

Play Integrity (Previously SafetyNet) helps in assessing the security and compatibility of Android devices using Google's Play Integrity APIs. When configured, it allows you to analyze devices after a regular time interval in determining whether the device has been tampered or not.

Procedure

1. In the **Configuration** tab, click **+Add**.
2. Select **Play Integrity** configuration. The **Play Integrity Configuration** page is displayed.
 1. In the **Name** field, type an appropriate name for the Play Integrity Configuration.
 2. Click the **+Add Description** link to add a description for the configuration. This field is optional.
 3. In the **Configuration Setup** section, type the minimum time interval (in hours) that should be applied for assessing the security and compatibility check on devices. The value should be between 1 to 24.
4. Click **Next** and select one of the following distribution options:
 - All Devices
 - No Devices(default)
 - Custom
5. Click **Done**.

Advanced Android Passcode and Lock Screen

The Advanced Android Passcode and Lock Screen configuration for Android devices enables you to keep your devices secure. This configuration is applied on devices to set device passcode and Work Profile on Company Owned Device passcode setting.




When this configuration is applied to a device, any Passcode configuration or Work Challenge configuration if they exist, will not be applied to the device.




For Work Profile and Work Profile on Company-Owned devices, the Passcode Quality is deprecated on Android 12+ devices for the device-level passcode. Also, the existing Passcode Quality settings are automatically translated to Password Complexity settings by the Go app if the admin has not enabled the Password Complexity setting.

Procedure

1. Go to **Configuration > +Add**.
2. Select **Advanced Android Passcode and Lock Screen** configuration.
3. Enter a name and description for the configuration.
4. In the **Configuration Setup** section, configure the following settings:

Setting	What To Do
Device Passcode	
Require Device Passcode	Switch the toggle switch to ON .
Passcode complexity (Android v12.0+)	
 The Passcode complexity setting has higher priority than the Passcode Quality setting. When the Require Device Passcode option is toggled to ON and the Passcode complexity is set, the Passcode Quality	

Setting	What To Do
 setting will be ignored.	
Enable Passcode complexity	<p>Switch the toggle switch to ON and select one of the following options:</p> <ul style="list-style-type: none"> • None - To avoid using any pattern or PIN or alphanumeric or alphabet sequence complexity. • Low - To set a passcode with a pattern or numeric with minimum 4 digits. • Medium - To set a passcode with one of the following options: Numeric (with minimum 4 digits) or Alphabetic (with minimum 4 characters) or Alphanumeric (with minimum 4 characters). • High - To set a passcode with one of the following options: Numeric (with minimum 8 digits) or Alphabetic (with minimum 6 characters) or Alphanumeric (with minimum 6 characters).
Passcode Quality	<p>Select the passcode quality from the following drop-down list options:</p> <ul style="list-style-type: none"> • Biometric - Allows biometric unlock methods, such as face recognition. • Something - Requires a passcode but doesn't set a type restriction. • Numeric - Requires a passcode that includes at least numeric characters.


Setting	What To Do
	<ul style="list-style-type: none"> • Numeric Complex - Requires a passcode that includes at least numeric characters and has no repetition (example, 4444) or ordered sequences (example, 1234). • Alphabetic - Requires a passcode that includes at least alphabetic or other symbol characters. • Alphanumeric - Requires a passcode that includes at least numeric and alphabetic (or other symbol) characters. • Complex - Requires a passcode that includes a numeric, alphabetic, and special character.
Minimum Length	Move the slider to specify the minimum length of a passcode to prevent the user from creating short and insecure passcode. Number ranges between 4 to 16.
Passcode Lifecycle	<p>Enter the values for the following fields:</p> <ul style="list-style-type: none"> • Expiration - Specifies the expiration of passcode in days. • History Length - Specifies the number of passcodes before a user can re-use any given passcode.

Setting	What To Do
	<ul style="list-style-type: none"> • Max Failed Attempts - The maximum number of times the user can enter an incorrect passcode before corporate data is wiped from the device. • Inactivity Timeout - Enter the maximum time a user may choose to be inactive before a session timeout.
Manage Keyguard features	<p>Enable the required keyguard features from the following checkbox options:</p> <ul style="list-style-type: none"> • Enable fingerprint • Enable secure camera • Enable all notifications Applicable for device owner mode. • Enable all trust agents Applicable for device admin and device owner mode only. • Enable iris scan Applicable to Android 9.0+ or Samsung only. • Enable face unlock Applicable to Android 9.0+ or Samsung only.
Manage Smart Lock (Android 6.0 +)	<p>Switch the toggle switch to ON to manage Smart Lock configuration.</p> <p>Enable the required Smart Lock configuration from the following checkbox options:</p> <ul style="list-style-type: none"> • Enable Bluetooth unlock

Setting	What To Do
	<ul style="list-style-type: none"> • Disable audio/video devices • Disable computer devices • Disable health devices • Disable Imaging devices • Disable miscellaneous devices • Disable networking devices • Disable peripheral devices • Disable phone devices • Disable toy devices • Disable uncategorized devices • Disable wearable devices • Enable NFC unlock <ul style="list-style-type: none"> • Enable unsecure tag • Enable secure tag • Enable places (location) <ul style="list-style-type: none"> • Enable custom places (other than Home) • Enable face unlock (including Samsung face unlock) • Enable on-body unlock • Enable Voice unlock
Work Profile Passcode (Challenge) (Android 7.0+)	
Require Work	Switch the toggle switch to ON .

Setting	What To Do
Profile Passcode (Challenge)	
Passcode complexity (Android v12.0+)	
Enable Passcode complexity	<p>Switch the toggle switch to ON and select one of the following options:</p> <ul style="list-style-type: none"> • None - To avoid using any pattern or PIN or alphanumeric or alphabet sequence complexity. • Low - To set a passcode with a pattern or numeric with minimum 4 digits. • Medium - To set a passcode with one of the following options: Numeric (with minimum 4 digits) or Alphabetic (with minimum 4 characters) or Alphanumeric (with minimum 4 characters). • High - To set a passcode with one of the following options: Numeric (with minimum 8 digits) or Alphabetic (with minimum 6 characters) or Alphanumeric (with minimum 6 characters).
Passcode Quality	<p>Select the passcode quality from the following drop-down list options:</p> <ul style="list-style-type: none"> • Biometric - Allows biometric unlock methods, such as face recognition. • Something - Requires a passcode but does not set a type restriction.

Setting	What To Do
	<ul style="list-style-type: none"> • Numeric - Requires a passcode that includes at least numeric characters. • Numeric Complex - Requires a passcode that includes at least numeric characters and has no repetition (example, 4444) or ordered sequences (for example, 1234). • Alphabetic - Requires a passcode that includes at least alphabetic or other symbol characters. • Alphanumeric - Requires a passcode that includes at least numeric and alphabetic (or other symbol) characters. • Complex - Requires a passcode that includes at least numeric, alphabetic, and special character.
Passcode Lifecycle	<p>Enter the values for the following fields:</p> <ul style="list-style-type: none"> • Expiration - Specify the expiration of passcode in days. • History Length - Specifies the number of passcodes before a user can re-use any given passcode. • Max Failed Attempts - The maximum number of times the user can enter an incorrect passcode before corporate data is wiped from the device.

Setting	What To Do
	<ul style="list-style-type: none"> • Inactivity Timeout - Enter the maximum time a user may choose to be inactive before a session timeout. <p>Strong auth Timeout (Applicable only for Android 8.0+ devices in Profile Owner, Device Owner, and Managed Device with Work Profile) - Specifies the time duration (in minutes) after which unlocking a device with a secondary authentication (Fingerprint, Biometrics) will timeout. This field is applicable only if Biometric or Something is selected as a Passcode Quality option.</p> <hr/> <p> The minimum limit is 60 minutes and the maximum limit is 4320 minutes. If the field is set to blank, nothing is set to the device.</p> <hr/>
<p>Manage Keyguard features</p>	<p>Enable the required keyguard features from the following checkbox options:</p> <ul style="list-style-type: none"> • Enable fingerprint • Enable secure camera • Enable all trust agents • Enable iris scan Applicable to Android 9.0+ or Samsung only.

Setting	What To Do
	<ul style="list-style-type: none"><li data-bbox="618 296 1073 411">• Enable face unlock Applicable to Android 9.0+ or Samsung only.

5. Click **Next**.
6. Select one of the following distribution options:
 - All Devices
 - No Devices(default)
 - Custom
7. Click **Done**.

Microsoft Defender for Endpoint

Microsoft Defender for Endpoint (MDE) configuration formerly known as Windows Advanced Threat Protection, allows customers to onboard and offboard devices to MDE service.

Procedure


1. Go to **Configuration > +Add**.
2. Select **Microsoft Defender for Endpoint** configuration.
3. Enter a name for the configuration.
4. Enter a description.
5. In the Configuration Setup section, specify the remaining settings as described in the following table.

Setting	Description
Onboarding or Offboarding Blob	Paste the onboarding or offboarding blob from the Microsoft Defender for Endpoint Security Center site

6. Click **Next**.
7. Select one of the following distribution options:
 - All Devices
 - No Devices(default)
 - Custom
8. Click **Done**.


Certificate-based authentication


Ivanti Neurons for MDM supports certificate-based authentication which allows administrators to log in using digital certificates and a tenant-specified (vanity) hostname. When enabled and configured, the administrators can log in using the digital certificates instead of the basic authentication (username and password).

 This feature is disabled by default. Administrators should contact Support to enable this feature on their tenant(s). This feature is only available on NA3 cluster environments, and only if enabled by Support. Please ensure that you have your super admin user name and password tested and ready, because once certificate-based authentication is enabled, these credentials will be the only ones you can use to log in until you have successfully configured your vanity domain.

Procedure

1. In the **Admin** tab, select **Vanity Host Configuration**.
2. In the Vanity Host Configuration page, configure the following options:

Setting	What To Do
Create Vanity Domain	Type the name of the vanity domain. This is the domain name that may more closely align with your corporate identity and into which you can log in using digital certificates.
Upload Trusted issuing CA certificates	<p>Click Choose File to select and upload the CA certificate that issues certificates to your administrators.</p> <p>To enable the certificate revocation check, select Enable certificate status validation settings for this certificate (optional).</p> <hr/> <p> This option is enabled by default. Unselect this option to disable certificate revocation.</p> <hr/>

Setting	What To Do
	<p>Click Add More to add more certificates.</p> <hr/> <p> Ensure that the certificate format is .p7b, .pem, .der, .crt or .cer.</p> <hr/>
Certificate Attribute mapping	<p>Certificate attribute mapping configures the mapping of the certificate identity elements to the account attributes of the admin.</p> <p>In the From Certificate field, select either of the following certificate elements:</p> <ul style="list-style-type: none"> • NTPrincipalName • RFC 822 Name <p>In the To Variable field, select any of the following account attributes of the admin:</p> <ul style="list-style-type: none"> • UserUPN • \$UserEmailAddress • \$EDIPI

3. Click **Save**.

It may take a few minutes for your vanity host to become accessible.

User Resource Configurations

This section contains the following topics:

- ["CalDAV Configuration" on page 726](#)
- ["CardDAV Configuration" on page 727](#)
- ["Google Configuration" on page 728](#)
- ["Email Configuration" on page 731](#)
- ["Exchange Configuration" on page 735](#)
- ["Font Configuration" on page 740](#)
- ["Subscribed Calendar Configuration" on page 741](#)
- ["Create a Web Clip Configuration" on page 742](#)
- ["Office 365 Installation" on page 744](#)
- ["Windows GPO Settings" on page 747](#)
- ["BitLocker Encryption Configuration" on page 750](#)

CalDAV Configuration

A CalDAV configuration defines access to a web calendar using the CalDAV internet standard.

CalDAV settings

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Hostname and Port	Enter the host name and port for the calendar server.
Principal URL	Enter the URL for accessing calendar services.
User	Enter the user name to use for access.
Password	Enter the password to use for access.
Use SSL	Select to use only the secure socket layer for communications between the device and the server.
Per-App VPN	<p>Prerequisite: Configure Tunnel or any per-app VPN configuration before configuring per-app VPN in CalDAV configuration.</p> <p>From the drop-down menu, select the pre-configured per-app VPN configuration.</p> <p>Applicable to: iOS 14+</p>

For more information, see [How to create a configuration](#)

CardDAV Configuration

A CardDAV defines access to a web address book using the CardDAV internet standard.

CardDAV settings

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Hostname and Port	Enter the host name and port for the address book server.
Principal URL	Enter the URL for accessing address book services.
Username	Enter the user name to use for access.
Password	Enter the password to use for access.
Use SSL	Select to use only the secure socket layer for communications between the device and the server.
Per-App VPN	<p>Prerequisite: Configure Tunnel or any per-app VPN configuration before configuring per-app VPN in CardDAV configuration.</p> <p>From the drop-down menu, select the pre-configured per-app VPN configuration.</p> <p>Applicable to: iOS 14+</p>
iOS 10+	
Communication Service Rules	Choose a default app to use to make audio calls to contacts within the CardDAV system.

For more information, see [How to create a configuration](#)

Google Configuration

Google account configuration connect iOS 9.3.2 or Android 6.0+ devices, or supported newer versions, to Google accounts. Android enterprise is required for Google accounts. The configuration can set up multiple Google email addresses and any other Google services the user enables after authentication.

Procedure

1. Go to **Configuration** > **+Add**.
2. Select the **Google Account** configuration.
3. Enter a name for the configuration.
4. Enter a description.
5. In the Configuration Setup section, specify the remaining settings as described in the following table:

6.

Setting	What To Do
iOS 9.3.2+, Android 6.0+	
Name	Enter a name that identifies this configuration.
Account description	Enter the display name of the account.
Account name	Enter the full name of the user for the account.
Email address	Enter the Google email address of the account.
Per-App VPN	<p>Prerequisite: Configure Tunnel or any per-app VPN configuration before configuring per-app VPN in Google Account configuration.</p> <p>From the drop-down menu, select the pre-configured per-app VPN configuration.</p> <p>Applicable to: iOS 14+</p>
iOS 10+	
Communication Service Rules	<p>Choose a default app to use to make audio calls to contacts within the Google system by selecting any of the following options:</p> <ul style="list-style-type: none"> • From App Catalog & System Apps: Search for apps by typing the first few letters of the app name. • Enter Bundle ID (for Apple system apps only): Type the System App Bundle ID. Bundle ID must begin with 'com.apple'.

-
7. Click **Next**.
 8. Select one of the following distribution options:
 - All Devices
 - No Devices (default)
 - Custom
 9. Click **Done**.


When a Google account configuration is applied to the device, Go client prompts the user to log in to Google.


For more information, see [How to create a configuration](#)

Email Configuration

An email configuration sets up POP or IMAP email on devices.

Email settings

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Account Description	Enter the text you want to use to identify this email account.
Account Type	Select IMAP or POP. If you select IMAP, you can also enter the path prefix. The internet service provider (ISP) can give you information on which type of account is available. A prefix is generally required when all IMAP folders are listed under the Inbox. ISPs that require prefixes usually provide information on the specific prefix to configure.
User Display Name	Enter the text you want to use to identify email account user. Note that the user can set this value on the device, as well.
Email Address	Enter a variable to specify the email address for the account.
Allow Move	Select if you do not want to prevent email from being moved from this account.
Enable S/MIME	Select to turn on support S/MIME encryption. Then, you can select signing and encryption certificates. <hr/>  Requires certificate caching. Make sure that caching is enabled in the

Setting	What To Do
	<p data-bbox="537 285 1073 352"> Certificate Authority being used by Identity Certificate's configuration.</p> <hr/> <p data-bbox="537 407 670 436">iOS 10.3+:</p> <p data-bbox="537 476 1036 583">Select one of the following options for the S/MIME signing and S/MIME encryption fields:</p> <ul data-bbox="586 623 748 785" style="list-style-type: none"> • Off • On • User Select <p data-bbox="537 827 670 856">iOS 12.0+:</p> <ul data-bbox="586 896 1052 1297" style="list-style-type: none"> • Enable user to override S/MIME signing settings • Enable user to select S/MIME signing identity • Enable user to override S/MIME encryption settings • Enable user to select S/MIME encryption identity <p data-bbox="537 1337 1044 1402">Enable S/MIME per-message signing and encryption if required.</p>
Allow Mail Drop	<p data-bbox="537 1432 1052 1661">Select to allow Mail Drop for this account. Mail Drop enables the user to send email with large attachments by storing the attachment in iCloud and placing a link to it in the email. For more information on Mail Drop go to: https://support.apple.com/</p>
Per-App VPN	<p data-bbox="537 1690 1062 1755">The ability to associate a number of different per- app VPN profiles on Mail domains is</p>

Setting	What To Do
	<p>supported by Apple. IMAP and POP3 email configurations are now supported over per-app VPN.</p> <p>Prerequisite: Configure Tunnel or per-app VPN configuration before configuring per-app VPN in email configuration.</p> <p>From the drop-down menu, Select Per-App VPN config.</p>

Incoming Mail

Setting	What To Do
Mail Server and Port	The internet service provider (ISP) can give you this address.
User Name	Enter the user name for accessing the incoming mail server. This often the same as the email address. Your ISP can provide the format.
Authentication Type	Select the authentication type defined by the ISP.
Password	Enter the password for accessing the incoming mail server.
Use SSL	Select to use only the secure socket layer for communications between the device and the server.

Outgoing Mail

Setting	What To Do
Mail Server and Port	The internet service provider (ISP) can give you this address.
User Name	Enter the user name for accessing the

Setting	What To Do
	outgoing mail server. This often the same as the email address. Your ISP can provide the format.
Authentication Type	Select the authentication type defined by the ISP.
Password	Enter the password for accessing the outgoing mail server.
Outgoing password same as incoming	Select if SMTP authentication uses the same password as POP/IMAP.
Use Only in Mail	Select if you want this configuration used only by the email client. Other apps that send email, including apps that send content using the native email client, are not able to use this configuration.
Use SSL	Select to use only the secure socket layer for communications between the device and the server.

Exchange Configuration

An Exchange configuration sets up ActiveSync-based email on Android and iOS devices and Exchange Web Services (EWS)-based email for macOS devices.






The Exchange Configuration is deprecated by Samsung in Android 9. For Samsung devices on Android 9 and later versions, the Exchange Configuration is not supported in Device Admin mode.


Exchange settings

Setting	What to do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Exchange Host	If you are using Sentry to control email access, enter the Sentry server host name. Otherwise, enter the address of the ActiveSync server.*
Allow Move	For iOS and Android: Select if you do not want to prevent email from being moved from this account. For Windows 10: Not applicable.
Enable S/MIME	Select to turn on support S/MIME encryption. Then, you can select signing and encryption certificates. <hr/> Requires certificate caching. Make sure that caching is enabled in the Certificate Authority being used by Identity Certificate's configuration. <hr/> iOS 10.3+: Select one of the following options for the S/MIME signing and S/MIME encryption fields: <ul style="list-style-type: none">• Off• On• User Select

Setting	What to do
	<p>iOS 12.0+:</p> <ul style="list-style-type: none"> • Enable user to override S/MIME signing settings • Enable user to select S/MIME signing identity • Enable user to override S/MIME encryption settings • Enable user to select S/MIME encryption identity <p>Enable S/MIME per-message signing and encryption if required.</p>
Sync Recent Email Addresses	Select to sync recently-contacted email addresses between the device and the server.
Use Only in Mail	Select if you want this configuration to be used only by the email client. Other apps that send email, including apps that send content using the native email client, are not able to use this configuration.
Use SSL	Select to use only the secure socket layer for communications between the device and the server.
Enable OAuth for exchange payload	<p>iOS 12.0+ and macOS 10.14+:</p> <p>Select to enable authentication using OAuth.</p> <p>If this option is enabled, the following additional settings are available for email apps that support authentication using OAuth:</p> <ul style="list-style-type: none"> • OAuth Sign In URL • OAuth Token Request URL
Domain	Enter the domain for this email account, unless you want the user to be prompted for it.
User	Enter a variable representing the email address for this account.*
Account Password	Enter the password for this account, unless you want the user to be prompted for it.
Email Address	Enter a variable representing the email address for this account.*
Past Days of Mail to Sync	Select the number of days of email to sync between the device and the server.

Setting	What to do
Per-App VPN	<p>Prerequisite: Configure Tunnel or any per-app VPN configuration before configuring per-app VPN in Exchange Active Sync configuration.</p> <p>From the drop-down menu, select the pre-configured per-app VPN configuration.</p> <p>Applicable to: iOS 14+</p>
Android and Windows	
Sync Calendar	<p>For Android and Windows 10: Select to sync calendar items between the device and the server.</p> <p>For Samsung devices: This setting is not used (it is ON by default).</p> <p>For Android Email+ app: This setting is used.</p>
Sync Contacts	<p>For Android and Windows 10: Select to sync contacts between the device and the server.</p> <p>For Samsung devices: This setting is not used (it is ON by default).</p> <p>For Android Email+ app: This setting is used.</p>
Sync Email	<p>For Android and Windows 10: Select to sync email between the device and the server.</p> <p>For Samsung devices: This setting is not used (it is ON by default).</p> <p>For Android Email+ app: This setting is not used (it is ON by default).</p>
Sync Tasks	<p>For Android and Windows 10: Select to sync tasks between the device and the server.</p> <p>For Samsung devices: This setting is not used (it is ON by default).</p> <p>For Android Email+ app: Not applicable.</p>
iOS 13.0+	
<ul style="list-style-type: none"> • Sync Calendar • Sync Contacts 	Specify individual syncing of Outlook Exchange items such as Calendar, Contacts, Mail, Notes, and Reminders.

Setting	What to do
<ul style="list-style-type: none"> • Sync Mail • Sync Notes • Sync Reminders 	<p>For each item, select or deselect the Enable and the Allow User Override options.</p> <hr/> <p> Sync must be enabled for at least one of the these items. If you disable syncing for one of the options but allow user to override, the user will still be able to enable it.</p> <hr/>
Identity Certificate	Select an identity certificate from the list if you want the device to authenticate to the server using a certificate. Certificates appear in this list only if already configured using an identity certificate configuration.
Android	
Use Certificate Based Authentication Only	Use the selected identity certificate as the only means of authenticating to the Exchange server.
Accept all SSL Certificates	<p>Select to allow device users to set Android devices to accept all SSL certificates. This setting applies to Android Email+ and Samsung Knox Email.</p> <hr/> <p> Use caution when enabling this setting, as device users might unknowingly expose the device to attack.</p> <ul style="list-style-type: none"> • This option needs to be enabled if the Sentry certificate is a self-signed or unknown certificate. <hr/>
Exchange App Priority	<p>Select the email client to be configured by default on Android devices - Android Email+ and Samsung Email.</p> <hr/> <p> Email+ app are added in the app catalog for all tenants that has enabled the Exchange app priority.</p> <hr/>
iOS 10+	
Communication Service Rules	Choose a default app to use to make audio calls to contacts within the CardDAV system.
Windows 10+ Only	
Configure Outlook	Select this option to configure Microsoft Outlook to a device.

Setting	What to do
	 This option is supported only if Bridge is enabled.

*Type \$ to see a list of supported [variables](#), if available, for this field.

Font Configuration

A font configuration enables you to provide additional TrueType or OpenType font files to iOS 7 devices. The following table describes the font settings:

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Upload Fonts	Drag the font file to the dotted box, or click Choose File to select it from your file system. Font files must be .otf or .ttf files.

For more information, see [How to create a configuration](#)

Subscribed Calendar Configuration

A subscribed calendar configuration defines access to a public web calendar.

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
URL	Enter the URL for accessing the calendar.*
User	Enter the user name to use for access.*
Password	Enter the password to use for access.
Use SSL	Select to use only the secure socket layer for communications between the device and the server.



Type \$ to see a list of supported [variables](#), if available, for this field.

For more information, see [How to create a configuration](#)

Create a Web Clip Configuration

A web clip is a shortcut to a website or web page from an iOS device. Use a web clip configuration to create standard web clips on devices. You can add a web clip icon to your iOS device that will launch a specific website. Web Clips help you to quickly find and use bookmarks on the home screens of your devices. You can also control some of the parameters of the Mobile Safari viewing experience for the site.



Delegation with custom distribution option is available for this configuration. For more information, see *Distributing the configuration* topic in "[Working with Configurations](#)" on page 423.

Procedure

1. Log in to the Ivanti Neurons for MDM administrative portal.
2. Click **Configurations**.
3. Click **+Add**.
4. Search and select the Web Clip configuration.
5. Configure the settings on this page. Refer to the table in the topic **Web Clip Configuration Settings** for guidance on the values.
6. Click **Next** to configure the distribution settings.
7. Select **Custom** and then select **Devices/ Device Groups**.
8. Click **Done**.

Web Clip Configuration Settings

The following table lists the Web Clip Configuration settings:

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Label	Enter the text that you want to display below the shortcut on the device screen.*
URL	Enter the URL that the web clip will access.*
Removable	Select the check box to allow the device user to delete the web clip.
Icon	Drag the icon file to the dotted box, or click Choose File to select it from your file system.
Precomposed Icon	Select to eliminate the special effects added by more recent versions of Safari.
Full Screen	Select to display the web clip in full-screen mode instead of as content in a browser.
Ignore Manifest Scope	Select to allow navigation to an external website without displaying the Safari browser. This option has no effect when Full Screen is not selected.
Target Application Bundle Identifier	The application bundle identifier that specifies the application that opens the URL. Example: com.google.chrome.ios

 Type \$ to see a list of supported [variables](#), if available, for this field.

Related topics:

- [Multi-user Secure Sign-in for iOS](#)
- [How to create a configuration](#)

Office 365 Installation

License: Silver

Applicable to: Windows 10+



Setting up Office 365 Installation

The Office 365 installation is a configuration setting that can be applied to selected devices for installing or uninstalling Office 365. You can define the configuration settings in xml format by using Microsoft's Office deployment tool and then uploaded the file. After uploading the file(s), you can push the configuration options to selected device(s).

Procedure


1. In the **Configuration** tab, click **+Add**.
2. Select **Office 365 Installation**. The **Office 365 Installation** page is displayed.
3. In the **Name** field, type an appropriate name for the configuration.
4. Click the **+Add Description** link to add a description for the configuration. This field is optional.

5. In the **Configuration Setup** section, update the following fields:

Field name	Description
Configuration file for installing Office 365	<p>Click the Choose File button to browse and select the configuration file in XML format that includes the defined settings for Office 365 installation. Example: <Configuration> <Add OfficeClientEdition="64" Channel="Current"> <Product ID="O365ProPlusRetail"> <Language ID="en-us"/> </Product> </Add> </Configuration></p> <hr/> <p> Ensure that the configuration file is in xml format and the green check mark is displayed after adding the configuration settings file.</p>
Configuration file for uninstalling Office 365	<p>Click the Choose File button to browse and select the configuration file in the xml configuration file in XML format that includes the defined settings for uninstalling Office 365. Example: <Configuration> <Remove All="TRUE"/> <Display Level="None" AcceptEULA="TRUE" /> </Configuration></p> <hr/> <p> Ensure that the configuration file is in xml format and the green check mark is displayed after adding the configuration settings file.</p>

6. Click **Next**.

-
7. Select any of the following options to distribute the settings to device(s).

Option	Description
Enable this configuration	Selecting the check box allows this configuration to the selected devices. Unselecting the check box removes the configuration, if already applied to devices.
All Devices	Distributes the settings to all the devices.
No Devices	Withholds the settings to be distributed to device(s).
Custom	<p>Distributes the settings for a defined device group. Select the check box next to the device type for which you wish to distribute the settings. You can alternatively search for device groups by typing the device group name in the Search Device Groups search field. If you wish to create a new device group, click the Create New Device Group link at the bottom of the page. See Device Groups for more information.</p> <hr/> <p> As and when you select the device category, you can observe the details (NAME, PHONE#, and DEVICE TYPE) of the list of device users for the selected device category under the Distribution Summary section.</p> <hr/>

8. Click **Done** to push the setting to the selected devices.

Windows GPO Settings

License: Bridge

Applicable to: Windows Desktop

Setting up Windows GPO Settings

Group Policy Object (GPO) is a collection of settings defining the permissions that the device(s) are allowed or not allowed to do. It is a prerequisite to have a Bridge setup to manage GPO settings. See [Ivanti Bridge](#) for more details.

Contact the site administrator if the GPO metadata is not uploaded to the database. The GPO configuration is deployed to devices by PowerShell scripts over Bridge. Using the GPO Settings you can configure and push specific settings to device(s).

Procedure

1. In the **Configuration** tab, click **+Add**.
2. Select **Windows GPO Settings** configuration. The **Windows GPO Settings** page is displayed.
3. In the **Name** field, type an appropriate name for the Windows GPO Settings.
4. Click the **+Add Description** link to add a description for the configuration. This field is optional.
5. In the **Configuration Setup** section, click **+Add**. The **Add Windows Group Policy Object(GPO)** window is displayed.
6. Search and select a GPO by clicking the relevant component from the GPO hierarchy tree in the left pane. The GPO hierarchy tree represents the path of the policy settings. You can alternatively, search for a specific GPO settings by typing the name of the GPO settings in the search field. After you select a GPO setting, you can view the details of the selected GPO setting in the right pane.

-
7. In the **Setting Status** field, the following setting options are available:

Option	Description
Not Configured	Removes existing GPO settings.
Enabled	Enables the GPO settings.
Disabled	Disables the GPO settings.

8. In the **Settings Value** field, type an appropriate name to be given to the GPO.

 This field is editable only when the **Enabled** option is selected under **Setting Status**.

For adding additional settings value, click on the + icon. Some GPO settings may not require any additional Settings Value. Some may require additional data to be specified under the Setting Value in the form of text value. In such settings, select any value from the available drop-down values.

- Click **Save & Close** to save the GPO and close the window. If you wish to add another GPO, click **Save & Add another** to save and keep the GPO window open. The GPO setting that is added is displayed in the **Configuration Setup** section.



You can edit or delete a GPO setting by clicking on the relevant icons in the **Actions** column.

Option	Description
Enable this configuration	Selecting the check box allows this configuration to the selected devices. Unselecting the check box removes the configuration, if already applied to devices.
All Devices	Distributes the settings to all the devices.
No Devices	Withholds the settings to be distributed to device(s).
Custom	<p>Distributes the settings for a defined device group. Select the check box next to the device type for which you wish to distribute the settings. You can alternatively search for device groups by typing the device group name in the Search Device Groups search field. If you wish to create a new device group, click the Create New Device Group link at the bottom of the page. See Device Groups for more information.</p> <hr/> <p>As and when you select the device category, you can observe the details (name, phone#, and device type) of the list of device users for the selected device category under the Distribution Summary section.</p>

- Click **Done** to push the GPO setting to the selected devices.

BitLocker Encryption Configuration

License: Bridge

Applicable to: Windows Desktop

This section contains the following topics:

- [Setting up BitLocker Encryption](#)
- [Viewing BitLocker Settings](#)

Setting up BitLocker Encryption



BitLocker Encryption is a feature that enforces encryption on hard drives and removable drives of the devices for data protection. It is a prerequisite to have a Bridge setup to manage BitLocker encryption. See [Bridge](#) for more details. BitLocker Encryption Configuration helps you in configuring encryption settings to device(s).


Procedure

1. In the **Configuration** tab, click **+Add**.
2. Select **BitLocker Encryption** configuration. The **BitLocker Encryption** page is displayed.
3. In the **Name** field, type an appropriate name for the BitLocker encryption.


-
4. Click the **+Add Description** link to add a description for the configuration. This field is optional.

5. In the Configuration Setup section, configure the following settings:

Setting	Description
Encryption method and type	Select the type of encryption algorithm based on the key size for encryption. The following options are available: <ul style="list-style-type: none">• AES-CBL 128 bit• AES-CBL 256 bit
Encrypt all hardware drives	Click the toggle button to turn ON or OFF the setting to encrypt all the hardware drives. <hr/> <p> If any hardware drive is already encrypted on a device, editing this configuration will not be applied because encryption process is non-reversible through editing.</p> <hr/>
Select Drive(s)	Select the drive(s) that needs to be encrypted. Example: C: Click +Add to add more drives. <hr/> <p> This field will not be displayed if you have turned ON the Encrypt all hardware drive setting.</p> <hr/>
Hardware based encryption for drive types	Trusted Platform Module (TPM) is a chip on computer's motherboard that helps in tamper-resistant encryption. If you are using BitLocker encryption or device encryption on a computer with


Setting	Description
	<p>TPM, part of the key is stored in the TPM. You can choose the following hardware based encryption setting options from the drop-down list:</p> <ul style="list-style-type: none"> • Require TPM on startup • Require startup PIN with TPM • Do not use TPM <p>TPM option is only applicable to OS drives and for TPM version 1.2 and above.</p> <hr/> <p> If you apply a hardware based encryption setting to a device, you cannot edit this setting to the device any longer.</p> <hr/> <p>If a device is already set with a BitLocker configuration, then you cannot push a second bitlocker configuration with a different TPM option.</p>
	<p>Select the following configuration checkbox options (optional):</p> <ul style="list-style-type: none"> • Deny write access to fixed drives not protected by BitLocker • Deny write access to removable drives not protected by BitLocker
Pre-encrypted Device Action	<p>Select any of the following options to define the way to handle the drive that is not fully decrypted or already has a</p>

Setting	Description
	<p>key protector.</p> <ul style="list-style-type: none"> • Stop encryption - Stops the encryption if any of the selected drives are already encrypted. • Decrypt the selected drive which doesn't have recovery password store in Ivanti Neurons for MDM - Select this option to apply to only drives which does not have a recovery password in Ivanti Neurons for MDM.
Recovery Options	<p>Recovery option is used if a user forgets the password. You can retrieve it from the device details page. you can configure the following recovery options:</p> <ul style="list-style-type: none"> • Disable Recovery • Use password and store in AD • Use password and store in AD and MobileIron
Restart interval	<p>After the configuration is pushed to the device, it prompts for a restart. The encryption then begins after the restart. To configure the restart interval, from the drop-down list, select the time duration that the device should take to restart. The minimum restart interval is 1 minute and the maximum restart interval is 120 minutes (2 hours).</p>

Setting	Description
Restart Message	<p>Type the restart message that should be displayed in the device.</p> <hr/> <p> If applicable, the startup password or the startup PIN is also displayed to the user. The user can make a note of it to type it when prompted after restart.</p> <hr/>

6. Click **Next**.

-
7. Select any of the following options to distribute the settings to device(s).


Setting	Description
Enable this configuration	Selecting the check box allows this configuration to the selected devices. Unselecting the check box removes the configuration, if already applied to devices.
All Devices	Distributes the settings to all the devices.
No Devices	Withholds the settings to be distributed to device(s).
Custom	<p>Distributes the settings for a defined device group. Select the check box next to the device type for which you wish to distribute the settings. You can alternatively search for device groups by typing the device group name in the Search Device Groups search field. If you wish to create a new device group, click the Create New Device Group link at the bottom of the page. See Device Groups for more information.</p> <hr/> <p> As and when you select the device category, you can observe the details (NAME, PHONE#, and DEVICE TYPE) of the list of device users for the selected device category under the Distribution Summary section.</p> <hr/>

8. Click **Done** to push the setting to the selected devices.

Viewing BitLocker Settings

You can view the BitLocker Settings that is set for a device in the Device details page (**Devices>Devices> [Device name]**) under the **BitLocker Settings** section. By default, the details are hidden.

You can view the following details by clicking on the view (eye shaped) icon next to each field:

Setting	Description
Recovery Password	<p>When this option is selected, the recovery password is generated by Windows and returned to Ivanti Neurons for MDM after pushing the BitLocker configuration. If the device goes through recovery mode, the user is prompted to type this password.</p> <p>The same recovery password should be used if multiple drives are encrypted.</p> <hr/> <p> Recover password will only be posted if recovery option Use password and store in AD and MobileIron is selected.</p> <hr/>
PIN	<p>Displays the startup 6-digit PIN. The PIN is displayed only if you have selected the option Require Startup PIN with TPM in the BitLocker configuration setup.</p>
Startup Password	<p>The startup password set for the device. The startup password is displayed only if you have selected the option Do not use TPM in the BitLocker configuration settings.</p>
TPM version	<p>Displays the configured TPM version.</p>



Some fields might display **N/A** based on the settings configured in the BitLocker configuration setup.

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- The status of encryption is displayed under Device encryption status in the Device Details page.
 - The same Startup password or PIN will be used for all the drives of a device for which the BitLocker would be applied.
 - If you are creating a configuration to encrypt a second drive of a device which already has a drive encrypted and recovery password saved, the earlier password will be overwritten. Hence, it is recommended that the Recovery Password option is used only for one drive in a device.

Enterprise Network Access Configuration

This section contains the following topics:

- "AirPlay Configuration" on page 760
- "AirPrint Configuration" on page 761
- "Always-on VPN Configuration" on page 763
- "Default App Runtime Permissions" on page 767
- "Education" on page 770
- "Global Proxy Configuration" on page 771
- "LDAP Configuration" on page 773
- "macOS Server Configuration" on page 776
- "Network Relay Configuration" on page 817
- "Tunnel" on page 777
- "Setting Up AppTunnel" on page 778
- "Per-app VPN Configuration" on page 786
- "Single Sign-On Configuration" on page 807
- "Multi-user Secure Sign-in for iOS" on page 819
- "Android APN Settings Configuration" on page 822
- "VPN Configuration" on page 829
- "VPN On Demand" on page 856
- "Wi-Fi Configuration" on page 873

AirPlay Configuration

License: Silver

An Airplay configuration sets up access to alternate devices for media display. The following table lists the Airplay settings:



Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Allow list	Enter the device ID of each permitted AirPlay destination. If you do not list an ID, then AirPlay destinations are not restricted. Applicable to: iOS 7.0+ and macOS 10.10+ (Supervised).
Device Settings	Enter the device ID (macOS) or device name (iOS) and password for each known AirPlay destination.

For more information, see [How to create a configuration](#)

AirPrint Configuration

License: Silver

An AirPrint configuration sets up wireless printing. The following table lists the AirPrint settings:

Settings	What to do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
AirPrint Settings	<p>IP Address: Enter the IP address of the AirPrint printer.</p> <p>Resource Path: Enter the Resource Path associated with the AirPrint printer. This corresponds to the rp parameter of the _ippstcp Bonjour record.</p> <p>Examples:</p> <ul style="list-style-type: none">• printers/Canon_MG5300_series• printers/Xerox_Phaser_7600• ipp/print• Epson_IPP_Printer. <hr/> <p> The resource path is case sensitive.</p> <hr/> <p>Port: Enter the listening port of the AirPrint destination.</p> <hr/> <p> If this is not specified, AirPrint will use the default port. For details on Apple standard ports, visit https://support.apple.com/en-us/HT202944</p> <hr/> <p>Force TLS: Allows you to enable the connection to be secured by Transport Layer Security(TLS). By default, it is disabled.</p>

After installation of **AirPrint** configuration on the macOS, the printer details are pushed through the **AirPrint** configuration to the device. Users can view the auto populated printer details by clicking **System**

Preference > Printers & Scanners > +. In the **Add** screen, user must select **Default** and then select the required print profile. This adds the required printer to the **Printers & Scanners**.

For more information, see [How to create a configuration](#)

Always-on VPN Configuration

License:

- **Gold for Android Enterprise**
- **Silver for iOS**

The Always-on VPN configuration ensures that users are automatically connected to VPN (when available) without needing to take any action. This feature requires Android 7.0 + or iOS 8+, as well as a VPN provider that supports the IKEv2 protocol.

Always-on VPN settings for Android

Always-on VPN configuration is sent to Android Enterprise devices with Android 7.0 +. On Managed device with Work Profile (Android 8.0+), the VPN configuration is applied in the Work Profile.



When a device is deployed in **COSU** mode with **AMA** as Device Enrollment type, and if an app with **Always-on** configuration is pushed to the device, then the **Always-on** configuration will also get pushed to the device.

To enable this configuration, select an app from the App Catalog or enter a package name.

Always-on VPN settings for iOS

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Use same tunnel configuration for Cellular and Wi-Fi	Select to define one server-identifier pair for VPN connections, regardless of whether the connection is established over a cellular or a Wi-Fi network.
Server	Enter the host name or IP address of the VPN server.
Local Identifier	Identifier of the IKEv2 client in one of the following formats:

Setting	What To Do
	<ul style="list-style-type: none"> • FQDN • UserFQDN • Address • ASN1DN
Remote Identifier	Remote identifier in one of the following formats: <ul style="list-style-type: none"> • FQDN • UserFQDN • Address • ASN1DN
Enable EAP	Select to enable extended authentication.
Machine Authentication	Available only if Enable EAP is not selected. Select one of the following: <ul style="list-style-type: none"> • Certificate • Shared Secret
EAP Authentication	Available only if Enable EAP is selected. Select one of the following: <ul style="list-style-type: none"> • Certificate • Username/Password
Shared Secret	Available only if Shared Secret was selected for Machine Authentication. Enter the shared secret for the connection.
Credential	Available only if Certificate was selected for Machine Authentication. Select the certificate to use. this certificate will be sent out for IKE client authentication. If extended authentication is used, this certificate can be

Setting	What To Do
	used for EAP-TLS.
Account	Available only if Username/Password was selected for EAP Authentication. Enter the account ID for the VPN server.
Password	Available only if Username/Password was selected for EAP Authentication. Enter the password for the VPN server.
Dead Peer Detection Interval	Select one of the following: <ul style="list-style-type: none"> • None (Disable) • Low (keepalive sent every 1 hour) • Medium (keepalive sent every 30 minutes) • High (keepalive sent every 10 minutes)
Encryption Algorithm	Select one of the following: <ul style="list-style-type: none"> • DES • 3DES • AES-128 • AES-256 • AES-128-GCM • AES-256-GCM • ChaCha20-Poly1305
Integrity Algorithm	Select one of the following: <ul style="list-style-type: none"> • SHA1-96 • SHA1-160 • SHA2-256 • SHA2-384

Setting	What To Do
	<ul style="list-style-type: none"> SHA2-512
Diffie Hellman Group	Select the D-H key exchange group.
Lifetime In Minutes	Enter the SA lifetime (re-key interval) in minutes. Valid values are 10 through 1440.
Voice Mail	Select Allow traffic via tunnel to make voice mail exempt for Always-on VPN. Select Drop traffic to not make it an exemption.
Airprint	Select Allow traffic via tunnel to make Airprint traffic exempt for Always-on VPN. Select Drop traffic to not make it an exemption.
Cellular Services	Select Allow traffic via tunnel to make cellular services traffic exempt for Always-on VPN. Select Drop traffic to not make it an exemption.
Allow traffic from captive websheet outside the VPN tunnel	Select to allow traffic from captive web sheets outside the VPN tunnel.
Allow traffic from all captive networking apps outside the VPN tunnel	Select to allow traffic from all captive networking apps outside the VPN tunnel to perform captive network handling.
Captive Networking App Bundle Identifiers	List the bundle IDs for captive networking apps whose traffic will be allowed outside the VPN tunnel to perform captive network handling. Captive networking apps may require additional entitlements to operate in a captive environment.

For more information, see [How to create a configuration](#)

Default App Runtime Permissions

Applicable to: Apps built targeting Android API 23+ and running Android 6.0+ on Android enterprise devices.

Administrators can set the runtime permission configuration for apps deployed to Android enterprise devices. Apps built targeting API 23 (or higher) and running Android 6.0 or later, are able to prompt users for permissions at runtime. The Default App Runtime Permissions configuration sets the default for these app runtime permissions. Ivanti Neurons for MDM creates this configuration by default. You can edit this default system configuration or create a new configuration based on your requirements.

The app-specific permissions take precedence over the general app permission configuration. In-house apps are subject to the global permissions. Setting the per-app permissions for in-house apps is not supported.

Setting global runtime permissions

Administrators can edit the default app runtime permissions and the distribution of this configuration as follows:

ProcedureProcedure

1. Go to **Configurations**.
2. Perform one of the following actions:
 - To edit the default system configuration, click **Default App Runtime Permissions** and click **Edit**.
 - To add a new configuration, click **Add > Default App Runtime Permissions**.
3. Enter a name for the configuration.
4. Enter a description.
5. In the Configuration Setup section, set one of the following default runtime permissions:
 - User Prompt (default option)
 - Auto Grant
 - Auto Deny (Use with caution)
6. Click **Next**.

-
7. Select the **Enable this configuration option**.



If you deselect this option, this configuration will not be applied to any devices. It will be removed from all devices if it was previously applied.

8. Select one of the following distribution options:
 - All Devices
 - No Devices (default)
 - Custom
9. Click **Done**.

Setting app-specific runtime permissions

Administrators can set the default runtime permissions for an individual application as follows:

Procedure

1. Go to **Apps**.
 2. Click the name of the app.
 3. Click **App Configurations > Android enterprise**.
 4. Click **Add** or click the configuration name to edit an existing configuration.
 5. Set the configuration options such as a name, description, and restrictions.
 6. In the Runtime Permissions section, click **Manage Permissions**.
 7. Select the permissions in the displayed window and click **Select**.

Only the dangerous permissions that are applicable to the specific application are listed for selection. The complete list of dangerous permissions (such as read your contacts, find accounts on the device, write call log, and so on) are listed at <https://developer.android.com/guide/topics/permissions/requesting.html#perm-groups>.

 - The permissions are applied only when the application requests permissions.
 - The permissions are not applied if the users have previously accepted or denied permissions.
 8. In the Runtime Permissions section, select one of the following default runtime permissions:
-

-
- Default/Global (default option)
 - Auto Grant
 - Auto Deny (Use with caution)
9. In the Distribute this App Config section, select one of the following distribution options:
- Everyone with App
 - No One
 - Custom
10. Click **Save**.

Education

License: Gold

Applicable to: Supervised iOS 9.3+

Configures the Apple Education payload and the Classroom app for Leaders and Members. The following table lists the Education settings:

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Configuration Type	Select one of the following types: <ul style="list-style-type: none">• Leader• Member
Enable this configuration	<ul style="list-style-type: none">• Select this option to apply this configuration to selected devices.• Deselect this option to remove this configuration from all the devices if it was previously applied.
Distribute	Select one of the following distribution options: <ul style="list-style-type: none">• All Devices• No Devices• Custom

For more information, see [How to create a configuration](#)

Global Proxy Configuration

License: Silver

A global proxy configuration sets up devices to forward HTTP traffic to a proxy server. The following table lists the Global proxy settings:

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Type	Select Manual or Auto . If you select Manual , you need the proxy server host name and port, and optionally a username and password into the proxy server. If you select Auto , you can enter a proxy autoconfiguration (PAC) URL.
Hostname and Port	If you selected Manual , enter the hostname and port number for the proxy server.
User	(Optional) Username for accessing the proxy server.*
Password	(Optional) Password for accessing the proxy server.
PAC URL	(Optional) If you selected Auto , you can enter the URL of the PAC file that defines the proxy configuration. If you leave this setting blank, the device uses the web proxy autodiscovery protocol (WPAD) to discover proxies.
Allow direct connection if PAC is unreachable	(iOS 7 and later) Select to allow a direct connection if the device is unable to access the PAC file for any reason.
Allow bypassing proxy to access captive networks	(iOS 7 and later) Select to allow bypassing the proxy to display the login page for a captive network.

 Type \$ to see a list of supported [variables](#), if available, for this field.


For more information, see [How to create a configuration](#)

LDAP Configuration

An LDAP configuration sets up access to a corporate directory. The following table lists the LDAP settings:

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Hostname	Enter the host name for the LDAP server.*
User	Enter the username for accessing the LDAP account.*
Password	Enter the password for accessing the LDAP account.
Use SSL	Select if you want to use SSL for the connection to the LDAP server.
Search Settings	<p>Enter at least one entry for the account. Each entry represents a node in the LDAP tree from which to start searching. Click the + button to add a new entry, then edit the entry.</p> <p>An entry consists of the following values:</p> <p>Description: Explains the purpose of the search setting.</p> <p>Scope: Select Base, Subtree, or One Level to indicate the scope of the search. Base indicates just the node level, Subtree indicates the node and all children, One Level indicates the node and one level of children.</p> <p>Search Base: The conceptual path to the specified note (e.g., ou=people, o=mycorp).</p>

Per-App VPN	<p>Prerequisite: Configure Tunnel or any per-app VPN configuration before configuring per-app VPN in LDAP configuration.</p> <p>From the drop-down menu, select the pre-configured per-app VPN configuration.</p> <p>Applicable to: iOS 14+</p>
iOS 10+	
Communication Service Rules	Choose a default app to use to make audio calls to contacts within the LDAP system.

 Type \$ to see a list of supported [variables](#), if available, for this field.

For more information, see [How to create a configuration](#)

macOS Server Configuration

A macOS Server configuration defines a macOS Server account with the configured account types and settings. This configuration allows the user to activate File Sharing on the server.

Applicable to: iOS 10+

Configuring macOS Server

Procedure

1. Go to **Configurations > +Add**.
2. Select the **macOS Server** configuration to display the **Create macOS Server Configuration** page.
3. Enter a name for the configuration.
4. Enter a description.
5. Enter **Host Name** to specify the server address.
6. Enter **User Name** to specify the user's login name.
7. (Optional) Enter **Password** for the user.
8. (Optional) Enter **Description** for the account.
9. (Optional) Under Configured Accounts, enter **Port** number to use when contacting the server for the Documents dictionary account. If no port number is specified, the default port number is used.
10. Click **Next**.
11. Select a distribution for this configuration.

Tunnel

Creates a Per-App VPN Configuration to use with the Tunnel app version 2.1+. Select the Sentry profile and configure settings to start tunneling the app data via Sentry.



The Per-App Configuration is deprecated for Android Enterprise devices. You need to use the Managed Configuration for Ivanti Tunnel from the App Catalog.

Latest documentation

For the latest Tunnel instructions, visit product documentation > **Apps** and select the document appropriate to your version of Tunnel.

Setting Up AppTunnel

AppTunnel protects app data by providing app-by-app session security between each app container and the corporate network.

This section contains the following topics:

- [Setting up Sentry to use AppTunnel with certificates](#)
- [Uploading Sentry certificates](#)
- [Setting up apps to use AppTunnel](#)
- [About the AppTunnel service name](#)

Setting up Sentry to use AppTunnel with certificates



When you first install Standalone Sentry, a self-signed certificate is also installed. Ivanti strongly recommends that you replace the default certificate with a publicly trusted third-party certificate.

Prerequisites

- AppTunnel depends on the latest supported version of Sentry. Complete the Sentry installation before starting the AppTunnel setup tasks.
- If you intend to use a SCEP identity:
 - Add a local or [external certificate authority](#). A Connector installation is required.
 - Add an App Identity Certificate Configuration. This is the dynamic distribution you will use when you configure AppTunnel.

You can configure ActiveSync and/or AppTunnel using X.509 certificates for authentication to use Sentry servers that are assigned to a profile.

Procedure

1. Go to **Admin > Sentry**.
2. Click + **Add Sentry Profile**.

-
3. Click **ActiveSync and/or AppTunnel with certificates**.
 4. Click **Next**.

5. Use the guidelines in the following table to complete the **Global Settings** page.

Table: Global Settings for Admin > Sentry	
Setting	What To Do
Name	Enter a name that identifies this profile.
Description	Enter a description that clarifies the purpose of this profile.
External Hostname and Port	Enter the hostname and port for the Sentry.
Device Authentication Mode	
Use a single certificate for 2-factor auth	Select to use a single certificate for authentication. If you do not already have a certificate uploaded , you can do so in the area displayed below the selected option.
Select certificate	To upload a group certificate required for device authentication: <ol style="list-style-type: none"> Click Add. The Add Certificate window is displayed. Type the name of the certificate in the Certificate Name field. Type the password protecting the PKCS12 file. Click Choose File to upload the group certificate. Ensure that the file format is in .p7b, .p12, .pfx, .pem, .der, .crt or .cer file.
Enable certificate revocation list (CRL)	Select to validate the certificates presented by the device against the Certificate Revocation List (CRL) published by the CA.

Table: Global Settings for Admin > Sentry	
Setting	What To Do
Default Unmanaged Devices Behavior	
Allow unmanaged devices to receive email and data	Select if you do not want to block data access for devices that are not managed by Ivanti Neurons for MDM.

6. Click **Next**.

7. In the **Sentry Server Configuration** page, configure the following fields:

Table: Sentry Server Configuration for Admin > Sentry	
Setting	What To Do
Listener protocol	Select any of the following protocol options: <ul style="list-style-type: none"> • HTTPS Only • HTTP Only • HTTPS and HTTP
Https Port	Enter the Https port number. This field will not be displayed if the Listener protocol is selected as HTTP Only.
Http Port	Enter the Http port number. This field will not be displayed if the Listener protocol is selected as HTTPS Only.
Sentry TLS Server Certificate/key	
Use Sentry's self-signed cert	Select to use a self-signed certificate created by the Ivanti Neurons for MDM service and sent to Sentry as a part of this profile. This certificate is used for communication between the Sentry and mobile devices.
Add	To upload your own certificate required for authentication:

Table: Sentry Server Configuration for Admin > Sentry


Setting	What To Do
	<p>a. Click Add. The Add Certificate window is displayed.</p> <hr/> <p> You will be able to see this option only when you unselect the Use Sentry's self-signed cert option.</p> <hr/> <p>b. Type the name of the certificate in the Certificate Name field.</p> <p>c. Type the password protecting the PKCS12 file.</p> <p>d. Click Choose File to upload the certificate. Ensure that the file format is in .p7b, .p12, .pfx, .pem, .der, .crt or .cer file.</p> <p>e. Click Add.</p> <p>All the uploaded TLS Server certificates (including those certificates uploaded from the Sentry main page and from other profiles) are displayed in the Sentry TLS Server Certificate/Key section. To select the TLS certificate required for authentication, click the radio button next to the certificate.</p>
Protocols	Select the required incoming and outgoing protocols.
Cipher suites	Ciphers are used in the SSL-encrypted communication with the Sentry. Strong ciphers are generally preferred. Weak ciphers might be required for older devices. Strong ciphers are selected by

Table: Sentry Server Configuration for Admin > Sentry	
Setting	What To Do
	default. Select any additional ciphers you want to use. At least one cipher must be selected.

8. Click **Next**.
9. Add at least one of the displayed services.
10. Click **Save**.

Once a Sentry is registered, it is displayed in the Sentry page under the Unconfigured Sentry Servers section. To assign a profile for the Sentry, click **Assign** in the **Actions** column.

Uploading Sentry certificates

Ivanti Neurons for MDM uploads TLS Server certificates and Group certificates when creating a Sentry profile. You can also upload these certificates from the **Sentry** page under the **Sentry Certificates** section.

Ivanti Neurons validates Sentry certificates upon upload, returning the following types of information depending on the conditions found in the certificates:

Condition	Information type
The leaf certificate does not contain a chain to any certificate authority or there is no certificate authority in the uploaded file.	Error
There is no root certificate authority available.	Warning
The root certificate authority has not signed off the intermediate certificate authority for the leaf certificate.	Warning

Ivanti Neurons for MDM also validates against the rules in [this article](#).

Procedure

1. In the **TLS Server Certificates** section, click **Add**. The **Add Certificate** window is displayed.
2. Type the name of the certificate in the **Certificate Name** field.
3. Type the password protecting the PKCS12 file.

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4. Click **Choose File** to upload the group certificate. Ensure that the file format is .p7b, .p12, .pfx, .pem, .der, .crt or .cer.
 5. Click **Add**. The uploaded certificate is displayed on the table.
 6. To delete the TLS Server certificate, click on the Delete icon in the **Actions** column.



If the TLS Server certificate is used in any Sentry profile, you will not be able to delete the certificate. An error message will be displayed if the delete action is performed.

Add Group certificates

Procedure

1. In the **Group Certificates** section, click **Add**. The **Add Certificate** window is displayed.
2. Type the name of the certificate in the **Certificate Name** field.
3. Type the password protecting the PKCS12 file.
4. Click **Choose File** to upload the group certificate. Ensure that the file format is .p7b, .p12, .pfx, .pem, .der, .crt or .cer.
5. Click **Add**.

To delete the uploaded Group certificate, click on the Delete icon in the **Actions** column.

Edit the Sentry Root Certificate

As the administrator you have the option to edit the distribution of the Sentry Root Certificate configuration. You can also provide edit permission to the custom space administrator by delegating config to other spaces.

1. Go to **Configurations**.
2. Search for the **Sentry Root Certificate**.
3. Click the edit icon.
4. Select the checkboxes corresponding to the Devices or Device Groups to distribute the certificate. Alternatively, clear the checkboxes corresponding to the Devices or Device Groups.

-
5. Select one of the following options from the Distribution Summary section as applicable:
 - **Do not apply to other spaces**
 - **Apply to devices in other spaces**
 6. (Optional) Click the checkbox **Allow Space Admin to Edit the Distribution**.
 7. Click **Save**.
 8. A warning message appears. Click **Yes** to confirm.

Setting up apps to use AppTunnel

For the latest Sentry instructions, visit [Product Documentation](#) and click Sentry. Select the document appropriate to your version of Sentry.

About the AppTunnel service name

An AppTunnel service defines the backend service that an AppConnect app tunnels to.

For the latest instructions, visit [Product Documentation](#) and select the documents appropriate to your versions of [Sentry](#) and [AppConnect](#).

Per-app VPN Configuration

License: Silver

Applicable to: iOS devices

A Per-app VPN configuration defines the settings for virtual private network access for the following specific apps:

- [Per-app VPN settings](#)
- [Psec \(Cisco\)](#)
- [Cisco AnyConnect](#)
- [Juniper SSL](#)
- [NetMotion VPN](#)
- [F5 SSL](#)
- [SonicWALL Mobile Connect](#)
- [Aruba VIA](#)
- [Custom SSL](#)
- [Palo Alto Networks GlobalProtect](#)



Per-App VPN configuration is dependent on App configuration. Per-App VPN configuration is created during App Configuration setup. When Per-App VPN configuration is deleted or undistributed, App configuration malfunctions by disconnecting the App from the network.

Distributing the configuration

Starting from Ivanti Neurons for MDM release 91, global administrators can delegate space administrators to edit the Per-App VPN Configuration for All Devices and for the Custom distribution option. For the Per-App VPN Configuration, you can optionally select the Allow this configuration to be available in all Spaces option.



The distribution changes are applicable only to the specific space. All other spaces continue to inherit the default space distribution settings.

Specify the configuration settings in the fields using the information from the following tables as applicable and then distribute the configuration:

For more information, see *Distributing the configuration* topic in ["Working with Configurations"](#) on page 423.

Per-app VPN settings

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Connection Type	Select the type of VPN to configure. The remaining settings depend on this selection.
Enable VPN On Demand	Select to use this configuration for domains and host names that establish a VPN on demand.

<p>Enable iOS Rules</p> <p>(Applicable if Enable VPN On Demand is selected)</p>	<p>For iOS and macOS, you can set up:</p> <ul style="list-style-type: none"> • Network rules that allow or disallow connections to, and allow or ignore, the networks that evaluate as true. • Connection rules allow when needed, or never allow, connections to the networks that evaluate as true. <p>For network rules, you can specify the following types of parameters:</p> <ul style="list-style-type: none"> • DNS Domain Match • DNS Server Address Match • SSID Match • URL String Probe • Interface Type Match <p>For connection rules, you can specify the following types of parameters:</p> <ul style="list-style-type: none"> • DNS Domain Match • DNS Server Address Match • SSID Match • URL String Probe • Interface Type Match • Domains • DNS Server • URL Probe
<p>On demand match app enabled</p>	<p>Select to enable the per-app VPN on demand.</p>

Domains	
Safari Domains (iOS)	An array whose entries must each specify a domain that triggers the VPN connection in Safari. Each entry is in the format www.apple.com.
iOS 14.0+ and macOS 11.0+	
Associated Domains	Specify one or more associated domains. Connections to servers within one of these domains are associated with the per-app VPN.
Excluded Domains	Specify one or more excluded domains. Connections to servers within one of these domains are excluded from the per-app VPN.
iOS 13+ and macOS 10.15+	
Mail Domains	Click + Add to enter one or more domains that will trigger this VPN connection in Mail. Each entry is in the format www.apple.com.
Contacts Domains	Click + Add to enter one or more domains that will trigger this VPN connection in Contacts. Each entry is in the format www.apple.com.

Calendar Domains	Click + Add to enter one or more domains that will trigger this VPN connection in Calendar. Each entry is in the format www.apple.com.
iOS 9 and later	
Provider Type (iOS 9+)	Select one of the following tunnel provider: <ul style="list-style-type: none">• app-proxy - tunnels traffic at the app layer. See Apple documentation for an overview of App Proxy Provider.• packet-tunnel - tunnels traffic at the IP layer. See Apple documentation for an overview of Packet Tunnel Provider.

IPsec (Cisco)

Setting	What To Do
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.*
Machine Authentication	Only Certificate authentication is supported.
Credential	Select the identity certificate to use.
Include User PIN	Select to prompt the user for a PIN.
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none">• Server and Port: Enter the network address and port number for the proxy server.*• Authentication: Enter a valid user name if one is required for connecting to the proxy.*• Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional fields are available:</p> <ul style="list-style-type: none">• Proxy Server URL: Enter the fully-qualified URL for the proxy.

Cisco AnyConnect

Setting	What To Do
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.*
Group	Enter the group to use to authenticate the connection.
User Authentication	Only Certificate authentication is supported.
Credential	Select the identity certificate to use.
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none">• Server and Port: Enter the network address and port number for the proxy server.*• Authentication: Enter a valid user name if one is required for connecting to the proxy.*• Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional fields are available:</p> <ul style="list-style-type: none">• Proxy Server URL: Enter the fully-qualified URL for the proxy.

Juniper SSL

Setting	What To Do
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.*
Realm	Enter the authentication realm to be used for authenticating the connection.
Role	Enter the authentication role to be used for authenticating the connection.
User Authentication	Only Certificate authentication is supported.
Credential	Select the identity certificate to use.
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none">• Server and Port: Enter the network address and port number for the proxy server.*• Authentication: Enter a valid user name if one is required for connecting to the proxy.*• Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional fields are available:</p> <ul style="list-style-type: none">• Proxy Server URL: Enter the fully-qualified URL for the proxy.

NetMotion VPN

Setting	What To Do
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.*
User Authentication	<p>Certificate is the user authentication method to use. The following field is available:</p> <p>Credential: Select the identity certificate to use. User provided certificates are supported only for iOS devices.</p>

Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none"> • Server and Port: Enter the network address and port number for the proxy server.* • Authentication: Enter a valid user name if one is required for connecting to the proxy.* • Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional field is available:</p> <p>Proxy Server URL: Enter the fully-qualified URL for the proxy.</p> <p>Select the following options:</p> <ul style="list-style-type: none"> • Enable VPN On Demand - Add domains or host names that establish a VPN on demand. • Enable iOS rules. • On demand match app enabled.
Safari Domains	Click + Add to add Safari domains.
Provider Type (iOS 9.0+)	<p>packet-tunnel is selected as the tunnel provider type by default.</p> <p>See Apple documentation for an overview of Packet Tunnel Provider.</p>

F5 SSL

Setting	What To Do
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.*
User Authentication	Only Certificate authentication is supported.
Credential	Select the identity certificate to use.
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none">• Server and Port: Enter the network address and port number for the proxy server.*• Authentication: Enter a valid user name if one is required for connecting to the proxy.*• Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional fields are available:</p> <ul style="list-style-type: none">• Proxy Server URL: Enter the fully-qualified URL for the proxy.

SonicWALL Mobile Connect

Setting	What To Do
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.*
Login Group or Domain	Enter the login group or domain to be used for authenticating the connection.
User Authentication	Only Certificate authentication is supported.
Credential	Select the identity certificate to use.
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none">• Server and Port: Enter the network address and port number for the proxy server.*• Authentication: Enter a valid user name if one is required for connecting to the proxy.*• Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional fields are available:</p> <ul style="list-style-type: none">• Proxy Server URL: Enter the fully-qualified URL for the proxy.

Aruba VIA

Setting	What To Do
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.*
User Authentication	Only Certificate authentication is supported.
Credential	Select the identity certificate to use.
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none">• Server and Port: Enter the network address and port number for the proxy server.*• Authentication: Enter a valid user name if one is required for connecting to the proxy.*• Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional fields are available:</p> <ul style="list-style-type: none">• Proxy Server URL: Enter the fully-qualified URL for the proxy.

Custom SSL

Setting	What To Do
Identifier	Enter the identifier for this custom SSL VPN in reverse DNS format (such as com.mycompany.myserver).
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.*
Custom Data	Enter the key-value pairs that define the custom data for this VPN.
User Authentication	Only Certificate authentication is supported.

Credential	Select the identity certificate to use.
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none">• Server and Port: Enter the network address and port number for the proxy server.*• Authentication: Enter a valid user name if one is required for connecting to the proxy.*• Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional fields are available:</p> <ul style="list-style-type: none">• Proxy Server URL: Enter the fully-qualified URL for the proxy.
(iOS 9.0+) Include ProviderType in main and sub VPN dictionary	Choose to include provider type while generating a plist (predefined configuration file).

Palo Alto Networks GlobalProtect

Setting	What To Do
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.
Custom Data	Enter the key-value pairs that define the custom data for this VPN.
User Authentication	<p>Certificate is the user authentication method.</p> <p>Select an identity certificate to use in the Credential field.</p>
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none">• Server and Port: Enter the network address and port number for the proxy server.*• Authentication: Enter a valid user name if one is required for connecting to the proxy.*• Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional fields are available:</p> <ul style="list-style-type: none">• Proxy Server URL: Enter the fully-qualified URL for the proxy.



Type \$ to see a list of supported [variables](#), if available, for this field.

Related topics:

[How to create a configuration](#)

Single Sign-On Configuration

Ivanti Neurons for MDM enables Extensible Single Sign-On (SSO) with the Extensible SSO and Extensible SSO Kerberos configurations. The implementation requires an app extension, such as Microsoft Authenticator, from the identity provider. With an Extensible SSO implementation, users need to only authenticate once when accessing enterprise resources. Users are not prompted to authenticate for subsequent logins. For information about setup information for the intended identity provider, see ["Configure Identity Provider" on page 1145](#).

This section contains the following topics:

- [Single sign-on account settings](#)
- [Extensible single sign-on account settings](#)
- [Extensible single sign-on Kerberos account settings](#)


Single sign-on account settings

Applicable to: iOS 7.0 through the most recently released version as supported by Ivanti Neurons for MDM.

Use the following settings to configure Kerberos-based enterprise SSO for any managed app and Apple Safari browser on iOS devices.



This configuration requires Tunnel and Sentry. For more information, see "Setting up single sign-on with Kerberos" in the *Tunnel for iOS Guide*.

Setting	Description
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
User name	Enter the Kerberos principal name.
Kerberos realm name	Enter the Kerberos realm name.
Certificate	For iOS 8 with Gold license: Select the certificate to use to renew the Kerberos credential.
URL prefixes matches	List of URLs prefixes that must be matched in order to use this account for Kerberos authentication over HTTP.
Allowlist Applications for SSO	<p>Add apps from the App Catalog to Allowlist them for SSO.</p> <p>For example, enter "Safari" to add Apple Safari.</p> <hr/> <p> If no apps are Allowlisted for SSO using a configuration of this type, all apps that support iOS SSO can utilize SSO, including built-in iOS apps.</p> <hr/>

Extensible single sign-on account settings

Applicable to:


- iOS 13.0 through the most recently released version as supported by Ivanti Neurons for MDM.
- macOS 10.15 through the most recently released version as supported by Ivanti Neurons for MDM.

Use the following settings to configure the SSO extension profile with the generic extension type to enable SSO for native apps and websites with various authentication methods.



Extensible SSO does not work when the configuration is pushed in the user channel for macOS 10.15.x devices.

Setting	Description
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Choose SSO type	<p>Select one of the following SSO types:</p> <ul style="list-style-type: none"> • Credentials <ul style="list-style-type: none"> ◦ Enter one or more Host names or domain names that can be authenticated through the app extension. Host or domain names are matched case-insensitively, and all the host/domain names of all installed Extensible SSO payloads must be unique. Hosts that begin with a "." are wildcard suffixes and will match all subdomains, otherwise the host must be an exact match. ◦ Enter the Realm name. This value should be properly capitalized. • Redirect <ul style="list-style-type: none"> ◦ Enter one or more URL prefixes of identity providers where the app extension performs SSO. The URLs must begin with http:// or https://, the scheme and host name are matched case-insensitively, query parameters and URL fragments are not allowed, and the URLs of all installed Extensible SSO payloads must be unique.
Extension Identifier	Enter the bundle identifier of the app extension that performs SSO for the specified URLs.
Team Identifier	<p>The team identifier of the app extension.</p> <p>This key is required on macOS and ignored elsewhere.</p>

Setting	Description
Custom Data	Enter one or more custom data as key-value pairs.
Authentication Method (Applicable only for macOS 13+)	<ul style="list-style-type: none">• Password• User Secure Enclave Key
Registration Token	Enter the token. <hr/>  This field is enabled once you select one of the Authentication Methods. <hr/>

Applicable to: macOS 14.0 through the most recently released version as supported by Ivanti Neurons for MDM.

Setting	Description
Account Display Name	Enter a name for the account that displays in notifications and authentication requests.
Additional Groups	Enter the name of the groups that will not have administrator access.
Administrator Groups	Enter the name of the group that has administrator access.
Authentication Method	<p>Select one of the authentication methods from the drop-down list:</p> <ul style="list-style-type: none"> • Password • User Secure Enclave Key • Smart Card
Authorization Groups	Enter the authorization right for a group name.
Enable Authorization	Select the checkbox to enable authorization prompts for administrator groups, authorization groups, or additional groups.
Enable Create User At Login	Select the checkbox to enable the creation of new users during login by using a password or smart card as an authentication method.
Login Frequency	<p>The duration, in seconds, until the system requires a full login instead of a refresh.</p> <p>The default value is 64,800 (18 hours). The minimum value is 3600 (1 hour).</p>
New User Authorization Mode	<p>Select one of the authorization modes for a new user from the drop-down list:</p> <ul style="list-style-type: none"> • Standard: The account is for a standard user. • Admin: The system adds the account to the local administrator's group. • Groups: The system automatically groups the new user under the administrator group, authorization group, or additional group.

Setting	Description
Token To User Mapping	Enter the account name and the full name of the new users to map them for authorization.
User Authorization Mode	Select one of the authorization modes for a user from the drop-down list: <ul style="list-style-type: none"> • Standard: The account is for a standard user. • Admin: The system adds the account to the local administrator's group. • Groups: The system automatically groups the new user under the administrator group, authorization group, or additional group.
Use Shared Device Keys	Select the check box to enable the same login and encryption keys for all users.

Extensible single sign-on Kerberos account settings

Applicable to:

- iOS 13.0 through the most recently released version as supported by Ivanti Neurons for MDM.
- macOS 10.15 through the most recently released version as supported by Ivanti Neurons for MDM.

Use the following settings to configure an app extension that performs SSO with Kerberos extension.




Extensible SSO Kerberos does not work when the configuration is pushed in the user channel for macOS 10.15.x devices.

Setting	Description
Basic Settings	
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
User name	Enter the Kerberos principal name.
Realm	Enter the Kerberos realm name.
Certificate	Select the certificate to use to renew the Kerberos credential.
URL Prefixes	List of URLs prefixes that must be matched in order to use this account for Kerberos authentication over HTTP.
Advanced Settings	
Allow Automatic Login	<p>If false, passwords are not allowed to be saved to the keychain.</p> <p>By default, this option is enabled.</p>
Delay User Setup	If true, doesn't prompt the user to setup the Kerberos extension until either the administrator enables it with the app-sso tool or a Kerberos challenge is received. This option is applicable to macOS 11 through the latest version as supported by Ivanti Neurons for MDM.
Require User Presence	If true, requires the user to provide Touch ID, Face ID, or their passcode to access the keychain entry.
Monitor Credential Cache	<p>If false, the credential is requested on the next matching Kerberos challenge or network state change. If the credential is expired or missing, a new one will be created. This option is applicable to macOS 11 through the latest version as supported by Ivanti Neurons for MDM.</p> <p>By default, this option is enabled.</p>
Cache Name	Enter the Generic Security Service (GSS) name of the Kerberos cache to use. This option is now deprecated.
Domain Realm Mapping	<p>Enter the name of the realm as the key. The value is an array of DNS suffixes that map to the realm.</p> <p>Click + Add to add one or more key-value pairs.</p>

Setting	Description
Default Realm	This property specifies the default realm if there is more than one Kerberos extension configuration.
Use Site Auto Discovery	If false, the Kerberos extension doesn't automatically use LDAP and DNS to determine its AD site name. By default, this option is enabled.
Site Code	Enter the name of the Active Directory site the Kerberos extension should use.
Replication Time	Enter the time, in seconds, required to replicate changes in the Active Directory domain. The Kerberos extension will use this when checking password age after a change. This option is applicable to macOS 11 through the latest version as supported by Ivanti Neurons for MDM. This option is now deprecated.
Credential Bundle ID ACL	Click + Add to add a list of bundle IDs allowed to access the Ticket Granting Ticket (TGT) for authentication.
Include Managed Apps in Bundle ID ACL	If true, the Kerberos extension will allow only managed apps to access and use the credential. This is in addition to the Credential Bundle ID ACL, if it is specified. This option is applicable to iOS 14 or supported newer versions of Ivanti Neurons for MDM.
Include Kerberos Apps in Bundled ID ACL	If true, the Kerberos extension allows the standard Kerberos utilities including Ticket Viewer and klist to access the use the credential. Available in macOS 12 and later.
Custom Username Label	Enter the custom user name label used in the Kerberos extension instead of "Username." For example, "Company ID." This option is applicable to macOS 11 through the latest version as supported by Ivanti Neurons for MDM.
Help Text	Enter the text to be displayed to the user at the bottom of the Kerberos login window. It can be used to display help information or disclaimer text. This option is applicable to iOS 14 and macOS 11 through the latest version as supported by Ivanti Neurons for MDM.

Setting	Description
Credential Use Mode	<p>This setting affects how the Kerberos Extension credential is used by other processes. Use one of the following:</p> <ul style="list-style-type: none"> Always (default) - The extension credential will always be used if the service principal name (SPN) matches the Kerberos Extension Hosts array. The credential will not be used if the calling app is not in credentialBundleIDACL. When Not Specified - The credential will only be used when another credential has not been specified by the caller and the SPN matches the Kerberos Extensions Hosts array. The credential will not be used if the calling app is not in credentialBundleIDACL. Kerberos Default - The default Kerberos processes for selecting credentials is used which normally uses the default Kerberos credential. This is the same as turning off this capability. <p>(Optional) Select Require TLS for LDAP.</p>
Preferred Key Distribution Centers	Add Preferred Key Distribution Centers. Click +Add to add a preferred KDC.
	Allow Platform SSO Auth Fallback - If True and if Use Platform SSO TGT is true, allows the user to manually sign in. Available in macOS 13 and later
	Perform Kerberos Only - If True, the Kerberos extension handles Kerberos requests only. Available in macOS 13 and later.
	Use Platform SSO TGT - If True, this configuration uses a TGT from Platform SSO instead of requesting a new one. Available in macOS 13 and later.
Password Settings	
Allow Password Change	<p>If false, disables password changes. This option is applicable to macOS 10.15 through the latest version as supported by Ivanti Neurons for MDM.</p> <p>By default, this option is enabled.</p>
Password Change URL	Enter the URL to be launched in the user's default web browser when they initiate a password change. This option is applicable to macOS 10.15 through the latest version as supported by Ivanti Neurons for MDM.

Setting	Description
Allow Password Complexity	If true, passwords must meet Active Directory's definition of "complex." This option is applicable to macOS 10.15 through the latest version as supported by Ivanti Neurons for MDM.
Minimum Password Length	Enter the minimum length (in characters) of passwords on the domain. This option is applicable to macOS 10.15 through the latest version as supported by Ivanti Neurons for MDM.
Password Expiry Notification	Enter the number of days prior to password expiration when a notification of password expiration will be sent to the user. This option is applicable to macOS 10.15 through the latest version as supported by Ivanti Neurons for MDM. The default value is 15 days.
Password Expiry Override	Enter the number of days that passwords can be used on this domain. For most domains, this can be calculated automatically. This option is applicable to macOS 10.15 through the latest version as supported by Ivanti Neurons for MDM. (This option is now deprecated)
Password Required Text	Enter the text version of the domain's password requirements. Only for use if pwReqComplexity or pwReqLength aren't specified. This option is applicable to macOS 10.15 through the latest version as supported by Ivanti Neurons for MDM.
Password History Count	Enter the number of prior passwords that cannot be re-used on this domain. This option is applicable to macOS 10.15 through the latest version as supported by Ivanti Neurons for MDM.
Password Minimum Age	Enter the minimum age (in days) of passwords before they can be changed on this domain. This option is applicable to macOS 10.15 through the latest version as supported by Ivanti Neurons for MDM.
Allow Syncing Local Password	If false, disables password sync.  This will not work if the user is logged in with a mobile account. This option is applicable to macOS 10.15 through the latest version as supported by Ivanti Neurons for MDM.

For more information, see [How to create a configuration](#)

Network Relay Configuration

Ivanti Neurons for MDM enables Network Relay configuration for the payload you use for configuring relay settings for a device or an application without the need for VPN or tunnels to access private resources.

Applicable to

- iOS 17.0 through the most recently released version as supported by Ivanti Neurons for MDM.
- macOS 14 through the most recently released version as supported by by Ivanti Neurons for MDM.

Procedure

1. Go to **Configurations** > **+Add**.
2. Search and select the **Network Relay** configuration.

-
3. Configure the **Network Relay** settings as per the following table:

Setting	Description
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
HTTP/3 Relay URL	Specify a URL value to use as the HTTP field value for this configuration. Include either HTTP/2 Relay URL or HTTP/3 Relay URL, or it can include both.
HTTP/2 Relay URL	Specify a URL value to use as the HTTP field value for this configuration. Include either HTTP/2 Relay URL or HTTP/3 Relay URL, or it can include both.
Additional HTTP Header Fields	Specify the HTTP header field value for the corresponding header field name.
Certificate	Select one of the identity certificates that you have created from the drop-down list.
Raw Public Key	Specify the raw public keys to authenticate the server during a network connection.
+ Add	Select + Add to add multiple network relay configuration.
Match Domains	Specify the list of domains to determine which connection to route through the servers in Relays.
Exclude Domains	Specify the list of domains to determine which connection to avoid through the servers in Relays.

4. Click **Next** to configure the distribution settings.
5. Select one of the distribution options to set up the **Network Relay** configuration. For more information about configuring distribution options, see ["Working with Configurations"](#) on [page 423](#).
6. Click **Done**.

Multi-user Secure Sign-in for iOS

The Multi-user web clip allows users to log in and log out of iOS devices that are registered on Ivanti Neurons for MDM. When a user logs in for the first time, the profiles, apps, and configurations that are associated with that user are pushed to the device. When they have finished their work, they can open the web clip and select the "log out" function, which assigns the device to the Nobody User and removes the profiles, apps, and configurations associated to the user that had originally logged in, as long as the configurations and apps are not being distributed to the Nobody User. After a log out, the web clip resets so that the next user can log in and receive their custom configurations, apps, and policies. Device supervision is not required to use the multi-user secure sign-in feature. See the Support knowledge base article, [Ivanti Neurons for MDM: Multi-user secure sign-in for iOS](#), for a deeper look at the multi-user sign-in feature.

Applicable to: iOS devices (Not applicable to User Enrolled devices)

This section contains the following topics:

- [Supported credentials](#)
- [Understanding the Nobody User](#)
- [Signing in to a device](#)
- [Signing out of a device](#)

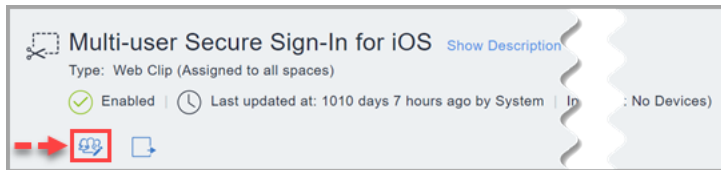
Supported credentials

User name and password must be used to log into the Multi-user secure web clip. PIN based registration and SAML 2.0 IdP based registrations are not supported with the Multi-user secure web clip.

Procedure

1. Go to **Configurations**.
2. Click **Multi-user Secure Sign-in for iOS**. You may need to use the search functionality to find it if there are multiple pages of configurations. This configuration is not accessed by selecting **+Add**.

-
3. Click **Edit Distribution**, or the associated icon to distribute the web clip to the appropriate Device Group.

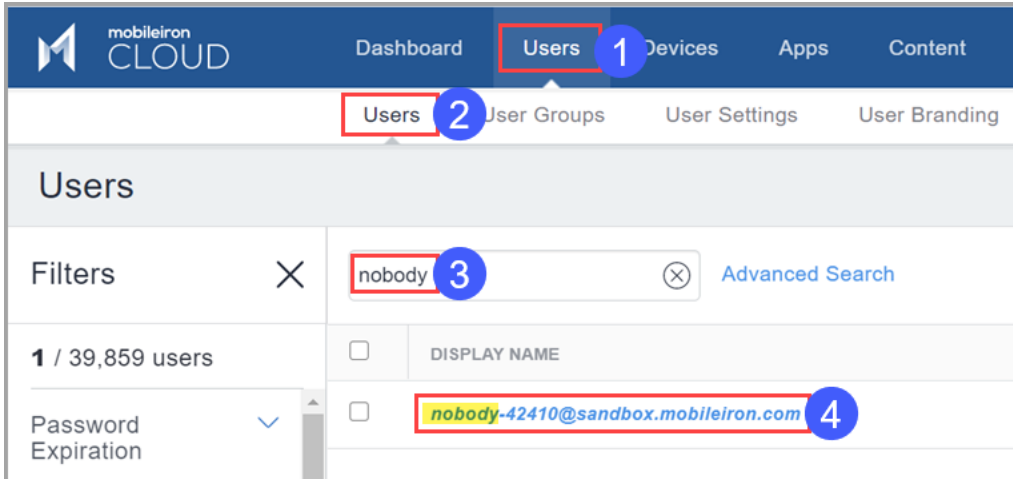


If you want to distribute it to a User Group, you can create a dynamic Device Group that is tied to a User Group.

4. Select one of the following distribution options, remembering that you must always distribute the web clip to the Nobody User, or the Device Group with which Nobody User is associated. This does not happen by default, so make sure that you are distributing it to the Nobody User.
 - All Devices
 - No Devices (default)
 - Custom
5. Click **Save**.

Understanding the *Nobody* User

When a device has been logged out through the web clip, it remains enrolled with Ivanti Neurons for MDM to a special user called the Nobody User. If you want to remove apps and configurations from the device when a User logs out, you must make certain that those apps and configurations are not distributed to the Nobody User. If you want certain configurations, such as Wi-Fi, to remain on the device when a user signs out of the Secure Sign-In web clip, then you must ensure that those configurations are also distributed to the Nobody User.



This means that you must pay attention to User Groups and Device Groups to which you distribute apps and configurations. If you are distributing an app to Everyone, and you want it to be removed when a user signs out of the device, then the best practice is to create a User Group that does not include the Nobody User. Custom attributes make it much easier to create a group of users that are "multiusers," and another User group that consists only of the Nobody User. You can create a User Attribute from Admin > System > Attributes called "Multiuser owner" and then assign the value of "Yes" or "True" to the Nobody User. You can then create User Groups and Device Groups based on the value of the attribute.

Signing in to a device

A user can sign in to an iOS device and assign the device to self. After logging in, all relevant applications, policies, configurations, and certificates are pushed to the device.

Signing out of a device

A user can sign out of his/her iOS device after usage. After signing out, the applications, policies, configurations, and certificates are removed from the device, leaving the device in the state that it was in prior to the user sign-in. Then, the device is available for sign-in by another user.

For more information, see [Multi User Sign-In Branding](#)

Android APN Settings Configuration

The Android APN Settings Configurations allow you to set the Access Point Name (APN) settings required on devices on a public network. This configuration is applicable to Android Enterprise Work Managed Devices and Managed Devices with Work Profile on Company Owned Device (on Android version 9.0 or supported newer versions).

Procedure

1. Go to **Configuration** > **+Add**.
2. Select **Android APN Settings** configuration.
3. Enter a name for the configuration.
4. Enter a description.
5. In the Configuration Setup section, configure the following options:

Setting	Description
Entry Name	Type the name of the Access Point settings.
Access Point Name	Type the name of access point.
Access Point Type	Select the type of access point from the following options: <ul style="list-style-type: none">• Default• DUN• IMS• Emergency• MMS• HIPRI• CBS• MCX• SUPL• FOTA• IA

Setting	Description
MVNO Type	Select the type of Mobile Virtual network Operator from the following options: <ul style="list-style-type: none">• None• SPN• IMSI• GID• ICCID

Setting	Description
Bearer	<p>Select the type of bearer service used for data transmission from the following options:</p> <ul style="list-style-type: none">• 1xRTT• CDMA• EDGE• EHRPO• EVDO• EVDO A• EVDO B• GPRS• GSM• HSDPA• HASP• HSPAP• HSUPA• IDEN• IWLAN• LTE• NR• TD_SCDMA• UMTS

Setting	Description
APN Protocol	<p>Select the APN protocol required for the APN. The following are the available options:</p> <ul style="list-style-type: none"> • None • IPV4 • IPV6 • IPV4/IPV6 • NON_IP • PPP (Point-to-Point Protocol) • UNSTRUCTURED
APN Roaming Protocol	<p>Select the APN roaming protocol required for the APN. The following are the available options:</p> <ul style="list-style-type: none"> • None • IPV4 • IPV6 • IPV4/IPV6 • NON_IP • PPP (Point-to-Point Protocol) • UNSTRUCTURED
Enable/Disable APN	Turn ON the APN configuration.
Carrier ID	Enter the numeric value of the Carrier ID.

Setting	Description
Authentication Type	Select the type of authentication protocol from the following options: <ul style="list-style-type: none"> • None • PAP (Password Authentication Protocol) • CHAP (Challenge-Handshake Authentication Protocol) • PAP or CHAP
Username	Enter the login username.
Password	Enter the login password.
Confirm Password	Re-enter the password for confirmation.
Port Number	Enter the port number (numeric value between 1 to 65535).
Proxy Address	Type the proxy address.
Mobile Country Code	Enter the mobile country code.
Mobile Network Code	Enter the mobile network code.
MMS Proxy Address	Type the MMS proxy address.
MMS Port Number	Enter the MMS port number (numeric value between 1 to 65535).
MMS Server Address (mmsc)	Type the MMS server address.

6. Click **Next**.
7. Select one of the following distribution options:

-
- **All Devices**
 - **No Devices** (default)
 - **Custom**

8. Click **Done**.



You cannot add another APN configuration with same values for the following fields If there is an existing APN configuration with these values for the device:

- Mobile Country Code
- Mobile Network Code
- Access Point Name
- Proxy Address
- Port Number
- MMS Proxy Address
- MMS Port Number
- MMS Server Address
- Enable/Disable APN
- MVNO Type
- APN Protocol
- APN Roaming Protocol

The Android APN Settings Configuration overrides the APN settings if already configured in the device manually or by the network operator.

VPN Configuration

Applicable to:

- Android (Deprecated for Android Enterprise devices. You need to use the Managed Configuration for specific VPN from the App Catalog.)
- Windows
- iOS
- macOS

A VPN configuration defines the settings for virtual private network access.



Delegation with custom distribution option is available for this configuration. For more information, see *Distributing the configuration* topic in "[Working with Configurations](#)" on page 423.

Procedure

1. Go to **Configurations** > **+Add**.
2. Select the **VPN** configuration.
3. Enter a **Name** for the configuration.
4. Enter a description.
5. Configure the VPN settings as per the following descriptions.
6. (iOS 9.0+ Only) In the Match Domains section, click **+ Add** to enter one or more matching domains (example: company.com). Proxy connection is used when the domain is one of these specified domains.
7. Click **Next**.
8. (macOS only) In the Distribute page, select one of the following distribution options:
 - Device channel - the configuration is effective for all users on a device, which is the typical option.
 - User channel - the configuration is effective only for the currently registered user on a device.

-
9. Select the remaining distribution options for this configuration.
 10. Click **Done**.

VPN settings

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Connection Type	Select the type of VPN to configure. The remaining settings depend on this selection.

The protocols and their settings are listed as follows:

- [L2TP](#) (Not supported on Ivanti Go)
- [PPTP](#) (Not supported on Ivanti Go)
- [IPsec \(Cisco\)](#) (Not supported on Ivanti Go)
- [Cisco AnyConnect](#) (Supported on Ivanti Go)
- [Juniper SSL](#) (Not supported on Ivanti Go)
- [NetMotion VPN](#) (Not supported on Ivanti Go)
- Pulse Secure (Supported on Ivanti Go)
- [F5 SSL](#) (Not supported on Ivanti Go)
- [SonicWALL Mobile Connect](#) (Not supported on Ivanti Go)
- [Aruba VIA](#) (Not supported on Ivanti Go)
- [Custom SSL](#) (Not supported on Ivanti Go)

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- [Palo Alto Networks GlobalProtect](#) (Supported on Ivanti Go)
 - [KEv2 \(Windows Only\)](#) (Not supported on Ivanti Go)
 - [IKEv2](#) (Not supported on Ivanti Go)

L2TP

Setting	What To Do
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.*
User Authentication	Select the authentication method to use: Password or RSA SecurID .
Shared Secret	Enter the shared secret passcode if one is necessary for initiating the connection.
Send All Traffic	Select this option to use this connection for all network traffic. This option helps protect data from being compromised, particularly on public networks.
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none">• Server and Port: Enter the network address and port number for the proxy server.*• Authentication: Enter a valid user name if one is required for connecting to the proxy.*• Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional field is available:</p> <p>Proxy Server URL: Enter the fully-qualified URL for the proxy.</p>

PPTP

Setting	What To Do
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.*
User Authentication	Select the authentication method to use: Password or RSA SecurID .
Encryption Level	Select a level of data encryption for the connection: None , Automatic , or Maximum (128-bit) .
Send All Traffic	Select this option to use this connection for all network traffic. This option helps protect data from being compromised, particularly on public networks.
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none">• Server and Port: Enter the network address and port number for the proxy server.*• Authentication: Enter a valid user name if one is required for connecting to the proxy.*• Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional field is available:</p> <p>Proxy Server URL: Enter the fully-qualified URL for the proxy.</p>

IPsec (Cisco)

Setting	What To Do
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.*
Machine Authentication	Select the authentication method to use: Shared Secret/Group Name or Certificate .
Group Name	Shared Secret/Group Name authentication. Specify the name of the group to use. If Hybrid Authentication is used, the string must end with "hybrid".
Shared Secret	Shared Secret/Group Name authentication. Enter the shared secret passcode.
Use Hybrid Authentication	Shared Secret/Group Name authentication. Select to specify hybrid authentication, i.e., server provides a certificate and the client provides a pre-shared key.
Prompt for Password	Shared Secret/Group Name authentication. Specify whether the user should be prompted for a password when connecting.

Credential	<p><i>Certificate authentication</i></p> <p>Select the identity certificate to use.</p>
Include User PIN	<p><i>Certificate authentication</i></p> <p>Select to prompt the user for a PIN.</p>
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none">• Server and Port: Enter the network address and port number for the proxy server.*• Authentication: Enter a valid user name if one is required for connecting to the proxy.*• Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional fields are available:</p> <p>Proxy Server URL: Enter the fully-qualified URL for the proxy.</p>

Cisco AnyConnect

Setting	What To Do
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.*
Group	Enter the group to use to authenticate the connection.
User Authentication	<p>Select the user authentication method to use: Password or Certificate.</p> <p>If you select Certificate, then the following field is available:</p> <p>Credential: Select the identity certificate to use.</p>
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none">• Server and Port: Enter the network address and port number for the proxy server.*• Authentication: Enter a valid user name if one is required for connecting to the proxy.*• Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional field is available:</p> <p>Proxy Server URL: Enter the fully-qualified URL for the proxy.</p>

Juniper SSL

Setting	What To Do
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.*
Realm	Enter the authentication realm to be used for authenticating the connection.

Role	Enter the authentication role to be used for authenticating the connection.
User Authentication	<p>Select the user authentication method to use: Password or Certificate.</p> <p>If you select Certificate, then the following field is available:</p> <p>Credential: Select the identity certificate to use.</p>
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none">• Server and Port: Enter the network address and port number for the proxy server.*• Authentication: Enter a valid user name if one is required for connecting to the proxy.*• Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional field is available:</p> <p>Proxy Server URL: Enter the fully-qualified URL for the proxy.</p>

NetMotion VPN

Setting	What To Do
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.*
User Authentication	<p>Select the user authentication method to use: Password or Certificate. If you select Certificate, then the following field is available:</p> <p>Credential: Select the identity certificate to use.</p>
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none">• Server and Port: Enter the network address and port number for the proxy server.*• Authentication: Enter a valid user name if one is required for connecting to the proxy.*• Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional field is available:</p> <p>Proxy Server URL: Enter the fully-qualified URL for the proxy.</p>

F5 SSL

Setting	What To Do
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.
User Authentication	<p>Enter the user authentication method to use: Password or Certificate.</p> <p>If you select Certificate, then the following field is available:</p> <p>Credential: Select the identity certificate to use.</p>
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none">• Server and Port: Enter the network address and port number for the proxy server.*• Authentication: Enter a valid user name if one is required for connecting to the proxy.*• Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional field is available:</p> <p>Proxy Server URL: Enter the fully-qualified URL for the proxy.</p>

SonicWALL Mobile Connect

Setting	What To Do
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.*
Login Group or Domain	Enter the login group or domain to be used for authenticating the connection.
User Authentication	<p>Select the user authentication method to use: Password or Certificate.</p> <p>If you select Certificate, then the following field is available:</p> <p>Credential: Select the identity certificate to use.</p>
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none">• Server and Port: Enter the network address and port number for the proxy server.*• Authentication: Enter a valid user name if one is required for connecting to the proxy.*• Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional field is available:</p> <p>Proxy Server URL: Enter the fully-qualified URL for the proxy.</p>

Aruba VIA

Setting	What To Do
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.*
User Authentication	<p>Select the user authentication method to use: Password or Certificate.</p> <p>If you select Certificate, then the following field is available:</p> <p>Credential: Select the identity certificate to use.</p>
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none">• Server and Port: Enter the network address and port number for the proxy server.*• Authentication: Enter a valid user name if one is required for connecting to the proxy.*• Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional field is available:</p> <p>Proxy Server URL: Enter the fully-qualified URL for the proxy.</p>

Custom SSL

Setting	What To Do
Identifier	Enter the identifier for this custom SSL VPN in reverse DNS format (such as com.mycompany.myserver).
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.*

Custom Data	Enter the key-value pairs that define the custom data for this VPN.
User Authentication	<p>Select the user authentication method to use: Password or Certificate.</p> <p>If you select Certificate, then the following field is available:</p> <p>Credential: Select the identity certificate to use.</p>
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none"> • Server and Port: Enter the network address and port number for the proxy server.* • Authentication: Enter a valid user name if one is required for connecting to the proxy.* • Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional field is available:</p> <p>Proxy Server URL: Enter the fully-qualified URL for the proxy.</p>

Palo Alto Networks GlobalProtect



Not applicable to Android devices.

Setting	What To Do
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.
Custom Data	Enter the key-value pairs that define the custom data for this VPN.
User Authentication	<p>Select the user authentication method to use: Password or Certificate.</p> <p>If you select Certificate, then the following field is available:</p> <p>Credential: Select the identity certificate to use.</p>
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none"> • Server and Port: Enter the network address and port number for the proxy server.* • Authentication: Enter a valid user name if one is required for connecting to the proxy.* • Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional field is available:</p> <p>Proxy Server URL: Enter the fully-qualified URL for the proxy.</p>

IKEv2 (Windows Only)

Setting	What To Do
Server	Enter the host name or IP address of the VPN server.
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none">• Server and Port: Enter the network address and port number for the proxy server.*• Authentication: Enter a valid user name if one is required for connecting to the proxy.*• Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional field is available:</p> <p>Proxy Server URL: Enter the fully-qualified URL for the proxy.</p>

IKEv2

Setting	What To Do
Server	Enter the host name or IP address of the VPN server.
Local Identifier	Identifier of the IKEv2 client in one of the following formats: <ul style="list-style-type: none"> • FQDN • UserFQDN • Address • ASN1DN
Remote Identifier	Remote identifier in one of the following formats: <ul style="list-style-type: none"> • FQDN • UserFQDN • Address • ASN1DN
Machine Authentication	Available only if Enable EAP is not selected. Select one of the following: <ul style="list-style-type: none"> • Certificate • Shared Secret
EAP Authentication	Available only if Enable EAP is selected. Select one of the following: <ul style="list-style-type: none"> • Certificate • Username/Password

Shared Secret	Available only if Shared Secret was selected for Machine Authentication. Enter the shared secret for the connection.
Credential	Available only if Certificate was selected for Machine Authentication. Select the certificate to use. this certificate will be sent out for IKE client authentication. If extended authentication is used, this certificate can be used for EAP-TLS.
Enable EAP	Select to enable extended authentication.
Account	Available only if Username/Password was selected for EAP Authentication. Enter the account ID for the VPN server.
Password	Available only if Username/Password was selected for EAP Authentication. Enter the password for the VPN server.
Dead Peer Detection Interval	Select one of the following options: <ul style="list-style-type: none"> • None (Disable) • Low (keepalive sent every 1 hour) • Medium (keepalive sent every 30 minutes) • High (keepalive sent every 10 minutes)
Server Certificate Issuer Common Name	(Optional) - Common name of a server certificate issuer, causes the IKE server to send a certificate request based on the certificate issuer to the server.
Server Certificate Common Name	(Optional) - Common name of a server certificate used to validate the certificate sent by the IKEv2 server.

Use IP4 and IP6 subnets attributes	(Optional) Select to use IP4 and IP6 subnets attributes.
Enable IKEv2 Mobility and Multihoming Protocol (MOBIKE)	(Optional) The default setting is 0. MOBIKE (The ability to support multi-homed mobile devices when connected to both Wi-Fi and cellular links with multiple IP addresses) is enabled. It is enabled by default. Set to 1 to disable MOBIKE.
Enable Perfect Forward Secrecy (PFS)	(Optional) When set to 1 it enables PFS for IKEv2 connections. The default setting is 0.
Enable IKEv2 redirect	(Optional) The default setting is 0. The IKEv2 connection is redirected if a redirect request is received from the server. It is enabled by default. Set to 1 to disable IKEv2 redirect.
Enable NAT keepalive	Enables the Network Address Translation keepalive that prevents the deletion of NAT entries in the absence of any traffic when there is NAT between IKE peers.
NAT keepalive interval	If NAT keepalive is enabled, this is the time in seconds that keepalive packets will be sent for the device.
Encryption Algorithm	Select one of the following options: <ul style="list-style-type: none"> • DES • 3DES • AES-128 • AES-256 (Default) • AES-128 GCM • AES-256 GCM

Integrity Algorithm	Select one of the following options: <ul style="list-style-type: none">• SHA2-256 (Default)• SHA2-384• SHA2-512
Diffie Hellman Group	Select one of the following options: <ul style="list-style-type: none">• 1• 2 (Default)• 5• 14• 15• 16• 17• 18
Lifetime In Minutes	Enter the SA lifetime (re-key interval) in minutes. Valid values are 10 through 1440.

Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none">• Server and Port: Enter the network address and port number for the proxy server.*• Authentication: Enter a valid user name if one is required for connecting to the proxy.*• Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional field is available:</p> <p>Proxy Server URL: Enter the fully-qualified URL for the proxy.</p>
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*Type \$ to see a list of supported [variables](#), if available, for this field.

For more information, see [How to create a configuration](#)

VPN On Demand

Applicable to: iOS devices

A VPN On Demand configuration sets up access to a VPN server based on domains, host names, etc.

VPN On Demand settings

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Connection Type	Select the type of VPN to configure. The remaining settings depend on this selection.

Enable VPN On Demand	Select to use this configuration for domains and host names that establish a VPN on demand.
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<p>Enable iOS Rules</p> <p>(Applicable if Enable VPN On Demand is selected)</p>	<p>For iOS and macOS, you can set up:</p> <ul style="list-style-type: none">• Network rules that allow or disallow connections to, and allow or ignore, the networks that evaluate as true.• Connection rules allow when needed, or never allow, connections to the networks that evaluate as true. <p>For network rules, you can specify the following types of parameters:</p> <ul style="list-style-type: none">• DNS Domain Match• DNS Server Address Match• SSID Match• URL String Probe• Interface Type Match <p>For connection rules, you can specify the following types of parameters:</p> <ul style="list-style-type: none">• DNS Domain Match• DNS Server Address Match• SSID Match• URL String Probe• Interface Type Match• Domain Name• DNS Server• URL Probe
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Provider Type (iOS 9+)	Select one of the following tunnel provider: <ul style="list-style-type: none">• app-proxy - tunnels traffic at the app layer. See Apple documentation for an overview of App Proxy Provider.• packet-tunnel - tunnels traffic at the IP layer. See Apple documentation for an overview of Packet Tunnel Provider.
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The protocols and their settings are listed as follows:

- [IPsec \(Cisco\)](#)
- [Cisco AnyConnect](#)
- [Juniper SSL](#)
- [NetMotion VPN](#)
- [F5 SSL](#)
- [SonicWALL Mobile Connect](#)
- [Aruba VIA](#)
- [Custom SSL](#)
- [Palo Alto Networks GlobalProtect](#)

IPsec (Cisco)

Setting	What To Do
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.*
Machine Authentication	Only Certificate authentication is supported.
Credential	Select the identity certificate to use.
Include User PIN	Select to prompt the user for a PIN.
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none">• Server and Port: Enter the network address and port number for the proxy server.*• Authentication: Enter a valid user name if one is required for connecting to the proxy.*• Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional fields are available:</p> <ul style="list-style-type: none">• Proxy Server URL: Enter the fully-qualified URL for the proxy.

Cisco AnyConnect

Setting	What To Do
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.*
Group	Enter the group to use to authenticate the connection.
User Authentication	Only Certificate authentication is supported.
Credential	Select the identity certificate to use.
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none">• Server and Port: Enter the network address and port number for the proxy server.*• Authentication: Enter a valid user name if one is required for connecting to the proxy.*• Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional fields are available:</p> <ul style="list-style-type: none">• Proxy Server URL: Enter the fully-qualified URL for the proxy.

Juniper SSL

Setting	What To Do
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.*
Realm	Enter the authentication realm to be used for authenticating the connection.
Role	Enter the authentication role to be used for authenticating the connection.
User Authentication	Only Certificate authentication is supported.
Credential	Select the identity certificate to use.
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none">• Server and Port: Enter the network address and port number for the proxy server.*• Authentication: Enter a valid user name if one is required for connecting to the proxy.*• Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional fields are available:</p> <ul style="list-style-type: none">• Proxy Server URL: Enter the fully-qualified URL for the proxy.

NetMotion VPN

Setting	What To Do
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.*
User Authentication	<p>Certificate is the user authentication method.</p> <p>Credential: Select the identity certificate to use.</p>
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none">• Server and Port: Enter the network address and port number for the proxy server.*• Authentication: Enter a valid user name if one is required for connecting to the proxy.*• Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional field is available:</p> <p>Proxy Server URL: Enter the fully-qualified URL for the proxy.</p>

F5 SSL

Setting	What To Do
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.*
User Authentication	Only Certificate authentication is supported.
Credential	Select the identity certificate to use.
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none">• Server and Port: Enter the network address and port number for the proxy server.*• Authentication: Enter a valid user name if one is required for connecting to the proxy.*• Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional fields are available:</p> <ul style="list-style-type: none">• Proxy Server URL: Enter the fully-qualified URL for the proxy.

SonicWALL Mobile Connect

Setting	What To Do
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.*
Login Group or Domain	Enter the login group or domain to be used for authenticating the connection.
User Authentication	Only Certificate authentication is supported.
Credential	Select the identity certificate to use.
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none">• Server and Port: Enter the network address and port number for the proxy server.*• Authentication: Enter a valid user name if one is required for connecting to the proxy.*• Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional fields are available:</p> <ul style="list-style-type: none">• Proxy Server URL: Enter the fully-qualified URL for the proxy.

Aruba VIA

Setting	What To Do
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.*
User Authentication	Only Certificate authentication is supported.
Credential	Select the identity certificate to use.
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none">• Server and Port: Enter the network address and port number for the proxy server.*• Authentication: Enter a valid user name if one is required for connecting to the proxy.*• Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional fields are available:</p> <ul style="list-style-type: none">• Proxy Server URL: Enter the fully-qualified URL for the proxy.

Custom SSL

Setting	What To Do
Identifier	Enter the identifier for this custom SSL VPN in reverse DNS format (such as com.mycompany.myserver).
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.*
Custom Data	Enter the key-value pairs that define the custom data for this VPN.
User Authentication	Only Certificate authentication is supported.
Credential	Select the identity certificate to use.
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none">• Server and Port: Enter the network address and port number for the proxy server.*• Authentication: Enter a valid user name if one is required for connecting to the proxy.*• Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional fields are available:</p> <ul style="list-style-type: none">• Proxy Server URL: Enter the fully-qualified URL for the proxy.

Palo Alto Networks GlobalProtect

Setting	What To Do
Server	Enter the IP address or host name for the VPN server.
Account	Enter the user account to be used for authenticating the connection.
Custom Data	Enter the key-value pairs that define the custom data for this VPN.
User Authentication	<p>Certificate is the user authentication method.</p> <p>Select an identity certificate to use in the Credential field.</p>
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none">• Server and Port: Enter the network address and port number for the proxy server.*• Authentication: Enter a valid user name if one is required for connecting to the proxy.*• Password: Enter a valid password if one is required for connecting to the proxy. <p>If you select Automatic, then the following additional fields are available:</p> <ul style="list-style-type: none">• Proxy Server URL: Enter the fully-qualified URL for the proxy.



Type \$ to see a list of supported [variables](#), if available, for this field.

For more information, see [How to create a configuration](#)

Wi-Fi Configuration

Applicable to:

- Android
- Windows
- iOS
- macOS

This section contains the following topics:

[Wi-Fi settings](#)

- [WEP, WPA/WPA2/WPA3, Any \(Personal\) settings](#)
- [WEP Enterprise, WPA/WPA2/WPA3 Enterprise, Any \(Enterprise\) settings](#)
- [iOS and macOS](#)

Wi-Fi settings

A Wi-Fi configuration sets up access to a wireless network.



A user can modify some of the Wi-Fi settings on the device. However, the MDM server may or may not receive information about the changes, which is based on the device OS. Therefore, the configurations will not be re-pushed automatically to the device to override the configuration on the device with the configuration on the server.



Delegation with custom distribution option is available for this configuration. For more information, see *Distributing the configuration* topic in "[Working with Configurations](#)" on page 423.



Some specific versions of Android devices may require administrators to enter domain and additional information to connect to a TLS, TTLS, PEAP, etc. (WPA2) networks. It is recommended to ensure changes to Wi-Fi configuration are made on selected devices before making these changes on a larger set of devices.



Android 14.x devices registered on any Ivanti Neurons for MDM version earlier than 94 will have the Config status in "Pending Install" state. When you upgrade the Ivanti Neurons for MDM to 94 without editing the Wi-Fi configuration, the configuration status remains in "Pending Install" state. You must enable the Domain field for EAP_PEAP and update the Domain and Certs in configuration to update the status to "Installed" state.

Procedure

1. Go to **Configurations** > **+Add**.
2. Select the **Wi-Fi** configuration.
3. Enter a **Name** for the configuration.
4. Enter a description.
5. Configure the Wi-Fi settings as per the following descriptions.
6. Click **Next**.
7. (macOS only) In the Distribute page, select one of the following distribution options:
 - Device channel - the configuration is effective for all users on a device, which is the typical option.
 - User channel - the configuration is effective only for the currently registered user on a device.
8. Select one of the following distribution options:
 - All Devices
 - No Devices (default)
 - Custom.
9. Click **Done**.

The following table lists the Wi-Fi Settings:

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Service Set Identifier (SSID)	Enter the name of the wireless network these settings apply to. This field is case sensitive.

Setting	What To Do
Auto Join	Select if devices should automatically join the corresponding Wi-Fi network. If this option is not selected, device users must tap the network name on the device to join the network.
Hidden Network	Select this option if the network access is not broadcast.
Disable Captive Network Detection (iOS 10+)	Administrators can enable or disable Wi-Fi Captive bypass mode. When Apple detects the presence of a captive portal, it opens a login screen to request access. You can disable the detection of captive portals, requiring the user to manually launch a web browser which triggers the portal login of the captive network. This new setting is useful when an ISE captive portal prevents the login screen from popping up, leading users to believe that their unconnected devices are actually connected to the Internet.
Proxy Setup	<p>Select Manual or Automatic to configure a proxy.</p> <p>If you select Manual, then the following additional fields are available:</p> <ul style="list-style-type: none"> • Server and Port: Enter the network address and port number for the proxy server.* • Authentication: Enter a valid user name if one is required for connecting to the proxy.* • Password: Enter a valid password if one is required for connecting to the proxy. <p>To remove the added host name, click on the 'minus' icon.</p> <p>If you select Automatic, then the following additional field is available:</p> <ul style="list-style-type: none"> • Proxy Server URL: Enter the fully-qualified URL for the proxy.
Security Type	<p>Select the security method required for accessing the network:</p> <ul style="list-style-type: none"> • Any (Personal) • Any (Enterprise) • WEP

Setting	What To Do
	<ul style="list-style-type: none"> • WEP Enterprise • WPA • WPA Enterprise • WPA2 • WPA2 Enterprise • WPA3 • WPA3 Enterprise <p>WPA3/WPA3 Enterprise is applicable for iOS 13+.</p> <p>Windows supports WPA, WPA Enterprise, WPA2, and WPA2 Enterprise.</p>


WEP, WPA/WPA2/WPA3, Any (Personal) settings

Setting	What To Do
Password	(Optional) Enter the password for accessing this network. Otherwise, the device user will be prompted for any password required for accessing the network.

WEP Enterprise, WPA/WPA2/WPA3 Enterprise, Any (Enterprise) settings


Setting	What To Do
Protocols	
Accepted EAP Types	<p>Select the EAP types that can be used for accessing this network:</p> <ul style="list-style-type: none"> • TLS • TTLS - In the Inner Identity field, select one of the authentication protocols such as OS Default, PAP, CHAP, MSCHAP, MSCHAPv2, and EAP. • PEAP • LEAP (Not supported for AMAPI-enrolled devices)

Setting	What To Do
	<ul style="list-style-type: none"> • EAP-SIM • EAP-AKA • EAP-FAST (Not supported for AMAPI-enrolled devices)
EAP-FAST	<p>Select the EAP-FAST option that define authentication methods:</p> <ul style="list-style-type: none"> • Use PAC: Select to use a proxy auto-config (PAC).. • Provision PAC: Select to allow a PAC to be provisioned. Otherwise, only a PAC already provisioned on the device can be used. This option is available only if you selected Use PAC. • Provision PAC Anonymously: Select to allow a PAC to be provisioned without authenticating the server. This option is available only if you selected Provision PAC.
Authentication	
Username	Specify the username required for network access. If you leave this blank, the device user will be prompted for it.*
Use Per-Connection Password	Select to prompt the device user for a password for each connection. When the device rejoins the same network, the device user will be prompted to reauthenticate to join the network. This option is not supported for AMAPI-enrolled devices.
Password	(Optional) Enter the password for accessing this network. Otherwise, the device user will be prompted for any password required for accessing the network.
Identity Certificate	(Optional) Select the certificate to use for the identity credential. The Identity Certificate configuration defines each available identity certificate.
Authentication Certificate (Available for Windows devices only)	<p>Select one of the following three Certificate Stores to pick a certificate and connect to a Wi-Fi network:</p> <ul style="list-style-type: none"> • Machine or User: If this option is selected and the user is not logged in, the Authentication certificate will be picked from the machine store. If the user is logged in, the specific certificate will be picked from the user store.


Setting	What To Do
	<ul style="list-style-type: none"> Machine: If this option is selected, the Authentication certificate will be picked from the machine store. User: If this option is selected, the Authentication certificate will be picked from the user store. <hr/> <p> By default, the User option is selected.</p> <hr/>
Outer Identity	(Optional) For TLS, TTLS, PEAP, and EAP-FAST, select to allow device users to hide their identity. The user's actual name appears only inside the encrypted tunnel. This option can increase security because an attacker cannot see the authenticating user's name in the clear.
Domain	Supported when EAP type is TLS and TTLS.
Trust	
Trusted Certificates (Not supported for AMAPI-enrolled devices)	Select the checkboxes to select multiple certificates from the list.
Trusted Server Certificate Names	<p>Click + Add to enter the names of one or more trusted server certificates.</p> <p>(Optional) Select Allow Trust Exceptions to allow trust decisions to be made by the user in a dialog window.</p>

iOS and macOS

Setting	What To Do
All Versions	
Network Type	<p>Select if this network should be treated as:</p> <ul style="list-style-type: none"> standard legacy hotspot Passpoint
Proxy PAC fallback allowed	(Optional) Allows the device to connect directly to the destination if the PAC file is unreachable.

Setting	What To Do
Setup Modes (Optional)	<p>An array of strings that contain the type of connection mode to be attached.</p> <ul style="list-style-type: none"> • System: WiFi is connected before the user logs in to the device. • Login Window: The WiFi is available after the user logs in to the device. <hr/> <p> Currently, setup modes work only when both System and Login Window modes are enabled.</p> <hr/>
Passpoint Settings	The settings in this section appear if you selected Passpoint for the Network Type.
Domain Name	Enter the domain name to be used for Passpoint negotiation.
Connect to roaming partner Passpoint networks	(Optional) Select to allow connections to roaming service providers.
Roaming Consortium Organization Identifiers	(Optional) Enter the identifiers assigned by IEEE to the entities supported by this Wi-Fi profile.
Network Access Identifier Realm Names	(Optional) Enter the Network Access Identifier Realm names to be used for Passpoint negotiation.
MCC and MNC pair	(Optional) Enter the Mobile Country Code (MCC)/Mobile Network Code (MNC) pairs to be used for Passpoint negotiation. Each string must contain exactly six digits.
Displayed operator name	(Optional) Enter the network operator name to display.
Cisco QoS fast lane	The settings in this section apply to Cisco fast lane configuration. Settings include Allowlisting apps for L2 and L3 marking, and whether to Allowlist the audio and video traffic of built-in audio/video services such as FaceTime and Wi-Fi Calling.
Restrict QoS marking	If unselected, then all apps will use L2 and L3 marking when the network supports Cisco QoS Fast Lane. If selected, then use the Choose Apps settings that appear to add the apps that you would like included for L2 and L3 marking. All apps not selected will not use L2 and L3 markings.

Setting	What To Do
Enable QoS marking	Disables L3 marking and uses only L2 marking for traffic sent to the Wi-Fi network. When unselected, the system treats Wi-Fi as not associated with a Cisco QoS Fast Lane network.
Allowlist Apple audio/video calling	Specifies whether to Allowlist the audio and video traffic of built-in audio/video services such as FaceTime and Wi-Fi Calling.
Choose Apps	Use to add the apps that you would like included for L2 and L3 marking. All apps not selected will not use L2 and L3 marking.
iOS 10+	
Cisco QoS fast lane	The settings in this section apply to Cisco fast lane configuration. Settings include Allowlisting apps for L2 and L3 marking, and whether to Allowlist the audio and video traffic of built-in audio/video services such as FaceTime and Wi-Fi Calling.
Restrict QoS marking	If unselected, then all apps will use L2 and L3 marking when the network supports Cisco QoS Fast Lane. If selected, then use the Choose Apps settings that appear to add the apps that you would like included for L2 and L3 marking. All apps not selected will not use L2 and L3 markings.
Enable QoS marking	Disables L3 marking and uses only L2 marking for traffic sent to the Wi-Fi network. When unselected, the system treats Wi-Fi as not associated with a Cisco QoS Fast Lane network.
Allowlist Apple audio/video calling	Specifies whether to Allowlist the audio and video traffic of built-in audio/video services such as FaceTime and Wi-Fi Calling.
Choose Apps	Use to add the apps that you would like included for L2 and L3 marking. All apps not selected will not use L2 and L3 marking.
iOS 10.3+ Supervised	
Enable Wi-Fi Allowlisting	Determines which Wi-Fi networks the device is allowed to connect to. If multiple Wi-Fi configurations exist, the most restrictive will be applied.
iOS 14.0+	
Disable MAC Address Randomization	In iOS 14.0, Apple changed the default behavior for a device reporting its Wi-Fi MAC address to report a random address for new connections instead of the device's actual Wi-Fi MAC address. As a result, this feature may cause unexpected behavior for

Setting	What To Do
	<p>enterprises using captive portals or filtering of MAC addresses.</p> <p>Administrators can Disable MAC Address Randomization for a Wi-Fi network by editing the associated Wi-Fi configuration and turning on this option (by default, false). This will cause the Wi-Fi configuration to be re-pushed to all devices. This option displays a privacy warning in the device Settings indicating that the network has reduced privacy protections.</p> <hr/> <p> A device user can still manually turn this on or off through their device's settings.</p> <hr/>
Android 11+	
MAC Address Randomization	<ul style="list-style-type: none"> • Disabled: Wi-Fi is connected before the user logs in to the device. • Enabled - Auto: The Wi-Fi is available after the user logs in to the device. • Enabled - Non-persistent • Enabled - Persistent

 Type \$ to see a list of supported [variables](#), if available, for this field.

For more information, see [How to create a configuration](#).

Cellular Network Configuration

This section contains the following topics:

- ["APN Configuration" on page 883](#)
- ["Cellular" on page 884](#)
- ["Cellular Private Network Configuration" on page 888](#)
- ["iOS Telecom Presets Configuration" on page 890](#)
- ["eSIM Configuration" on page 891](#)

APN Configuration

An APN configuration sets up the cellular Access Point Name for the device. For iOS 7, use the [Cellular configuration](#), instead.

APN settings

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Access Point Name	Enter the name for the corresponding access point. The name is generally defined by the operator providing service.
Access Point User Name	Enter a user name authorized for this access point.*
Access Point Password	Enter the password corresponding to the user name entered.
Proxy Server and Port	Enter the IP address or URL and the port number of the APN proxy.
EnableXLAT464	Select the check box to enable the Access Point Name (APN). This option provides IPv4 services over an IPv6-only network.



Type \$ to see a list of supported [variables](#), if available, for this field.

For more information, see [How to create a configuration](#).

Cellular

Applicable to: iOS 7.0+

This section contains the following topics:

- [Cellular settings for Default APN](#)
- [Cellular settings for Data APNs](#)
- [Controlling cellular access while roaming](#)
- [Controlling cellular access](#)

A cellular configuration sets up the cellular profile for a device. Configure the cellular network settings on devices running iOS 7.0 or later. Some companies have contracts with their cellular operators that grant them access to a unique Access Point Name (APN) for remote network access or for special billing plans. Consult your cellular operator for configuration parameters.



- No more than one cellular profile can be installed at any time.
 - A cellular profile cannot be installed if an [APN profile](#) is already installed.
-

You can configure cellular settings for the following APN types from the **Configured APN Types** dropdown box:

- Default & Data APNs
- Default APNs
- Data APNs

For all the configurations, enter a name that identifies the configuration and an optional description.

Cellular settings for Default APN

Default APN Settings	What To Do
APN Name	Enter the name for the corresponding access point. The name is generally defined by the operator providing service.
APN Authentication Type	(Optional) Select one of the following: <ul style="list-style-type: none">• CHAP (challenge handshake authentication protocol)• PAP (password authentication protocol)
User Name	(Optional) Enter a user name to be used for authentication.
Password	(Optional) Enter a password to be used for authentication.

Cellular settings for Data APNs

Data APN Settings	What To Do
APN Name	Enter the name for the corresponding access point. The name is generally defined by the operator providing service.
APN Authentication Type	(Optional) Select one of the following: <ul style="list-style-type: none">• CHAP (challenge handshake authentication protocol)• PAP (password authentication protocol)
User Name	(Optional) Enter a user name to be used for authentication.
Password	(Optional) Enter a password to be used for authentication.
Proxy Server	Specify the proxy server.
Proxy Server Port	Specify the proxy server port.
10.3+	
Allowed Protocol Mask	Select IPv4, IPv6, or Both.
Allowed Protocol Mask in Domestic Roaming	Select IPv4, IPv6, or Both.
Allowed Protocol Mask in Roaming	Select IPv4, IPv6, or Both.

Controlling cellular access while roaming

You can limit the access of some or all of the managed apps to cellular data while the device is in a roaming state.

Procedure

-
1. Go to the **Policies** tab in the Ivanti Neurons for MDM main navigation menu.
 2. Click **+Add**
 3. Click **Network Usage Configuration**.
The Create Network Usage configuration page is displayed.
 4. Select the **Disallow for all managed apps** checkbox to block managed apps from accessing cellular data when roaming or at all times.
 5. Leave the checkbox unselected to be able to specify the managed apps by name or bundle ID to block from receiving cellular data.
 6. Use the pulldown menus in the Apps field to search for an app by name or by bundle ID.

Controlling cellular access

You can limit the access of some or all of the managed apps to cellular data at any time. The apps can still be used on a limited basis, but they will not have access to cellular data.

Procedure

1. Go to the **Policies** tab in the Ivanti Neurons for MDM main navigation menu.
2. Click **+Add**
3. Click **Network Usage Configuration**.
The Create Network Usage configuration page is displayed.
4. Select the **Disallow for all managed apps** checkbox to block managed apps from accessing cellular data at any time.
5. Optionally, leave the checkbox unselected to specify the managed apps to block from receiving cellular data.
6. Use the pulldown menus in the Apps field to search for an app by name or by bundle ID.

For more information, see [How to create a configuration](#).

Cellular Private Network Configuration


Ivanti Neurons for MDM enables the Cellular Private Network configuration payload to provide device information on private network deployments, including geographical location, preference over Wi-Fi, and network deployment type.

Applicable to

iOS 17.0 through the most recently released version as supported by Ivanti Neurons for MDM.

Procedure

1. Go to **Configurations** > **+Add**.
2. Search and select the **Cellular Private Network** configuration.
3. Configure the **Cellular Private Network** settings as per the following table:

Setting	Description
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Cellular Data Preferred	Select the check box to enable and use cellular data over Wi-Fi.
NR Standalone	Select the check box if the cellular data network has NR 5G Standalone.
Data Set Name	Specify the Data Set Name that identifies with this configuration.
Version Number	Specify the Version Number for the data set to track the system updates.
GeoFences	<p>Specify the Latitude, Longitude, and Radius for each Geo ID to deploy a private network in a geographical location.</p> <hr/> <p> You can create a list of up to one thousand geofences for private networks.</p> <hr/>


4. Click **Next** to configure the distribution settings.

-
5. Select one of the distribution options to set up the **Cellular Private Network** configuration. For more information about configuring distribution options, see "[Working with Configurations](#)" on page 423.
 6. Click **Done**.

iOS Telecom Presets Configuration

An iOS Telecom Presets configuration sets default values for roaming restrictions and hotspot restrictions.

iOS Telecom Presets settings

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Allow devices to use voice service while roaming	Select to enable voice roaming. Availability of voice roaming depends on the operator.
Allow devices to use data service while roaming	Select to enable data roaming. <hr/>  Enabling data roaming also enables voice roaming on the device. <hr/>
Allow users to enable personal hotspot	Select to enable the personal hotspot feature. Availability of this feature depends on the operator.

For more information, see [How to create a configuration](#).

eSIM Configuration

eSIM configuration configures cellular network on the devices with the `RefreshCellularPlans` Command. Administrators must obtain the eSIM carrier URL before mapping the cellular network to the device.

Applicable to: iOS, iPadOS

Procedure

1. Go to **Configurations** > **+Add**.
2. Type **eSIM** in the search field, and then click the **eSIM** configuration.
3. Enter a **Name** and **Description** of the configuration.
4. Click on **iOS/iPadOS**.
5. Type the Carrier URL.
6. Click **Next**.
7. Select **Enable this configuration** option.
8. Select one of the following distribution options:
 - All Devices
 - No Devices (default)
 - Custom.
9. Click **Done**.

Other Configuration

This section contains the following topics:

- "Associated Domains Configuration" on the next page
- "Android File Transfer Configuration" on page 894
- "Apple TV Configuration" on page 900
- "AirPlay Configuration" on page 760
- "AirPlay Mirroring" on page 901
- "Browser Settings" on page 904
- "Configuring Single App Mode for iOS" on page 911
- "Configuring an iOS MDM Profile" on page 914
- "Configuring a macOS MDM Profile" on page 917
- "Content Caching" on page 919
- "Creating an Android Shortcut" on page 924
- "Device Name Settings" on page 930
- "Ethernet Configuration (macOS)" on page 932
- "EMA Server Intergration Configuration" on page 936
- "Device Wallpaper Configuration" on page 937
- "Lock Screen Message Configuration" on page 941
- "Create Screen Saver Configuration" on page 943
- "Configure User's Screen Saver" on page 944
- "macOS System Extension configuration" on page 946

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- "MAM Only " on page 947
 - "Managed Google Play Configuration" on page 948
 - "Printer Settings" on page 951
 - "Remove Bloatware Configuration" on page 956
 - "Samsung Phone Restrictions Configuration" on page 957
 - "Single App Mode Configuration" on page 959
 - "Start menu and Taskbar" on page 963
 - "System Update Configuration" on page 966
 - "Windows 10 Update Management" on page 973
 - "Windows app scheduling" on page 976
 - "Windows BIOS Configuration" on page 977
 - "Windows BitLocker" on page 990
 - "Windows Kiosk Configuration" on page 991
 - "Windows License Configuration" on page 999
 - "Software update recommendation cadence configuration" on page 1000

Associated Domains Configuration

License: Gold

The Associated Domains configuration is a dictionary that maps apps to their associated domains. Associated domains can be used with features such as Extensible AppSSO, universal links, and Password AutoFill.

The Associated Domains settings are as follows:

Setting	What To Do
Name	Enter a name that identifies this configuration.
Application Identifier	(Required) The app identifier to associate the domains with.
Associated Domains	(Required) The domains to be associated with the app. Each string is in the form of "service:domain". Domains should be fully qualified hostnames, like www.example.com.
Enable Direct Download	If true, data for this domain should be downloaded directly instead of through a CDN. The entitlement value for this domain must be set to service:domain?mode=managed or this value will be ignored. Available in macOS 11 and later. Default: false

Android File Transfer Configuration

As part of Android 11, Google made significant changes in storage access on a device from apps, which also impacted how enterprises manage to send files to specific apps on these devices. With these changes in mind, many large enterprises face challenges in distributing files to devices and apps as devices are upgrading to Android 11 and beyond. Any approach that is dependent on specific APIs from hardware vendors limits enterprises in having the same approach across different devices from different manufacturers and OS versions.

Ivanti developed a file transfer solution that is agnostic for the Android version and hardware vendor. This solution relies on Android's standard *Content-Provider* capability. *Content-Provider* allows Ivanti's Go app to generate a unique on-device location for each file pushed via UEM.

The File Transfer Configuration is available for Android devices in Fully Managed device mode. Using this configuration, the administrator can provide an option to transfer files on the device to be shared between different allowed apps present on the same device. Other apps can use the files for whatever reason needed. An example use case is initializing app configuration using JavaScript or displaying corporate information using PDFs or videos. Every file uploaded into Ivanti's File Transfer configurations is downloaded by Ivanti Go when it receives the corresponding config and associated file. The file is securely stored within Ivanti Go.

Other apps cannot access this file arbitrarily.

Every downloaded file inside the app sandbox is referenced by a unique location, also referred to as *ContentURI* or *URI*. Custom Attributes are used to hold the ContentURI value on the server for every file on a device and can help administrators determine a file's availability on device, form dynamic device groups, and are required to communicate ContentURI to target app using managed app configuration, etc.



For non-Ivanti apps, administrators should check with third-party app developers on their support for this approach which is commonly referred to as "Consuming FileProvider based ContentURI."

Prerequisites:

- Add a new device-based custom attribute to be used for File Transfer operation. For every File transfer configuration, a unique custom attribute should be created. Each custom device attribute can only store the contentURI (location of file) from device for one file per config.

Procedure

1. Go to **Configurations > Add Configuration > File Transfer**. The **Create File Transfer Configuration** page opens.
2. Enter a name for the configuration in the **Name** box.
3. Enter a **Description** of the configuration.

Configuration Setup

4. In the **File to Transfer** section, select the files to be transferred using the Drag and drop option or browsing through the **Choose File** option. By default, the maximum limit of file size is 50 MB.
5. Select one or more of the following **Download to device** options (optional):
 - **Allow download over a metered network** - Select to continue downloading the file even on a metered network
 - **Require charging** - Select to make sure that the device is charging during the file transfer process
 - **Require device idle** - Select to keep the device idle during the file transfer process
6. Use one of the following two options to share a file with other apps

-
- **Transfer using Android Managed App Config**- Use this option only if the target app can consume Content URI using its Managed App Config.
 - **Transfer using On-device Intent** - Intents are app-specific. To share a file using this option, see the target app's documentation and provide information in the intents section below. Intents allow Ivanti Go app to broadcast a message on the device once the file is available to be shared with the apps.

Transfer using Android Managed App Config

Procedure

1. In the **Choose an existing device based custom attribute to share this file with other apps** field, enter an existing attribute name, for example, **Custom-Filename**. For more information, see ["Assigning Custom Attributes to Devices" on page 275](#).

The custom attribute name should be new, unique attribute solely used for this file transfer operation. Each custom device attribute can only store the contentURI (location of file) from device for one file per config.

2. **Provide access to the following apps and / or package names:** You can select app names from the App Names selector and add Package Names.



These will be the only authorized packages allowed to access the file.

- **App Names** - You can select app names from the App Names selector.
- **Package Names** - You can enter the Bundle IDs in this area, for example, `com.mobileiron.filetransfer.android3`. Separate multiple package names with semicolons(;).

3. Click **Save**. The new File Transfer configuration appears on the Configurations page.

Configuring the target app

Procedure

1. Go to **Apps > App Catalog**.
 2. Select the target app that will receive the file.
 3. Navigate to **App Configurations > Managed Configurations for Android**.
 4. Create a new configuration or use an existing configuration.
-

An app may have a setting such as "Manifest Info" or other properties where the administrator can define the substitution variable and communicate the location of the file to the target app. For Ivanti Velocity app as an example, in the App Configuration dialog box > **Fetch Configurations** > **Manifest Info** field, enter the substitution variable. For example, \$Custom-File-Name\$.

5. Select your distribution.
6. Click **Save**.

Transfer using On-device Intent

Procedure

1. In the **Choose an existing device attribute to pass file path in intents extras** field, enter a new custom attribute name, for example, deviceIntentURI.

Custom Attributes are used to hold the location (URI / ContentURI) value on the server for every device and can help administrators determine a file's availability on device. For more information, see ["Assigning Custom Attributes to Devices" on page 275](#).

2. In the **Provide access to specific app or package name** field, enter the **App Name** or the **Package Name**, for example, Velocity.



These will be the only authorized packages allowed to access the file.

3. In the Intents-Standard section, provide the following details:
 - **Operation Type** - From the drop-down list, select **Start Activity** / **Start Service** or other similar choice as per the app. Choose the right value for this field depending on the target app developer's guidance or refer to the target app documentation.
 - **Class Name** (Optional) - Choose the right value for this field depending on the target app developer's guidance or refer to the target app documentation.
 - **Action** - Set the action to:
`com.wavelink.nameofapp.action.INSTALL_CONFIG`
or similar, as per the app.
 - **Category** - Enter values separated by a semicolon (;).

-
- **Mime Type** (Optional) - In the administrator's host server, the custom.mobileconfig file should be set with a MIME type of application/configuration so that the MDM profile for the device is downloaded and installed on the device. Choose the right value for this field depending on the target app developer's guidance or refer to the target app documentation.
 - **Flags** (Optional) - Select the number of flags to be used. Choose the right value for this field depending on the target app developer's guidance.
4. Provide the **Intents-Extras** values under KEY, TYPE, and VALUE (optional). For more specific parameters, see the OEM app documentation. Choose the right value for this field depending on the target app developer's guidance or refer to the target app documentation.
 5. Click **Save**.
 6. In the Configurations page, select the new File Transfer Configuration and then select **Actions > Apply to Label**. The **Apply To Label** dialog box opens.
 7. Select the suitable Label and then click **Apply**.

Transferring /Sharing of file with other apps can only be verified by collecting logs from the target app or from the device.

Verifying file download status

Custom Attributes are used to hold the location (ContentURI) value on the server for every file on each device and can help administrators determine a file's availability on the device.

Procedure

1. Go to **Devices > Devices**.
2. Select a specific device the File Transfer configuration was deployed to.
3. In the Device Details page, select the device and then select **Actions > Force Device Check-in**.
4. Under the Configurations tab, check that the File Transfer configuration displays with the status as **Applied**.
5. Under the Custom Attributes tab, check that the name of the new custom attribute displays (for example, "Custom-File-Name\$") with its related value. This provides the information about the storage location of the file on the device and showcases that file has been locally downloaded to the device available within the Ivanti Go app sandbox.

Transferring /Sharing of file with other apps can only be verified by collecting logs from the target app or from the device.

Apple TV Configuration

License: Silver

An Apple TV configuration defines the language and locale for Apple TV.

The Apple TV settings are as follows:

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Language	Enter the two-character language code to specify the UI language.
Locale	Enter the locale ID to specify the country/language combination for the UI.

For more information, see [How to create a configuration](#).

AirPlay Mirroring

License: Gold

AirPlay Mirroring is a feature that gives you the ability to display the screen from an iOS device on a monitor using Apple TV. Apple TV and the iOS device must be connected to the same Wi-Fi network. This feature requires the following devices:

- iOS 7 and later devices - Supervised
- macOS 10.10 and later devices - Supervised
- Apple TV version - Supervised
- AirPlay

Switching to include management of non-iOS devices cannot be reversed.

This section contains the following topics:

- [Configuring Apple AirPlay](#)
- [Setting up AirPlay on the mobile device](#)
- [Setting up a monitor to work with Apple TV](#)
- [Connecting your iOS device to Apple TV](#)

Configuring Apple AirPlay

For more information on AirPlay configuration settings, see [AirPlay Configuration](#).


Procedure

1. Go to **Configurations**.
2. Click **+Add**.
3. Click **AirPlay**.
4. Enter a Name and Description of the configuration in the appropriate fields.
5. For all supported iOS versions, enter a Device Name and Password.
6. Click **+ Add** to add another device, if needed.

-
7. Optionally, for Supervised iOS 7+ devices or macOS 10.10+ add device IDs to a Allow list.
 8. Click **Next**.
 9. Choose a distribution level.
 10. Click **Done**.


Setting up AirPlay on the mobile device

Procedure

1. Setup [Apple Configurator](#).
2. Go to **Devices > Devices**.
3. Click the name of an iOS device to display the Details page for that device.
4. Click the  icon.
5. Select **AirPlay Mirroring** to display the AirPlay mirroring dialog.
6. Select an Apple TV device from the pulldown menu.
7. Enter a scan time in seconds to specify a time limit to search for the device you selected.
8. Enter the password for the Apple TV device.
9. Click **Send Request**.

Setting up a monitor to work with Apple TV

Procedure

1. On a monitor connected to Apple TV, go to **Settings > Profile**.
2. Select **Ivanti Neurons for MDM Apple Configurator**.
3. Click **Add Profile**.
4. Click the  icon.
5. Select **AirPlay Mirroring** to display the AirPlay mirroring dialog.

-
6. Select an Apple TV device from the pulldown menu.
 7. Enter a scan time in seconds to specify a time limit to search for the device you selected.
 8. Enter the password for the Apple TV device.
 9. Click **Send Request**.

Connecting your iOS device to Apple TV

Procedure

1. Connect the Apple TV device to a monitor.
2. Using the Apple TV remote, go to **Settings > Accounts > Home Sharing** to turn on Home Sharing.
3. **Connect iOS device** to the same Wi-Fi network as your **Apple TV device**.
4. Open the Remote app on your **iOS** device.
5. Enable **Home Sharing** from the **Remote Settings** screen.

Browser Settings

Using Browser Settings, you can configure settings and restrictions for Google Chrome, Mozilla Firefox, Microsoft Edge and Internet Explorer in Windows 10 Devices.

This feature requires Bridge. See "[Ivanti Bridge](#)" on page 409 for details.



Ensure that the browsers are installed in the device before applying the browser settings.


To configure browser settings:

1. Go to **Configuration** > **+Add**.
2. Select **Browser Settings** configuration.
3. Enter a name for the configuration.
4. Enter a description.

-
5. In the Configuration Setup section, specify the remaining settings as described in the following table.

Setting	What To Do
Browsers	Select the browser type for which settings are required: <ul style="list-style-type: none">• Chrome• Firefox• Microsoft Edge• Internet Explorer

Browser settings	<p>Configure the following options:</p> <p>Allow Browsers:</p> <ul style="list-style-type: none">• Allow saving of Passwords• Allow Safe Browsing mode• Allow outdated plugins to stay on the browser <p>Chrome and Firefox:</p> <ul style="list-style-type: none">• Allow deleting browser history <p>Chrome and Internet Explorer:</p> <ul style="list-style-type: none">• Allow browser printing• New Tab Page URL <p>Chrome Only:</p> <ul style="list-style-type: none">• Show apps shortcuts in Bookmark Bar• Show Home button• Allow synchronization of data with Google• Continue running background apps when Chrome is closed <p>Firefox only:</p> <ul style="list-style-type: none">• Allow install extensions <p>Internet Explorer Only:</p> <ul style="list-style-type: none">• Allow downloading data from websites
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Browser favorites	<p>Click +Add.</p> <p>The Add Browser Favorite window is displayed. Configure the following fields:</p> <ul style="list-style-type: none">• Display Name: Type the display name for the favorite• URL: type the URL of the browser favorite. <p>Click Add.</p> <p>The details of added browser favorite is displayed in the page. In the Actions column, click the Edit icon to edit the setting. To delete the browser favorite, click the Delete icon.</p> <p>Browser Favorites Folder Name: Type the name of the browser favorites folder name where the favorites should be listed.</p> <p>You can also add browser favorite in a CSV format. To upload in CSV format:</p> <ol style="list-style-type: none">a. Click Upload CSV file. Browse and choose the CSV file to be uploaded.b. Click Upload. <hr/> <p> The details in the CSV file should be added in the following format:</p> <hr/> <ul style="list-style-type: none">• First column (Display Name) should specify the display name of the favorite. Example: "shopping".• Second column (URL) should specify the URL of the favorite. Example: "https://amazon.com".
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Website Security	<p>Configure the following website security settings:</p> <p>All Websites (Chrome and Firefox)</p> <ul style="list-style-type: none">• Block Cookies• Block Javascript• Block Plugins• Block Popups <p>Specific Websites(Chrome Only)</p> <p>Blockedlisted Websites (Chrome and Edge): Add the website that you wish to Blockedlist.</p> <p>Click +Add. The Add Blockedlisted Website window is displayed.</p> <p>In the Website URL, type the URL of the website that should be Blockedlisted.</p> <p>In the Access field, select Block to Blockedlist the website. The default option is Allow.</p> <p>Click Add.</p>
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Browser Extensions	<p>Allowed Extension Types (Chrome Only): Select any of the following options:</p> <ul style="list-style-type: none">• Extension• User Script• Themes• Packaged App• Hosted App• Platform App <p>Browser extension sources (Chrome only):</p> <p>Click +Add to add browser extension sources. After the browser extension sources are added, you can edit or delete the sources by clicking the relevant options in the Actions column.</p> <p>Force-Install Extensions (Chrome Only):</p> <p>Click +Add to add force-install extensions.</p> <p>After the force-install extensions are added, you can edit or delete the sources by clicking the relevant options in the Actions column.</p>
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6. Click **Next**.
7. Select one of the following distribution options:
 - All Devices
 - No Devices(default)
 - Custom
8. Click **Done**.

Configuring Single App Mode for iOS

License: Silver

Single app mode restricts iOS devices to the use of the specified app. For example, you might want to set up devices that can only a custom app your organization has developed.

Procedure

1. Go to **Configurations > Add > Single App Mode**.
2. Use the following guidelines to define the app and related settings.

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Choose App	<p>Select the method to use for selecting the app:</p> <ul style="list-style-type: none"> • From App Catalog & System Apps: Select to search the Ivanti Neurons for MDM app catalog and system apps (pre-installed on Apple devices by default). • Enter the name of the app and select it when it displays in the apps list. • Enter Bundle ID: Select to enter the unique identifier for the system app you want to select. Use this option if you cannot find the system app using the From App Catalog & System Apps option.
Disable Touch	Select to disable the touch screen.
Disable device rotation	Select to disable device rotation sensing.
Disable volume buttons	Select to disable the device's volume buttons.
Disable ringer switch	Select to disable the device's ringer switch.
Disable sleep wake button	Select to disable the device's sleep/wake button (top right on device rim).
Disable auto lock	Select to prevent the device from going to sleep after an idle period.
Enable voice over	Select to enable the VoiceOver screen reader (accessibility feature).
Enable zoom	Select to enable Zoom (accessibility feature).

Enable invert colors	Select to enable the invert colors adjustment (accessibility feature).
Enable assistive touch	Select to enable AssistiveTouch (accessibility feature).
Enable speak selection	Select to enable Speak Selection (accessibility feature).
Enable mono audio	Select to switch from stereo to mono audio (accessibility feature).
Voice over adjustments	Select to allow device users to make VoiceOver adjustments.
Zoom adjustments	Select to allow device users to make Zoom adjustments.
Invert colors adjustments	Select to allow device users to invert colors.
Assistive touch adjustments	Select to allow users to make AssistiveTouch adjustments.

3. Click **Next**.
4. In the **Distribution** screen, select the device groups to receive this configuration.
5. Click **Done**.



If you have configured the Phone dialer as the app to be used, then the Home button works once the device enters single app mode.

Configuring an iOS MDM Profile

The iOS MDM configuration defines the access limits for Ivanti Neurons for MDM. There are two types of iOS MDM configurations:

- **iOS MDM - Bulk Provisioned:** For devices purchased by the enterprise and provisioned as part of a mass distribution.
- **iOS MDM - Individually Provisioned:** For devices provisioned one by one. Will not be applied to Supervised and User Enrolled devices.



Only one of each type is provided and allowed across all Spaces.

Edit an iOS MDM configuration

Procedure

1. Log in to the Ivanti Neurons for MDM administrative portal.
2. Go to **Configurations**.
3. Select the iOS MDM configuration you want to edit.
4. Click the pencil (edit) icon to edit the configuration.

5. Use the following guidelines to make changes:

Setting	What To Do
MDM Access Rights	
Allow device lock and passcode removal	Uncheck to prevent enforcement of a passcode compliance configuration.
Allow device erase	Uncheck to prevent enforcement of a device wipe action.
Allow query of Network information (phone/SIM numbers, MAC addresses)	<p>Uncheck to exclude the device from networking information reporting.</p> <hr/> <p> If this option is unchecked, then the device list view and device detail view will show N/A for the network information that is no longer reported. Also, the roaming policy will not be enforceable for affected devices.</p> <hr/>
Profile Removal Password	
Password to remove Profile	Specify a password. The user will be prompted to enter the password while deleting a profile from the device.
ADD Required APP (iOS 15+)	
Add by Lookup	<p>Enter the App name and search the app in the App store and select the required app.</p> <hr/> <p> Only one can be added at a time. Selecting one app disables the other apps.</p> <hr/>
Add Manually	Enter the iTunes ID of the app.

6. Click **Done**.


Your changes apply only to the devices that are provisioned after you make the change.

Configuring a macOS MDM Profile

The macOS MDM configuration defines access limits for Ivanti Neurons for MDM. The macOS MDM configurations are individually provisioned, for devices provisioned one by one.

Procedure

1. Log in to the Ivanti Neurons for MDM administrative portal.
2. Go to **Configurations**.
3. Select the macOS MDM configuration you want to edit.
4. Click the pencil (edit) icon to edit the configuration.
5. Use the following guidelines to make changes:

Setting	What To Do
Allow device lock and passcode removal	Uncheck to prevent enforcement of a passcode compliance configuration.
Allow device erase	Uncheck to prevent enforcement of a device wipe action.
Allow query of Network information (phone/SIM numbers, MAC addresses)	<p>Uncheck to exclude the device from networking information reporting.</p> <hr/> <p> If this option is unchecked, then the device list view and device detail view will show N/A for the network information that is no longer reported. Also, the roaming policy will not be enforceable for affected devices.</p> <hr/>
Profile Removal Password	
Password to remove Profile	Specify a password. The user will be prompted to enter the password while deleting a profile from the device.

6. Click **Done**.

Your changes apply only to the devices that are provisioned after you make the change.

Content Caching

License: Gold

Applicable to: macOS 10.13.4 or supported newer versions.

Configure content-caching service in order to enable local copies of the App Store software and enable connected clients for faster software and app downloads.

Content caching configuration

Procedure

1. Select **Configurations**.
2. Click **+ Add**.
3. Type **caching** in the search field, and then click the **Content Caching** configuration.
4. Enter a name and describe the configuration.
5. Enter the [content caching configuration settings](#).
6. Click **Next**.
7. Select the **Enable this configuration** option.
8. Select one of the following distribution options:
 - All Devices
 - No Devices (default)
 - Custom
9. Click **Done**.

Content caching configuration settings

Use the settings in the following table to configure content caching. For more information about these settings, see [Apple documentation](#).

Setting	Description
<p>Allow the system to purge content from the cache automatically</p> <p>(Available in macOS 10.15 or supported newer versions.</p>	<p>Allow the system to purge content from the cache automatically when it needs disk space for other apps (i.e. when free disk space runs low on the computer).</p> <p>By default, this option is enabled.</p>
<p>Allow personal caching</p>	<p>Cache the user's iCloud data. Clients may take some time (hours or days) to react to changes to this setting; it doesn't have an immediate effect.</p> <p>By default, this option is enabled.</p>
<p>Allow Shared caching</p>	<p>Cache non-iCloud content, such as apps and software updates. Clients may take some time (hours, days) to react to changes to this setting; it does not have an immediate effect.</p> <p>By default, this option is enabled.</p>
<p>Allow automatically activating the content cache</p>	<p>Automatically activate the content cache when possible and prevents it from being disabled.</p>
<p>Allow Auto-Enable Tethered Caching</p> <p>(Available in macOS 10.15.4 or supported newer versions</p>	<p>Automatically enable Internet connection sharing when possible and prevent disabling Internet connection sharing.</p>
<p>Disables Tethered Caching</p>	<p>Disables tethered caching. The Disables Tethered Caching option overrides the Allow Auto-Enable Tethered Caching option.</p>
<p>Cache Limit</p>	<p>The maximum number of bytes of disk space that will be used for the content cache. A value of 0 means unlimited disk space.</p> <p>Default value: 0</p>

Setting	Description
Data Path	<p>The path to the directory used to store cached content. Changing this setting manually doesn't automatically move cached content from the old location to the new one. To move content automatically, use the Sharing preference's Content Caching pane.</p> <p>The value must be (or end with) /Library/Application Support/Apple/AssetCache/Data.</p>
Allow display alerts (Available in macOS 10.15 or supported newer versions.	Content Caching displays exceptional conditions (alerts) as system notifications in the upper corner of the screen.
Keep device Awake (Available in macOS 10.15 or supported newer versions.	Prevents the computer from sleeping as long as Content Caching is on (System Preferences > Sharing > Content Caching is on).
Listen Ranges	An array of dictionaries describing a range of client IP addresses to serve.
First IP address	First IP address of the clients in the Listen Ranges.
Last IP Address	Last IP address of the clients in the Listen Ranges.
IP Address Type	<p>Select one of the following options:</p> <ul style="list-style-type: none"> • IPv4 (default) • IPv6
Allow Listen ranges Only	The content cache provides content to the clients in the Listen Ranges only.
Allow Listen with Peers and parents	<p>The content cache provides content to the clients in the union of the Listen Ranges, Peer Listen Ranges, and Parents.</p> <p>By default, this option is enabled.</p>

Setting	Description
Allow Local subnets only	<p>The content cache offers content to clients only on the same immediate local network. No content is offered to clients on other networks reachable by the content cache. If this option is enabled, the Listen Ranges will be ignored.</p> <p>By default, this option is enabled.</p>
Log client Identity	<p>The Content Cache logs the IP address and port number of the clients that request content.</p>
Parents selection Policy	<p>Select one of the following policy options:</p> <ul style="list-style-type: none"> • First available • URL path hash • Round-robin (default) • Random • Sticky-Available
Parents	<p>An array of the local IP addresses of other content caches that this cache should download from or upload to, instead of downloading from or uploading to Apple directly.</p> <p>Click + Add to add one or more IP addresses.</p>
Allow Peer local Subnets only	<p>The content cache only peers with other content caches on the same immediate local network, rather than with content caches that use the same public IP address as the device.</p> <p>By default, this option is enabled.</p>
Port	<p>The TCP port number on which the content cache accepts requests for uploads or downloads. Set the port to 0 to pick a random, available port.</p> <p>Default value: 0</p>
Public Ranges	<p>An array of dictionaries describing a range of public IP addresses that the Ivanti Neurons for MDM servers should use for matching clients to content caches.</p>

Setting	Description
First IP address	First IP address of the servers in the Public Ranges.
Last IP Address	Last IP address of the servers in the Public Ranges.
IP Address Type	Select one of the following options: <ul style="list-style-type: none">• IPv4 (default)• IPv6

For more information, see [How to create a configuration](#).

Creating an Android Shortcut

Shortcuts are only available in Kiosk Mode using a Allowlisted browser. The browser must be Allowlisted in the Lockdown and Kiosk

configuration. The shortcuts will appear in the Ivanti Neurons for MDM Kiosk launcher.

Procedure

1. Go to **Configurations**. > **+Add**
2. Click **Android Shortcut** to display the **Create Android Shortcut Configuration** page.
3. Enter a name for the Configuration in the **Name** field.
4. Enter a description of the configuration in the **Description** field.
5. Enter a unique label for the shortcut in the **Label** field.
6. Enter a URL for the target of the shortcut in the **URL** field.
7. Optionally, drag and drop a file in the icon field or click **Choose File** to navigate to the file to choose an icon for the shortcut.
8. Click **Next**.

Creating Accessibility Settings Configurations

This configuration allows enterprises to restrict, make changes, or configure accessibility settings on Apple devices.

Procedure

1. Go to **Configurations**.
2. Click **+ Add**.

3. Click **Accessibility Settings Configurations**.

4. Configure the settings specified in the following table:

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Select one of the Accessibility Settings	<ul style="list-style-type: none"> <li data-bbox="1065 653 1279 919">• Accessibility Settings: Use this to configure accessibility settings on the macOS devices. <li data-bbox="1065 961 1279 1304">• Accessibility Settings Restrictions: Use this to restrict the changes to accessibility settings for iOS devices.
Accessibility Settings	Configuration Setup
Close View Far Point	The minimum Zoom level in zoom settings
Close View Near Point	The maximum zoom level in zoom settings

	Enable "Use Scroll Gesture" in zoom options
	Enable "Smooth Images" in zoom options
Contrast Value	Specify the value
	Select the check box - Enable the "Flash the screen" in Audio options
	Select the check box - Enable Mouse keys in the Mouse and Trackpad options
Cursor Size	Specify the value
	Select the check box - Ignore Built-in Trackpad
Mouse Driver Initial Delay	Specify the value
Mouse Driver Max Speed	Specify the value
Enable "Slow Key" in Keyboard options	Select the check box
Enable "Click Key Sound" for slow keys	Select the check box
Slow Key Delay	Select the check box
Specify the value in milliseconds	Select the check box
Select the check box - Play Stereo Audio as mono	Select the check box
Enable Sticky Keys in the Keyboard options	Select the check box
Enable the beep when a modifier key is set for sticky keys	Select the check box

Enable display pressed keys on screen for sticky keys	Select the check box
Enable voice over	Select the check box
Enable invert colors in display accommodations	Select the check box
Accessibility Restrictions	Configuration Setup
Enable bold text	Select the check box
Enable increase contrast	Select the check box
Enable reduced motion	Select the check box
Enable reduced transparency	Select the check box
Accessibility text size app that support that supports dynamic text use	Select the option from the drop-down list
Enable touch accommodations	Select the check box
Enable voice over	Select the check box
Enable zoom	Select the check box

5. Select the distribution option and specify the required details as applicable.
6. Click **Done**.

Device Name Settings


License: Silver

A default device name configuration enables you to create a new configuration that gets pushed down to the device at the registration or post-registration level and allows the device naming. The admin can define default device names for **supervised iOS 8 devices** only. You can use the following variables to construct the device name:

- Device Serial Number
- Device IMEI
- Device Model
- Ivanti Neurons for MDM Username (local users only)
- LDAP Organizational Unit (OU)
- LDAP Common Name (CN)

For example, you would enter `${deviceSN}-${userOU}` for device names that begin with the device serial number and end with the user's organization as defined in LDAP.

Default Device Name Settings (for iOS)

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Device Name	<p>Enter the format for the default device name, including available device and LDAP attributes.*</p> <hr/> <p> If the resulting device name exceeds 63 characters, it will be shortened to make sure it displays correctly on the device.</p> <hr/>
Description	Enter a description that clarifies the purpose of this configuration.

 Type \$ to see a list of supported [variables](#), if available, for this field.

Device Name Settings (Android)

The Android device name can be retrieved by the Go app. When the admin generates the Device Details report, the actual device name, the actual device name is shown rather than the device model or manufacturer's name. In case the user changes the device name, the new name will be shown the next time the report is generated. The respective device name can be viewed under **Devices > Settings > Device Name**.

Ethernet Configuration (macOS)

License: Gold

Applicable to: macOS 10.13+ or supported newer versions.

Administrator can configure Ethernet Interface in variations. The following payloads are available for configuring Ethernet:

- Global Ethernet
- First active Ethernet
- First Ethernet
- Second active Ethernet
- Second Ethernet
- Third active Ethernet
- Third Ethernet



The different payload for configuring Ethernet are default fallback Global, First, First active, Second, Second active, Third, and Third active Ethernet interface. Apple has an existing known issue with install of First, First active, Second, Second active, Third, and Third active Ethernet interface.

Ethernet configuration

Procedure

1. Select **Configurations**.
 2. Click + **Add**.
 3. Type **Ethernet** in the search field, and then select **Ethernet** Configuration.
 4. Enter a name and describe the configuration.
 5. Choose the configuration setup from the drop-down list.
-

6. Enter the [Ethernet configuration settings](#).
7. Click **Next**.
8. Select the **Enable this configuration** option.
9. Select one the following channel options to apply the configuration:
 - Device channel (most common)
 - User channel (Current registered user)
10. Select one of the following distribution options:
 - All Devices
 - No Devices (default)
 - Custom
11. Click **Done**.

Ethernet configuration settings

Use the settings in the following table to configure Ethernet. For more information about these settings, see [Apple documentation](#).

Setting	Description
Protocols	
Accepted EAP Types	<p>Select the EAP types that can be used for accessing this network:</p> <ul style="list-style-type: none"> • Transport Layer Security(TLS): The TLS is a protocol that establishes an encrypted session between two computers on the Internet. It verifies the identity of the server and prevents hackers from intercepting any data. • TTLS: In the Inner Identity field, select one of the authentication protocols such as OS Default, PAP, CHAP, MSCHAP, MSCHAPv2, and EAP. • PEAP • LEAP • EAP-SIM: In the EAP SIM Number of RANDs field, select number of rands from the drop-down list. • EAP-AKA

Setting	Description
	<ul style="list-style-type: none"> • EAP-FAST: Select the EAP-FAST option that define authentication methods: <ul style="list-style-type: none"> ◦ Use PAC:Select to use a proxy auto-config (PAC). ◦ Provision PAC: Select to allow a PAC to be provisioned. Otherwise, only a PAC already provisioned on the device can be used. This option is available only if you selected Use PAC. ◦ Provision PAC Anonymously: Select to allow a PAC to be provisioned without authenticating the server. This option is available only if you selected Provision PAC.
Authentication	<p>Username: Specify the username required for network access. If you leave this blank, the device user will be prompted for it.</p> <ul style="list-style-type: none"> • Use Per-Connection Password: Select to prompt the device user for a password for each connection. When the device rejoins the same network, the device user will be prompted to re-authenticate to join the network. Every time connection is initiated, password is requested. • Prompt One time password when connected to network: Password is requested only once when the configuration is pushed to the device. Every connect and disconnect to network, will not request any password. <p>Password: (Optional) Enter the password for accessing this network. Otherwise, the device user will be prompted for any password required for accessing the network.</p> <p>Outer identity: (Optional) For TTLS, PEAP, and EAP-FAST, select to allow device users to hide their identity. The user's actual name appears only inside the encrypted tunnel. This option can increase security because an attacker cannot see the authenticating user's name in the clear.</p> <p>System Mode Credentials Source Identity: System mode is used for computer authentication. Authentication using system mode occurs before a user logs in to the computer. System mode is commonly configured to provide authentication with the computer's X.509 certificate (EAP-TLS) issued by a local certificate authority.</p>
Trust	<p>Trusted Certificates: Select the checkboxes to select multiple certificates from the list.</p> <p>Trusted Server Certificate Names: Add the certificate name.</p>

Setting	Description
	<ul style="list-style-type: none"><li data-bbox="516 260 1438 327">• Allow Trust Exceptions: Allow trust decisions (via dialog) to be made by the user.<li data-bbox="516 369 824 396">• Require TLS certificate <p data-bbox="467 441 1154 468">Maximum TLS version allowed with EAP authentication</p> <p data-bbox="467 510 1149 537">Minimum TLS version allowed with EAP authentication</p> <p data-bbox="467 579 1170 606">TLS Trusted Certificates: MobileIron Agent CA Certificate</p>

For more information, see [How to create a configuration](#).

EMA Server Intergration Configuration

The EMA Server Integration configuration allows Windows 10 devices to link to the configured Intel EMA server. To link devices to the configured Intel EMA server, you should provide the installation directory of the original EMA agent and upload the EMA agent .msh file from the new EMA server.

This feature requires Bridge. See [Bridge](#) for details.

Procedure

1. Go to **Configuration > +Add**.
2. Select **EMA Server Integration** configuration.
3. Enter the name for the configuration.
4. In the Configuration Setup section, click **Choose File** to select the EMA agent .msh file.



The msh file is an agent policy file that can be downloaded from the EMA server.

5. In the Original **EMA Agent Installation directory** field, type the location where the original EmaAgent.exe file is installed.
6. Click **Next**.
7. Select one of the following distribution options:
 - All Devices
 - No Devices (default)
 - Custom
8. Click **Done**.

Device Wallpaper Configuration

License: Silver

The device wallpaper configuration defines a default wallpaper image for the Home screen and Lock screen of Android 7.0 devices in Device Owner mode or Company Owned Personal Enabled (COPE) devices (excluding Android 11 EPO mode devices).

Android wallpaper settings

To define a default wallpaper image for Android devices:

1. Go to **Configurations**.
2. Click + **Add**.
3. Click **Device Wallpapers**.
4. Click on the Android icon to view the Configuration Setup section for Android and configure the following settings


Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Upload Android Wallpaper	
Use the same image for Home Screen and Lock Screen	Select to upload a single image for both the screens.
Home Screen	Drag and drop the image file or click Choose File to select it.
Lock Screen	Drag and drop the image file or click Choose File to select it.

5. Click **Next**

6. Select one of the following distribution options:


- **All Devices**
- **No Devices** (default)
- **Custom**

7. Click **Done**.

 The uploaded image must be in .jpg or .png format.

iOS wallpaper settings

You can define a default wallpaper image for iOS devices.


 This setting is applicable only for supervised devices.

1. Go to **Configurations**.
2. Click + **Add**.
3. Click **Device Wallpapers**.
4. Click on the iOS icon to view the Configuration Setup section for iOS and configure the following settings

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Upload iPhone Wallpaper	
Use the same image for Home Screen and Lock Screen	Select to upload a single image for iPhone.
Home Screen	Drag and drop the image file or click Choose File to select it.
Lock Screen	Drag and drop the image file or click Choose File to select it.
Upload iPad Wallpaper	
Use the same image for Home Screen and Lock Screen	Select to upload a single image for iPad.
Home Screen	Drag and drop the image file or click Choose File to select it.
Lock Screen	Drag and drop the image file or click Choose File to select it.

5. Click **Next**.
6. Select one of the following options:
 - **All Devices**
 - **No Devices** (default)
 - **Custom**


-
7. Click **Done**.

 The uploaded images must be 1164H x 640W and in .jpg or .png format.

macOS wallpaper settings

To define a default wallpaper image for macOS devices:

1. Go to **Configurations**.
2. Click + **Add**.
3. Click **Device Wallpapers**.
4. Click on the macOS icon to view the Configuration Setup section for macOS.
5. Enter the path to the desktop picture.
6. Click **Next**.
7. Select one of the following options:
 - **All Devices**
 - **No Devices** (default)
 - **Custom**
8. Click **Done**

 You can change Wallpapers based on the restriction. If macOS restrictions configuration **Allow modification of Wallpaper** is enabled, then you can modify the wallpaper.

For more information, see [How to create a configuration](#).

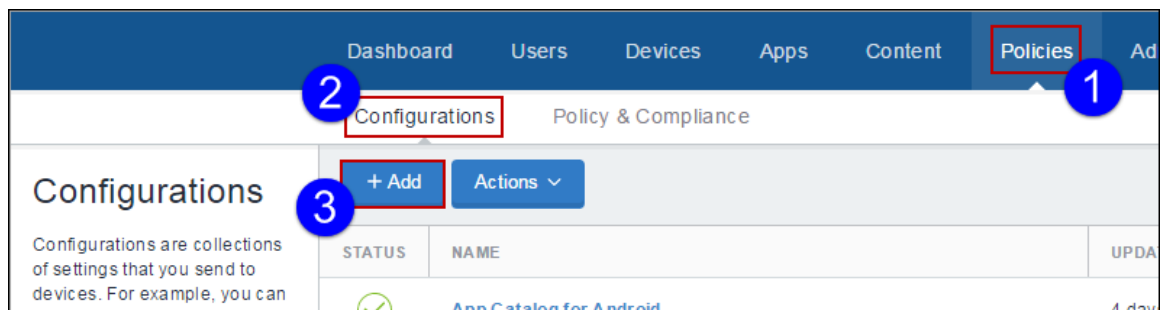
Lock Screen Message Configuration

Displays a message and asset tag info on the login and lock screens. This is for supervised devices using iOS 9.3 or supported newer versions.

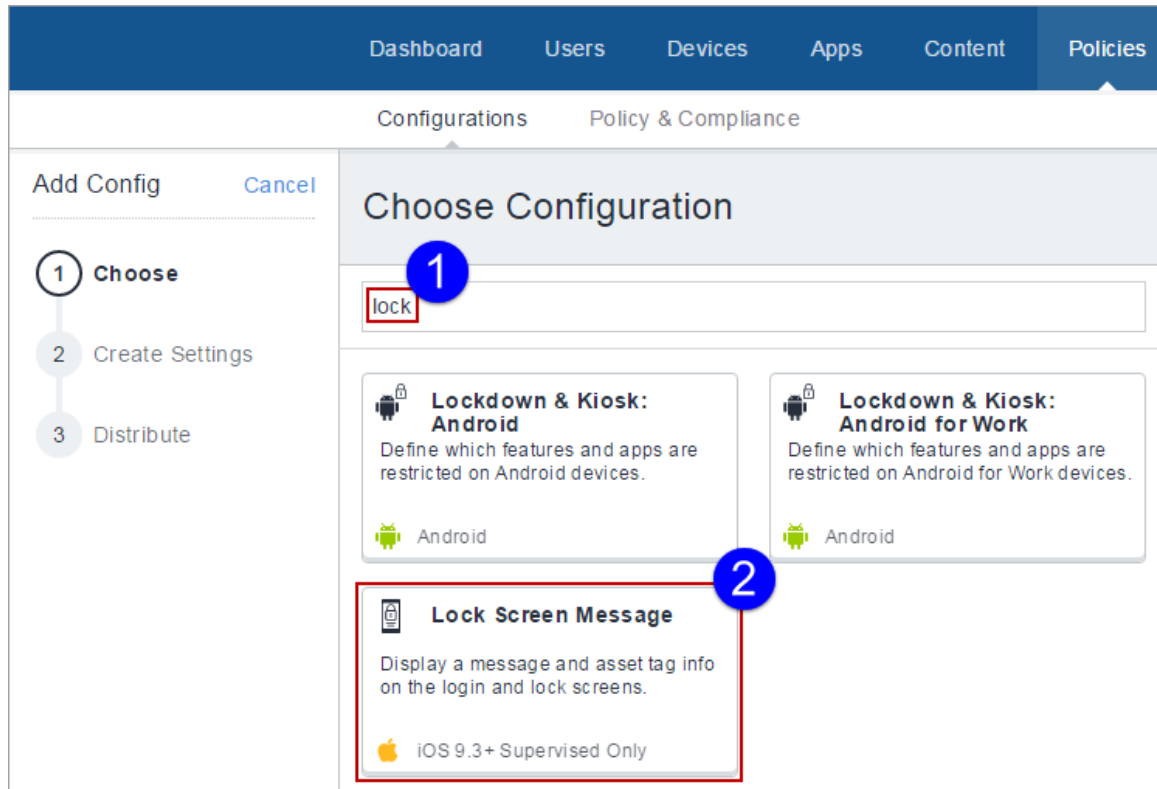
Creating a Lock Screen Message configuration

Procedure

1. Select **Configurations**.
2. Click **+ Add**.



3. Type **lock** in the search field, and then click the **Lock Screen Message** configuration:



The Lock Screen Message Configuration details page appears.

4. Configure the settings on this page. Refer to the table in the section [Lock Screen Message Configuration Settings](#) for guidance on the values.
5. Click **Next** to configure the distribution settings, and then click **Done**.

Lock Screen Message Configuration settings

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Lock Screen Footnote	This text appears on the login window and lock screen.
Asset Tag Information	This text appears at the bottom of the login window and lock screen.

For more information, see [How to create a configuration](#).

Create Screen Saver Configuration

The Screen Saver configuration lets you add options such as Password, Idle Time, Module path and name.

Procedure

1. Log in to the Ivanti Neurons for MDM administrative portal.
2. Click **Configurations**.
3. Click **+Add**.
4. Type screen in the search field, and then click **Screen Saver**:

The Create Screen Saver Configuration details page appears.

5. Configure the settings on this page. Refer to the table in the topic **Screen Saver Configuration Settings** for guidance on the values.
6. Click **Next** to configure the distribution settings, and then click **Done**.

Screen Saver Configuration Settings

Setting	What To Do
Name (mandatory)	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Prompt for password check box	Select the check box to prompt the device user for password when the screen saver is unlocked or stopped. (Available in macOS 10.13 and later).
Prompt for password delay	Specify the delay duration in seconds.
Login Window Idle Time	Specify the idle time after which the screen saver must appear in Seconds.
Path to the screen saver module	Specify the path of the screen saver module.
Name of the screen saver module (mandatory)	Enter the name of the screen saver.

For more information, see [How to create a configuration](#).

Configure User's Screen Saver

The User's Screen Saver configuration lets you add options such as Password, Idle Time, Module path and name.

Procedure

1. Log in to the Ivanti Neurons for MDM administrative portal.
2. Click **Configurations**.
3. Click **+Add**.

-
4. Type screen in the search field, and then click **User's Screen Saver**:

The Create User's Screen Saver Configuration details page appears.

5. Configure the settings on this page. Refer to the table in the topic **User's Screen Saver Configuration Settings** for guidance on the values.
6. Click **Next** to configure the distribution settings, and then click **Done**.

User's Screen Saver Configuration Settings

Setting	What To Do
Name (mandatory)	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Idle Time	Specify the idle time after which the screen saver must appear in Seconds.
Path to the screen saver module	Specify the path of the screen saver module.
Name of the screen saver module (mandatory)	Enter the name of the screen saver.

For more information, see [How to create a configuration](#).

macOS System Extension configuration

System Extension configuration allows installation of extension types like Driver Extension, Network Extension and Endpoint Security Extension, without kernel-level access.

Applicable to: macOS 10.15+

Procedure Procedure

1. Go to **Configurations** > **+Add**.
2. Type **extension** in the search field, and then click the **System Extensions** configuration.
3. Enter a **Name** and **Description** of the configuration.
4. Under **Allowed System Extensions**, **+Add** the **Allowed Team Identifiers** and **Allowed System Extensions**.
5. Under **Allowed System Extensions Types**, **+Add** the **Allowed Team Identifiers** and **Allowed System Types**.
6. Check **Allow user overrides** option.
7. Click **Next**.
8. Select **Enable this configuration** option.
9. Select one of the following distribution options:
 - All Devices
 - No Devices (default)
 - Custom.
10. Click **Done**.



In macOS 12, `RemovableSystemExtensions` allows application to deactivate their system extension without administrator approval during application uninstallation.

MAM Only

Ivanti Neurons for MDM allows you to specify iOS and Android devices as MAM-only and provides Mobile App Management (MAM) to such devices. A MAM-only deployment allows you to distribute and manage apps without having to manage the device itself. A MAM-only deployment is done through AppStation, which is the Ivanti Neurons for MDM client for a MAM-only deployment. For information about how to configure and deploy MAM-only, see the following:

For Android devices, see the AppStation for Android Product Documentation.

For iOS devices, see the AppStation for iOS Product Documentation.



If you already have a MAM-only deployment using Go, you can continue with the deployment. However, Ivanti recommends using AppStation for new MAM-only deployments.


Managed Google Play Configuration

Administrators can configure the automatic update setting that Google Play Store uses to update apps on the Android Enterprise device.

To configure auto-update settings:

1. Go to **Configuration** > **+Add**.
2. Select **Managed Google Play** configuration.
3. Enter a name for the configuration.
4. Enter a description.

5. In the Configuration Setup section, select an option to update apps from Google Play.

Setting	What To Do
User Defined	<p>The device user can set the auto-update apps maintenance window setting to define when the apps should be updated.</p> <ol style="list-style-type: none">In the Start Time field, select the time to perform the app update.In the Duration field, select the duration (in hours) within which the update should be performed. The minimum and maximum range is between 1 hour to 24 hours. <hr/> <p> The apps can be updated anytime between the start time to selected duration. For example, if the 'Start Time' is set as 6PM and the 'Duration' is set for 12hrs, the apps may be updated anytime from 6PM to 6 AM.</p> <hr/>
None	Google Play Store never automatically updates apps on the device.
Wifi Only	Google Play Store automatically updates apps on the device but only using Wi-Fi, not cellular, connections.
Always	Google Play Store automatically updates apps on the device using either Wi-Fi or cellular connections.

6. Click **Next**.

7. Select one of the following distribution options:

- All Devices
- No Devices(default)
- Custom

8. Click **Done**.

Printer Settings

Ivanti Neurons for MDM allows you to create printer profiles and add them to devices. This feature requires Bridge. See [Bridge](#) for details.



When the printer profile is sent to the device, the printer must be active, otherwise the device cannot discover it.

To set **Printer Settings** configuration for a Windows device:

1. Go to **Configuration** > **+Add**.
2. Select **Printer Settings** configuration.
3. Enter a name for the configuration.

4. Select the **Windows** option.

5. In the **Configuration Setup** section, configure the following settings:

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Windows Printer Settings	
Shared Printer	<p>If the Shared Printer option is selected, the printer will be shared with other devices. Configure the following fields:</p> <p>Name: Enter the name of the printer configuration.</p> <p>Description: Enter a description of the printer.</p> <p>Print Server: Enter the IP address of the print server.</p> <p>Shared printer name: Enter the printer name.</p>
Network-attached printer	<p>When the Network-attached option is selected, the printer can be accessed only by devices within the attached network. Configure the following fields:</p> <p>Name: Enter the name of the printer configuration</p> <p>Description: Enter a description of the printer.</p> <p>Print Name: Enter the name of the printer in the network.</p>

Setting	What To Do
	<p>Printer host address: Enter the host IP address of the printer.</p> <p>Printer port number: Select the port number of the network printer.</p> <p>Printer driver name: Enter the name of the printer driver.</p> <p>Printer driver URL: Enter the URL of the printer driver.</p>

6. Click **Next**.
7. Select one of the following distribution options:
 - All Devices
 - No Devices(default)
 - Custom
8. Click **Done**.

To set Printer Settings configuration for a macOS device:

1. Go to **Configuration > +Add**.
2. Select **Printer Settings** configuration.
3. Enter a name for the configuration.
4. Select the **macOS** option.

5. In the **Create Printer Configuration** section, configure the following settings:

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Configuration Setup	Update the following fields to set-up printer for macOS devices: <ul style="list-style-type: none">• Allow Local Printers• Default Printer Display Name• Footer Font Name• Footer Font size• User Printer List• + Add Printer

6. Click **Next**

7. Select one of the following distribution options:

- All Devices
- No Devices(default)
- Custom

8. Click **Done**.

Remove Bloatware Configuration

Remove Bloatware configuration allows you select the list of applications installed in devices which needs to be forcibly removed. It is a prerequisite to have a Bridge setup for this configuration. See [Bridge](#) for more details.

To run or uninstall apps:

1. In the **Configuration** tab click **+Add**.
2. Select **Remove Bloatware** configuration. The **Remove Bloatware Configuration** page is displayed.
3. In the **Name** field, type an appropriate name for the configuration.
4. Click the **+Add Description** link to add a description for the configuration. This field is optional.
5. In the **Configuration Setup** section, select the apps that should be removed or uninstalled. You can alternatively search for an app in the Search field using the App name displayed in Desktop-apps list.



Before creating the **Remove Bloatware** configuration, you should fetch apps by going to **Apps>Desktop Apps>Fetch Apps**. If not, no applications will be available to search or choose from when creating the **Remove Bloatware** configuration.

The file types .appx,.appxbundles,.xap and .msi can be removed but not the file type .exe.

6. In the Advanced options, configure the following options:

Option	Description
Run this configuration every	Set the interval duration (in minutes) after which the configuration should run.
Run at Logon	Select the checkbox to run the configuration at logon.
Suppress force restart after uninstall	Select the checkbox to prevent force restart after uninstalling the app.

Samsung Phone Restrictions Configuration

[Configurations](#)



Samsung Phone restrictions configuration allows you to set call restrictions and exceptions in Samsung devices. These restrictions limits the phone numbers that users can make or receive.

Applicable to: All Samsung devices with Knox SDK 2.0+.


To configure Samsung Phone restrictions:

1. In the **Configuration** tab, click **+Add**.
2. Select **Samsung Phone Restrictions** configuration. The **Samsung Phone Restrictions Configuration** page is displayed.
3. In the **Name** field, type an appropriate name for the configuration.
4. Click the **+Add Description** link to add a description for the configuration. This field is optional.

-
5. In the **Configuration Setup** section, configure the following options:

Option	Description
Incoming Calls	
Blocked numbers	Click the Add icon to add numbers and Java regular expressions to define restrictions on incoming calls.
Allowlisted numbers	Click the Add icon to add numbers and Java regular expressions to define allowed numbers out of a larger set of blocked numbers for incoming calls. <hr/>  This option will not have any effect if there are no blocked numbers.
Outgoing calls	
Blocked numbers	Click the Add icon to add numbers and Java regular expressions to define restrictions on outgoing calls.
Allowlisted numbers	Click the Add icon to add numbers and Java regular expressions to define allowed numbers out of a larger set of blocked numbers for outgoing calls. <hr/>  This option will not have any effect if there are no blocked numbers.

6. Click **Done** to push the setting to the selected devices.

 When the device is retired, all the call restrictions are removed from the device.

For more information, see [How to create a configuration](#).

Single App Mode Configuration

[Configurations](#)

License: Silver

Single app mode restricts iOS devices to the use of the specified app. For example, you might want to set up devices that can use only a custom app your organization has developed.

Single app mode configuration

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Choose App	<p>Select the method to use for selecting the app:</p> <ul style="list-style-type: none"> • From App Catalog & System Apps: Select to search the Ivanti Neurons for MDM app catalog and system apps (pre-installed on Apple devices by default). • Enter the name of the app and select it when it displays in the apps list. • Enter Bundle ID: Select to enter the unique identifier for the system app you want to select. Use this option if you cannot find the system app using the From App Catalog & System Apps option.
Disable Touch	Select to disable the touch screen.
Disable device rotation	Select to disable device rotation sensing.
Disable volume buttons	Select to disable the device's volume buttons.
Disable ringer switch	Select to disable the device's ringer switch.
Disable sleep wake button	Select to disable the device's sleep/wake button (top right on device rim).
Disable auto lock	Select to prevent the device from going to sleep after an idle period.
Enable voice over	Select to enable the VoiceOver screen reader (accessibility feature).
Enable zoom	Select to enable Zoom (accessibility feature).

Enable invert colors	Select to enable the invert colors adjustment (accessibility feature).
Enable assistive touch	Select to enable AssistiveTouch (accessibility feature).
Enable speak selection	Select to enable Speak Selection (accessibility feature).
Enable mono audio	Select to switch from stereo to mono audio (accessibility feature).
Voice over adjustments	Select to allow device users to make VoiceOver adjustments.
Zoom adjustments	Select to allow device users to make Zoom adjustments.
Invert colors adjustments	Select to allow device users to invert colors.
Assistive touch adjustments	Select to allow users to make AssistiveTouch adjustments.

For more information, see [How to create a configuration](#).

Start menu and Taskbar

You can define the Start menu layout for your users to define applications that are safe to use and remove applications that are not required. The Windows 10 and 11 versions support different features, as the Start menu layouts are different.

To set Start menu and Taskbar configuration:


1. Go to **Configuration > +Add**.
2. Select **Windows Start Menu & Task Bar** configuration.
3. Enter a name for the configuration.
4. Select the Windows-specific version.

Windows 10 devices:

5. In the **Configuration Setup** section, configure the following settings:

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Select Golden Device	Select the Windows 10 device that has the apps provisioned in its Start menu and Taskbar.

6. Click **Fetch Start Menu Layout from Device** and configure the following options.

7. Setting	What To Do
Start menu and Taskbar Layout	Select the any of the following options for hiding the list of apps. <ul style="list-style-type: none"> • None • Hide all apps list • Hide all apps list, and disable "Show app list in Start menu" in Settings app • Hide all apps list, remove all apps button, and disable "Show app list in Start menu" in Settings app
Start menu layout	
Customize Start menu	Click Yes to customize Start menu and layout parameters.
Taskbar	
Customize Taskbar	Click Yes to customize Taskbar
Remove existing pinned Taskbar shortcuts before adding the custom ones	Click Yes to remove the existing pinned Taskbar shortcut before adding the custom Taskbar.
App Type	Specifies the type of app.
App	Specifies the ID of the app.
Restore	Click the Restore link to restore the Taskbar from the original Golden device taskbar. <hr/> <div style="display: flex; align-items: center;">  <p>Click and drag the arrow icon in the row to move the position(up or down)the specific row.</p> </div> <hr/> <p>Click the delete icon to delete the row.</p>

Click the **Add New** button to add a new row.

Windows 11 devices

8. In the **Configuration Setup** section, configure the following settings:

Setting	What To Do
Name	Enter a name that identifies this configuration.
Description	Enter a description that clarifies the purpose of this configuration.
Select Golden Device	Select the Windows 11 device that has the apps configured in the PINNED section of its Start menu.

9. Click **Fetch Start Menu Layout from Device**.

After fetching settings from the Golden Device, all apps configured in the PINNED section of the start menu will be displayed for the administrator to review.

10. Click **Save** and distribute the configuration to all the applicable device and user groups.



Due to a vendor issue, when the configuration is undistributed, Pinned apps will remain as originally configured. However, when a new configuration is distributed, the previous layout will be overridden, and the new layout will be applied.

System Update Configuration




Administrators can limit device users from managing system updates on Android 6.0 devices or supported newer versions). This feature is applicable only to Android enterprise devices.




To configure :

1. Go to **Configuration**> **+Add**.
2. Select **System Update** configuration.
3. Enter a name for the configuration.



4. Enter a description.


5. In the Configuration Setup section, configure the following options:

Setting	Description
Automatic	Silently apply the system update whenever new firmware is available.
Postpone	Postpones the installation of system updates for 30 days. After the 30-day period has ended, the system prompts the device user to install the update.
Windowed (Local Time)	Schedule a time period to silently apply the system update. Select the Start Time and End Time hours.
Freeze Period	Freezes the system update for a specified period. <div style="border: 1px solid red; padding: 5px; margin-bottom: 10px;">  This option is applicable for Android 9.0+ devices. </div> Click Add Freeze Period . Select the Start Date and the End Date for the freeze period. <div style="border: 1px solid red; padding: 5px; margin-bottom: 10px;">  The freeze period cannot be more than 90 days and you can add multiple freeze periods. The next freeze period can be selected only after 60 days from the previous calendar end date. </div> To delete a freeze period click on the Delete icon.
Zebra Firmware Configuration	Select Configure Zebra OTA to upgrade or update the operating firmware of the Zebra devices (running on Android version 8.0 or supported newer versions). This is applicable only to Device Owner modes. <div style="border: 1px solid red; padding: 5px;">  To configure Zebra OTA updates, you must enable Ivanti Neurons for MDM OTA service under Admin>Firmware Management>Zebra OTA and Zebra devices must be present on Ivanti Neurons for MDM. You must enter your Zebra credentials in the popup. To re-create your credentials, contact Zebra directly. </div>

Setting	Description
	<p data-bbox="586 268 1382 338">When this option is selected, the list of registered Zebra devices are displayed.</p> <p data-bbox="586 380 1211 407">To select and apply the firmware to the device model:</p> <p data-bbox="586 449 1349 518">a. In the Action column for the Zebra device, perform any of the following actions:</p> <ul data-bbox="638 560 1382 737" style="list-style-type: none"><li data-bbox="638 560 1325 588">• None: No action will be performed for the device model.<li data-bbox="638 627 1382 737">• Full Upgrade. In the Select Target Zebra Firmware window, select the full upgrade firmware version to be applied to the device model . <hr/> <p data-bbox="667 793 1338 863"> During the Full Upgrade process, only port 443 is needed.</p> <hr/> <p data-bbox="667 932 1382 1085"> In the Search field, you can type the characters of a build ID to search for upgrades based on build ID. The build IDS are sorted and displayed in descending order (latest on top).</p> <hr/> <p data-bbox="667 1155 1365 1224"> The Patch Upgrade option will NOT be available for Android 11+ devices.</p>

Setting	Description

Setting	Description
Samsung e-FOTA Configuration	<p>Select Configure Samsung e-FOTA to upgrade or update the operating firmware of the Samsung devices (on Knox version 2.7.1 and above). This is applicable only to Managed Device with Work Profile on Company Owned Device modes.</p> <p>If there are no Samsung e-FOTA capable devices are registered, a message informing this information is displayed on the page.</p> <hr/> <p> To configure Samsung e-FOTA updates, you must activate Samsung e-FOTA license under Admin>Firmware Management>Samsung E-FOTA. When this option is selected, the list of registered Samsung devices are displayed.</p> <hr/> <p>To select and apply the firmware to the device model:</p> <p>a. In the Action column for the Samsung device, perform any of the following actions:</p> <ul style="list-style-type: none"> • Latest: The latest firmware version is applied. This option is selected by default. • Force: In the Select Target Samsung Firmware window, select the particular firmware version to be force applied (without user intervention) to the device model. When this action is performed, firmware downloading begins within fifteen minutes. • Target: In the Select Target Samsung Firmware window, select the particular firmware version to be applied to the device model. <hr/> <p> When performing the 'Force' or 'Target' actions, If there are no firmware listed for the device, a message informing this information is displayed on the page.</p> <hr/>

Setting	Description
	<p>b. Enable debug FW (Optional): When the Enable Debug FW option is enabled, and the configuration is applied, the device is upgraded to a dummy firmware. The dummy firmware of the Samsung device firmware allows the admin to test the system update configuration behavior on the devices, without actually modifying anything on the device.</p> <hr/> <p> To upgrade to the actual firmware update, instead of the dummy firmware, the admin should ensure that the Enable debug FW option is disabled before applying the configuration</p> <hr/> <p>c. Click Apply.</p>

6. Click **Next**.

7. Select one of the following distribution options:

- All Devices
- No Devices(default)
- Custom

8. Click **Done**.

Samsung E-FOTA Configuration (Decommissioned)

The Samsung E-FOTA configuration is decommissioned in July 2022. So, this configuration will not be available for new devices. The devices with the existing configuration can only deactivate this configuration.

Windows 10 Update Management

As an administrator, you can view and approve the updates reported by Windows 10 devices that you want to be updated using Windows 10 Update Management. By using this feature you can prevent unnecessary or untested updates from being installed in devices.

Update Management feature requires devices to be configured with **Software Updates** configuration with **Require update approval** option enabled. Only by applying this configuration to the devices, the devices report updates for installation and wait for approval.

Managing updates

1. Go to the **Admin>Windows Updates**. The following details of the updates are displayed in the page.

Creation Date: The date when the update was created.

Title: Describes the type of update along with the Knowledge Base article number.



When clicked on the update, the description is displayed.

Classification: Specifies the type of the update. Example: Security Updates.

Distribution: The distribution performed for the update. For example, it display **All** when the update is distributed to all the devices.



If the update is distributed to a certain specific number of groups, it displays the count of the distribution. For example, it displays 3 if the distribution is performed only to 3 groups.

In addition, you can view if an update has been distributed to the required devices or not. The following columns have numbers that indicate the number of devices present under different category of the updates:

- Eligible devices
- Installed devices
- Failed devices
- Reboot pending devices

When you click on any of these numbers, you will be directed to the filtered view on the Devices page to know the status of updates and perform the required actions.

2. Review the updates and select the update that you would like to distribute to the devices by clicking the check-box for the update.
3. Under **Actions**, click **Set Distribution**.
4. In the **Distribute Windows Update** window, select any of the following distribution options:

All Devices: Distributes the updates to all the devices.

No Devices: Withholds the updates to be distributed to devices

Custom: Distributes the updates for the specified device groups.

5. Click **Save**.

Searching and filtering updates

You can search and filter updates based on the following criteria:

- Knowledge base article ID
- Configured distribution

Filtering based on Knowledge base article ID:

1. In the **Windows 10 Update Management** page, type the Knowledge base ID in the quick search field(only the number in the Search field.
Example: For KB4056892, type 4056892. The update that matches with the search criteria is displayed on the page.



You can further look for additional information on the update by clicking **Support** and **More Information** link. The **Support** links to the Microsoft web page that provides product support information for the update and the **More Information** links to the Microsoft web page that displays more information on the update, such as the Knowledge Base article.

Filtering based on configured distribution:

In the **Windows 10 Update Management** page, select any of the following filtering options based on the configured distribution:

-
- **All:** Displays all the updates.
 - **Configured:** Displays the list of updates that are distributed to devices.
 - **Unconfigured:** Displays the list of updates for which the distribution is not specified.



Configured and Unconfigured filters are based on the distribution performed and the distribution can also be **None**.

Viewing updates for a device

To view the detailed update information specific to a device:

1. Go to **Devices > Devices**.
2. Click a device name to view the details page.
3. Go to **Updates** tab. The updates for the device that are pending (update approved by the admin but not reported as installed on the device), failed, and installed are displayed.



You can also see notifications about new Windows updates available in the Notifications page under Dashboard. The notification includes creation date of the notification, number of notifications available and the purpose of the notification. The Windows update notification is also visible in the top right corner of the Admin Portal.

Windows app scheduling

Windows Desktop apps can be large, adding extra and extended load on networks and servers during key use times for the enterprise. Windows app scheduling feature allows you to schedule a time to install apps, especially large apps, on devices during a time you choose.

To configure app scheduling:

1. Go to **Apps > App Catalog**.
2. Click **Add** and select a Windows app and continue with the next steps in **Add App** wizard.
3. In step 5(Configure), click **Install Application configuration settings** to view the **Configuration Setup** page.
4. Select the **Schedule Installation** checkbox.



Schedule Installation checkbox is displayed only when Silent installation is enabled.

5. Select a **Start Time** and a **End Time** to schedule the time to install apps.
6. Select a **Start Date** and a **End Date** to schedule the date to install apps.



You can also select one of the following two actions that should be performed when the scheduled date is missed: **Install during next check-in** or **Do not install**.

7. Select an App Configuration distribution option: **Everyone with App, No One**, or **Custom**.
8. Click **Done**.



Apps that need to be scheduled should not be added into Apps@Work.

App scheduling is not applicable for Store apps since silent installation of Store apps is not supported.

Windows BIOS Configuration

Administrators can set Windows BIOS settings on Lenovo devices. At least one Lenovo device that supports BIOS settings must be enrolled to set this configuration.

To configure:

1. Go to **Configuration** > **+Add**.
2. Select **Windows BIOS** configuration.
3. Enter a name for the configuration.
4. Enter a description.
5. In the Choose device model section, select the device model from the drop down list.

6. In the Configuration Setup section, configure the following options:



The list of settings vary depending on what is available for the specific device model that is enrolled.

Setting	What to do
AMT Control	Select any of the following options: <ul style="list-style-type: none"> • Disable • Enable
Adaptive Thermal Management AC	Select any of the following options: <ul style="list-style-type: none"> • Balanced • Maximized Performance
Adaptive Thermal Management Battery	Select any of the following options: <ul style="list-style-type: none"> • Balanced • Maximized Performance
Always On USB	Select any of the following options: <ul style="list-style-type: none"> • Disable • Enable
BIOSPasswordAtBootDeviceList	Select any of the following options: <ul style="list-style-type: none"> • Disable • Enable
BIOS Password At Reboot	Select any of the following options: <ul style="list-style-type: none"> • Disable • Enable
BIOS Password At Unattended Boot	Select any of the following options: <ul style="list-style-type: none"> • Disable • Enable

BIOS Update By End Users	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
Bluetooth Access	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
Boot Device List F12 Option	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
Boot DisplayDevice	Select any of the following options: <ul style="list-style-type: none">• DisplayPort• Dock Display• HDMI• LCD
BootMode	Select any of the following options: <ul style="list-style-type: none">• Diagnostics• Quick
Boot Order Lock	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable

BootTimeExtension	Select any of the following options: <ul style="list-style-type: none">• 1• 10• 2• 3• 5• Disable
BottomCover Tamper Detected	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
CPU Power Management	Select any of the following options: <ul style="list-style-type: none">• Automatic• Disable
Computrace Module Activation	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
Data Execution Prevention	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
Ethernet LAN Access	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable

Ethernet LAN Option ROM	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
Fingerprint Password Authentication	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
Fingerprint Pre-desktop Authentication	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
Fingerprint Reader Access	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
Fingerprint Reader Priority	Select any of the following options: <ul style="list-style-type: none">• External• Internal Only
Fingerprint Security Mode	Select any of the following options: <ul style="list-style-type: none">• High• Normal
Fn Ctrl Key Swap	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable

FnKeyAsPrimary	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
FnSticky	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
IPv4 Network Stack	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
IPv6 Network Stack	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
Integrated Camera Access	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
InternalStorageTamper	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
Keyboard Beep	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable

Lock BIOS Setting	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
Memory Card Slot Access	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
Microphone Access	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
Minimum Password Length	Select any of the following options: <ul style="list-style-type: none">• 4• 5• 6• 7• 8• 9• 10• 11• 12• Disable

NFFControl	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
Nfc Access	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
On By Ac Attach	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
PasswordBeep	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
PasswordCountExceededError	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
Physical Presence For Tpm Clear	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
Physical Presence For Tpm Provision	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable

Rapid Start Technology	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
SecureBoot	Select Enable
Secure Roll Back Prevention	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
Security Chip	Select any of the following options: <ul style="list-style-type: none">• Active• Disable• Enable• Inactive
Smart Card Slot Access	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
SpeedStep	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
Startup Option Keys	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable

TXT Feature	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
Total Graphics Memory	Select any of the following options: <ul style="list-style-type: none">• 256 MB• 512 MB
TouchPad	Select any of the following options: <ul style="list-style-type: none">• Automatic• Disable
TrackPoint	Select any of the following options: <ul style="list-style-type: none">• Automatic• Disable
USB30 Mode	Select any of the following options: <ul style="list-style-type: none">• Automatic• Disable• Enable
USB BIOS Support	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
USB Port Access	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable

Uefi Pxe Boot Priority	Select any of the following options: <ul style="list-style-type: none">• IPv4 First• IPv6 First
VTd Feature	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
Virtualization Technology	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
Wake On LAN	Select any of the following options: <ul style="list-style-type: none">• AC Only• AC and battery• Disable• Enable
Wireless LAN Access	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable
Wireless WAN Access	Select any of the following options: <ul style="list-style-type: none">• Disable• Enable

7. Click **Next**.

8. Select one of the following distribution options:

- All Devices
- No Devices(default)
- Custom

9. Click **Done**.

Windows BitLocker

As an administrator, you can bulk update of recovery key for a set of encrypted Windows 10 devices by uploading an Excel file with the device GUID and recovery password.

To upload the Excel file for the bulk update of recovery key:

1. Go to the **Admin>Windows BitLocker**.
2. Click **Download sample csv file** to download the sample CSV file to download and view an example of .csv file.
3. Create and add the records for the BitLocker recovery keys .csv file.
4. Click **Upload recovery passwords**
5. Click **Choose File** to upload the .csv file you have created.
6. Click **Upload**. Uploading a new file with previously uploaded keys will overwrite the old entries.



A maximum of 1000 records can be submitted in each upload. After a successful upload, you can view the individual keys in the device details of the specific device.

Windows Kiosk Configuration

Using Windows Kiosk configuration, you can configure single or multiple-app kiosk on Windows 10 devices. By applying this configuration, the kiosk users are restricted from accessing any features outside the kiosk apps. This configuration requires Windows Bridge to be enabled.

The following are 3 modes in which the configuration can be applied.

- Single Application
- Multiple Applications (fetch list of application from Windows device)
- Multiple Applications (select an existing layout from Start Menu configuration)




Applications used for a Windows Kiosk configuration should be already present on a device before entering into a configured Windows Kiosk mode.

To configure Windows Kiosk configuration:

1. Go to **Configuration** > **+Add**.
2. Select **Windows Kiosk** configuration.
3. Enter a name for the configuration.
4. Enter a description.

-
5. In the Configuration Setup section, specify the remaining settings as described in the following table.

Setting	What To Do
Select Kiosk mode: Select any of the following 3 options.	
Single Application	<p>Select this option to configure single application kiosk mode for a device.</p> <p>a. In the Select Windows Device (optional) section, choose a Windows 10 device. Click Fetch Apps from Device to fetch the list of apps from a device. The device you select should be under your supervision and requires a check-in to successfully fetch app data.</p> <hr/> <p> To skip these steps, select the Skip this step. You can change your mind later if desired checkbox.</p> <hr/> <p>b. Click Add From Fetched App List to add apps from the fetched list.</p> <p>c. Select a single app by clicking the radio button in the Name column of the app. Click Add New to add a new app to the list. To delete an app from the list, click on the Delete icon.</p>

**Multiple Applications
(Fetch list of Applications
from Windows device)**

Select this option to configure multiple applications kiosk mode for a device.

- a. In the **Select Windows Device (optional)** section, choose a Windows 10 device. Click **Fetch Apps from Device** to fetch the list of apps from a device. The device you select should be under your supervision and requires a check-in to successfully fetch app data.



To skip these steps, select the **Skip this step. You can change your mind later if desired** checkbox.

- b. In the **Kiosk Apps and Start Menu Layout**, click **Add From Fetched App List**. The **Select Kiosk App** window is displayed. Select the app(s) from the fetched list and click **Use Selected App**.

-
- c. In the Additional Allows Apps section, click **Add From Fetched App List**. The **Select Kiosk App** window is displayed. Select the app(s) from the fetched list and click **Use Selected App**.

Additional allowed apps are the apps that are considered as dependencies for the selected apps in the **Kiosk Apps and Start Menu Layout**. Without 'allowed apps', the OS does not allow to run this application even when the application icon is displayed in Start Menu.



- d. Click **Add New** to add a new app to the list. To delete an app from the list, click on the Delete icon. You can drag and move an app in the list to any position in the list.
- e. In the **Multiple App Other settings**, select the required options:
- **Hide Power Button**
 - **Hide User Tile**
 - **Hide Taskbar**

Multiple Applications (Select an existing layout from Start Menu Configuration)	If you have created a Start menu layout configuration, you can import the configuration and use it to configure the multiple-application mode by selecting this option. a. In the Select Layout section, Select a layout that has been previously setup as a Start Menu Configuration. Previously created configurations with applicable layout parameters are displayed in the drop-down list below. b. In the Multiple App Other settings, select the required options: <ul style="list-style-type: none">• Hide Power Button• Hide User Tile• Hide Taskbar
--	---

6. Click **Next**.
7. Select one of the following distribution options:
 - All Devices
 - No Devices(default)
 - Custom
8. Click **Done**.



For the configuration to take complete effect, the device should be rebooted after applying or updating a Windows Kiosk configuration. Depending on applications for multi-app kiosk configuration, it is required to reboot a device the second time. Some icons may be missed on the first login, but the missing icons will be displayed on login after the second reboot.

Device has to be rebooted after applying, deleting or updating a Kiosk configuration. It can be done with Restart/Shutdown device command from the device action menu. Without reboot:

-
- Device is not entered into Kiosk mode automatically after applying a Kiosk configuration.
 - Device does not exit from Kiosk mode automatically after deleting an applied Kiosk configuration.
 - Device does not change the running Kiosk configuration.

If a device with an applied kiosk configuration receives an updated configuration, Windows OS on the device removes an existing kiosk user and recreates a new one kiosk user with a new kiosk configuration. The session for the current user should be ended explicitly with reboot of the device.

It is preferable to configure with '.lnk' files for a multi-app kiosk configuration and '.exe' for a single-app kiosk configuration. An imported Start Menu configuration from a device uses the '.lnk' format. Start Menu items created manually for '.exe' applications sometime could be not displayed in Start Menu of multi-app kiosk configuring depending on '.exe' application.

For example, Windows Media Player can be added to Start Menu using one of the following '.lnk' files:

- %ALLUSERSPROFILE%\Microsoft\Windows\Start Menu\Programs\Accessories\Windows Media Player.lnk
- %ALLUSERSPROFILE%\Microsoft\Windows\Start Menu\Programs\Windows Media Player.lnk

If this app is added directly with any of the following '.exe' file, a corresponding icon will not be displayed, even the first '.exe' path is used internally in the above '.lnk' files:

- C:\Program Files (x86)\Windows Media Player\wmplayer.exe
- %ProgramFiles(x86)%\Windows Media Player\wmplayer.exe
- C:\Program Files\Windows Media Player\wmplayer.exe

For single-app kiosk configuration, you can add arguments to exe file. E.g. '%ProgramFiles%\Internet Explorer\iexplore.exe -k www.bing.com'. However, the icon for exe app with arguments are not displayed in the Start Menu in case of multi-app configuration. If you need an exe app with arguments in multi-app kiosk configuring, use '.lnk' file which can have arguments internally. '.lnk' does not work in case of a single-app kiosk configuration.

Dependencies in multi-app kiosk mode

Win32/64 applications could require dependencies added to Additional Allowed Apps' section in case of multi-app kiosk mode. 'Additional Allowed Apps' are not required for a single-app kiosk mode.

Example 1: For Windows Media Player app, the following dependencies are required in multi-app kiosk mode:

-
- C:\Program Files (x86)\Windows Media Player\wmplayer.exe
 - %ProgramFiles(x86)%\Windows Media Player\setup_wm.exe

The first dependency is the app binaries called from corresponding ".lnk" file. The second one is one-time wizard called from the first dependency.

Without 'Allowed Apps', OS does not allow to run this application even when the application icon is displayed in Start Menu.

Example 2: For Internet Explorer, its icon is displayed in Start Menu if it is configured with any item from the following list:

- %APPDATA%\Microsoft\Windows\Start Menu\Programs\Accessories\Internet Explorer.lnk
- %USERPROFILE%\AppData\Roaming\Microsoft\Windows\Start Menu\Programs\Accessories\Internet Explorer.lnk
- C:\Program Files\internet explorer\iexplore.exe
- %ProgramFiles%\Internet Explorer\iexplore.exe

Internet Explorer requires the following dependencies:

- C:\Program Files (x86)\Internet Explorer\iexplore.exe
- C:\Program Files (x86)\Internet Explorer\ExtExport.exe
- C:\Program Files (x86)\Internet Explorer\ieinstal.exe
- C:\Program Files (x86)\Internet Explorer\ielowutil.exe

The first dependency is app binaries required for '.lnk' item only, the other dependencies for one-time wizard. Without the first dependency, OS blocks the app with the popup. Without other dependencies, the application is closed just after startup without any additional notifications from OS.

Windows License Configuration

The Windows License configuration upgrades the operating system on the device such as Windows 10 Pro to Windows 10 Enterprise. In addition, this configuration provides the capability to activate or change the product key of Windows 10 desktop devices.

To upgrade a Windows license:

1. Go to **Configuration > +Add**.
2. Select **Windows License** configuration.
3. Enter a name for the configuration.
4. In the **Configuration Setup** section, type the Windows **Product Key**.
5. Click **Next**.
6. Select one of the following distribution options:
 - All Devices
 - No Devices(default)
 - Custom
7. Click **Done**.

Software update recommendation cadence configuration

Administrators have an option to allow users to view and update the devices to highest numbered (most recent) release or lower numbered (oldest) release or both.

Applicable to: iOS and iPadOS14.5+ (supervised)

Procedure

1. Go to **Configurations** > **+Add**.
2. Type **Software update recommendation** in the search field, and then click the **Software Update recommendation cadence** configuration.
3. Enter a **Name** and **Description** of the configuration.
4. Select the required configuration setup from the drop-down:
 - Present both software update versions
 - Present the lower numbered (oldest) software update version
 - Present only the highest numbered (most recent) software update version
5. Click **Next**.
6. Select **Enable this configuration** option.
7. Select one of the following distribution options:
 - All Devices
 - No Devices (default)
 - Custom.
8. Click **Done**.

Policies

Policies define requirements for devices, as well as what will happen if a device does not comply with requirements. Each policy consists of a rule and a compliance action (what happens if the rule is violated). Use the **Policies** page to select, set up, and distribute policies.

This section contains the following topics:

- ["Working with Policies" on page 1002](#)
- ["Custom Policy" on page 1008](#)
- ["Monitoring and Controlling Allowed Apps" on page 1046](#)
- ["Prioritizing Policies" on page 1057](#)
- ["Windows Hardware policy" on page 1058](#)

Working with Policies

This section contains the following topics:

- ["Implement policies" below](#)
- ["Compliance Actions" on page 1004](#)
- ["Finding an existing policy" on page 1005](#)
- ["Adding a policy" on page 1006](#)
- ["Editing a policy" on page 1006](#)
- ["Deleting a policy" on page 1006](#)

Implement policies

Policies define requirements for devices, as well as what will happen if a device does not comply with requirements. Each policy consists of a rule and a compliance action (what happens if the rule is violated). Use the **Policies** page to select, set up, and distribute policies.

The following policy types are available:

Type	What It Does
Compromised Devices	<p>Flags devices that have been jailbroken (iOS) or rooted (Android).</p> <p>To view the violation reason why the system flagged an Android device as compromised due to rooting:</p> <ol style="list-style-type: none">1. Click the Policies tab2. Click the Compromised Devices link.3. Click the Active Violations tab.4. Check the violation reason in the Violation column. <p>To view the violation reason why the system flagged an Android device as compromised due to rooting:</p>

Type	What It Does																				
	<ol style="list-style-type: none"> 1. Click the Policies tab. 2. Click the Compromised Devices link. 3. Click the Active Violations tab. 4. Check the violation reason in the Violation column. It will be one of the following reasons: <table border="1" data-bbox="680 594 1463 1287"> <thead> <tr> <th data-bbox="688 604 902 695">Priority (1 = highest)</th> <th data-bbox="902 604 1463 695">Violation</th> </tr> </thead> <tbody> <tr> <td data-bbox="688 695 902 758">1</td> <td data-bbox="902 695 1463 758">Plugin compromised</td> </tr> <tr> <td data-bbox="688 758 902 821">2</td> <td data-bbox="902 758 1463 821">Client tampered</td> </tr> <tr> <td data-bbox="688 821 902 884">3</td> <td data-bbox="902 821 1463 884">Unknown device manufacturer: unknown</td> </tr> <tr> <td data-bbox="688 884 902 947">4</td> <td data-bbox="902 884 1463 947">Suspicious folder detected: [path]</td> </tr> <tr> <td data-bbox="688 947 902 1010">5</td> <td data-bbox="902 947 1463 1010">Suspicious binary found at: [path]</td> </tr> <tr> <td data-bbox="688 1010 902 1104">6</td> <td data-bbox="902 1010 1463 1104">Folder /data is browsable OR Folder /data/data is browsable</td> </tr> <tr> <td data-bbox="688 1104 902 1167">7</td> <td data-bbox="902 1104 1463 1167">Found /system/app/Superuser.apk</td> </tr> <tr> <td data-bbox="688 1167 902 1230">8</td> <td data-bbox="902 1167 1463 1230">Package manager compromised</td> </tr> <tr> <td data-bbox="688 1230 902 1287">9</td> <td data-bbox="902 1230 1463 1287">Suspicious app found: [package]</td> </tr> </tbody> </table>	Priority (1 = highest)	Violation	1	Plugin compromised	2	Client tampered	3	Unknown device manufacturer: unknown	4	Suspicious folder detected: [path]	5	Suspicious binary found at: [path]	6	Folder /data is browsable OR Folder /data/data is browsable	7	Found /system/app/Superuser.apk	8	Package manager compromised	9	Suspicious app found: [package]
Priority (1 = highest)	Violation																				
1	Plugin compromised																				
2	Client tampered																				
3	Unknown device manufacturer: unknown																				
4	Suspicious folder detected: [path]																				
5	Suspicious binary found at: [path]																				
6	Folder /data is browsable OR Folder /data/data is browsable																				
7	Found /system/app/Superuser.apk																				
8	Package manager compromised																				
9	Suspicious app found: [package]																				
Data Protection/Encryption Disabled (macOS only)	Flags macOS devices that do not have a passcode or encryption enabled.																				
International Roaming	<p>Flags devices that might be incurring international roaming charges. Status is refreshed when the device checks in.</p> <p>For iOS, the service uses the roaming flag as set and reported by iOS. The compliance action is triggered by the first violation only.</p>																				
MDM/Device Administration Disabled	If the device is MDM-disabled, then it will not be evaluated for any other policies or delta processing of configurations or apps further																				

Type	What It Does
	during check-ins.
Out of Contact	Flags devices that have been out of contact with Ivanti Neurons for MDM for the specified time range. Choose the actions to take if the device has not checked in for a specified range of hours (2-3 to 23-24) or number of days.
MI Client Out of Contact (iOS only)	Flags Ivanti Neurons for MDM clients that have been out of contact with Ivanti Neurons for MDM for the specified time range. Choose the actions to take if the client has not checked in for a specified range of hours (2-3 to 23-24) or number of days. This is also applicable for devices registered via iReg. The policy marks a device as non-compliant if there is no client or if the client has not checked-in for a defined period of time.
Allowed Apps	Flags devices that violate rules about which apps are allowed or required.
Custom Policy	Creates a custom policy based on conditions and related actions you specify.

Compliance Actions

The following compliance actions are available:

Compliance Action	What It Does
Monitor	Flags the device in the Ivanti Neurons for MDM Devices page. By default, this action is turned on.
Block	Instructs Access and /or Sentry to block a device if the device tries to access a resource via Sentry or Access after the policy has been violated as of the last check-in details.
Send message to user	<ul style="list-style-type: none"> Flags the device in the Ivanti Neurons for MDM Devices page. Sends an email to the device owner.

Compliance Action	What It Does
Quarantine	<ul style="list-style-type: none"> • Sends a push notification to the device. • Removes most configurations from the device. <ul style="list-style-type: none"> • Exceptions: passcode configurations, Wi-Fi configurations for Wi-Fi-only devices, Restriction configurations (iOS). • Removes all apps installed by Ivanti Neurons for MDM. • Removes all content distributed by Ivanti Neurons for MDM, including iBook and ePub files. • Blocks access to Ivanti Neurons for MDM catalogs. • Suspends prompts for installing additional apps. • Blocks access to AppConnect-enabled apps. • Includes support for AppConnect-enabled apps. • If turned on, suspends personal apps on the personal side of the quarantined device to indicate that device user needs to address the compliance issues on the device to make it functional. Supported on Android 11+ Devices provisioned as a Work Profile on Company Owned Device.

Finding an existing policy

You can use filters and the search feature in the Policies page to find one or more existing policies.

Procedure

1. Go to **Policies**.
2. To filter a list of policies that match certain criteria, click **Filters**.
3. Select one or more filter criteria.
4. To search for an existing policy by its name, enter the policy name in the **Search** field.

Adding a policy

Procedure

1. Go to **Policies**.
2. Click **+Add** (upper right).
3. Select a policy type.
4. Complete the settings.
5. Select the device groups you want to receive this policy.



You can distribute to a maximum of 100 configuration files at once.

6. Click **Done**.

Editing a policy

Procedure

1. Go to **Policies**.
2. For the required policy, click the **Edit** (pencil) icon under the Actions column.
3. Make your changes.
4. Save the changes.

Deleting a policy

Procedure

1. Go to **Policies**.
2. For the required policy, click the **Remove** icon under the Actions column.
3. Click **Yes** to confirm.

If you cannot see the Policies page, it might be that you do not have the required permissions. You need one of the following [roles](#):

-
- Device Management
 - Device Read Only

For more information, see [Prioritize policies](#).

Custom Policy

[Policies](#)

License: Platinum

Eligible devices: Android, iOS, macOS, Windows.

Allows you to create a custom policy based on device and user attributes, section criteria, values, and compliance actions you specify.



Even Android Security Patch level setting can be used when defining a custom policy.

Adding a custom policy

1. Go to **Policies**.
2. Click + **Add**.
3. Select **Custom Policy**.
4. Provide a name for the custom policy.
5. Click + **Add Description** to enter additional details if desired.
6. Use the Rule Builder to define conditions that trigger actions when the conditions evaluate as true. See [Understanding the conditions settings](#) for guidance on creating the conditions. The Ivanti Neurons for MDM administrator displays the number of duplicate user groups and the corresponding number of GUIDs to identify duplicate groups, when the User Group Name attribute is selected in the rule builder. Also, a table under this rule displays the list of the duplicate user groups and their details such as User Group Name, GUID, Source, and distinguished name (DN).
7. Select one of the compliance actions (see Default Actions below) to take when the specified conditions are met. Adding the action "**Wait**" in between other actions provides a way to allow device users to fix their device and get it back into compliance before additional actions are taken. As an example, you may want to send a warning message and wait 24 hours before applying a quarantine action.

8. Select the **Send a notification when the device comes back into compliance** option, which is turned off by default.

- **Send Email** - Sends an email to the device user's email address notifying them when the device comes back into compliance.
- Turn on the **Use the Compliance Policy Email Template** option to insert the message you configure here into the policy notification email template you configure as described in ["Customizing an email template" on page 1325](#) in ["Branding Email Templates" on page 1323](#). See ["Configuring and using policy compliance notification emails" on page 23](#) for an overview.

1 Send Notification Hide Message

Send E-mail Notification Send Push Notification Send Both

Use the Compliance Policy Email Template ?

- You can customize the messages by including optional substitution variables to provide recipients more details about policy violations and other relevant information. Click the following attribute types to display the complete list of variables:
 - Policy Attributes including `${nameOfPolicy}`, `${nextAction}`, and `${nonComplianceTime}`.
 - User Attributes including `${sAMAccountName}`, `${userCN}`, and `${userEmailAddressDomain}`.
 - Device Attributes including `${deviceClientDeviceIdentifier}`, `${deviceIMEI}`, and `${deviceModel}`.
 - Custom Device/User/LDAP attributes that are created from the **Admin > Attributes** page.
- **Send Push Notification** - Sends a push notification to the device when the device comes back into compliance.


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- **Send Both** - Sends both a push notification to the device and an email to the device user's email address notifying them when the device comes back into compliance. You can customize the messages by including optional substitution variables to provide recipients more details as described previously for the Send Email action.


Default actions:

- **Monitor** - Currently always selected. Sentry version 9.0.0 or later is required to utilize the tiered compliance actions.
- **Do Nothing**
- **Send Notification**
 - **Send Email** - Sends an email to the device user's email address notifying them that the device is out of compliance.
 - You can use the policy notification email template as described above.
 - You can customize the messages by including optional substitution variables to provide recipients more details about policy violations and other relevant information. This provides users of non-compliant devices with relevant information about the policy violation so they can take remedial actions. Click the following attribute types to display the complete list of variables:
 - Policy Attributes including `${nameOfPolicy}`, `${nextAction}`, and `${nonComplianceTime}`.
 - User Attributes including `${sAMAccountName}`, `${userCN}`, and `${userEmailAddressDomain}`.
 - Device Attributes including `${deviceClientDeviceIdentifier}`, `${deviceIMEI}`, and `${deviceModel}`.
 - Custom Device/User/LDAP attributes that are created from the **Admin > Attributes** page.
 - **Send Push Notification** - Sends a push notification to the device that the device is out of compliance.
 - **Send Both** - Sends both a push notification to the device and an email to the device user's email address notifying them the device is out of compliance. You can customize the messages by including optional substitution variables to provide recipients more details as described previously for the Send Email action.

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- **Block** - Uses Sentry to block managed devices from accessing email and AppConnect-enabled applications. Sentry version 9.0.0 or later is required to utilize the block action.
 - **Retire** - Retires the device. **This action cannot be undone.** For example, there can be a rule to retire the devices for all the disabled users by using the User Enabled condition.
 - **Wait** - Delays action for a specified time period (hours or days) to allow users to remediate the violation before additional actions are taken if the device remains in a non-compliant state.

- **Quarantine** - Removes access to apps, content, and servers as per the following actions:

(Optional) Additional Quarantine Actions	Description
Quarantine Managed Applications	<p>Removes Ivanti Neurons for MDM managed apps from the device and enables the Block New App Downloads option to block the apps from being re-installed on the device.</p> <p>Select one of the following options:</p> <ul style="list-style-type: none"> • All Applications • Designated Applications - Add one or more apps by lookup or manually (using Bundle ID or Package Name). Click the View Apps tab to review the list of added apps. The Block App Store Access default quarantine action is no longer available. <hr/> <p> On certain devices, the Quarantine action will not remove the application from the device due to certain device limitations.</p> <hr/>
Block New App Downloads	<p>Prevents download of any new apps to the device.</p> <p>Select one of the following options:</p> <ul style="list-style-type: none"> • All Applications • Designated Applications - Add one or more apps by lookup or manually (using Bundle ID or Package Name). Click the View Apps tab to review the list of added apps. The Block App Store Access default quarantine action is no longer available.

	<p>By default this option is selected (for both All Applications and Designated Applications) and cannot be de-selected. This blocks the apps from being re-installed on the device.</p>
Remove Configurations	<p>Removes Ivanti Neurons for MDM configurations from the device.</p> <p>Select one of the following options:</p> <ul style="list-style-type: none"> • All Configurations • Designated Configurations - Select one or more configurations from the list or search for them. Click the Selected Configurations tab to review the list of selected configurations.
Push Designated Configurations	<p>Distribute designated configurations as part of custom compliance.</p> <p>This list contains configurations meeting the following criteria:</p> <ul style="list-style-type: none"> • Enabled configuration • Non-system configuration • Quarantinable configuration • Configurations created in the current space or delegated from the default space <hr/> <p> For the list of non-quarantinable configurations, see Non-quarantinable configurations.</p> <hr/> <p>For more information, see the "Pushing a designated configuration" on page 1015 section after this procedure.</p>
Remove Content	<p>Removes all content and media associated with the</p>

	apps distributed by Ivanti Neurons for MDM from the device.
Suspend Personal Apps	Suspend apps on the personal side of the quarantined device to indicate that device user needs to address the compliance issues on the device to make it functional. Supported on Android 11+ Devices provisioned as a Work Profile on Company Owned Device.
Default Quarantine Actions - these actions are always performed.	
Block App Store Access	Prevents the device from accessing app stores via Ivanti Neurons for MDM.
Block Content Store Access	Prevents the device from accessing content store via Ivanti Neurons for MDM.
Block AppConnect	Prevents the device from using AppConnect features.
Block AppTunnel	Prevents applications on the device from accessing content and servers via AppTunnel.
Block ActiveSync	Prevents the device from accessing email via the ActiveSync server.

1. Click the **Yes** check box to affirm that you understand that if this policy has previously been triggered on a device, adding the tiered policy will reset the policy and any compliance actions that had previously been applied. The new custom policy takes effect upon the next device check-in. If you selected the Retire action, then click **Yes** to affirm that you understand that you cannot undo the action.
2. Click **Next** to configure which devices the policy and actions will apply to.
3. Click **Done**.

The following table illustrates the quarantine behavior on various Android devices when the Ivanti Neurons for MDM is the initiator of the quarantine action:

Devices	Quarantine behavior
Samsung devices in Device Admin mode via the Go client app	<ul style="list-style-type: none"> • Uninstall both managed public and in-house apps • Remove certain profiles (excluding Mobile Threat Defense and others)
Non-Samsung devices in Device Admin mode via the Go client app MAM via the AppStation app	<ul style="list-style-type: none"> • Do not support uninstalling or hiding both managed public and in-house apps • Remove certain profiles (excluding Mobile Threat Defense and others)
Android Enterprise via the Go client app	<ul style="list-style-type: none"> • Hide both managed public and in-house apps • Remove certain profiles (excluding Mobile Threat Defense and others)

Pushing a designated configuration

Distribute designated configurations as part of custom compliance. Configure the Custom Policy to distribute a set of configurations when a device goes out of compliance. Reset the device to its previous state as part of remediation action when a device status changes from non-compliant to compliant status.



An error occurs when an administrator tries to delegate a custom policy that has non-delegated configurations under the Push Designated Configurations tab.

The following are the behaviors when configurations are pushed via custom policies under certain conditions:

Condition(s)	Behavior
Two configurations of same type are selected which have priority set	Configuration with the higher priority will be pushed to the device.
Two configurations of same type are selected which do not have priority set	Both configurations will be pushed to device. May result in unexpected behaviors.
When device already has a configuration of the same type which supports priority defined in the Custom Policy	The configuration defined in the Custom Policy will take precedence and will be pushed to the device. The one existing on the device will be removed irrespective of priority (even if its priority is higher than the one defined in custom policy).
When device already has a configuration of the same type which does not support priority defined in the Custom Policy	The configuration defined in the Custom Policy will be pushed to the device. Both configurations will be present on the device. May result in unexpected behaviors.
If the priority of a configuration is changed after the Custom Policy is created	On device check-in, the configuration with the highest priority will be pushed if it is part of the Custom Policy.
<p>When both conditions are met:</p> <ul style="list-style-type: none"> • Condition A: When a device with a violation has had a configuration pushed as part of a custom policy (and it took priority over a configuration of the same type already on the device). • Condition B: Violation has been remediated and device is no longer in quarantine 	The configuration defined in the Custom Policy will be removed and the one of the same type on the device before quarantine will be pushed through the application of existing device groups, reverting the device back to its original state.

In the Quarantine action, if you select Remove Configurations along with Push Designated Configurations, note the following rules:

- Remove all configurations + Push Designated Configurations: In this scenario, all configurations from the device will be removed and the configurations selected under Push Designated Configurations will be pushed to the device.

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- Remove designated configuration(s) (in one custom policy) + Push Designated Configuration(s) (in another custom policy) with common configuration(s) in the selection of both: As the configurations are selected in two different compliance policies, the most restrictive approach would be taken i.e. the configuration(s) will be removed from the device.

You can delegate a custom policy from the default [space](#) to a custom space. For a custom policy to be delegated, the configurations mentioned in the custom policy under the Push Designated Configurations tab need to be delegated to spaces.

On the [Devices](#) page, you can click the name of a device to visit the device details page. Under the Configurations tab, the Distribution Method column indicates the distribution method for a configuration pushed to the device. It can be either "Device Group" or "Compliance Action."

On the Configurations page, for each configuration, Ivanti Neurons for MDM displays a count of devices that received the configuration via device group and via compliance action.

Understanding the conditions settings

The following table describes some fields available to build rules:

UI Field	Description	Possible values	Supported Platforms
APNS Capable	This field indicates whether the device is APNS capable.	Possible operators are: <ul style="list-style-type: none">• is equal to• is not equal to Possible values are Yes and No.	iOS/macOS/Android

UI Field	Description	Possible values	Supported Platforms
Battery Information	<p>This field has the following attributes:</p> <ul style="list-style-type: none"> • Battery Level - Displays current battery charge level as reported by the Android OS • Battery Health Status - As reported by the Android OS • Battery Charging Status - As reported by the Android OS • Battery Health Percentage (OEM Specific) - Battery health in percentage for supported device manufacturers such as Zebra devices 	<p>For information on possible values, see Using Advanced Search.</p>	<p>Android</p>

UI Field	Description	Possible values	Supported Platforms
	<ul style="list-style-type: none"> • Battery Manufacture Date (OEM) - Battery manufactured date for supported device manufacturers such as Zebra devices • Battery Charge Cycles (OEM) - Number of cycles completed in total for supported device manufacturers such as Zebra devices 		
Bootstrap Token Available	This field indicates whether a bootstrap token is available for a device.	Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to Possible values are Yes and No.	macOS

UI Field	Description	Possible values	Supported Platforms
Client Last Check-in	This field indicates the last check-in time of the client.	Possible operators are: <ul style="list-style-type: none"> • is less than • is greater than Enter the numerical value of last check-in time. Select any of the following option for the duration: <ul style="list-style-type: none"> • hours • days Example: Client Last Check-in is less than 12 hours ago.	iOS/macOS/Android
Client Registered	This field indicates the status of the client registered.	Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to Possible values are Yes and No.	iOS/macOS/Android

UI Field	Description	Possible values	Supported Platforms
Compromised	This field indicates whether the device is rooted/compromised.	Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to Possible values are: <ul style="list-style-type: none"> • jailbroken or rooted • not compromised 	iOS/Android
Current Country Name	This field indicates the name of the current country corresponding to the Mobile Country Code (MCC) or Mobile Network Code (MNC) that the device reports to be currently connected.	Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to Possible value is a drop down list value that indicates the home country name.	iOS/macOS/Android
Current MCC	This field indicates the current mobile country code	Enter the attribute's value to be verified. Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to 	iOS/macOS/Android

UI Field	Description	Possible values	Supported Platforms
Current MNC	This field indicates the current mobile network code	Enter the attribute's value to be verified. Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to 	iOS/macOS/Android
Custom Device Attribute	This field enables adding an existing custom device attribute as a condition of a rule to verify its value.	Enter the attribute's value to be verified. Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to • contains • does not contain Value can be a string of ASCII characters, including Space and Unicode characters.	iOS/macOS/Android/Windows

UI Field	Description	Possible values	Supported Platforms
Custom LDAP Attribute	This field enables adding an existing custom LDAP attribute as a condition of a rule to verify its value.	Enter the attribute's value to be verified. Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to • contains • does not contain Value can be a string of ASCII characters, including Space and Unicode characters.	iOS/macOS/Android/Windows
Custom User Attribute	This field enables adding an existing custom user attribute as a condition of a rule to verify its value.	Enter the attribute's value to be verified. Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to • contains • does not contain Value can be a string of ASCII characters, including Space and Unicode characters.	iOS/macOS/Android/Windows

UI Field	Description	Possible values	Supported Platforms
Data Roaming	This field enables data roaming to be used as a condition of a rule to verify its value.	<p>Possible operators are:</p> <ul style="list-style-type: none"> • is equal to • is not equal to <p>Possible values are Yes and No.</p> <p>Default value is No if the supported device does not report info about this field.</p>	iOS/Android
Device Type	This field represents the device model.	<p>Possible operators are:</p> <ul style="list-style-type: none"> • is equal to • is not equal to • begins with • ends with <p>Possible value is a text value.</p>	iOS/macOS/Android/Windows
Encryption Enabled	This field determines whether the device is encryption/data protection enabled.	<p>Yes - Device is encryption/data protection enabled.</p> <p>No - Device is not encryption/data protection enabled.</p>	iOS/Android/Windows

UI Field	Description	Possible values	Supported Platforms
GUID	This field indicates the device GUID.	Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to • begins with • ends with 	iOS/macOS/Android/Windows
Home Country Name	This field indicates the name of the home country corresponding to the Mobile Country Code (MCC) or Mobile Network Code (MNC) that is programmed into the SIM or eSIM of the device.	Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to Possible value is a drop down list value that indicates the home country name.	iOS/Android/Windows
Has Failed Windows Update	This field determines whether the device is out of compliance with the latest update rules.	Yes - Device is not compliant with the latest update. No - Device is compliant with the latest update.	Windows
Home MCC	This field indicates the home Mobile Country Code.	Enter the attribute's value to be verified. Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to 	iOS/macOS/Android

UI Field	Description	Possible values	Supported Platforms
Home MNC	This field indicates the home Mobile Network Code	Enter the attribute's value to be verified. Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to 	iOS/macOS/Android
IMEI	This field indicates the IMEI number of the first SIM slot.	Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to • begins with • ends with 	iOS/Android/Windows
IMEI2	This field indicates the IMEI number of the second SIM slot.	Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to • begins with • ends with 	Android
IMSI	This field indicates the IMSI number of the SIM card.	Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to • begins with • ends with 	Android/Windows

UI Field	Description	Possible values	Supported Platforms
Last Check-in	This field allows you to set conditions related to the last check-in time of the managed device via MDM channel.	<p>Possible operators are:</p> <ul style="list-style-type: none"> • is less than • is greater than <p>Enter the numerical value of last check-in time. Select any of the following option for the duration:</p> <ul style="list-style-type: none"> • hours • days <p>Example: Last Check-in is greater than 12 hours ago.</p>	iOS/macOS/Android/Windows

UI Field	Description	Possible values	Supported Platforms
Last Hotfix ID	This field allows you to set conditions related to the last hotfix ID	Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to • is less than • is less than or equal to • is greater than • is greater than or equal to • contains • does not contain • begins with • does not begin with • ends with • does not end with 	Windows
Last Hotfix Installed On	This field allows you to set conditions related to the hotfix that was last installed.	Possible operators are: <ul style="list-style-type: none"> • is less than • is greater than 	Windows

UI Field	Description	Possible values	Supported Platforms
Locator Services Enabled	This field indicates whether the device has a device locator service (such as Find My iPhone) enabled.	Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to Possible values are Yes and No.	iOS
Manufacturer	This field allows you to set conditions related to manufacturer of the device.	Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to Possible values are: <ul style="list-style-type: none"> • Samsung • NOKIA • HTC • LGE • Apple Inc 	iOS/macOS/Android/Windows
MDM Managed	This field determines whether the device is MDM/Device admin enabled.	Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to Possible values are Yes and No.	iOS/macOS/Android

UI Field	Description	Possible values	Supported Platforms
OS	This field represents the OS type of the device.	Possible operators are: <ul style="list-style-type: none">• is equal to• is not equal to Possible values are: <ul style="list-style-type: none">• macOS• Android• iOS• Windows	iOS/macOS/Android/Windows

UI Field	Description	Possible values	Supported Platforms
OS Build Version	This field represents the OS build version of the device.	Possible operators are: <ul style="list-style-type: none">• is equal to• is not equal to• is less than• is less than or equal to• is greater than• is greater than or equal to• contains• does not contain• begins with• does not begin with• is not blank• is blank• ends with• does not end with	iOS/macOS/Android/Windows

UI Field	Description	Possible values	Supported Platforms
OS Version	This field represents the OS version of the device.	Possible operators are: <ul data-bbox="841 388 1047 976" style="list-style-type: none">• is equal to• is not equal to• is less than• is less than or equal to• is greater than• is greater than or equal to• is in range• is not in range Possible value is text.	iOS/macOS/Android/Windows

UI Field	Description	Possible values	Supported Platforms
OS With Version	This field represents the OS and the OS version of the device	Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to • is less than • is less than or equal to • is greater than • is greater than or equal to • is in range • is not in range Possible value is text.	iOS/macOS/Android/Windows
Ownership	This field indicates the ownership type of the device.	Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to Possible values are: <ul style="list-style-type: none"> • user owned • not set • company owned 	iOS/macOS/Android/Windows

UI Field	Description	Possible values	Supported Platforms
Passcode Compliant With Profiles	This field indicates whether is device is passcode compliant with profiles.	Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to Possible values are Yes and No.	iOS/macOS/Android
Personal Hotspot Enabled	This field indicates whether Personal Hotspot feature is enabled on the device.	Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to Possible values are Yes and No. The Personal Hotspot setting is only available on certain carriers.	iOS
Phone #	This field indicates the device phone number.	Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to • contains • begins with • ends with 	iOS/Android/Windows

UI Field	Description	Possible values	Supported Platforms
Roaming	This field indicates the roaming status of the device.	Possible operators are: <ul style="list-style-type: none">• is equal to• is not equal to Possible values are Yes and No.	iOS/Android/Windows
Sentry Blocked	Indicates whether the device is blocked by Sentry.	Possible operators are: <ul style="list-style-type: none">• is equal to• is not equal to Possible values are Yes and No.	iOS/macOS/Android/Windows

UI Field	Description	Possible values	Supported Platforms
Status	This field indicates the registration status.	<p>Possible operators are:</p> <ul style="list-style-type: none"> • is equal to • is not equal to <p>The default possible value is 'Active.'</p> <hr/> <p>All the other possible values are removed to limit the device state to Active in custom policies, since policy evaluation is done when the device checks in and only Active devices will be checking in and will have their policy evaluated.</p> <hr/>	iOS/macOS/Android

UI Field	Description	Possible values	Supported Platforms
Serial Number	This field indicates the device serial number.	Possible operators are: <ul style="list-style-type: none">• is equal to• is not equal to• begins with• ends with	iOS/macOS/Android/Windows
Supervised	This field indicates whether the device is supervised.	Possible operators are: <ul style="list-style-type: none">• is equal to• is not equal to Possible values are Yes and No.	iOS/macOS

UI Field	Description	Possible values	Supported Platforms
Supplemental Build Version	This field represents the supplemental build version of the device.	Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to • is less than • is less than or equal to • is greater than • is greater than or equal to • contains • does not contain • begins with • does not begin with • ends with • does not end with • is not blank • is blank 	iOS/macOS

UI Field	Description	Possible values	Supported Platforms
Supplemental OS/Version Extra	This field represents the supplemental OS build version of the device.	Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to • is less than • is less than or equal to • is greater than • is greater than or equal to • contains • does not contain • begins with • does not begin with • ends with • does not end with • is not blank • is blank 	iOS/macOS

UI Field	Description	Possible values	Supported Platforms
User Enabled	This field indicates whether the user is enabled.	Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to Possible values are Yes and No.	iOS/macOS/Android/Windows
User Group	This field represents the user group.	Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to 	iOS/macOS/Android/Windows
Voice Roaming	This field indicates whether voice roaming is enabled on the device.	Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to Possible values are Yes and No. The voice roaming setting is only available on certain carriers. Disabling voice roaming also disables data roaming. Default value is not equal to if the supported device does not report info about this field.	iOS

UI Field	Description	Possible values	Supported Platforms
Access Blocked	Indicates whether the device is blocked by Access.	Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to Possible values are Yes and No.	iOS/macOS/Android/Windows
Compliance	Indicates whether the device is compliant or not.	Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to Possible values are In Compliance and Out of Compliance.	iOS/macOS/Android/Windows
Compliance Action Blocked	Indicates whether the device is blocked or not.	Possible operators are: <ul style="list-style-type: none"> • is equal to • is not equal to Possible values are Yes and No.	iOS/macOS/Android/Windows

Non-quarantinable configurations

The following table shows the list of configurations that are non-quarantinable:

OS	Non-Quarantinable Configurations
Android	<ul style="list-style-type: none"> • Android App Catalog • Android Encryption • Android enterprise

OS	Non-Quarantinable Configurations
	<ul style="list-style-type: none"> • Android enterprise App • Android Zebra • Anti-phishing Protection • Android Work Challenge • Device Passcode • File download • Lockdown & Kiosk: Android Device Admin Mode • Lockdown & Kiosk: Samsung Knox Standard • MAM Only • Managed Device with Work Profile/Work Profile on Company Owned Device • Work Managed Devices (Device Owner) • Samsung Phone Restrictions • SafetyNet Attestation • Work Profile on Company Owned Device
iOS and macOS	<ul style="list-style-type: none"> • Anti-phishing Protection (iOS) • App Notifications (iOS) • AppStation Sites (iOS) • Filevault Recovery Key (macOS) • Filevault 2 (macOS) • Global Proxy (iOS) • Home Screen Layout (iOS)

OS	Non-Quarantinable Configurations
	<ul style="list-style-type: none"> • iOS App Control • iOS Restrictions • iOS Software Updates (iOS) • macOS Firewall • macOS Software Updates • MAM Only (iOS) • MI Client Privacy (iOS/macOS) • Network Usage (iOS) • Office 365 Account Creation (macOS) • Single App Mode (iOS) • System Policy Control (macOS) • System Policy Managed (macOS) • System Policy Rule options (macOS) • Time Server (macOS) • Web Content Filter (iOS)
Windows	<ul style="list-style-type: none"> • Windows App Control • Windows Restrictions DDF (Data Definition File) • Windows Firewall • Windows Network Proxy • Windows Restrictions • Windows Update
All	<ul style="list-style-type: none"> • Active Directory

OS	Non-Quarantinable Configurations
	<ul style="list-style-type: none">• Client Services• Mobile Device Management• Mobile Threat Defense Activation• Mobile Threat Defense Local Actions• Passcode• Privacy• Privacy Statement• ServiceConnect• Sync

If you cannot see the Policy page, it might be that you do not have the required permissions. You need one of the following [roles](#):

- Device Management
- Device Read Only

Monitoring and Controlling Allowed Apps

License: Silver

To control which apps are installed on devices, you create an Allowed Apps policy. This policy also supports MobileIron Packager (MIP) in-house macOS apps. The policy contains the following information:

- Allowlist apps
- Blockedlist apps
- required apps
- compliance actions

If an app is both required and Blockedlisted, then the evaluation of the app against the required list takes precedence. For example, if an app A1 is present in both in the required list and the Blockedlist, then the apps policy evaluation for this device behaves as follows:

- Device will be compliant if A1 is installed on the device.
- Device will be non-compliant if A1 is not installed on the device.

Supported Devices

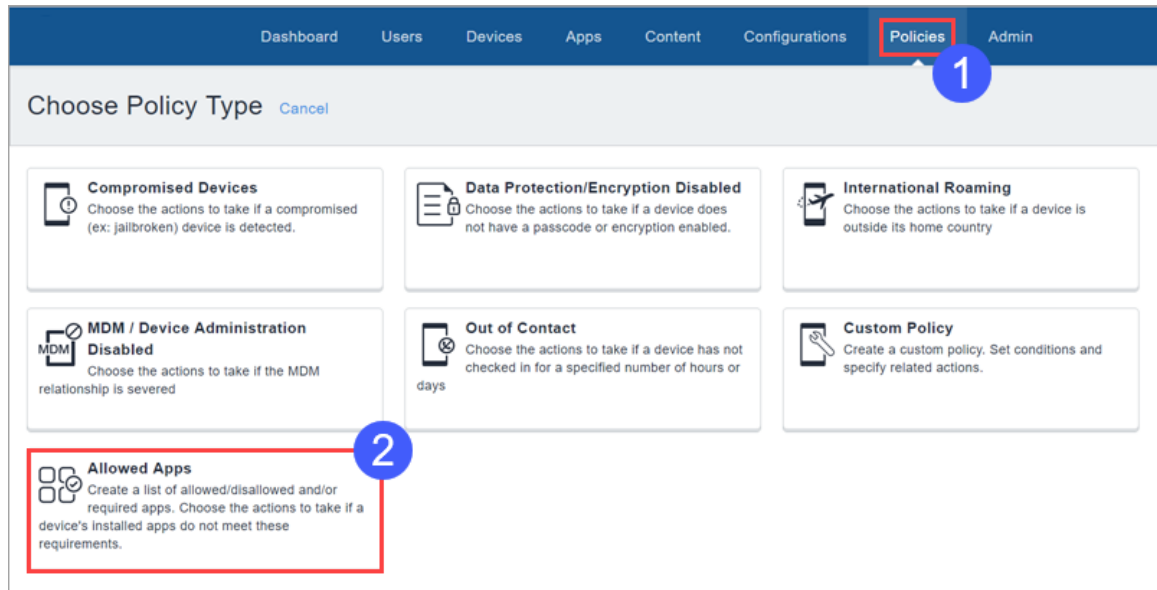
- Android 4.2 or supported newer versions
- iOS 8.0 or supported newer versions
- macOS 10.12 or supported newer versions
- Windows 10 or supported newer versions

Prerequisites

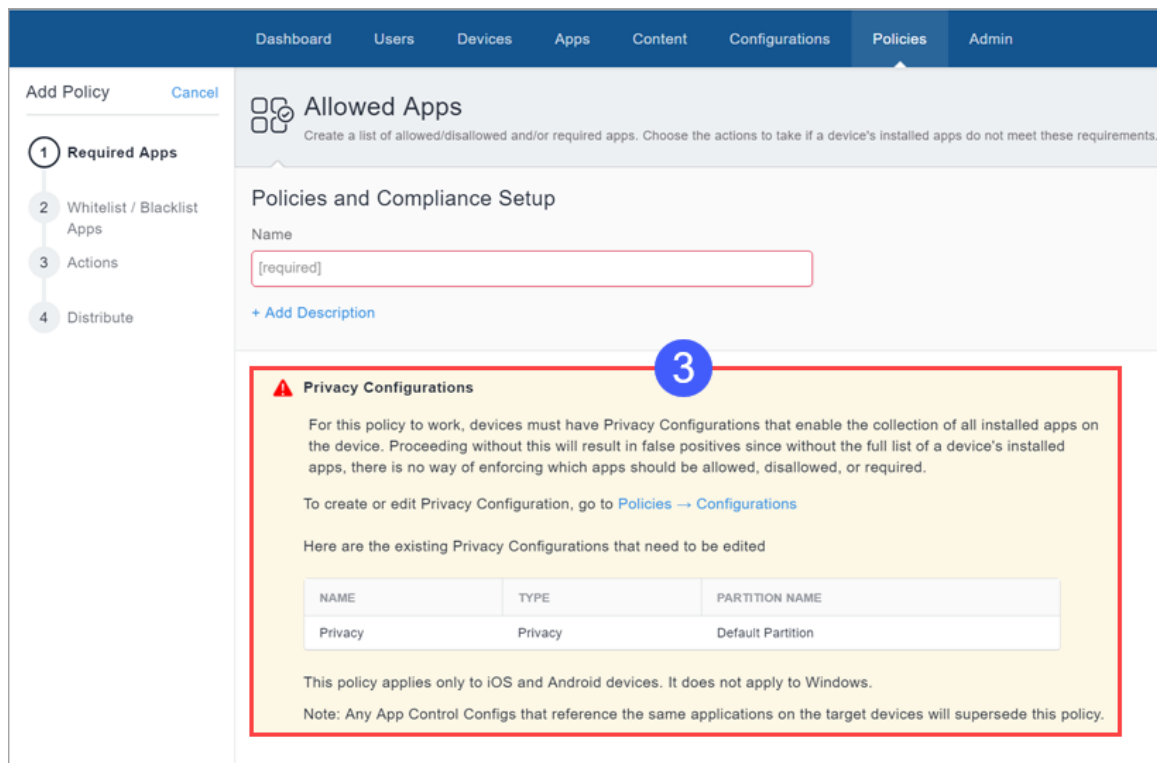
- The [privacy configuration](#) assigned to a device must allow collection of app information in order for an Allowed Apps policy to work correctly. Check the privacy configurations assigned to the devices to which you will apply the Allowed Apps policy.

If you are not sure which configurations are affected:

1. Go to **Policies**.



2. Click **Allowed Apps**.



3. Under **Privacy Configurations**, note the configurations that need to be edited.
4. Go to **Configurations**.
5. For each privacy configuration you noted:
 - a. Select the configuration.
 - b. Click **Edit**.
 - c. Under **Collect App Inventory**, select **For All Apps on the Device**.
 - d. Click **Done**.

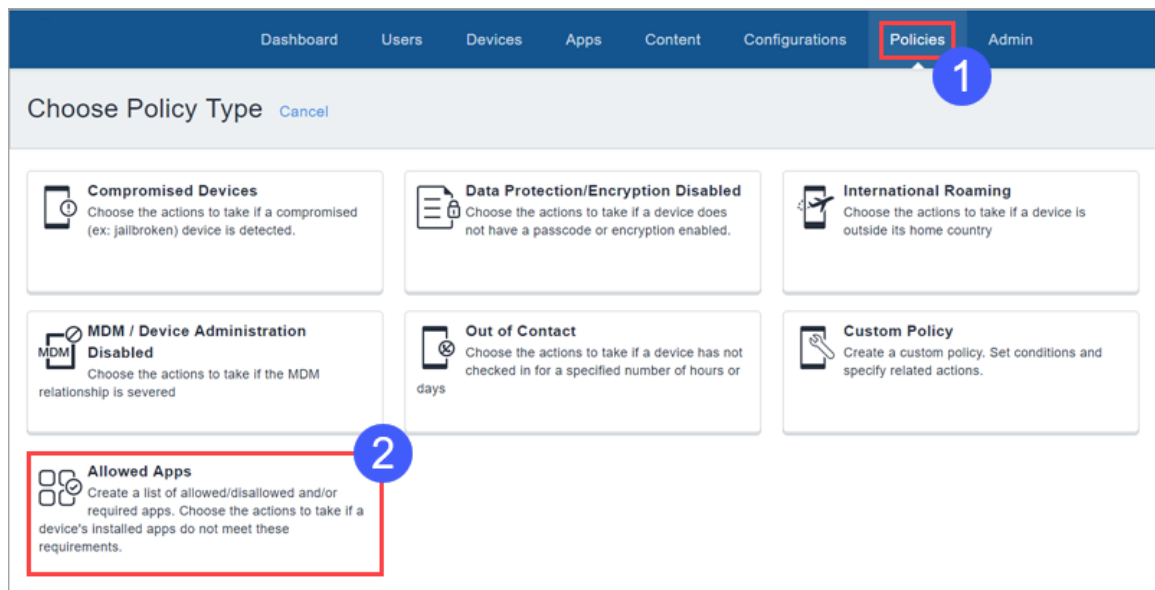
Creating an Allowed Apps policy

Prerequisites

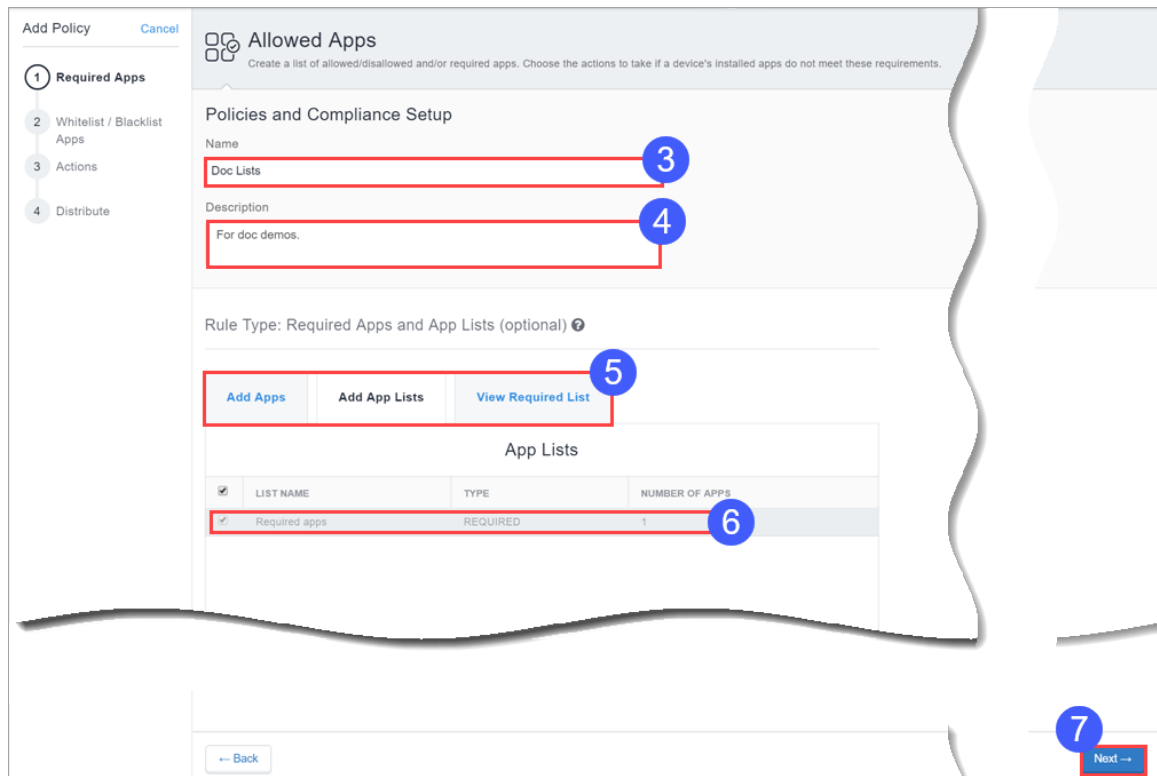
- Enable Android Enterprise to access Google Play Store and to add new applications to allowed apps policy.

Procedure

1. Go to **Policies** and click + **Add**.



2. Click **Allowed Apps**.

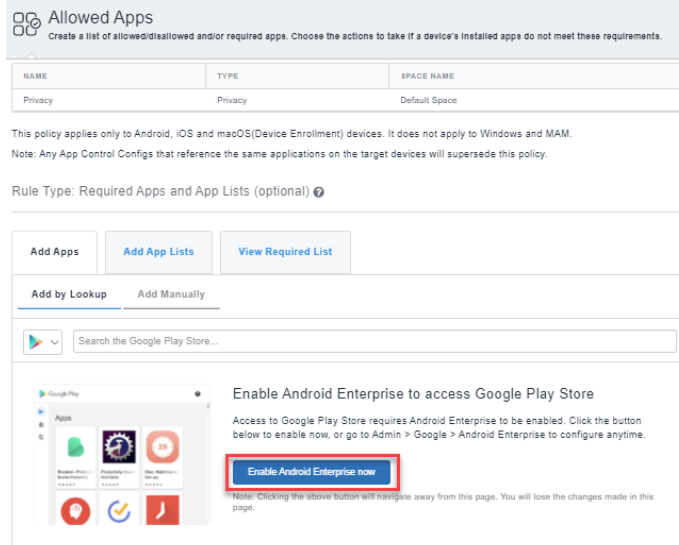


3. In the **Name** field, type a name for this policy.


4. In the **Description** field, type optional text that explains the purpose of the policy.

Choose the apps to Allowlist or Blockedlist by clicking one or both of the following tabs:

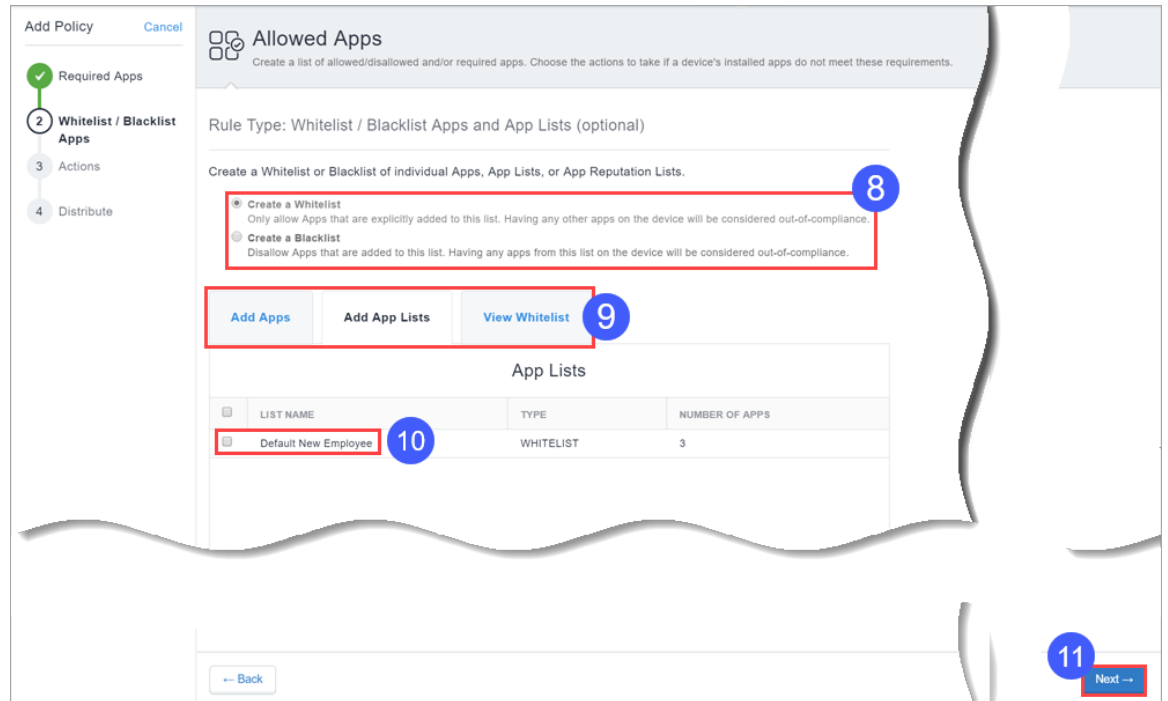
- Click **Add by Lookup** to search for and choose apps from the App Store or App Catalog. Ensure to enable Android Enterprise to access Google Play Store.



- Click **Add Manually** to choose apps by entering the bundle ID for Android, Windows, iOS or macOS system apps.
5. Select the **Add App Lists** tab and then select the desired required apps lists.
 6. Use the resultant fields to select the required apps or apps lists.

 Click the **View Required List** tab for a list of apps you have selected so far.

7. Click **Next**



8. Select whether to create a Allowlist or a Blockedlist.

i You cannot have both a Allowlist and a Blockedlist for a device simultaneously. Creating a Allowlist means all other apps are Blockedlisted.

9. Use the **Allowlist/Blockedlist Apps and App Lists** section to select apps and apps lists.

- Select the **Add App Lists** tab and then select the desired apps lists.

10. Use the resultant fields to select the required apps or apps lists.

i Click the **View Allowlist or Blockedlist** tab for a list of apps you have selected so far.

11. Click **Next**.


12. Select the actions to take when a device is out of compliance:

Action	What To Do
Monitor	Currently always selected. Sentry version 9.0.0 or later is required to utilize the tiered compliance actions.
Do Nothing	Select to take no action if the device is out of compliance.
Send Notification	
Send Email	<p>Select to send an email to the device user's email address notifying them the device is out of compliance.</p> <ul style="list-style-type: none"> Turn on the Use the Compliance Policy Email Template option to insert the message you configure here into the policy notification email template you configure as described in "Customizing an email template" on page 1325 in "Branding Email Templates" on page 1323. See "Configuring and using policy compliance notification emails" on page 23 for an overview. <div data-bbox="669 909 1430 1108" style="border: 1px solid #ccc; padding: 10px; margin: 10px 0;"> <div style="display: flex; align-items: center;"> 1 <div style="display: flex; align-items: center;"> <input type="text" value="Send Notification"/> ▼ Hide Message </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <input checked="" type="radio"/> Send E-mail Notification <input type="radio"/> Send Push Notification <input type="radio"/> Send Both </div> <div style="border: 2px solid red; padding: 2px; display: inline-block; margin-top: 5px;"> <input checked="" type="checkbox"/> Use the Compliance Policy Email Template ? </div> </div> <ul style="list-style-type: none"> You can customize the messages by including optional substitution variables to provide recipients more details about policy violations and other relevant information. This provides users of non-compliant devices with relevant information about the policy violation so they can take remedial actions. Click the following attribute types to display the complete list of variables: <ul style="list-style-type: none"> Policy Attributes including <code>\${BlockedlistAppsInViolation}</code>, <code>\${requiredAppsInViolation}</code>, and <code>\${AllowlistAppsInViolation}</code>. User Attributes including <code>\${sAMAccountName}</code>, <code>\${userCN}</code>, and <code>\${userEmailAddressDomain}</code>. Device Attributes including <code>\${deviceClientDeviceIdentifier}</code>, <code>\${deviceIMEI}</code>, and <code>\${deviceModel}</code>.

Action	What To Do
Send Push Notification	Select to send a push notification to the device that the device is out of compliance.
Send Both	Select to send both a push notification to the device and an email to the device user's email address notifying them the device is out of compliance. You can customize the messages by including optional substitution variables to provide recipients more details as described previously for the Send Email action.
Wait	Select to delay action for a specified time period to allow users to remediate the violation before additional actions are taken if the device remains in a non-compliant state.
Block	Uses Sentry to block managed devices from accessing email and AppConnect-enabled applications.
Quarantine	Select to remove access to apps, content, and servers as per the actions in the following table. Remove all apps action is not allowed.
Send a notification when the device comes back into compliance	

Action	What To Do
Send Email	<p>Sends an email to the device user's email address notifying them when the device comes back into compliance.</p> <ul style="list-style-type: none"> You can use the policy notification email template as described above. You can customize the messages by including optional substitution variables to provide recipients more details about policy violations and other relevant information. Click the following attribute types to display the complete list of variables: <ul style="list-style-type: none"> Policy Attributes including <code>\${nameOfPolicy}</code>, <code>\${nextAction}</code>, and <code>\${nonComplianceTime}</code>. User Attributes including <code>\${sAMAccountName}</code>, <code>\${userCN}</code>, and <code>\${userEmailAddressDomain}</code>. Device Attributes including <code>\${deviceClientDeviceIdentifier}</code>, <code>\${deviceIMEI}</code>, and <code>\${deviceModel}</code>. Custom Device/User/LDAP attributes that are created from the Admin > Attributes page.
Send Push Notification	Sends a push notification to the device when the device comes back into compliance.
Send Both	Sends both a push notification to the device and an email to the device user's email address notifying them when the device comes back into compliance. You can customize the messages by including optional substitution variables to provide recipients more details as described previously for the Send Email action.

 The Allowed Apps policy supports [tiered compliance actions](#) if you have a Platinum license.

(Optional) Additional Quarantine Actions	Description
Quarantine Managed Applications	<p>Removes Ivanti Neurons for MDM managed apps from the device and enables the Block New App Downloads option to block the apps from being re-installed on the device.</p> <p>Select one of the following options:</p> <ul style="list-style-type: none"> • All Applications • Designated Applications - Add one or more apps by lookup or manually (using Bundle ID or Package name). Click the View Apps tab to review the list of added apps. The Block App Store Access default quarantine action is no longer available. <hr/> <p> On certain devices, the Quarantine action will not remove the application from the device due to certain device limitations.</p> <hr/>
Block New App Downloads	<p>Prevents download of any new apps to the device.</p> <p>Select one of the following options:</p> <ul style="list-style-type: none"> • All Applications • Designated Applications - Add one or more apps by lookup or manually (using Bundle ID or Package name). Click the View Apps tab to review the list of added apps. The Block App Store Access default quarantine action is no longer available.
Remove Configurations	<p>Removes Ivanti Neurons for MDM configurations from the device.</p> <p>Select one of the following options:</p> <ul style="list-style-type: none"> • All Configurations • Designated Configurations - Select one or more configurations from the list or search for them. Click the Selected Configurations tab to review the list of selected configurations.

(Optional) Additional Quarantine Actions	Description
Remove Content	Removes all content and media associated with the apps distributed by Ivanti Neurons for MDM from the device.
Suspend Personal Apps	Suspend apps on the personal side of the quarantined device to indicate that device user needs to address the compliance issues on the device to make it functional. Supported on Android 11+ Devices provisioned as a Work Profile on Company Owned Device on company owned device.
Default Quarantine Actions - these actions are always performed.	
Block App Store Access	Prevents the device from accessing app stores via Ivanti Neurons for MDM.
Block Content Store Access	Prevents the device from accessing content store via Ivanti Neurons for MDM.
Block AppConnect	Prevents the device from using AppConnect features.
Block AppTunnel	Prevents applications on the device from accessing content and servers via AppTunnel.
Block ActiveSync	Prevents the device from accessing email via the ActiveSync server.

13. Click **Next**.
14. Configure the distribution.
15. Click **Done**.

For more information about setting higher or lower priorities to an Allowed Apps policy, see [Prioritize policies](#).

Prioritizing Policies

The Allowed Apps policy supports a priority, similar to Configurations. A priority is used to determine which policy of the same type is distributed to multiple device groups, and the case where the same device appears in those multiple device groups. For example, a policy priority is useful to determine policy distribution in the case where:

- "Required App A" needs to be distributed to Device Group 1,
- "Required App B" needs to be distributed to Device Group 2, and
- The user's device is a member of both device groups.

You can prioritize policies as follows:

1. Go to **Policies > Policy & Compliance**.
2. Select **Actions > Prioritize policies**. If **Actions** is not displayed, then you do not have multiple policies requiring priorities.
3. Use the arrows to list priorities from highest (top) to lowest (bottom). A lock icon means the policy's priority cannot be changed without editing the All Devices distribution setting within the policy.
4. Click **Save**.

Windows Hardware policy

Keeping a regular check on the hardware inventory will determine if a hardware item is added, copied, removed, replaced or moved on a Windows 10 device. Using Windows Hardware policy, you can select the type(s) of hardware to monitor, and the actions to be taken when changes in hardware on a device are detected.

1. Go to **Policies**.
2. Click **+Add**.
3. Select **Windows Hardware**.
4. Provide a name for the hardware policy.
5. Click **+ Add Description** to enter additional details if desired.
6. In the **Define Hardware Rules** section, configure the following options:

Option	Description
Hardware Object	Select the type of hardware from the following options: <ul style="list-style-type: none">• BIOS• Hardware Drive• CD-ROM Drive• Processor• Physical Memory
Change Event	Select the type of hardware event(s) that should be checked: <ul style="list-style-type: none">• Add• Copy• Remove• Replace


Choose Actions	<ul style="list-style-type: none">• Move <p>Select the type of action to be taken:</p> <ul style="list-style-type: none">• Do Nothing• Send Notification: Select any of the following options:<ul style="list-style-type: none">• Send Email Notification - Type the subject and body in the Email message section to send notification.• Send Push Notification - Type the push notification message.• Send Both - Type the email message and push notification message.• Wait: From the drop-down list, select the number of days/hours to wait.<ul style="list-style-type: none">• 1 to 31 for Days.• 1 to 24 for Hours
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-
- **Quarantine** - Select any of the following quarantine options:
Optional Additional Quarantine Actions
 - **Quarantine Managed Applications**
- Select **All Applications** or **Designated Applications** (search and select the app name in the Search field).
 - **Block New App Downloads** - Blocks download of apps to the device. Select **All Applications** or **Designated Applications** (search and select the app name in the Search field).
 - **Remove Configurations** - Removes configurations from the device. Select **All Configurations** or **Designated Configurations** (search and select the configuration in the Search field).
 - **Remove Content** - Removes all content associated with apps distributed from the device.

Default Quarantine Actions

- **Block App Store Access**
- **Block Content Store Access**
- **Block AppConnect**
- **Block AppTunnel**
- **Block ActiveSync**
- **Block**

- **Retire**

 This action cannot be undone.

 To add or delete a compliance action click the 'plus' or 'minus' icon.

7. Click **Next**.
8. Select one of the following distribution options:
 - **All Devices**
 - **No Devices(default)**
 - **Custom**
9. Click **Done**.

Admin

The admin section helps you manage users, devices, and configurations from the Ivanti Neurons for MDM portal. The following sections contain the list of all the tasks you can perform as an administrator:

- ["System" on page 1063](#)
- ["Infrastructure" on page 1113](#)
- ["Settings \(Apple\)" on page 1216](#)
- ["Work with Windows Devices" on page 1219](#)
- ["Setup with Microsoft Azure" on page 1233](#)
- ["Connect with Google Apps" on page 1281](#)
- ["Work with ChromeOS Devices" on page 1297](#)
- ["Firmware Management" on page 1306](#)
- ["Tenant Suspension" on page 1348](#)
- ["Manage Scripts" on page 1310](#)
- ["Branding" on page 1317](#)
- ["Adding management of non-iOS devices" on page 1339](#)

System

This section contains the following topics:

- ["Attributes" on page 1064](#)
- ["Device Cleanup Settings" on page 1070](#)
- ["GDPR Profiles" on page 1077](#)
- ["Notification emails" on page 1079](#)
- ["Roles Management" on page 1080](#)
- ["Spaces" on page 1091](#)
- ["Support Administrators" on page 1108](#)
- ["Admin > System Use Notification" on page 1110](#)

Attributes

Use the Attributes page to do the following tasks:

- Manage the types of information you can record for users, devices, and apps.
- View the standard types of information that Ivanti Neurons for MDM tracks.

Custom user attributes include information such as Department or an internal ID. Each attribute has a corresponding variable that you can use to build groups or distribute configurations.



While creating user rule group criteria, if the custom attributes have a number value, Ivanti Neurons for MDM does not support integer operations.

Creating custom attributes

You can create custom attributes from the Ivanti Neurons for MDM administrative portal.

Procedure

1. Log in to the Administrative Portal.
2. Navigate to **Admin > System > Attributes**.
3. Under **Custom Attributes**, click **+Add**
4. In the **Attribute Name** field, enter text that will represent the attribute.



The text you enter will be used to create the corresponding variable in the **Usage** field.

5. Select any the type of attribute from the following **Attribute Type** options.
 - **User**
 - **Device**
 - **App**
 - **IDP** (for more information, see "[User Provisioning-Azure Active Directory](#)" on page 1151 or "[Connect Ivanti Neurons for MDM with Azure Active Directory User Source](#)" on page 1242)

6. If the Attribute type is Device, select one of the following **Data Type** options:

- **Numeric**
- **Text**

7. Click **Add**.

The created custom user attribute is displayed under **Admin Added** section in the Attributes page.



The custom attributes combination $\${deviceattribute} + \${custom-attribute} + \${userattribute} + \${Static String}$ is supported in any order.

Renaming a custom attribute

Renaming a custom attribute will rename all references of that custom attribute that are used in the following entities:

- Custom Policy
- User group
- Device group
- App Distribution Filter
- Spaces



References of the custom attribute in any other entities such as configurations, invitation email templates, email and push messages in policy compliance actions, and so on will not be updated.

Procedure

1. Under **Admin Added**, click **+Edit** next to the attribute you want to rename.
2. In the **Attribute Name** field, enter a new name that will represent the attribute.



The text you enter will be used to create the corresponding variable in the **Usage** field.

3. Click **Save**.

Deleting a custom attribute

Deleting a custom attribute will remove its values from all the associated users or devices. It cannot be reversed.

Custom attributes cannot be deleted if the attribute is used in any of the following entities:

- Custom Policy
- User group
- Device group
- App Distribution Filter
- Spaces

Remove the custom attribute from the entities before attempting to delete the custom attribute.

If the attribute you want to delete does not have references to any of the above entities, clicking **Delete** next to the attribute will display a pop-up to confirm the action. Confirm the action and click **Delete**.

The field names of the following custom attributes are sorted in the applicable rule builders:



- Custom LDAP Attribute
- Custom User Attribute
- Custom Device Attribute
- Custom IdP Attribute
- Custom App Attribute

Viewing the system attributes

System attributes are pre-defined attributes for you to use in your configurations as variables. The complete list is provided in the **System Attributes** section of the **Admin > System > Attributes** page. System attributes include the following types of attributes:

- User Attributes
- Device Attributes

- Email Template Attributes
- System Attributes
- Timestamp Attributes
- AAD Custom User Attributes
- Policy Attributes

User attributes

Use user attributes to specify information about users.

Key	Description
<code>\${department}</code>	department attribute (requires Azure Active Directory)
<code>\${edipi}</code>	No description
<code>\${managedAppleId}</code>	User's Managed Apple ID
<code>\${sAMAccountName}</code>	sAMAccountName attribute (requires Active Directory)
<code>\${userCN}</code>	Common Name (CN) attribute extracted from the distinguished name (requires LDAP)
<code>\${userDisplayName}</code>	Display name
<code>\${userDN}</code>	Distinguished Name (requires LDAP)
<code>\${userEmailAddressDomain}</code>	The domain part of the email address (part after '@')
<code>\${userEmailAddressLocalPart}></code>	The local part of the email address (part before '@')
<code>\${userEmailAddress}</code>	Email address
<code>\${userFirstName}</code>	First name
<code>\${userLastName}</code>	Last name
<code>\${userLocale}</code>	Locale
<code>\${userOU}</code>	Organizational Unit (OU) attribute extracted from the distinguished name (requires LDAP)
<code>\${userREALM}</code>	Kerberos Realm information (requires Active Directory)
<code>\${userUIDDomain}</code>	The domain part of the login ID (the part after '@')
<code>\${userUIDLocalPart}</code>	The local part of the login ID (the part before '@')

Key	Description
\${userID}	Login ID (email address format)
\${userUPN}	userPrincipalName attribute (requires Active Directory)

Device attributes

Use device attributes to specify information about a mobile device.

Key	Description
\${clientLastCheckin}	Date client last checked-in (most recent checkin - either MDM or Client)
\${deviceAltSN}	Alternative Serial Number
\${deviceClientDeviceIdentifier}	Identifier used by the client application
\${deviceGUID}	Globally unique device identifier
\${deviceIccIdentifier}	No Description
\${deviceIMEI2}	IMEI2
\${deviceIMEI}	IMEI
\${deviceIMSI}	IMSI
\${deviceLastCheckin}	Date device last checked-in (most recent checkin - either MDM or Client)
\${deviceMdmChannelId}	Internal device identifier
\${deviceMdmDeviceIdentifier}	Identifier used for MDM
\${deviceMEIdentifier}	No Description
\${deviceModel}	Model
\${deviceName}	Device name
\${devicePhoneNumber}	Device phone number
\${devicePK}	Cluster unique device identifier
\${deviceSN}	Serial Number
\${deviceUDID}	iOS UDID
\${deviceWifiMacAddress}	Wi-Fi MAC Address



When you create a custom attribute and refer this attribute in a Managed app config, if the attribute value is updated, the attribute referenced in the managed app config also gets updated and the managed app config will be re-pushed to the device.



When the Custom or Device attributes are updated and the configuration is pushed to a device, the Android Kiosk branding configuration should be updated as well.

App attributes

Use app attributes to specify information about applications and create custom application groups.

Key	Description
<code>\${appAdded}</code>	Date application was added to the AppCatalog
<code>\${appName}</code>	Name of the application
<code>\${appOsPlatform}</code>	Application operating system
<code>\${appPackageId}</code>	Application bundle or package ID
<code>\${appSource}</code>	Describes the source from where the application was imported
<code>\${IsVpp}</code>	Describes if an iOS or macOS application is VPP or not

Email template attributes

Key	Description
<code>\${policyMessageContent}</code>	No Description
<code>\${policyMessageTitle}</code>	No Description

Time stamp attributes

Variable Key	Description
<code>\${timestampMS}</code>	Current timestamp (milliseconds since the epoch)

Policy template attributes

Key	Description
<code>\${nameOfPolicy}</code>	Policy name violated
<code>\${nextAction}</code>	Next Tiered Compliance Action (different than wait and retire) to be taken after send message
<code>\${nonComplianceTime}</code>	Count of days device has been in non-compliant state
<code>\${policyViolationFirstTime}</code>	Time stamp when policy violation was first triggered (UTC DD-MM-YYYY format)
<code>\${ruleConditions}</code>	Rule definition (query string the way it appears now)

Related topics:

- ["Assigning Custom Attributes to Users" on page 157](#)
- ["Assigning Custom Attributes to Devices" on page 275](#)
- ["Removing Custom Attributes from Users" on page 158](#)
- ["Removing Custom Attributes from Devices" on page 276](#)
- ["Variables" on page 471](#)

Device Cleanup Settings

Device cleanup automates device life cycle for unused devices. You can retire devices that have been out of contact for a number of days that you specify. You can delete devices that have been retired for a number of days that you specify. The Audit Trails page captures the Retire Device, Delete Device, and Delete Wiped Device settings.

The following table provides information about the Android devices that support device cleanup settings:

Mode	Retire if Out of compliance	Delete Retired	Force Retire or Retire Pending	Delete Wiped	Delete Wipe Pending
Android Managed Device with Work Profile / Work Managed Device / Work Profile on Company Owned Device	NO	YES	NO	YES	YES
Android Work Profile (Profile Owner) / Device Admin	YES	YES	YES	YES	YES

Prerequisites

You must have System Management Role permissions to access this setting.

Retire Devices

Procedure

1. Go to **Admin > System > Device Cleanup**. The Device Cleanup page opens.
2. Select **Retire Device**.
3. Use the **Retire Devices** table to specify the details.
4. Click **Show not checked-in device list**. Shows the list of devices that are not checked in for specified number of days.
5. Click **Retired Devices Now**, alternatively, you can schedule the device retirement.
6. The Ivanti Neurons for MDM administrative portal will retire the specified devices.
7. Click **Save** to save your setting.
8. (Optional) If you update the values you can click **Reset** to reset the settings back to the initial settings.

Retire Devices

Field	Description
Retire Devices That Have Been Not Checked-In More Than (Days)	Days: 30 days is default, 365 days is maximum number of days allowed.
Maximum Devices to Retire in Each Session	Select 100, 500, or 1000 (Default - 100).
Automatically Retire Devices on a schedule	Select the check box to retire devices based on a preset schedule.
Retire Schedule Configuration	Select one of the following options to set the frequency of retirements: <ul style="list-style-type: none">• Daily - Set to retire devices everyday.• Weekly - Specify the day of the week to schedule the retirement.• Monthly - Set to retire devices the first day of every month.

Delete Retired Devices

Procedure

1. Go to **Admin > System > Device Cleanup**. The Device Cleanup page opens.
2. Select **Delete Retired Device**.
3. Use the **Delete Retired Devices** table to specify the details.
4. Click **Show retired devices list**. Shows the list of devices that are retired for the specified number of days.
5. Click **Delete Retired Devices Now**, alternatively, you can schedule the device deletion.
6. The Ivanti Neurons for MDM administrative portal will delete the specified devices.
7. Click **Save** to save your setting.

-
8. (Optional) If you update the values you can click **Reset** to reset the settings back to the initial settings.

Delete Retired Devices

Field	Description
Delete the Devices That have Been Retired More Than (Days)	Days: 30 days is default, 365 days is the maximum number of days allowed.
Maximum Retired Devices to Delete in Each Session	Select 100, 500, or 1000 (Default - 100)
Automatically Delete Retired Devices on a schedule	Select the check box to retire devices based on a preset schedule.
Delete Schedule Configuration	Select one of the following options to set the frequency of deletion: <ul style="list-style-type: none">• Daily - Set to delete devices everyday.• Weekly - Specify the day of the week to schedule the deletion.• Monthly - Set to delete retired devices the first day of every month.

Delete Wiped Devices

Procedure

1. Go to **Admin > System > Device Cleanup**. The Device Cleanup page opens.
2. Select **Delete Wiped Device**.
3. Use the **Delete Wiped Devices** table to specify the details.
4. Click **Show wiped devices list**. Shows the list of devices that are retired for the specified number of days.
5. Click **Delete Wiped Devices Now**, alternatively, you can schedule the wiped devices deletion.

6. The Ivanti Neurons for MDM administrative portal will delete the specified devices.
7. Click **Save** to save your setting.
8. (Optional) If you update the values you can click **Reset** to reset the settings back to the initial settings.

Delete Wiped Devices

Field	Description
Delete Devices That have Been Wiped More Than (Days)	Days: 30 days is default, 365 days is the maximum number of days allowed.
Maximum Wiped Devices to Delete in Each Session	Select 100, 500, or 1000 (Default - 100)
Automatically Delete Wiped Devices on a schedule	Select the check box to delete wiped devices based on a preset schedule.
Delete Wiped Schedule Configuration	Select one of the following options to set the frequency of deletion: <ul style="list-style-type: none"> • Daily - Set to delete wiped devices everyday. • Weekly - Specify the day of the week to schedule the deletion. • Monthly - Set to delete wiped devices the first day of every month.

Delete Wipe Pending Devices

Procedure

1. Go to **Admin > System > Device Cleanup**. The Device Cleanup page opens.
2. Select **Delete Wipe Pending Device**.
3. Use the **Delete Wipe Pending Devices** table to specify the details.

4. Click **Show wipe pending devices list**. Shows the list of devices that are due to be wiped for the specified number of days.
5. Click **Delete Wipe Pending Devices Now**, alternatively, you can schedule the pending devices for deletion.
6. The Ivanti Neurons for MDM administrative portal will delete the specified devices.
7. Click **Save** to save your setting.
8. (Optional) If you update the values you can click **Reset** to reset the settings back to the initial settings.

Delete Wipe Pending Devices

Field	Description
Delete the Devices That have Been Wipe Pending More Than (Days)	Days: 30 days is default, 365 days is the maximum number of days allowed.
Maximum Wipe Pending Devices to Delete in Each Session	Select 100, 500, or 1000 (Default - 100)
Automatically Delete Wipe Pending Devices on a schedule	Select the check box to delete wiped devices based on a preset schedule.
Delete Wipe Pending Schedule Configuration	Select one of the following options to set the frequency of deletion: <ul style="list-style-type: none"> • Daily - Set to delete wipe pending devices everyday. • Weekly - Specify the day of the week to schedule the deletion. • Monthly - Set to delete wipe pending devices the first day of every month.

Retire the Retire Pending Devices

Procedure

1. Go to **Admin > System > Device Cleanup**. The Device Cleanup page opens.
2. Select **Retire the Retire Pending Device**.
3. Use the **Retire the Retire Pending Devices** table to specify the details.
4. Click **Show retire pending device list**. Shows the list of devices that are due to be retired for the specified number of days.
5. Click **Force Retire the Retire Pending Devices Now**, alternatively, you can schedule the pending devices to retire.
6. The Ivanti Neurons for MDM administrative portal will retire the specified devices.
7. Click **Save** to save your setting.
8. (Optional) If you update the values you can click **Reset** to reset the settings back to the initial settings.

Retire the Retire Pending Devices

Field	Description
Retire the Retire Pending Devices That have not checked-in more than (Days)	Days: 30 days is default, 365 days is the maximum number of days allowed.
Maximum Retire Pending Devices to Retire in Each Session	Select 100, 500, or 1000 (Default - 100)
Automatically Retire the Retire Pending Devices on a schedule	Select the check box to retire the retire pending devices based on a preset schedule.
Retire the Retire Pending Schedule Configuration	Select one of the following options to set the frequency of deletion: <ul style="list-style-type: none"> • Daily - Set to retire the pending devices everyday. • Weekly - Specify the day of the week to schedule the pending devices for retirement.

Field	Description
	<ul style="list-style-type: none">• Monthly - Set to retire the pending devices the first day of every month.

GDPR Profiles

The Ivanti Neurons for MDM administrative portal now contains GDPR Profiles page that lets you assign GDPR profiles to user groups. You can assign the GDPR profile to only user groups and not to individual users.

Note the following points:

- You must first enable the GDPR Profiles to assign it to a specific user group.
- If you disable the GDPR profile, it will turn off all the profile restrictions that were already assigned to the user group.
- After you enable the GDPR profile the Edit functionality for some of the fields will be limited or disabled.

Fields that are hidden after GDPR profile assignment

If a user has a GDPR profile, then Ivanti Neurons for MDM hides the following fields by default when displaying information about the user:

- **User ID**
- **User's Name**
- **Email Address**
- **Serial Number**
- **ICCID**
- **IMSI**
- **MEID**
- **IP Address**

-
- **Phone Number**
 - **IMEI**
 - **eSIM Identifier**

Enabling GDPR profile

You can enable GDPR profile and select specific fields that must be hidden from the Ivanti Neurons for MDM administrative portal and the devices.

ProcedureProcedure

1. Log in to the Ivanti Neurons for MDM administrative portal.
2. Go to **Admin > System > GDPR Profiles**.
3. Click **Enable**.
4. Click the edit (pencil) icon.
5. Select the fields that must be hidden.
6. Click **Save**. The selected fields will be masked and do not display the values for the specific users.

Assign GDPR profile to User Groups

After you enable the GDPR profile you can assign it to specific user groups.

ProcedureProcedure

1. Log in to the Ivanti Neurons for MDM administrative portal.
2. Go to **Users > User Groups**.
3. Select a user group from the list.
4. Click the **Actions** drop-down list and select **Assign GDPR Profile**. The GDPR Profile is assigned to all the users of that specific group and all the selected values will be masked from view throughout the administrative portal and the user devices.



Since the administrator is also in the All Users group, do not assign the GDPR Profiles to the All Users group.

Notification emails

License: Silver

You can configure the list of email addresses of the users who should receive email notifications based on the severity level of the notification.

The Notification Email feature is optional and you can turn on or turn off the feature as and when it is required. It is a prerequisite that you should be assigned System management role to use this feature.

1. Select **Admin > Notification Emails**. The **Notification Emails** page is displayed.
2. In the Notification Emails Settings section, click **ON** to enable the Notification Emails feature.
3. Click **Add recipient**. The **Add Recipient** pop-up is displayed.
4. In the **Add Recipient** pop-up, update the following fields:
 - Recipient Email ID - Enter the email ID of the recipient for whom the notification has to be sent.
 - Notification types to be sent - Select the notification type by selecting the checkbox. The following are the notification type options: **Critical Notification, Warning Notifications, Information Notifications**.
5. Click **OK**. The details of the settings are displayed in a table.
6. Click **Save** to apply the changes.

Roles Management

Roles are packaged groups of permissions that allows granting a set of permissions to an administrative user, while limiting their access to control specific areas of functionality. Ivanti Neurons for MDM provides a set of system roles that can be assigned (or edited) and a facility to create custom roles. Starting from Ivanti Neurons for MDM 97 you can search for specific permission based on the category and all the options that are associated with the specific role or permission in the UI are displayed. A tool tip is displayed for the permissions that are added as dependent permissions.



The Roles Management page and the associated options are hidden for converged tenants who have access to both Ivanti Neurons for UEM and Ivanti Neurons for MDM.

There are two kinds of permissions available, and therefore two kinds of roles:

- **Space-specific roles** - The permissions are Space-specific, and therefore apply in a specific Space only. Examples are Device Management, App Management in a Space.
- **Cross-Space roles** - The permissions are, by nature, applicable to all roles. Examples are tenant-level settings such as MDM Certificates, App Catalog Settings.

Creating a custom role

You can create a custom cross-Space or Space-specific roles. When you select a permission, the dependent permissions will be selected automatically. Accordingly, a user assigned with a custom role can only perform the specific actions (such as retire, wipe) that are available when the user visits the Devices page or the Device Details page.

When you apply the View User Registration PIN custom role, users can view the PIN of other users that have the same access level or with lesser privileges and the users cannot create PINs for other users.



The newly created custom role can not be assigned to anyone automatically. The tenant super admin needs to assign it to the required admin users who can later assign the same to other users as needed.

Procedure

1. Go to **Admin > Roles Management**.
 2. Click **+Add Custom Role**.
-

3. In the **Create Role** page, enter the **Name** of the new role.

4. (Optional) add a description for the new role.

5. Under **Role Type**, select one of the following role types:

- **Cross-Space Role**
- **Space-Specific Role**

6. Under **Permissions**, select the required granular permissions.

See the following table for Admin and User permissions.

7. Click **Save**.

The following table lists the permissions, roles, and attributes you can use to create a custom role:

Role Type	Permissions Category	Granular Permissions
Cross-Space Role		
Admin		
	Manage Custom Attributes	<ul style="list-style-type: none"> • Add Custom Attribute • Delete Custom Attribute • Edit Custom Attribute • View Custom Attribute
	Support Administrators	<ul style="list-style-type: none"> • Add Support Admins • Delete Support Admins • Disable Support Admins • View Support Admins and Show Login History
	Certificate Authority	<ul style="list-style-type: none"> • Add Certificate Authority • Delete Certificate Authority
	Connector	<ul style="list-style-type: none"> • Add Connector Logs • Delete Connector Logs • View Connector • Update Connector

Role Type	Permissions Category	Granular Permissions
	LDAP Management	<ul style="list-style-type: none"> • Add User/Group/OU • Add Server • Browse Server • Delete Server • Search Server • Sync Server • Remove User/Group/OU • View Serve <p>All LDAP permissions in this section require View Connector permission. It will be automatically selected in the Connector section when you select any of these LDAP permissions.</p>
	Licensing Management	View Licenses
Users		

Role Type	Permissions Category	Granular Permissions
	User Management Actions	<ul style="list-style-type: none"> • View User • Update User • Send Message to User • Append/Assign Roles to User • Create User • Delete User • Invite User • View User Registration PIN
	Assign Custom User Attribute	<ul style="list-style-type: none"> • Delete Attribute • View Attribute • Add/Edit Attribute
	User Groups	<ul style="list-style-type: none"> • View User Group • Edit User Group • Append/Assign Roles to User Group • Create User Group • Delete User Group

Role Type	Permissions Category	Granular Permissions
	Report Management	<ul style="list-style-type: none"> • Create Report • Edit Report • Run Report • Delete Report Record • View Report • Delete Report • Download Report Record
Devices		
	Bulk Enrollment	<ul style="list-style-type: none"> • Create Bulk Enrollment • Update Bulk Enrollment • Assign User to Bulk Enrollment • View Bulk Enrollment • Delete Bulk Enrollment
Space-Specific Role		
Devices		

Role Type	Permissions Category	Granular Permissions
	Device Actions	<ul style="list-style-type: none"> • Assign Device to User • Clear Device Activation Lock • Delete Device • Disable Device Lost Mode • Enable Device Lost Mode • Device Force Checkin • Lock Device • Unlock Device • Device Force Logout • Reinstall Device System Apps • Restart Device • Schedule iOS Device Updates • Relinquishing Device Ownership • Retire Device • Cancel Retire Device • Shutdown Device • View Device • Wipe Device • Cancel Wipe Device • Update Device OS Version

Role Type	Permissions Category	Granular Permissions
		<ul style="list-style-type: none"> • Bulk Assign Via Upload
	Assign Custom Device Attributes	<ul style="list-style-type: none"> • Add/ Edit Device Custom Attribute • Delete Device Custom Attribute • View Device Custom Attribute <p>All Assign Custom Device Attribute permissions in this section require Device Read permission. It will be automatically selected in the Device Actions section when you select any of these Assign Custom Device Attribute permissions.</p>
	Device Configurations	<ul style="list-style-type: none"> • Exclude Profile • Push Profile • Push Excluded Profile • Retry Install on Error
	Device Groups	<ul style="list-style-type: none"> • Add Device Group • Delete Device Group • Edit Device Group • View Device Group

Role Type	Permissions Category	Granular Permissions
	Bulk Enrollment	<ul style="list-style-type: none"> • Create Bulk Enrollment • Update Bulk Enrollment • Assign User to Bulk Enrollment • View Bulk Enrollment • Delete Bulk Enrollment
	App Inventory	<ul style="list-style-type: none"> • View App Inventory
Configurations		
	Configurations	<ul style="list-style-type: none"> • View/ Export Configs • Edit/ Prioritize Configs • Add/ Clone Configs • Delete Configs
Policies		
	Policies	<ul style="list-style-type: none"> • View Policies • Edit/ Prioritize Policies • Add/ Clone Policies • Delete Policies

To edit a role, go to Admin, Roles Management page and click the edit icon under **Actions** against the name of the role. A user cannot edit a cross-space role to a space-specific role and vice versa.

Related topics:

- To assign a custom role to a user, see [Assigning Roles](#).
- See [User Roles](#) for a list of default roles.

-
- ["Using Custom Reports" on page 65](#)
 - ["Using Scheduled Reports" on page 54](#)

Spaces

This section contains the following topics:

- ["Spaces" on page 1091](#)
- ["Managing Spaces" on page 1094](#)
- ["Space Examples" on page 1101](#)
- ["Delegating Devices" on page 1104](#)
- ["Delegating Apps" on page 1106](#)

Spaces

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Spaces are used to separate a Unified endpoint management (UEM) system into independently managed entities for the purpose of delegated administration. Spaces can be created to reflect an organizational hierarchy. Ivanti Neurons for MDM supports single-level delegation with a central management entity referred to as a Default Space and a number of subordinate management entities referred to as Delegated Spaces. Every UEM system is created with a Default Space.



The Spaces page and the associated options are hidden for converged tenants who have access to both Ivanti Neurons for UEM and Ivanti Neurons for MDM.

A Space allows for delegated administration of the following system components. Users and User Groups currently cannot be delegated.

- Devices
- Configurations
- Policies
- Device Groups
- Applications
- An App Catalog
- An Apple Apps and Books Token

When an administrator logs in to the Ivanti Neurons for MDM Admin Portal on a tenant with at least a single Delegated Space, the administrator is presented with the Admin Portal login promo pop-up. The promo pop-up will not be displayed after delegated space creation and during user login if a delegated space is already created.

Roles for global and delegated Space administrators

An admin user with the appropriate roles to access the Default Space is referred to as a Global Admin. Access to the Default Space can be read-only or read-write access. A Global Admin with the appropriate Administrative Roles can create Delegated Spaces and assign Delegated Admins to manage them. A Delegated Admin can be assigned to manage one or more Delegated Spaces.

The Spaces that a given administrator can access are listed in the Spaces selector drop-down in the upper left-hand corner of the Devices and Apps tabs. To view and manage a Space, use the Spaces drop-down to switch to the desired Space.

A Global Admin has visibility and control over all Delegated Spaces in addition to the Default Space. A Delegated Admin has visibility and control over only the Spaces which are assigned to them by a Global Admin. A Global Admin maintains central control over Delegated Spaces while a Delegated Admin has autonomy to manage the Spaces that have been delegated to them. This level of autonomy is determined by whether delegation is inherited or copied from the Default Space.

The following are the different user roles and the tasks that they can perform:

Inherited app in a delegated Space

- Existing Ratings or Reviews at time of delegation are inherited and visible to users in Del Space, including author username.
- Delegated Administrator cannot delete Ratings/Reviews for an inherited app.
- Delegated Administrator can export Ratings/Reviews for an inherited app.
- Users in Delegated Spaces can add Ratings/Reviews to inherited app.
- Users in Delegated Spaces can view Ratings/Reviews added by Users in Del Spaces, including author username.

App in a delegated Space (added, not inherited)

- Only Global Admin can enable or disable Reviews from **Apps > Catalog Settings > Ratings & Reviews**.
- Users in Delegated Space can add Ratings/Reviews.
- Delegated Administrator can Delete reviews added by users in the same Delegated Space.
- Users in other Delegated Spaces, including Default, cannot view Ratings or Reviews added by Users in each Delegated Spaces.
- Delegated Administrator can export reviews added by all users, including usernames.

Delegated app in a default Space

- Global Admin can delete Ratings or Reviews added by a user in a Delegated Space.
- Global Admin can export all Ratings or Reviews including those added by users in Delegated Spaces.

-
- Users in Default Space can view Ratings or Reviews added by users in Delegated Spaces, including username.

Priority of a delegated Space


The Default Space in an UEM System always has the lowest priority. The priority of a Delegated Space relative to other Delegated Spaces is set by the Global Admin and can be changed at any time. Delegated Spaces are listed rank ordered, from highest priority to lowest on the Spaces page under the Admin tab in the Admin Portal.

Delegation through inheritance or copy

A key concept in delegated administration is whether a system component is inherited or copied from the default Space.

Managing Spaces

Spaces enable you to designate device groups for management by different administrators (delegated administration). The administrator for a space can define the configurations and policies applied to the devices in the space. After you create the spaces, you can assign each space to the relevant or appropriate administrator. You cannot edit or delete the default space.

 The user can view only the spaces assigned and not all the available spaces. As of now, this setting applies to the **Devices, Device Groups, Apps, App Inventory, Content, Configurations, Policies,** and **Certificate Management** modules only. Spaces selected from the Spaces list while viewing any of these modules are saved as administrator preferred default selection for that module. These preferences are not only saved for the current login session, but also for the future sessions.

The spaces you create inherit all configurations from the default space. Therefore, any configurations you create later in the default space are eligible to be applied to the other spaces. However, changes made to an existing configuration are not inherited.

The spaces you create receive copies of only those policies that exist in the default space at that time. Any policies you create later in the default space apply only to the default space.

Create the rules that define which devices are in the space. These rules can be filtered using the applicable operators, including the "begins with", "ends with", "contains", "does not contain", "does not begin with", "does not end with", "is less than", "is greater than", "is in range", "is equal to", and "is not equal to" operators. The rules can be nested together using the ANY (OR) or ALL (AND) options. The accuracy of the rules can be reviewed using the text that appears at the end of the rules.

The Ivanti Neurons for MDM Administrator portal displays the number of duplicate user groups and the corresponding number of GUIDs to identify duplicate groups, when the User Group Name attribute is selected in the rule builder. Also, a table under this rule displays the list of the duplicate user groups and their details such as User Group Name, GUID, Source, and distinguished name (DN).

Rules can identify devices by:

- AAD Enrolled
- APNS Capable
- Alternative Serial Number (Android Only - applicable for Samsung devices in Device Admin or Device Owner mode)
- Android 5G Network Slicing Enabled

-
- Android Work Managed Device Non-GMS mode (AOSP) Enabled
 - Android Dedicated Device
 - Android Enterprise Capable
 - Android Managed Device with Work Profile
 - Android SafetyNet Attestation Type
 - Android Work Enabled
 - Android Work Managed Devices (Device Owner) Enabled
 - Android Work Profile Enabled
 - Android Work Profile Enabled on Company Owned Devices Enabled
 - Automated Device Enrollment Enrolled
 - Autopilot Enrolled
 - Azure Client Status Code
 - Azure Device Compliance Report Time
 - Azure Device Compliance Status
 - Azure Device Identifier
 - Sentry Blocked
 - Access Blocked
 - Bootstrap Token Available
 - Bulk Provisioned Type (Apple Configurator, None, or Automated Device Enrollment Enrolled)
 - Carrier
 - Client Last Check-in
 - Client Registered
 - Compliance

-
- Compliance Action Blocked
 - Current Country Name (select the country name from the drop down list)
 - Current MCC
 - Current MNC
 - Custom Device Attribute
 - Custom LDAP Attribute
 - Custom User Attribute
 - Data Roaming
 - Device Source
 - Device Type
 - Display Name
 - Encryption Enabled
 - Home Country Name (select the home country from the drop down list)
 - Home MCC
 - Home MNC
 - IMEI
 - IMEI2 (only on Android devices with a dual SIM port and applicable for Android 8.0 or higher devices)
 - IP Address
 - Kiosk Mode
 - Last Check-in
 - Lost Mode Enabled
 - MAM Only
 - Manufacturer

-
- Multi-User Mode
 - OS
 - OS Version
 - OS With Version
 - Ownership
 - Phone #
 - Quarantined
 - Recovery Lock Enabled
 - Roaming
 - Secure Apps Status
 - Serial Number
 - Status
 - Supervised
 - Supplemental Build Version
 - Supplemental OS/Version Extra
 - Unlock Token Available (iOS)
 - User Enrollment Enrolled
 - User Group
 - Username
 - Voice Roaming
 - macOS Personal Recovery Key escrowed
 - macOS Recovery Key Type



These rules are available only for **Silver** license and above.

Creating a Space

Procedure

1. Go to **Admin > Spaces**.
2. Click **Manage**.
3. Click **Create New Space**.
4. Click **Preview** to see which devices will be assigned to the space.
5. Click **Save** when you are satisfied with the devices in the space.



To delete, click on the Delete icon for the created space.

Prioritizing Spaces

Ivanti Neurons for MDM assesses spaces in order of appearance. To change the order, click the arrows in the upper right corner of the space definition.



Assigning an Administrator to a Space

Procedure

1. Go to **Users**.
2. Search for the user who will be the administrator.
3. Click the link for the user to display detail.
4. Select **Actions > Assign Roles**.
5. Select **Device Management**.
6. Under **Device Management**, select the space for this administrator.
7. Click **Done**.

When this administrator logs in, only devices, configurations, and policies in the assigned space will be visible.

Cloning a Configuration or a Policy

You can clone a configuration or a policy if you need to duplicate them with a few differences. You can also associate the cloned configurations or policies to different device groups. All the policies can be cloned within a space. All configurations, except the user-provided Identity Certificate and Threat Defense, can be cloned within a space. The following configurations can also be cloned across spaces from the default space:

- iOS Restrictions
- Web Clip
- Certificate
- Passcode
- SCEP (iOS and Windows)
- Identity Certificate (dynamically generated)



- The name of a configuration or a policy type should be unique in a space. All other properties of a configuration or a policy can be cloned.
 - The configurations will be cloned to all spaces which you, the administrator, have access to. You do not need to be a Global Administrator to clone a configuration.
-

Clone a configuration or a policy

Procedure

1. Go to **Configurations** or **Policies** depending on what you want to clone.
 2. Click the link for the configuration or the policy to display the details.
 3. Click the **Clone** icon.
 4. In the pop-up window, enter a **Name** and optionally a **Description**.
 5. Click **Next**.
 6. Modify the configuration or the policy as per your requirements.
 7. Click **Next**.
-

8. Configure the distribution.

9. Click **Done**.

For more information, see [Space examples](#).

Space Examples

This topic provides examples related to how spaces can be used by administrators.

Administrator per location

ACME, Inc. has offices in North America and Europe. Due to language and time zone issues, ACME wants an administrator in the US to manage North American devices and an administrator in Germany to manage European devices.

To set up these Spaces, ACME made these changes:

1. Created a user group in Ivanti Neurons for MDM for users in Europe.
2. Created a user group in Ivanti Neurons for MDM for users in North America.
3. Created a Europe Space with the following rule:
User Group = Europe
4. Created a North America Space with the following rule:
User Group = North America
5. Assigned the Device Management role for each Space to the proper administrator.

ACME now has the following Spaces:

- Europe
- North America
- Default

Administrator per OS per location

ACME has decided that only Android experts should administer Android devices. One Android expert has been added to the North American organization, and one has been added to the European organization. So two new Spaces are needed.

To add the Spaces, ACME made these changes:

-
1. Created a Europe-Android Space with the following rules:

User Group = Europe

OS = Android

2. Created a North America-Android Space with the following rules:

User Group = North America

OS = Android

3. Assigned the Device Management role for each Space to the proper administrator.

ACME now has the following Spaces:

- Europe-Android
- North America-Android
- Europe
- North America
- Default

Administrator for executives

ACME's executives have decided that they want special service from a special administrator. Only the most important executives are on this list.

To add this Space, ACME made these changes:

1. Created an Executives Space with the following rules:

Username = jdoe@acme.com

Username = gkunz@acme.com

Username = prizzo@acme.com

Username = fvanhoff@acme.com

2. Moved the Space to the top of the list in the **Space** page.

Otherwise, executives with Android devices would have the wrong administrator.

3. Assigned the Device Management role for the Space to the special administrator.

ACME now has the following Spaces:

- Executives
- Europe-Android
- North America-Android
- Europe
- North America
- Default

Administrator for all other devices

When ACME opens a new office in Japan, the added devices will be assigned to the administrator of the default Space until someone creates a Japan Space.

Delegating Devices

Spaces are used to separate your devices into independently managed entities. Membership for Spaces is determined by rules you create. Device delegation allows a Global Admin to partition and independently manage devices in an UEM system. When devices are delegated, access to those devices can be assigned to a subset of delegated administrators, thus distributing admin responsibilities.

Delegated devices can be grouped into device groups and different custom configurations can be applied to them without affecting devices in the default Space or other Spaces.

Creating rules for delegating devices

The rules you define for a Space determine which devices belong to the Space. A device can belong to only one Space. Devices that do not match the rules for the Spaces you create automatically belong to the default Space.

1. Select **Any** if you want devices to be included in this definition if they meet any of the rules.
2. Select **All** if you want devices to be included in this definition only if they meet all of the rules.
3. Select one of the following rule types from the dropdown:
 - **Custom LDAP Attribute:** For rules based on LDAP attributes.
 - **OS:** For rules based on the device's operating system.
 - **User Group:** For rules based on the device's user group (as defined in the device management service).
 - **Username:** For rules based on the username associated with the device.
4. Define the criteria for the selected rule type:
 - **Custom LDAP Attribute:** Enter the name of the custom LDAP attribute that was configured in the LDAP settings.
 - **OS:** Select Android, iOS, macOS, or Windows.
 - **User Group:** Select one of the user groups displayed in the dropdown. These are the user groups defined under **Users > User Groups**.
 - **Username:** Type in a username.

-
5. To add another rule for this Space, click the + next to the previous rule.
 6. Click **Preview** to see which devices will be assigned to the Space.
 7. Click **Save** when you are satisfied with the devices in the Space.

Devices that no longer match the rules for a Space are automatically moved to the next matching Space. If the device does not match the rules of an existing Space, then the device moves to the Default Space. For example, removing a user from a user group can cause that user's devices to move to a different Space. Moves to a different Space can result in changes in policies and configurations.

Delegating Apps

App delegation allows a Global Admin to partition and independently manage apps in Ivanti Neurons for MDM. The Global Admin can centrally source and distribute public and in-house apps while maintaining the separation and control provided by delegated Spaces.

By centrally distributing an app, the Global Admin can predefine the management behavior of the app through app configurations as well as the apps' distribution rules. The app can then be delegated and made available in the App Catalog of the delegated Space.

The delegated app is then distributed to users within a given delegated Space. When applications are delegated, access to those applications can be assigned to a subset of Delegated Administrators, thus distributing admin responsibilities.

App delegation requires one or more Delegated Spaces to be defined first. When an application is delegated it is assigned to all Spaces. App delegation Space is classified into:

- Default Space
- Delegated Spaces

Adding an app to a delegated Space

An application can be added to a Delegated Space by a Delegated or a Global Admin. The app appears only in the App Catalog of the Delegated Space where it was added. If you add a previously delegated app from Default Space to a Delegated Space, it will result in an error. In this case, inheritance for the app must be first disabled in the Default Space so that it can be added to a Delegated Space. For more information, see **Adding a configuration** in ["Working with Configurations" on page 423](#).

App distribution in a delegated Space

When an app is delegated from the Default Space, its Distribution rules are inherited. This app will be distributed to all the devices assigned to the Delegated Space which match the Distribution rules for the app.

The global administrators can delegate space administrators to edit the Dynamically Generated Identity Certificate for All Devices and for the Custom distribution option.



The distribution changes are applicable only to the specific space. All other spaces continue to inherit the default space distribution settings.



App approval settings for Android apps: App approval settings per space for Android apps is not supported. Apps approved in custom space take effect in all the spaces.



Existing Android catalog apps: On tenants where public Android apps have already been added in default space, apps need to be undelegated before that public app can be added in another non-default space.

For more information, see **Adding a configuration** in "[Working with Configurations](#)" on page 423.

Support Administrators

Create a temporary support administrator to enable the service support team to log in with your [roles](#) and permissions. This user expires automatically in 7 days, or you can end access at any time. Creating a support administrator makes it easier for the support team to troubleshoot issues.

Creating a support administrator

Procedure

1. In the **Support Administrators** page, click **Add Support User**.
2. Click **Create User** to confirm.

This step sends an email to the device management service support team.

The **Display Name** field shows "(disabled)" until a support team member activates the new account. The resulting display name will have the following format:

support-[random_ID]-[your_username]@[your_company].com



Once you create a support administrator, selecting **Admin > Support Administrators** takes you directly to the list of existing support administrators. Therefore, if you need to create additional support users, go directly to step 2 above.

Viewing user history

In the **Support Administrators** page, click **User History** to view the login history of the support administrators. The availability of the login history data in the Support Administrators page is restricted to the last 90 days of data.

Ending access for a support administrator

Procedure

1. In the **Support Administrators** page, click the **Delete** link to the right of the account you want to remove.
 2. When prompted, click **Remove User** to confirm.
-

Suspending access for a support administrator

In the **Support Administrators** page, click the **Disable** link to the right of the account you want to suspend.

Admin > System Use Notification

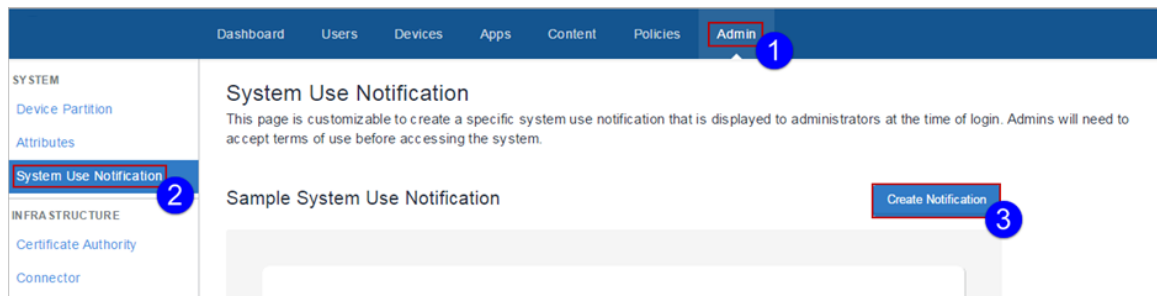
License: Silver

Use the System Use Notification feature to create a customized system use notification that appears to administrators at the time of login, and requires administrators to accept terms of use before accessing the system.

Creating a system use notification

Procedure

1. Select **Admin > System Use Notification**.
2. Click **Create Notification**.



The System Use Notification Details page appears.

Title

Title / Welcome Message

Summary





Brief Summary or Instructions

Dept / Agency Logo (Optional)

Drag and drop file here
or
Choose File

Available file types: .gif, .jpeg, .png

Terms Of Use Text

B *I* U ~~S~~ ≡ ≡ H1 H2 H3 P    

Enable the System Use Notification

Cancel Preview Save

3. Enter a title in the **Title** field.

-
4. Enter a summary or instructions in the **Summary** field.
 5. Choose a logo if desired.
 6. Enter terms of use text in the **Terms of Use Text** field. This is the text that the administrator will have to accept at login.
 7. Place a check mark in the **Enable the System Use Notification** check box to turn on the notification.
 8. Click **Preview** to invoke a preview of the system use notification.
 9. Click **Save** when you are satisfied with the system use notification.

Infrastructure

This section contains the following topics:

- ["Access" on page 1114](#)
- ["App Lists" on page 1115](#)
- ["Exporting Audit Trails" on page 1116](#)
- ["Certificate Management" on page 1120](#)
- ["SCEP Configuration for External Certificate Authorities" on page 1131](#)
- ["Derived Credential Providers" on page 1133](#)
- ["Connector" on page 1134](#)
- ["Using the httpproxy command for Connector" on page 1138](#)
- ["Help@Work" on page 1140](#)
- ["Infrastructure Identity" on page 1144](#)
- ["Configuring LDAP server" on page 1161](#)
- ["Sentry" on page 1172](#)
- [Enable Kerberos Authentication between Ivanti Neurons for MDM and SCEP server](#)

Access

Applicable to: iOS and Android devices.

Access keeps business data secure while enabling a seamless and productive user experience on any device or app. Access establishes a data boundary that prevents users from accessing enterprise cloud services on unsecured devices, apps, or cloud services.

Latest documentation

Visit [Product Documentation](#) and click Access for more information about Access and how to set up Access. Select the document appropriate to your version of Access.

App Lists

License: Silver

You can create lists of required, Allowlisted, and Blockedlisted apps for use with the [Allowed Apps policy](#), where you can use these lists to help specify actions to take if a device's installed apps do not meet the requirements implied by the app lists. You cannot edit app lists once created because app lists can be referred to in [Allowed Apps policies](#). Similarly, you cannot delete app lists referred to by any allowed apps policies.

Creating app lists

Procedure

1. Click **Admin > Infrastructure > App Lists**.
2. Click **Create New List**.
3. Under **App List Name** box, enter a name for the list.
4. Select the type of list, **Whitelist**, **Blacklist**, or **Required**.
5. Under **Add Apps** section, select the app type, **App Store**, **OS X store**, **Google Play**, or **App Catalog**.
6. Enter search criteria to narrow your choices.
7. Use the check boxes to select apps. You can use multiple searches and enable more than one check box.

Click the **View Apps** tab for a list of apps you have selected so far.

8. Click **Save**.

Now you can use this list when you configure the [Allowed Apps](#) policy.

If you cannot see the **App Lists** page, it might be that you do not have the required permissions. You need one of the following [roles](#):

- System Management
- System Read Only

Exporting Audit Trails

Audit Trails export is a feature which is used to export and upload all the audit trails information to a specific server location. The server should be accessible from the default port. Users can configure Audit Trail Export settings to get archives of Audit Trails automatically uploaded to a specific location on a daily basis.



Audit Trails export is supported on Linux-based and Windows-based SFTP servers.

To configure the settings for exporting Audit Trails:

1. Select **Admin > Infrastructure > Audit Trails**. The **Audit Trails** page is displayed.
2. In the **Audit Trails** page, click **ON** to enable the export of audit trails.

In the **Export** section, update the following fields:

Feature	Description
Export format	<p>Select any of the following format in which the Audit Trails data should be exported:</p> <ul style="list-style-type: none"> • JSON • CEF (Common Event Format) The CEF log message contain the following default values: <ul style="list-style-type: none"> • Version : CEF format version number. v25 is the current supported version. • Device Vendor: Ivanti Inc • Device Product: Ivanti Neurons for MDM • Device Version: Latest Ivanti Neurons for MDM version at the time of event generation. • Device Event Class ID: Entity ID unique per trail • Name: Entity name and action per trail. Example: Promotion distribution configuration settings Create. • Severity: Specifies the importance of the event. Example: Low. <p>The CEF log message also includes extension fields which are a collection of the following key-value pairs:</p> <ul style="list-style-type: none"> • CS1 & CS1Label: Audit Trails meta data such as createdAt, entityType, entityName, and actionType. • CS2 & CS2Label: Actor information. • CS3 & CS3Label: Before action state. • CS4 & CS4Label: After action state. <p>In CEF export, if any of the fields(example: CS3 or CS4 keys) exceed the specified limitations, the actual value is replaced with the text "Value for this key exceeds mapped dictionary key allowed length".</p>

Feature	Description
Server	Enter the name of the server to exporting Audit Trails.
User	Enter the user name to login to the server.
Password	Enter the server login password.
Server path	Enter the path of the server and ensure that the given path exists on the server. Example: /Users/Test/Export.
Key Exchange Algorithm	<p>Select the list of key exchange algorithms for exporting audit log for the outgoing SFTP configuration.</p> <p>The following key exchange algorithms are selected by default:</p> <ul style="list-style-type: none"> • diffie-hellman-group-exchange-sha1 • diffie-hellman-group14-sha1 • diffie-hellman-group-exchange-sha256 (selected by default)
Ciphers	<p>Select the list of encryption ciphers for exporting audit log for outgoing SFTP configuration. The following encryption ciphers are selected by default:</p> <ul style="list-style-type: none"> • aes128-ctr • aes192-ctr • aes256-ctr (selected by default)
HMAC	<p>Select the list of HMAC algorithms for exporting audit log for the outgoing SFTP configuration.</p> <p>hmac-sha1 is the HMAC algorithm selected by default.</p>



The fields mentioned above will be in read-only mode if these fields are already configured. To edit the configured fields, you should click the **Edit** button. If the admin had already configured SFTP export, then after the upgrade all the Key Algorithms are selected.

3. Click **Test Connection and Save** to test the server connection and to save the Audit Trails export configuration.

The archived Audit Trails files are available in JSON format in a .zip file.



Verify the configuration settings in all the fields before saving the Audit Trails export settings,. An error message is displayed if any of the entered field values are invalid.

Certificate Management

License: Silver

Using certificate authentication is an effective way to secure your mobile devices. Certificates are more secure than passwords, and they enable you to use a single credential to protect VPNs, wireless networks, email, etc. If your organization has access to an external certificate authority, you can use a Connector to access it. If your organization does not have access to a certificate authority, you can use Ivanti Neurons for MDM as a certificate authority. You can also use it as an intermediate certificate authority to other certificate authorities. The certificates generated by Ivanti Neurons for MDM are called self-signed certificates.



- SHA-1 certificates are deprecated while creating the identity certificates. You can choose other algorithms. While updating the certificates, if the older certificates use SHA-1, the same SHA-1 algorithm can be used. If the older certificates use an algorithm above SHA-1, then reverting to SHA-1 is not allowed.
- During the configuration of the local or external certificate authority, select the **Cache Identities on Ivanti Neurons for MDM** option to store certificates with the Ivanti Neurons for MDM service. Clear cache to generate certificates each time as needed.
- While editing an existing certificate from the **Actions** menu, you can select the **Clear cached certificates and issue new ones with recent updates** option if required. Non-cached certificates will be re-issued automatically.
- For improving system efficiency, the certificates for the admin-created configurations are generated offline, using a First In First Out (FIFO) queue. During the period when the configurations are being generated offline, the configuration state will be **Pending Certificate Generation** under the **Status** column in the **Configurations** tab on the **Device Details** page. After the certificates are generated, the configurations are moved to the **Pending Install** state and are pushed, along with the certificates, to the devices via automatic force check-ins.
- All Certificate Authority certificates, including the certificates signed by DigiCert PKI Platform or GlobalSign external Certificate Authorities, are revoked when a device is retired, wiped, and when certificates are regenerated.

As an administrator, you can generate Ivanti Neurons for MDM certificate for smart card logon and custom object IDs (OIDs). You can generate certificates for the following authentication options:

- Client Authentication - enabled by default
- IPSEC – optional, admin can enable

-
- Smart Card Logon – optional, admin can enable
 - Custom OIDs - optional, admin can enable
-

This feature is only applicable for the following certificate authorities:



- Local Certificate Authority
 - Intermediate Certificate Authority
 - External Certificate Authority - configure the application policies of CA template in NDES server to support IPSEC , Smart Card Logon, and custom OIDs
-



In the Device Admin, App Station, or other non-Android Enterprise modes, Certificate Management is not supported on Samsung devices using Samsung APIs. It is recommended to verify transition to Android Keystore based on Samsung recommendation.

For more information, see ["Certificate configuration" on page 503](#).

Connecting to an on-premise SCEP certificate authority

Procedure

1. Log in to the Ivanti Neurons for MDM administrative portal.
 2. Install and configure a Connector (**Admin > Connector**). For more information, see ["Connector" on page 1134](#).
 3. Go to **Admin > Infrastructure > Certificate Management**.
 4. Click **Add** under the **Certificate Authority** section.
 5. Select **Add an on-premise SCEP Certificate Authority** and click **Continue**:
 6. Enter a name that identifies the configuration.
 7. Select one of the following Certificate Authority Type:
 - Microsoft
 - EJBCA
-

-
- Generic SCEP Server

The Generic SCEP Server option can be used with most SCEP servers having a static challenge password.

8. Complete the displayed form.
9. Click **Done**.

Creating an external Certificate Authority

Choose this option if you want to use a third party Certificate Authority.

Procedure

1. In the **Certificate Management** page, click **Add** under **Certificate Authority** section.
2. In the Add Certificate Authority page, under Create an external Certificate Authority, click **Continue**.
3. Select GlobalSign or DigiCert PKI Platform as the external Certificate Authority.
4. Complete the remaining fields on the displayed form.
5. Click **Done**.

Viewing a certificate of the external certificate authority

You can view the details of a certificate and upload the intermediate/alternate root certificate for this certificate authority to replace the existing stored copy.

Procedure

1. Under the **Certificate Authority** in the **Certificate Management** page, click **Actions** next to the external certificate authority, and then click **View Certificate**. The **View certificate** window is displayed.
2. In the **View Certificate** window, click **Upload Certificate**. The **Upload Certificate: External CA** window is displayed.
3. Click **Choose File** to select the certificate to be uploaded.
4. Click **Done**.

Creating an intermediate certificate authority

- If you need a certificate, then generate a CSR and submit it to the signing authority. Once you receive the certificate from the signing authority, upload the certificate.
- If you already have the necessary certificate, upload it.

Generate a CSR (certificate signing request)

Procedure

1. Under the **Certificate Authority** section in the **Certificate Management** page, click **Add**
2. In the Add Certificate Authority section, under Create an Intermediate Certificate Authority, click **Generate CSR**.
3. Complete the displayed form.
4. Click **Generate**.
5. Copy the content between BEGIN CERTIFICATE REQUEST and END CERTIFICATE REQUEST to a text file.
6. Upload the text file to the certifying authority.
7. Click **Done**.

Uploading the signed certificate

Once you receive the signed certificate from the certifying authority you can upload the signed certificate.

Procedure

1. Under the **Certificate Authority** section in the **Certificate Management** page, find the entry for the CSR you generated.
2. Under section, select **Actions > Upload New Signed Certificate**.
3. Click **Choose File**.
4. Select the new signed certificate.
5. Click **Done**.

Uploading an existing certificate

This topic describes how to upload a signed certificate.

Procedure

1. Under the **Certificate Authority** section in the **Certificate Management** page, click **Add**.
2. In the Add Certificate Authority section, under Create an Intermediate Certificate Authority, click **Upload Existing Identity**.
3. In the **Name** field, enter a name for this certificate that distinguishes it from others.
4. Click **Upload**.
5. Select the certificate.
6. Enter the password for the certificate.
7. Click **Upload**.

Viewing a certificate of the intermediate certificate authority

You can view the details of a certificate and get the CRL (Certificate Revocation List) URL of the certificate authority.

Procedure

1. In the **Certificate Authority** section, click **Actions** next to the certificate authority and click **View Certificate**. The **View certificate** window is displayed.
2. In the **View Certificate** window, you can view the URL in the **CRL URL** field.
3. Click **Copy** to copy the URL to a clipboard and paste in another application. This URL can be used to configure Office 365 to accept certificates issued by the certificate authority.

Creating a Standalone Certificate Authority

Choose this option if you want to create a new, completely standalone (local and self-signed) Certificate Authority.

Procedure

-
1. Under the **Certificate Authority** section in the **Certificate Management** page, click **Add**.
 2. In the Add Certificate Authority page, under Create a Standalone Certificate Authority, click **Continue**.
 3. Complete the displayed form.
 4. Click **Generate**.

Configuring the expiration period of the standalone certificate authority

You can configure the expiration period of the standalone (local) certificate authority. By default, the certificate lifetime is set to 30 years.

Procedure

1. Under the **Certificate Authority** section in the **Certificate Management** page, click **Actions** next to the standalone certificate authority.
2. Click **Edit**.
The **Edit Certificate Authority** window is displayed.
3. In the Client Certificate Template section, in the **Certificate Lifetime** field, enter the new expiration period in days.
4. Click **Save**.

You may receive notifications and emails(if optionally enabled) when the certificates issued by a local certificate authority are about to expire or already expired.

- Notification on the days of the certificate expiry - Notifications are generated at pre-determined intervals during a certificate expiration window. The first notification occurs 365 days before expiration, followed by additional notifications that occurs 180 days, 60 days, 45 days and 7 days before expiration. You will receive this notification till you replace the certificate by navigating to **Admin > Certificate Management> Actions > Upload New Signed Certificate**.
- Notification on the expired certificate - You receive a notification when the certificate expires. You will have to replace the certificate to resume normal service.
- Notification when a new valid certificate is uploaded - The notification will be sent when the new signed certificate is uploaded.

Viewing a certificate of the standalone certificate authority

You can view the details of a certificate and get the CRL (Certificate Revocation List) URL of the local certificate authority.

Procedure

1. Under the **Certificate Authority** section in the **Certificate Management** page, click **Actions** next to the local certificate authority and click **View Certificate**. The **View certificate** window is displayed.
2. In the **View Certificate** window, you can view the URL in the **CRL URL** field.
3. Click **Copy** to copy the URL to a clipboard and paste in another application. This URL can be used to configure Office 365 to accept certificates issued by the local certificate authority.

Viewing a CRL lifetime of a Certificate Authority

You can view and edit the CRL lifetime of a local or intermediate certificate authority.

Procedure

1. Under the **Certificate Authority** section in the **Certificate Management** page, click **Actions** next to the local certificate authority and click **Edit**. The **Edit Certificate Authority** window is displayed.
2. In the **Edit certificate Authority** window, you can view the CRL Lifetime value. The minimum default value is 24 hours. The maximum value that can be entered is 10950 hours.
3. Edit the CRL lifetime value and click **Save**.

Creating a Cloud Certificate Authority

Choose this option if you want to use a Cloud Certificate Authority.

Procedure

1. Go to **Admin > Infrastructure > Certificate Management**.
2. In the **Certificate Management** page, under the **Certificate Authority** section, click **Add**.
3. In the **Add Certificate Authority** page, under **Connect to a publicly-trusted Cloud Certificate Authority**, click **Continue**.
4. Enter a name in the **Name** box.

5. Select a Cloud Certificate Authority from the following options:

- **Atos IDnomic CMS**
- **DigiCert PKI Platform**
- **Entrust**
- **GlobalSign**

6. Enter the base URL and upload the certificate data.

7. Click **Done**.

Using Advanced Search on certificates

You can use the Advanced Search option to search for issued certificates based on rules to identify and view the certificates with specific criteria. These rules can be constructed using the applicable operators, including the "begins with", "ends with", "contains", "does not contain", "does not begin with", "does not end with", "is less than", "is greater than", "is in range", "is equal to", and "is not equal to" operators. The rule options can be nested together using the ANY (OR) or ALL (AND) options. The issued certificates matching the rules are displayed below the section. Starting from Ivanti Neurons for MDM release 76 the operators for all the certificate management templates have standard operators. The operators of the following templates are standardized in this release:

- Admin > Certificate Management > Issued Certificates > Advanced Search

Advanced Search on Issued Certificates

Procedure

1. Under the **Issued Certificates** section in the **Certificate Management** page, click the **Advanced Search** link.
2. Click **Any** if the users need to match at least one of the rules, or Click **All** if the certificate need to match all the rules.

-
3. Create a rule that defines the search criteria, for the following attributes:
 - **CA**
 - **Configuration Name**
 - **Expiry**
 - **Is Private Key**
 - **OS**
 - **Serial Number**
 - **Status**
 - **Usage Type**
 - **User**
 4. (Optional) Click + to create additional rules, if needed.
 5. (Optional) Click **Save** to save the query.
 6. Click **Search**. The list of users matching the search criteria are displayed in the page.

Advanced Search on User Provided Certificates

Procedure

1. Under the **User Provided Certificates** section in the **Certificate Management** page, click the **Advanced Search** link.
2. Click **Any** if the users need to match at least one of the rules, or Click **All** if the certificate need to match all the rules.
3. Create a rule that defines the search criteria, for the following attributes:
 - **Certificate Name**
 - **Expiration Date**
 - **Issued By**
 - **Uploaded On**

-
4. (Optional) Click + to create additional rules, if needed.
 5. (Optional) Click **Save** to save the query.
 6. Click **Search**. The list of users matching the search criteria are displayed in the page.

Loading the Search queries for issued certificates

To view the list of saved Search queries.

Procedure

1. Under the **Issued Certificates** section in the **Certificate Management** page, click the **Advanced Search** link.
2. Click the 'Folder' icon. The **Advanced Search** window is displayed. The list of the created Search queries are displayed in the **Loaded Query** section. The following details are displayed in this section:
 - **Query Name** - The name of the loaded query.
 - **Query Content** - Displays the content on the rules defining the search query.
 - **Actions** - Select the action to be performed on the query.
3. Click **Load Query** in the **Actions** column to view the list of issued certificates matching the criteria defined in the loaded query.
To delete a loaded query, click the Delete icon.



Click **Export to CSV** to download the search result report contents in a CSV file for later reference or analysis.

Viewing the expiration period of the issued certificates

Under the **Issued certificates** section, in the **Expires (in days)** column you can view the days remaining for the certificate to expire if the expiry is within the next 30 days. If the certificate had already expired within the last 30 days, the **Expires (in days)** column for the certificate displays the number of days passed from the date of expiry.

For more information, see [SCEP configuration for external certificate authorities](#).

Export to CSV

You can export the certificates to a CSV file for later reference or analysis.

Procedure

1. In the **Certificate Management** page, go to one of the following tabs.
 - **Certificate Authority**
 - **Issued Certificates**
 - **User Provided Certificates**
2. Click **Export to CSV**.
3. Click **Download**.
4. (Optional) Click **Delete** to delete the report.

SCEP Configuration for External Certificate Authorities

This feature enables support for Simple Certificate Enrollment Protocol (SCEP) configuration for external certificate authorities for Windows 10 devices.



Delegation with custom distribution option is available for this configuration. For more information, see *Distributing the configuration* topic in "[Working with Configurations](#)" on page 423.

Setup an External Certificate Authority

You must first setup an External CA. You can skip to the next section if you already have an External CA.

1. Go to **Admin > Infrastructure > Certificate Management**.
2. Click **+Add**.
3. Enter a name for the Certificate Authority.
4. Use the pull-down menu to select Microsoft as the **Certificate Authority Type**.
5. Enter the **SCEP URL**.
6. Enter the **Username** and **Password**.
7. Enter the **Challenge URL**.
8. Click **Save**.

SCEP Configuration

Now you can proceed with the SCEP configuration.

1. Go to **Configuration > +Add**
 2. Select the Windows icon.
 3. Select **Identity Certificate** to go to the **Create Identity Certificate Configuration** page.
 4. Enter a name for the configuration.
 5. Select **Windows Config** from the list of SCEP configurations from the **Certificate Distribution** pull-down menu.
 6. Select the External CA.
-

7. Enter the Certificate Distribution details.

- Enter the subject. For example: CN=\${userEmailAddress}
- Select the number of Retries from the **Retry** pulldown menu.
- Select the number of seconds to wait before each entry from the **Retry delay** pulldown menu.
- Select a key size from the **Key Length** pulldown menu.
- Select at least one certificate usage option.
- Enter the length of time in the **Validity** field and pulldown menu.
- Enter the CA Thumbprint.

Go to the SCEP challenge URL copy the CA Thumbprint and paste it here or click **Create from Certificate...** to upload the certificate from which the CA Thumbprint can be created.

- Select at least one hashing algorithm from the **Hash Algorithm Family** options.

8. Click **Next**.

Derived Credential Providers

In the Derived Credential Providers page, you can view the list of derived credential providers used for certificate distribution. You can specify which derived credential providers should be set as default and also add other custom derived credential providers that you use.

To set a derived credential provider as default:

1. Go to **Admin > Derived Credential Providers**.the following derived credential providers are listed in the page.
 - **Entrust**
 - **Intercede**
 - **Purebred**
2. For the provider which you want to set as default, click **Set as Default** under the **Actions** column. When set, the check mark icon is displayed under the **Default provider** column for the provider indicating that it is the default credential provider.

To add a custom derived credential provider:

1. Go to **Admin > Derived Credential Providers**.
2. Click **+Add** .
3. Type the name of the derived credential provider in the text field under the **Name** column.
4. Click **Save**.
When added, this custom derived credential provider is available as an option to be selected under **Brand** field while configuring the Derived Credential distribution under [Identity Certificate](#) configuration.

Click **Delete** under the **Actions** column to delete a derived credential provider.



You will not be able to delete the derived credential provider if it is set as default.

Connector

License: Silver

Ivanti Neurons for MDM Connector provides access from your Ivanti Neurons for MDM service to corporate resources, such as an LDAP server or a Certificate Authority (CA). Set up one Connector per resource that you would like to access.

If you use Microsoft Active Directory or an LDAP server hosted in Amazon Web Services (AWS), you can host Ivanti Neurons for MDM Connector in AWS. No on-premise Connector is required.

The Connector automatically updates to the latest version of the software.

For the latest Ivanti Neurons for MDM Connector Installation Guide, visit <https://help.ivanti.com/#106> and search for "Connector".

Connector hosting options

You can host the Ivanti Neurons for MDM Connector on-premise in your datacenter or in Amazon Web Services (AWS):

- Host the Connector in AWS if you are using AWS-hosted Microsoft Active Directory or self-managed Microsoft Active Directory in AWS. You do not need a Connector on-premise in this case.
- To access on-premise resources, such as an LDAP Server or a CA, set up the Connector on-premise.

Hosting the connector on AWS

Customers can host Connector in AWS for use with the following AWS-hosted Microsoft Active Directory options:

- AWS Directory Service for Microsoft Active Directory
- Customer-managed Microsoft Active Directory in Amazon VPC

For more information on AWS Directory Service for Microsoft Active Directory, see <https://aws.amazon.com/directoryservice>. Refer to AWS documentation on hosting Microsoft Windows Server and Microsoft Active Directory in an Amazon VPC. Ivanti Neurons for MDM Connector supports Windows Server 2012, 2012 R2, 2015.

Setting up the Ivanti Neurons for MDM Connector AMI in AWS

To set up the Ivanti Neurons for MDM Connector AMI:

1. Log in to AWS with administrator credentials.
2. On the AWS services page, select **EC2** under **Compute**.
3. Expand **Images** and select **AMIs** in the left pane.
4. Select **Public Images** from the drop-down list in the right pane.
5. Search for the Ivanti Neurons for MDM Connector using keywords such as "Ivanti Neurons for MDM Cloud Connector."
6. Select the latest version of the connector from the list and click **Launch**.
7. Follow the instructions for installing the Connector in the section, "Deploying Ivanti Neurons for MDM Connector in AWS" in the *Ivanti Neurons for MDM Connector Installation Guide* available at https://help.ivanti.com/mi/help/en_us/cld/<version>/inst/default.htm, where *version* is the version of the Ivanti Neurons for MDM Connector you are installing. For example, for the version 74 Ivanti Neurons for MDM Connector, find the guide at https://help.ivanti.com/mi/help/en_us/cld/74/inst/default.htm.

Hosting the connector on-premise

To host Ivanti Neurons for MDM Connector on-premise in your datacenter, click **Download Connector** to download and set up the Ivanti Neurons for MDM Connector. Extract the contents of the downloaded package and follow the setup instructions in the Ivanti Neurons for MDM Connector Installation Guide included in the package.

Accessing the Connector logs

You can access the Connector logs from the Connector service to help troubleshoot Connector related problems. You must have System Manager or System Read Only role.


1. Go to **Admin > Connector** to view the Connector page.
The Connectors interface displays the Connector status (Enabled or Disabled), Connector Name, Connection (Connected or Not Connected), Version number, Logging Level, Actions (Disable or Remove the Connector).



-
2. Use the **Logging Level** pulldown menu to choose a level.


The available logging levels are displayed in the pulldown menu in order from the lowest logging level to the highest logging level:

- Error
- Warn
- Info
- Debug
- Trace



The Info level is the default logging level setting. If you choose another logging level a rotating Sync


icon  appears indicating that information is being collected at the level of logging that you selected. The logging level will reset to the Info level after an hour. The Trace level is the highest logging level setting. Use this level to collect all the messages at all the other levels. The sync icon is displayed for the duration of the request.


3. If needed, hover over the Sync icon  to see the Cancel icon . Click the Cancel icon to cancel the logging level change.

4. Hover over the Request icon to display the Request information. Click the Request icon  to request the files from the current log folder in a .zip file.

The log files are added to a .zip file when a request is made. When a new request is made the .zip file from the previous request is deleted.

5. If needed, hover over the Request icon  and it becomes the Cancel icon . Click the Cancel icon to stop the request.

When a request is canceled before completion, the Download icon  is not displayed because the previous log .zip file was deleted from the server. The original log files on the Connector are still available to request.

-
6. Click the Download icon  when the request is completed to download the log .zip file containing log files collected during the latest request.
The log file name is in the format: kocab.log. The name of the zip file that is downloaded consists of the server name, connection version, and a time stamp including day, month, year, and the time of the day in the format: <Connector_Hostname>_<Connector_Version>_<TimeStamp>.zip. The archived .zip file name is in the format: kocab.yyyy-mm-dd.0.log.gz.
 7. Optionally, use the **Actions** pulldown menu to Disable or Remove the Connector.

If you cannot see the **Connector** page, it might be that you do not have the required permissions. You need one of the following [roles](#):

- System Management
- System Read Only

For more information, see [Using the httpoxy command for Connector](#).

Using the httpproxy command for Connector

A new klish shell command has been created to help edit Connector configuration for your Ivanti Neurons for MDM installation. Use this command to change the login information and other parameters to configure the connector.

The httpproxy command is now available in this release with these requirements.

- klish shell

To configure your connector

1. Log in to klish shell.
2. Enter a ? for a list of available klish shell commands.
3. Enter **httpproxy** to show the current value of these parameters:
 - a. enabled
 - b. scheme
 - c. server
 - d. authtype
 - e. username
 - f. password

-
4. Enter **httpproxy ?** to see a list commands available for use with httpproxy.
 - a. authtype - Set the authentication type of the http proxy to NONE, BASIC, or NTLM
 - b. disable - Disable the http proxy
 - c. enable - Enable the http proxy
 - d. host - Set the host of the http proxy - must be an FQDN or an IP either http or https
 - e. password - Set the Authentication password of the http proxy
 - f. port - Set the port of the http proxy
 - g. scheme - Set the scheme of the http proxy - must be either http or https
 - h. show - Show the current http proxy settings
 - i. username - Set the authentication username of the http proxy
 5. Use the commands listed above to setup your connector instance.

Help@Work

License: Platinum

Supported on: Android and iOS devices as supported by Ivanti Neurons for MDM

Use Help@Work for Android/iOS to provide remote assistance to users of Android and iOS devices. Help@Work for Android/iOS is based on the TeamViewer QuickSupport app. You will need a TeamViewer account to use Help@Work for Android/iOS. If you do not have an account, visit teamviewer.com for details.

Help@Work transforms the help desk experience for iOS 11.0+ and Android devices by allowing users to ask for help with a click of a button and to share their screen with a help desk agent. Users no longer waste valuable time trying to verbalize the issue, and IT staff is more efficient when troubleshooting device issues. This is not supported for MAM-only iOS devices.



TeamViewer is supported on Android Device Owner devices in Kiosk mode.



TeamViewer launch commands ceases to exist if the app exits or the device reboots.



In Android devices, if the Teamviewer QuickSupport app is not installed, the user is prompted to download the app. In iOS devices, the app has to be pushed through App Catalog or if it is already installed on device, it must be converted as a managed app.



The Teamviewer QuickSupport app should be in foreground for the session to be applied to the application. The TeamViewer host app is required for Unattended mode.



The desktop application version that admin installs should be compatible with the Quicksupport version installed in the client device to support remote sessions.

Setting up Help@Work for Android or iOS

The following are one-time setup steps for branding and distributing Help@Work for Android or iOS:

1. Go to the **Admin** tab.
2. Under Infrastructure, click **Help@Work**.

-
3. **Help@Work** requires TeamViewer. In the Activate TeamViewer section, activate either **TeamViewer Attended** or **TeamViewer Unattended (Android only)** option by clicking the **Activate Now** button.
 4. Review the TeamViewer license agreement and click **Agree** to continue. Your Enterprise License is now activated. This identifies Ivanti customers to TeamViewer so that access is granted.



The **Remove Activation** option becomes available upon activating the TeamViewer. When you click **Remove Activation** present under the **Activate TeamViewer** section, the **Confirm Remove Activation** window appears on the screen. Click **Remove Activation** to remove the TeamViewer Activation, which in turn will remove the Help@Work functionality on all supported devices. However, you can activate TeamViewer using an existing account or a different account at a later stage.



If you want to delete the **TeamViewer** account in Unattended mode, you must de-provision the associated devices for which the Unattended mode is enabled. To de-provision the associated devices, you must undistribute the **TeamViewer** app from the associated devices and do a force check-in. Ensure the TeamViewer app is deleted from all devices and then delete the binding of the account from the Admin console.

5. Ensure the TeamViewer app is deleted from all devices and then delete the binding of the account from the Admin console.
6. Distribute the TeamViewer app to users you wish to start remote sessions using the standard app distribution workflow. This is specific to **Attended** and **Unattended** modes. If the admin wants to control the device, the Universal add-on or OEM/model-specific add-on by TeamViewer needs to be distributed to the device as well. See [App Configuration](#) for instructions.


Starting a remote session using Help@Work for Android or iOS

A typical Help@Work for Android or iOS session starts with an end-user needing help.


To start a Help@Work session with the user's device:

1. In Ivanti Neurons for MDM, go to **Devices**.
2. In the device list page, click on the device that needs support.
3. From the Actions menu, click **Start TeamViewer Remote Control** for Android devices or **Remote Display** for iOS devices. You will see two options:

-
- Attended mode (default) - This option requires **TeamViewer Quick Support** app to be installed and Whitelisted in the target device.
 - Unattended mode (available on Android only) - This option requires **TeamViewer Host** app to be installed and Whitelisted in the target device.

 If you want to Whitelist the hostnames or override the content security policy, please contact the support team.

The Unattended mode option works on Kiosk mode as well. It should be enabled from the TeamViewer integration page. The Unattended remote control requires TeamViewer host app on device, one time activation on a device, and a MI add-on license. For the one time activation, the permission prompt will be displayed when the TeamViewer host app installed and launched for the very first time. The administrator can use the "Auto-launch (settings in Managed App configuration)" TeamViewer app after installation if desired. The number of licenses is calculated based on TeamViewer host app distribution. If the TeamViewer host app is distributed to a device, one Unattended remote host session license is consumed. In addition to the TeamViewer host app, other add-on apps may be needed and should be allowed in kiosk or shared kiosk mode. Other add-ons might be needed depending on the device model and manufacturer.

 The Google Pixel devices do not persist this permission grant and require consent for permission for every session.

4. If the administrator has a valid TeamViewer token, the desktop client starts with a support session to the device. Otherwise, the administrator will be required to log in with TeamViewer and grant permissions.

To quickly initiate a remove session, administrators can login to the desktop application beforehand.

Installing TeamViewer

Install the TeamViewer app on the desktop to access and provide support for your users' remote devices. To install TeamViewer:

1. Download the installation package for the TeamViewer full version for Mac, Windows, or Android from here:
<https://www.teamviewer.com/en/download/>
2. Launch the TeamViewer installation program.

-
3. Select **Basic Installation**.
 4. Select **Company / Commercial use**.
 5. Click **Accept - finish**.

Requesting a TeamViewer account

You must have a TeamViewer account to provide support using TeamViewer. To obtain a TeamViewer account:

1. Go to <https://login.teamviewer.com/>.
2. Enter your email, name, and password.
3. Click **Sign Up**.
4. Use the email account you entered in step 2 to receive an TeamViewer account activation email.
5. Complete the instructions in the email to activate your TeamViewer account.

Confirming TeamViewer session ID

TeamViewer generates a session ID when connection is established between the administrator's computer and the user's mobile device.

1. When the session ID is generated, Ivanti Neurons for MDM passes it to the TeamViewer QuickSupport app using the managed app configuration, which in turn uses this session ID to invoke the TeamViewer client on the device. For iOS, the session ID expires after 30 minutes.
2. The user is prompted to accept the TeamViewer EULA.

Infrastructure Identity

This section contains the following topics:

Configure Identity Provider

License:Silver

Configure an identity provider (IdP) to authenticate users who wish to register devices with Ivanti Neurons for MDM, access this Admin Portal, or access the Self-Service Portal. An on-prem LDAP compatible user directory is required. Ivanti Neurons for MDM works with any SAML 2.0 compatible IdP. Microsoft Azure AD Authentication (Azure AD), Microsoft ADFS (Active Directory Federation Services), Okta, OneLogin, PingOne, and Ping Identity's PingFederate have been verified to work with Ivanti Neurons for MDM.

Previously, if you setup SAML auth/IdP, SAML authentication is used for both device registration and portal authentication. Now, a toggle button is provisioned to choose different authentication methods for Admin Portal access and Device Registration. The bypass toggle is applicable only for device registration.

During device registration, the administrator can bypass the identity provider option and provide the user with the option to authenticate using a PIN instead of authentication using the identity provider page.

Overview

- If you are using Microsoft AD, or another on-premise LDAP directory, you will need to set up Connector to connect to and import users to Ivanti Neurons for MDM. Set up Connector or [LDAP](#) if you have not done so already.
- When an IdP is added, user authentication automatically switches from LDAP to IdP.
- Only one IdP provider is allowed.
- In case your IdP becomes inaccessible, use the Ivanti Neurons for MDM Tenant Admin (TA) account to access this Admin Portal and troubleshoot. The TA is a Local account and does not require external authentication. The TA account is created when your Ivanti Neurons for MDM is provisioned and information provided to the technical contact of your organization, or equivalent. If you do not have your TA account information, contact your support representative.

-
- Ivanti Neurons for MDM supports Microsoft Azure Active Directory (Azure AD) for authenticating users during registration of Windows 10 devices.



Set the authentication type for your LDAP users using the tools provided by your IdP vendor. The authentication scheme of your IdP will take precedence over the Ivanti Neurons for MDM settings. Ivanti Neurons for MDM Authentication settings can be found here: **Users > User Settings > Device Registration Setting > Device Registration Authentication Type**.

- Apple Device Enrollment and Configurator device enrollments do not use IdP for user Authentication.
- To configure an identity provider to work for registering Apple Business Manager iOS and macOS devices, you must enable the **Enable Custom Enrollment** and the related **Ivanti Hosted webpage** settings found at **Admin > Apple > Device Enrollment > edit a device enrollment profile**. See "[Device Enrollment](#)" on page 1177 for more information:

Custom Enrollment **Create Custom Enrollment Web Page(s)**

13.0+ 10.15+ macOS

Custom Enrollment will help you create custom web UI for enrollment that can be used for displaying authentication type, branding, consent text, privacy policy etc.

Enable Custom Enrollment
Choose Ivanti hosted web-page in order to re-direct to the IDP if the enrollment is using an identity provider. Choose custom URL to add and re-direct to admin hosted webpage.

Ivanti Hosted webpage
Redirected to ireg Page

Custom URL

IdP Set Up Types

The Ivanti Neurons for MDM Identity page guides you through the set up of the following types of IdP providers:

-
- **Ivanti Neurons for MDM IdP Setup**- Supported Ivanti Neurons for MDM IdP providers are Azure AD, OneLogin, Okta, and PingOne.
 - **On-Prem IdP Setup**- Supported on-prem IdP providers are ADFS 3.0, PingFederate 8.2.1, and PingFederate 8.1.3.
 - **Generic IdP Setup**- This is a generic set up path you can use if you are not using Microsoft ADFS, Okta, OneLogin, or PingFederate.

Configuring an identity provider (IdP)

Procedure

1. Go to **Admin > Identity > SAML Authentication**.
2. Click an identity provider set up type:
 - **Ivanti Neurons for MDM IDP Setup**
 - **On-Prem IDP Setup**
 - **Generic IDP Setup**
3. Select a corresponding IdP. If you selected **Generic IDP Setup** in step 3, then skip this step and continue from step 5.
4. Follow the instructions on the screen that appear for your chosen IdP.
5. Click **Done**.



Administrators are allowed to single sign-on for up to 2 hours from their initial authentication with the IdP.

Setting up tasks you may need to complete

Depending on your chosen IdP, you will be guided through the following associated pages and steps:

IdP	Procedure
<ul style="list-style-type: none"> • Azure AD • Okta • OneLogin • PingOne 	<ul style="list-style-type: none"> • Generating a key to upload to your IdP. • Logging into your IdP and uploading generated key. • Exporting a metadata file from your IdP and importing it into Ivanti Neurons for MDM.
<ul style="list-style-type: none"> • ADFS 3.0 • PingFederate 8.2.1 • PingFederate 8.1.3 	<ul style="list-style-type: none"> • Download the metadata file from Ivanti Neurons for MDM. • Setting up a "Relying Party Trust" on ADFS or an "SP Connection" on PingFederate, and importing the Ivanti Neurons for MDM metadata file. • Exporting the metadata file from your IdP and importing it into Ivanti Neurons for MDM.

- Generic IdP

1. Download the metadata file from Ivanti Neurons for MDM.
2. Follow the instructions provided by your IdP vendor to configure your IdP server or service to communicate with Ivanti Neurons for MDM service as "Service Provider." This can include:

- a. Uploading the metadata file from Step 1 above to your IdP. This configuration file contains the essential information that enables Ivanti Neurons for MDM, as a SAML 2.0 Service Provider, to communicate with your SAML 2.0 Identity Provider. The standard SAML 2.0 URLs, certificates and settings are included in the metadata file.



Ivanti Neurons for MDM expects a SAML 2.0 compatible IdP to have the ability to import and process an XML metadata exported from a Service Provider.

- b. Configuring your IdP to use RSA-SHA1 for signing SAML authentication requests. Information about the Signing Certificate used to verify the authentication requests is included in the metadata file downloaded in Step 1.
- c. Configuring your IdP to include a username in the SAML responses sent to Ivanti Neurons for MDM. Specify the username in the [Name Id] element of the SAML Response from IdP.

3. Export a metadata file from your IdP and importing it into Ivanti Neurons for MDM.

4. (Optional) - Include username in SAML Authentication Request: To include the username of authenticating user in the authentication request and to remove an additional user input when authenticating with an IdP. If you enable this option, authentication failures may happen. If you are sure about IdP validation, select the **I understand the impact of this change** option and toggle the **Include Username in SAML Authentication Request** setting to **ON**.



Ivanti Access is a validated IdP for this setting.

Enabling local users to bypass IdP authentication

When an IdP or Ivanti Neurons for MDM connectivity goes down and needs troubleshooting from the Ivanti Neurons for MDM side, certain administrators need the ability to login to Ivanti Neurons for MDM without reliance on external systems, such as, LDAP or IdP, for authentication. Only local users with system admin roles can bypass IdP authentication.

Create a list of local users to bypass IdP authentication.

Procedure

1. Click **Admin > Identity**.
2. Under the Local Users to Bypass IdP Authentication section, click **+Add Users**.
3. From the list displaying only the local users with system admin roles, select a few users.
4. Click **Save**.



To remove a user from the list of local users that bypass IdP authentication, click the remove icon next to the entry you want to delete.

If you cannot see the Identity page, it might be that you do not have the required permissions. You need one of the following [roles](#):

- System Management
- System Read Only

User Provisioning-Azure Active Directory

The User Provisioning Azure Active Directory (AAD) has replaced the AAD User Source. User Provisioning Azure AD uses the SCIM protocol to synchronize AAD with Ivanti Neurons for MDM and allows for partial user and group sync. User Provisioning Azure AD uses the SCIM protocol to automatically create and update user and group objects sourced from Azure AD to Ivanti Neurons for MDM. Ivanti Neurons for MDM Administrators can choose to sync either the entire directory service or sync specific user and group objects to Ivanti Neurons for MDM. Just like the current integration with Azure AD, the users and groups provisioning process is automated; if changes are made to the user or group in Azure AD, the same changes are reflected in Ivanti Neurons for MDM. The most important difference is that User Provisioning Azure AD now allows for specific users and groups to be provisioned. This provides administrators with tighter controls to identify which users and groups are added, updated, and disabled in Ivanti Neurons for MDM. The User Provisioning Azure AD page in the Ivanti Neurons for MDM administrative portal displays the workflow stages of users and user group migration from Azure AD to Ivanti Neurons for MDM.



Since the username value is unique in Ivanti Neurons for MDM, the User Principal Name attribute cannot be updated in Azure AD if the user is already provisioned.

This section contains the following topics:

- ["Generate a token from the Ivanti Neurons for MDM" below](#)
- ["Establish the connection between Azure AD and Ivanti Neurons for MDM" on page 1153](#)
- ["Provision assigned users and groups" on page 1154](#)
- ["Provision all users and groups" on page 1154](#)
- ["Verify the provisioning of a group" on page 1155](#)

Generate a token from the Ivanti Neurons for MDM

To start User Provisioning Azure AD generate a token and the target URL from Ivanti Neurons for MDM.



Ensure that you save the token and the target URL.



A maximum of 2 tokens can be generated at any time.

Procedure

-
1. Log in to the Ivanti Neurons for MDM administrative portal.
 2. Go to **Admin > Identity > User Provisioning**.
 3. From the **Choose Identity Provider (IdP)** drop-down list select **Azure AD**.
 4. To generate a new token, click **Generate**. A notification message appears, click **Generate**. A new page opens with the details of the Token and the Target SCIM URL.
 5. Click **Copy** to copy either the token or the SCIM URL.
 6. Refresh the page. The **User Provisioning Azure AD page** displays the Token Status table.

Change the Token Status from Ivanti Neurons for MDM

You can change the state of an existing token.

Procedure

1. Click the **Select** drop-down menu on the **User Provisioning Azure AD** page.
2. Click **Select** and make the following changes to the token:
 - **Set to Active**
 - **Set to Inactive**
 - **Renew**
 - **Remove**

View the Token Status from Audit Trials

You can view the logs of actions / events that took place on a SCIM token from the Audit Trials section. The SCIM token can have one of the following statuses:

- SCIM Token Created - A SCIM token has been created.
- SCIM Token Enabled - The SCIM token has been enabled.
- SCIM Token Disabled - The SCIM token has been disabled.
- SCIM Token Renewed - The SCIM token has been renewed.
- SCIM Token Deleted - The SCIM token has been deleted.

The DETAILS column also lists the SCIM vendor name (IDP) such as Azure, Okta, etc. which makes it easy to communicate with Ivanti Neurons for MDM.

Establish the connection between Azure AD and Ivanti Neurons for MDM

After you create the users and groups on your Azure AD Enterprise application, you can establish the connection between Azure AD and Ivanti Neurons for MDM.

Migration considerations

- When migrating from AAD User Source to User Provisioning Azure AD (SCIM), select Sync All Users and Groups.
- After users and groups are updated with a SCIM AAD source, return to the Azure Provisioning page in Azure and set the specific users and groups to be managed by User Provisioning Azure AD using the Sync only assigned users and groups option.
- When the sync is complete, you can remove the users and groups that are not defined in Azure from the Ivanti Neurons for MDM Users and Groups lists.
- When the migration starts, the AAD User Source page is accessible in a read-only state.

Procedure

1. Log in to the Azure AD portal.
2. Go to **Enterprise Application** > Click + **Create your own application**. The Create your own application window opens.
3. Specify the name of your app (**Default: Non-gallery**) and click **Create**. For example, Ivanti Neurons for MDM User Provisioning.
4. Go to **Provisioning** > **Edit provisioning** > **Admin Credentials**.
5. Copy and paste the Target SCIM URL from the Ivanti Neurons for MDM admin portal in the **Tenant URL** field in the Azure AD portal.
6. Copy and paste the Token from the Ivanti Neurons for MDM in the **Secret Token** field in the Azure AD portal.
7. Perform one of the following steps:

-
- a. Select **Sync only assigned users and groups**. For more information, see Provision assigned users and groups
 - b. Select **Sync all users and groups**. For more information, see Provision all users and groups.



Select the Sync All Users and Groups option for migrating users.

8. Click **Test Connection**. A pop-up with a green check confirms the connection.
9. Click **Save**.

Procedure

1. Expand **Mappings** from the **Provisioning** page on the Azure AD portal.
2. Click **Provision Azure Active Directory Users**. The Attribute Mapping page opens.
3. Click **Delete** against the unsupported attributes.

Provision assigned users and groups

After the connection is established between Azure AD and Ivanti Neurons for MDM, you can provision users or groups.



When provisioning groups, Azure AD does not add members of the nested groups to the selected group. Azure AD adds immediate members and group names to the group only and not the subgroup members during the sync process.

Procedure

1. Log in to the Ivanti Neurons for MDM administrative portal.
2. In the application go to **Users and groups** > click **+ Add User/Group**. The Add Assignment page opens.
3. Search for the user or group from the **Search** field, click **Select**, and then **Assign**. The Users and Groups page opens.
4. Select the corresponding user or group checkbox.
5. Click **Provisioning** and then click **Start Provisioning**. The details of the successful configuration are displayed.

Provision all users and groups

After the connection is established between the Azure AD and Ivanti Neurons for MDM, you can provision users or groups.

Procedure

1. Click **Provisioning** and then click **Start Provisioning**. The page opens with the details of the successful provision and the user will be provisioned to Ivanti Neurons for MDM.

Verify the provisioning of an assigned user

After an assigned user is provisioned on the Azure AD portal, verify the provisioning on the Ivanti Neurons for MDM administrative portal.

Procedure

1. Log in to the Ivanti Neurons for MDM administrative portal.
2. Go to the **Users** tab under the main menu. The user that was provisioned will be present in the list of the users in this page.



The provisioning process may take up to an hour.

Verify the provisioning of a group

After a group is provisioned on the Azure AD portal, verify the provisioning on Ivanti Neurons for MDM.

Procedure

1. Log in to the Ivanti Neurons for MDM administrative portal.
2. Go to the **Users** tab > **User groups**. The group that was provisioned will be present in the list of the groups in this page.



The provisioning process may take up to an hour.

Edit Settings

This topic helps you configure the Azure Active Directory settings.

Procedure

1. Go to **Admin > Microsoft Azure > User Provisioning Azure AD**.
2. Click **Generate Token** and copy the token.
3. Refresh the page. The AAD Settings page opens.

-
4. Click **Edit Settings**.
 5. Set **Automatically invite users imported from AAD** - Manage whether users imported from AAD to Ivanti Neurons for MDM are automatically invited to register via email.
 6. Set **Managed Apple ID** - This option is disabled by default. Click the toggle button to turn it ON and sync Managed Apple ID for the AAD users.
 - **User email address**
 - (Optional) select the Include "appleid" subdomain option to avoid conflict with existing Apple IDs.
 7. (Optional) Click **Add Custom Attribute** - Specify custom user attributes from your directory service that you want to apply to device management. Each attribute can then be referenced by `{attributeName}` in configuration fields that support variables. Use of this option requires consistent implementation of custom attributes across AAD servers. If an AAD server included in your implementation does not use this attribute, then features dependent on this attribute might not work as expected. The **Attribute Type** column displays **IDP** attribute in the **Custom Attributes** table in the **Edit Settings** section.
 8. Click **Save Changes** after modifying the AAD settings.

Configure Attributes in SCIM User Provisioning

This section describes how to create custom and enterprise attributes for Azure AD during user provisioning.

Mapping attributes

After the connection is established, you can map the attributes between Azure AD and Ivanti Neurons for MDM. Ivanti Neurons for MDM supports the following Azure AD attributes:

Core attributes

- `id(urn:ietf:params:scim:schemas:core:2.0:id)`
- `userName("urn:ietf:params:scim:schemas:core:2.0:User:userName")`
- `displayname("urn:ietf:params:scim:schemas:core:2.0:User:displayName")`

-
- active("urn:ietf:params:scim:schemas:core:2.0:User:active")
 - name("urn:ietf:params:scim:schemas:core:2.0:User:givenName")
 - name("urn:ietf:params:scim:schemas:core:2.0:User:familyName")
 - emails(urn:ietf:params:scim:schemas:core:2.0:User:emails)

List of attributes for which update operation is allowed

- displayName
- emails
- name
- active
- id
- urn:ietf:params:scim:schemas:extension:ivanti:2.0:User
- urn:ietf:params:scim:schemas:extension:enterprise:2.0:User

Custom attribute

Schema - urn:ietf:params:scim:schemas:extension:ivanti:2.0:User:<CustomAttribute123Name>

Enterprise attribute

Currently only the Department attribute is supported.

Schema - urn:ietf:params:scim:schemas:extension:enterprise:2.0:User:department

Procedure

1. Log in to the Ivanti Neurons for MDM administrative Portal.
2. Navigate to **Admin > Identity > User Provisioning**.
3. Under **Edit Settings**, click **+Add Custom Attribute**

-
4. Enter a name in the **Attribute Name** field.
 5. Click **Save Changes**.
 6. The attribute is listed and available on Admin > System > Attribute page.
 7. The attribute is denoted as IDP attribute type and you can only perform delete action.
 8. Log in to the Azure AD portal.
 9. Go to **Home > Enterprise Application** > Click on the SCIM application.
 10. Click **Provision Azure Active Directory Users** from the **Mappings** section.
 11. Select the **Show advanced options** check box.
 12. Click **Edit attribute list for customappsso**.
 13. Enter a new entry for the custom attribute that you created in the Ivanti Neurons for MDM UI.
 14. Add the schema for the Custom/ Enterprise (Department) attribute as follows:
Custom attribute - **urn:ietf:params:scim:schemas:extension:ivanti:2.0:User:<custom attribute>**
Enterprise attribute - **urn:ietf:params:scim:schemas:extension:enterprise:2.0:User:department**
 15. Click **Save changes**.
 16. Click **Add New Mapping** and select the Source and Target attributes from the drop-down menu:
 17. Click **Ok** and click **Save Mapping**.
 18. Go to **Home > Enterprise Application** > Click on the SCIM application > **Users and groups**.
 19. Click the User name. The Profile page opens.
 20. Verify whether the value associated with the attribute appears on the Profile page.
 21. (Optional) Click on the SCIM application > **Provisioning > Provision on demand**, search for the specific user, and click **Provisioning**. To validate the new attribute mappings performed in the previous steps.
 22. Log in to the Ivanti Neurons for MDM administrative portal.

-
23. Go to **Users > Users**.
 24. Select the user, click the **Attributes** tab, and verify the attribute value. The attribute is mapped for the specific user.

Important Notes

- Email address is a mandatory field for provisioning and migrating users or members.
- SCIM provides one way provisioning from Microsoft Azure AD to Ivanti Neurons for MDM. Ivanti Neurons for MDM does not offer any sync options. If you delete a SCIM provisioned group or user from Ivanti Neurons for MDM, ensure that you also remove the user or group from Microsoft Azure AD.
- You can use one attribute (source or target) only once in the SCIM application mapping window in Microsoft Azure AD. The same source cannot be mapped twice to a specific target attribute.
- Inactive users cannot be provisioned or migrated to Ivanti Neurons for MDM using SCIM.
- Currently, Ivanti Neurons for MDM does not support SCIM event notification.
- Migration or provisioning duration depends on the number of users or groups involved.
- Microsoft Azure controls the provisioning interval and it is about approximately 40 minutes or more.
- During re-provisioning, Microsoft Azure AD will only retry the entries that failed. You can download the provision logs to verify the users that have succeeded or failed provisioning from Microsoft Azure AD.
- Duplicate groups from different sources are not allowed in SCIM.
- When a provisioned user is hard deleted from Microsoft Azure AD, the user is disabled in Ivanti Neurons for MDM.
- When a provisioned user group is deleted from Microsoft Azure AD, the group is deleted in Ivanti Neurons for MDM and the independent members that belong to the deleted group are disabled and are associated to All Users Group.
- When a provisioned member of a provisioned group is hard deleted in Microsoft Azure AD, the member is disabled in Ivanti Neurons for MDM however, the member is still associated to the group in Ivanti Neurons for MDM.

-
- When an attribute (Enterprise attribute or custom attribute) mapping is removed from an app, the removed attribute value is still reflected in Ivanti Neurons for MDM.
 - When a user attribute of a provisioned user is updated with blank or empty value, the updated attribute value is not reflected in Ivanti Neurons for MDM.
 - If the user attributes FName and LName (name.formatted) are blank during migration or update from Microsoft AAD to SCIM, the migration or update fails.
 - If you delete a user in Azure AD, the corresponding SCIM API does not delete the user permanently but performs a soft delete and changes the user status from active to inactive. If you want to permanently delete the user, log in to Ivanti Neurons for MDM administrative portal and manually delete the inactive/ disabled user.
 - When a local user already exists in Ivanti Neurons for MDM with a certain user ID, a similar user with the same user ID will be provisioned from AAD to MDM, the user source will be updated from Local to SCIM AAD

Related topics:

["User Provisioning-Azure Active Directory " on page 1151](#)

["Attributes" on page 1064](#)

Configuring LDAP server

License: Silver

Configuring an LDAP server and a Connector enables you to import users and groups from your corporate directory. After you have installed at least one Connector, you can add one or more LDAP servers.

Adding an LDAP server means configuring:

- the *connection* to the LDAP server
- the *search terms* necessary to view the target directory data
- the portion of the directory to *import*
- whether to automatically *invite users* in the selected portion of the directory

After you have added an LDAP server, you can return to this page to [edit the LDAP server information](#) or [change the LDAP users selected](#).

LDAP users must be imported after configuring an LDAP user. See [Importing LDAP users](#).



LDAP usernames, just like local usernames, must be globally unique. Please verify that users do not already have a local account with the same username, or, for organizations with more than one tenant, that the username has not already been associated with another tenant.

Adding an LDAP server

Procedure

1. Click **+Add Server**.
2. Provide the following information:

Setting	What To Do
Name	Enter a name that identifies this server.
Description	Enter a description that clarifies the purpose of this server.
Directory URL	Enter the URL for the directory. Use one of the following formats:

	<p>ldap://IP address or</p> <p>ldaps://IP address or</p> <p>Example: ldap://myserver1.mycompany.com:389</p>
User ID	<p>Enter the user ID for an account with the following characteristics:</p> <ul style="list-style-type: none"> • managed by the LDAP server • can bind to the LDAP server and search the subtrees for user, group, and organizational unit <p>This is generally an account with Directory Administrator Credentials (DN or Distinguished Name and password).</p>
Password	Enter the password for the account.
Confirm Password	Re-enter the password for the account.
Directory Type	<p>Select the type of directory from the list of supported directories.</p> <ul style="list-style-type: none"> • Microsoft Active Directory • Open LDAP • Other (Open LDAP compatible)


3. Click **Test Connection and Continue**.

This step validates the information you have provided so far.

- If the information proves valid, then the service retrieves the LDAP naming context, which it uses to fill in some of the fields on the next page.
- If the LDAP URL fails to connect, you can proceed with the next steps. However, this may result in limited functionality until the connection is resolved.

4. Complete the remaining settings:

Setting	What To Do
Directory Failover URL	<p>Enter the URL for the secondary directory. Use the following format:</p> <p>ldap://IP address or</p> <p>Example: ldap://myserver2.mycompany.com:389</p>
Sync Interval	<p>Enter the period of time between each attempted synchronization of LDAP data from the LDAP server. The default value is 15 minutes. Consider increasing the interval after you have successfully synchronized all target LDAP data and confirmed that your LDAP setup meets your needs.</p>
Enable Sync Discard	<p>Select to automatically discard the LDAP sync data if the reloaded data set declines significantly. This option ensures that abnormal behavior on the part of the LDAP system will not result in unnecessary, disruptive updates on the service and removal of configurations from registered devices. Make sure this option is not selected if you plan to make major changes in your LDAP setup or on the LDAP server.</p>
Enable this LDAP Server	<p>Select to use this LDAP server with your service. Clear this setting if you want to retire this LDAP server or take it out of service. Though a configured failover to a second LDAP server would automatically replace this server, using this option enables you to plan ahead and avoid a brief lack of connectivity during failover.</p>
Automatically invite users whenever they are imported	<p>Select to automatically send invites to the users when they are imported from the LDAP server.</p>
Upload CA Certificate	<p>Click Choose File to upload the TLS certificate issued by the CA installed on this LDAP server. You can upload multiple CA certificates.</p>
Chase Referrals	<p>Applies only if you are using a multi-forested domain. This option indicates whether you want to use alternate domain controllers when the targeted domain controller does not have a copy of the requested object.</p> <ul style="list-style-type: none"> • Select Follow if you want to use referrals.

Setting	What To Do
	<ul style="list-style-type: none"> Select Ignore if you do not want to use alternate domain controllers. Throw currently has the same effect as Ignore. <hr/> <p> Selecting Follow delays LDAP authentication.</p>
Search Results Timeout	Increase this timeout if you observe performance issues or incomplete results when browsing the data synchronized from the LDAP server.
Search Results Count	<p>Set to the maximum number of records that should be returned from the LDAP server at one time. Scenarios that might require changing this setting to improve performance include:</p> <ul style="list-style-type: none"> The LDAP server is located far away or behind a high latency link. In this case, large search results will take longer to retrieve than small ones, so defining a smaller set enables you to see subsets of updated data more quickly. The LDAP is massive, and every search returns a huge results set. In this case, if performance is not an issue, defining a larger results set would make it possible to return all of the data with fewer searches.

5. Click **Next**.

6. Use the following guidelines to configure the integration with the LDAP server:

Setting	What To Do
Group Member Format	Select DN or UID to indicate whether to use the distinguished name or the user ID in your search.
<i>OU Search Attributes</i>	Specify criteria for searching at the organizational unit level.
Base DN	Enter the distinguished name for the starting level at which you want your search to be rooted or begin. Your selection determines defaults for several other fields, which you can

	change, if necessary.
Object GUID	If necessary, change the default value to match your LDAP environment. This is the attribute that uniquely identifies an organizational unit across time and across OU name changes.
Attribute Name	If necessary, change the default value to match your LDAP environment.
Description	If necessary, change the default value to match your LDAP environment.
Attribute DN	If necessary, change the default value to match your LDAP environment.
Search Filter	If necessary, change the default value to match your LDAP environment.
Search Scope	Select the portion of the LDAP hierarchy to target: <ul style="list-style-type: none"> • Base (only the level of the search base entry) • One Level (the level beneath the search base) • Subtree (the subtree in the directory information tree beneath the search base DN)
<i>User Search Attributes</i>	Specify criteria for searching users in a given directory level.
Base DN	Enter the distinguished name for the starting level you want to search.
Attribute UID	If necessary, change the default value to match your LDAP environment.
Object GUID	If necessary, change the default value to match your LDAP environment. This is the attribute that uniquely identifies an user across time and across user name changes.
Attribute DN	If necessary, change the default value to match your LDAP environment.
First Name	If necessary, change the default value to match your LDAP environment.
Last Name	If necessary, change the default value to match your LDAP

	environment.
Display Name	If necessary, change the default value to match your LDAP environment.
Email Address	If necessary, change the default value to match your LDAP environment.
Principal Name	If necessary, change the default value to match your LDAP environment.
Locale	If necessary, change the default value to match your LDAP environment.
Member Of	If necessary, change the default value to match your LDAP environment.
Search Filter	If necessary, change the default value to match your LDAP environment.
Search Scope	Select the portion of the LDAP hierarchy to target: <ul style="list-style-type: none"> • Base (only the level of the search base entry) • One Level (the level beneath the search base) • Subtree (the subtree in the directory information tree beneath the search base DN)
Managed Apple ID	Choose to sync Managed Apple ID for the LDAP users. <ul style="list-style-type: none"> • None • Pattern - <ul style="list-style-type: none"> • User email address • userUPN • Optionally, select the Include "appleid" subdomain option to avoid conflict with existing Apple IDs.
+Add Custom Attribute	(Optional) Specify up to 7 custom user attributes from your directory service that you want to apply to device management. Each attribute can then be referenced by \${attributeName} in configuration fields that support

	<p>variables.</p> <p>Important: Use of this option requires consistent implementation of custom attributes across LDAP servers. If an LDAP server included in your implementation does not use this attribute, then features dependent on this attribute might not work as expected.</p>
<i>Group Search Attributes</i>	
Base DN	Enter the distinguished name for the starting level you want to search.
Object GUID	If necessary, change the default value to match your LDAP environment. This is the attribute that uniquely identifies a group across time and across group name changes.
Attribute DN	If necessary, change the default value to match your LDAP environment.
Attribute Name	If necessary, change the default value to match your LDAP environment.
Description	If necessary, change the default value to match your LDAP environment.
Member	If necessary, change the default value to match your LDAP environment.
Search Filter	If necessary, change the default value to match your LDAP environment.
Search Scope	<p>Select the portion of the LDAP hierarchy to target:</p> <ul style="list-style-type: none"> • Base (only the level of the search base entry) • One Level (the level beneath the search base) • Subtree (the subtree in the directory information tree beneath the search base DN)

7. Click **Browse** or **Search**.

8. Confirm that your configuration returns the expected data.

You can do this by browsing or searching for a known item in the directory.

9. Click **Next**.

Deleting a custom LDAP attribute

You can delete a custom LDAP attribute and remove its values from the associated users or devices.

Procedure

1. Go to **Admin > Attributes**.
2. In the **Custom Attributes** section click on the **Delete** link next to the LDAP attribute that should be deleted. A confirmation window is displayed.
3. Click **Delete** to confirm deletion.



that the **Delete** button is disabled by default. You should select the check box in the **I understand that deleting a Custom Attribute cannot be reversed** option to enable the **Delete** button.

Editing the LDAP server information

Procedure

1. Go to **Admin > LDAP**.
2. In the LDAP server entry, select the **Edit** icon from the **Actions** column to view the Connect LDAP Server page.
3. Make the necessary changes.
4. Click **Test Connection and Continue**.
If the LDAP URL fails to connect, you may proceed with the next steps. However, this may result in limited functionality until the connection is resolved.
5. Click **Browse** or **Search**.
6. Confirm that your configuration returns the expected data.
You can do this by browsing or searching for a known item in the directory.
7. Click **Done**.

Importing LDAP users

Procedure

1. Go to **Users**.
2. Click **+Add > Invite Users from LDAP**.
3. Click **Select Users** in the LDAP server entry.
4. In the Add LDAP Users page, enter the name of the user, group, or OU in the search field.
5. To add new users or groups, click **+Add** next to the entry you want to add.
6. Click **Next**.
7. Choose whether or not to send the invitation:
 - Invite None
To send the invites later, go to **Users > Users** and select **Actions > Send Invite** to send the invitations.
 - Invite All
8. Click **Done**.

Updating the users, groups, or organizational units selected

Procedure

1. Go to **Admin > LDAP**.
2. In the LDAP server entry, select the **Manage Users** icon from the **Actions** column to view the Add LDAP Users page.
3. To add new users or groups, enter the name of the user or group in the search field.
4. Click **+Add** next to the entry you want to add.
5. To remove a user, group, or OU, click the remove icon next to the entry you want to delete.
6. Click **Done**.

Enabling LDAP Sync Discard Notification

Enabling LDAP sync discard notification helps prevent outages caused by unintended large scale changes to the LDAP environment.

Procedure

1. Go to **Admin > LDAP**.
2. In the LDAP server entry, select the **Edit** icon from the **Actions** column to view the Connect LDAP Server page.
3. Check the **Enable Sync Discard** check box.
4. Enter a value for the percentage of reloaded LDAP data to trigger sync discard.
5. Click **Test Connection and Continue**.
If the LDAP URL fails to connect, you can proceed with the next steps. However, this might result in limited functionality until the connection is resolved.
6. Click **Done**.
7. Click the **Sync Now** icon in the LDAP server entry.
When the change difference to be synced from LDAP to Ivanti Neurons for MDM falls above the set discard percentage, a WARNING notification is generated. When the changes are reverted to a value below the set percentage, the notification is CLEARED.

Trigger	Severity	Notification Type	Component Type	Component
LDAP Sync Discard	Warn	Data Sync	LDAP	LDAP server name
LDAP Sync Restored	Info	Data Sync	LDAP	LDAP server name

The Partial Sync Discard Notification is generated when one or more user records fail to sync from LDAP. In this case, a CSV file is included as an attachment with a list of users that failed to sync. If a user was discarded due to missing attributes, the list of missing attributes is also included in the exported CSV file.

Synchronizing changes from the LDAP server

In the LDAP page, click the **Sync Now** icon in the LDAP server entry.

Troubleshooting Connectivity to the LDAPS Server

If you encounter issues connecting to the LDAPS (LDAP over SSL) server, you may be experiencing an issue with the certificate.

To resolve the issue:

- Verify that you are not using a self-signed certificate on the LDAPS server.
- Verify that the LDAPS certificate has not expired or been revoked. Also check for a hostname mismatch.

After verifying, wait for the automatic LDAP sync, or manually sync using the **Admin > LDAP > Sync Now** icon in the LDAP server entry.

If you cannot see the LDAP page, it might be that you do not have the required permissions. You need one of the following [roles](#):

- System Management
- System Read Only

Sentry

Sentry is a component that acts as a gateway between mobile devices and your ActiveSync-enabled email system. Use Sentry to control which devices are allowed to access email. It is available to download as an ISO file that you can install on a virtual machine. Organizations should consider using a load balancer to maintain multiple (redundant) Sentries.

License: Silver

Latest documentation

For the latest Sentry instructions, visit [Product Documentation](#) and click Sentry.

For the latest Sentry installation instructions, select the appropriate version of the *Standalone Sentry On-Premise Installation Guide*.

For Sentry upgrade instructions, select the appropriate version of the *Sentry Guide*. See the following sections in the Sentry Guide:

- For upgrade instructions using the Standalone Sentry System Manager UI, see "Standalone Sentry software updates."
- For upgrade instructions using the Standalone Sentry command line interface (CLI), see "Upgrading using CLI."

Before you upgrade, see the Standalone Sentry release notes for the version to which you are upgrading.

Apple Settings

This section contains the following topics:

- ["Apple Configurator" on page 1174](#)
- ["Device Enrollment" on page 1177](#)
- ["Configuring the Setup Assistant" on page 1201](#)
- ["Install MDM Certificate" on page 1202](#)
- ["Shared iPad devices for business" on page 1204](#)
- ["School Manager" on page 1211](#)
- ["Settings \(Apple\)" on page 1216](#)

Apple Configurator

You can use this page to prepare Apple Configurator for setting up Ivanti Neurons for MDM device management on iOS devices. Apple Configurator makes it really easy to deploy iOS devices in large quantities. Additionally, Configurator lets administrators make iOS devices Supervised, which allows for greater levels of configuration and management capabilities. For more information about Apple Configurator, please see the Mac App Store.

The basic steps are:

1. Export the MDM profile from your Ivanti Neurons for MDM tenant.
2. Import the MDM profile into the Configurator.
3. Use the Configurator to apply the MDM profile to tethered devices.

Defining a default user for devices

Devices configured through the Apple Configurator are assigned to the nobody user in Ivanti Neurons for MDM unless you pick a different user:

1. Click in the **Assign configured devices** to field.
2. Start typing the username of the Ivanti Neurons for MDM user you want to select.
3. Select the username when it displays in the drop-down list.
4. Click **Save**.

Installing apps using Apple Configurator

Before using the Apple Configurator to install apps:

- Access to the Apple app store is restricted by the device configuration.
- Apps installation is permitted by the device configuration.
- Apple Configurator must be installed on the computer used to configure the devices.

To install apps using the Apple Configurator:

-
1. In Ivanti Neurons for MDM, go to **Admin > Apple Configurator**.
 2. Switch the enroll devices toggle switch to On.
 3. Click one of the following:
 - **Default User's plist.**
 - **Specific User's plist** - Enter the specific user's username or email ID.
 4. In the Apple Configurator, go to **Prepare > Apps**.
 5. Go to **Prepare > Setting and disable Supervision**.
 6. Select the **Never update device** option in Update iOS.
 7. Click **Prepare**(bottom of the Apple Configurator).
The apps will be visible in the list of Installed apps on the device after a device check-in.

Installing apps using UEM server

To install apps using the UEM server:

1. Upload an app from the in house store in the Apps tab.
2. Select the app.
3. Click the **App Configurations** tab.
4. Select **Install on Device**.
Complete configuration settings.
5. Select **Actions > Force Check-in**.

What the end user needs to do

Apple requires the end-user has to launch the Go at least once, or the Ivanti Neurons for MDM Location feature will not function properly. This is to ensure that the end-user is aware that their location is being tracked.

Caution: If devices are deployed in single app mode using Configurator, then this approach will not be possible.

If you cannot see the **Install Apple Configurator** page, it might be that you do not have the required permissions. You need one of the following [roles](#):

-
- System Management
 - System Read Only

Device Enrollment

Device Enrollment is part of Apple Business Manager that enables customers to purchase devices in bulk and automatically enroll these devices in MDM during activation. If you choose to participate, you can use Ivanti Neurons for MDM as the MDM server for managing these devices. For more information, see <https://business.apple.com/>.

Connecting Ivanti Neurons for MDM to Device Enrollment

To use Ivanti Neurons for MDM as the MDM server for Device Enrollment, setup Apple Business Manager server token in Ivanti Neurons for MDM.

For each Apple Business Manager server, the following actions are available in Ivanti Neurons for MDM:

- Test Connection
- Add Device Enrollment Profile
- Download Public Key
- Device Enrollment Full Sync - Initiate full sync. It may take some time to be completed. After the sync is completed, you can view the information in the Last Sync column. You cannot initiate the full sync if it is already in progress.
- Upload New Token
- Delete



The **Edit Authentication** and **Assign Device Enrollment Device Attribute** actions are now available for device enrollment profiles instead of device enrollment (MDM server).

Procedure

1. Go to **Admin > Apple > Device Enrollment**.
 2. Click **Download Key**.
 3. Save your Ivanti Neurons for MDM key.
 4. Click **business.apple.com**.
 5. Sign in using your Device Enrollment-eligible Apple credentials.
-

-
6. On the Apple Device Enrollment site:
 - a. Click **Get Started**.
 - b. Select the trusted phone to use for authenticating to Apple service.
 - c. Enter the verification code sent to the selected phone.
 - d. Click **Add MDM Server**.
 - e. Enter a name to identify the virtual MDM server to be used with the service.
 - f. Click **Next**.
 - g. Upload the public key you downloaded earlier.
 - h. Click **Next**
 - i. Click **Your Server Token** to download the token.
 - j. Click **Done**.
 7. In Ivanti Neurons for MDM, click **Upload**.
 8. Click **Next**.

9. Select an authentication option:

- **Prompt user for registration/login**



Users will be prompted for a username and password. Users can enter either a password or a PIN for the password field. Password and PIN preferences can be configured in Users > [User Settings](#) related to authentication.

- **Skip user login.**



Devices assigned to the nobody user (anonymous) or a defined user can be reassigned to specific users at a later time from the **Devices** page.

Select one of the following options:


- **Define one user to assign all devices to**
- **Assign all devices to an anonymous user**


The selected option overrides the selections under [User Settings](#).



10. Click **Upload** to install the key you received in Step 3.


11. Complete the displayed form to define the profile for your Device Enrollment devices:

Setting	What To Do
Name	Enter a name that identifies this Device Enrollment profile.
Description	Enter a description for the profile.
Department	Enter the department in your organization that is associated with this profile.
Supervised Mode	Enables additional administrative control over configurations and restrictions. For iOS 13+ and macOS 10.15+ devices, this option is enabled by default.



Setting	What To Do
iOS 17+	<ul style="list-style-type: none"> <li data-bbox="862 281 1273 667">• Require minimum OS version for enrollment: Admin can set a minimum required OS version for devices enrollment. If device does not meet the minimum OS version criteria, the system prompts the user to upgrade to the required version. If the user denies to upgrade, the enrollment is blocked. <li data-bbox="862 709 1273 898">• Minimum iOS: If the build version is not consistent with the OS version specified in the 'OSVersion' key, the OS version will take precedence. <li data-bbox="862 940 1273 1129">• Minimum Build version: If the build version is not consistent with the OS version specified in the 'OSVersion' key, the OS version will take precedence. <hr/> <div data-bbox="889 1178 1273 1289">  This field is optional, if you enter incorrect build number </div> <hr/>



Setting	What To Do
	<ul style="list-style-type: none"> • Message: A description of the error suitable for displaying to the user. If needed, <ul style="list-style-type: none"> • the client will make a best-effort attempt to display the message, but may not • be able to, due to local conditions. <hr/>  As a practice the message should be added. <hr/>
macOS 14+	<ul style="list-style-type: none"> • Require minimum OS version for enrollment: Admin can set a minimum required OS version for devices enrollment. If device does not meet the minimum OS version criteria, the system prompts the user to upgrade to the required version. If the user denies to upgrade, the enrollment is blocked. • Minimum iOS: If the build version is not consistent with the OS version specified in the 'OSVersion' key, the OS version will take precedence.

Setting	What To Do
	<ul style="list-style-type: none"> Minimum Build version: If the build version is not consistent with the OS version specified in the 'OSVersion' key, the OS version will take precedence. <hr/> <p> This field is optional, if you enter incorrect build number</p> <hr/> <ul style="list-style-type: none"> Message: A description of the error suitable for displaying to the user. If needed, <ul style="list-style-type: none"> the client will make a best-effort attempt to display the message, but may not be able to, due to local conditions. <hr/> <p> As a practice the message should be added.</p> <hr/>
Automatically download and install iOS updates	<p>iOS 9.0+ only) If the Automatic Downloads option is selected on the device under Settings > iTunes & App Store, the OS updates will be automatically downloaded, but not installed, even when the Device Enrollment Profile option is turned off.</p> <p>This setting will take preference when there is an iOS Software</p>

Setting	What To Do
	<p>Updates configuration applicable to the Device Enrollment-enrolled supervised devices.</p> <p>Any change in this setting will be applicable to the Device Enrollment-enrolled supervised device even without reset of the device.</p>
MDM Removable	<p>Defines whether the user will be unable to unenroll from MDM after the device is registered.</p> <hr/> <p> This setting is not applicable to Shared iPads.</p> <hr/>
MDM Mandatory	<p>Defines whether the user will be unable to skip installing MDM during the activation process. For iOS 13+ and macOS 10.15+ devices, this option is enabled by default.</p>
Allow Pairing	<p>(Not applicable for iOS 13+ and macOS 10.15+) Allows host pairing functions, such as iTunes sync.</p> <p>Pairing is always allowed for hosts that have valid pairing certificates.</p>
Certificate	<p>Click + Add to upload certificates.</p>
Support Phone Number	<p>Provide a phone number that device users can contact for help.</p>
Support Email Address	<p>Provide an email address that device users can contact for help.</p>
Custom Enrollment	<p>(iOS 13.0+ and macOS 10.15+) Create custom enrollment web</p>

Setting	What To Do
	<p>page(s). Specify your own custom web page (web view) to authenticate users during Device Enrollment.</p> <p>Use this page to display custom information such as authentication type, branding, consent text, and privacy policy.</p> <p>See the "<i>Adding a custom Device Enrollment web page</i>" section following this procedure for more details.</p> <ul style="list-style-type: none"> • Select Enable Custom Enrollment to enable this feature. • Enter the URL, such as https://mycustomweblink.com. This URL defines the value of the custom URL to present to the user in a web view.
Multi-User	<p>(iOS 13.4+) Shared iPad for business</p> <p>Enables businesses to share devices between multiple employees, while still providing a personalized experience.</p> <p>Select Multi-User Mode to enable Shared iPad on a device. For more information, see Shared iPad for business.</p>

Setting	What To Do
	<hr/> <ul style="list-style-type: none"> This setting is not applicable to Apple Education.  <ul style="list-style-type: none"> Select the Supervised Mode setting to modify the Multi-User setting. <hr/>
Quota Size	<p>(iOS 13.4+) Shared iPad for Business.</p> <p>The value is in megabytes (MB) which denotes the storage allocated for a user in a device.</p> <p>If the value is too small, a default quota size is allocated by the device.</p>
Resident Users	<p>(iOS 13.4+) Shared iPad for Business</p> <p>The value denotes the number of users that can be persisted or residing on the device. If the value is greater than the value of maximum number of users that the device supports, MDM server uses that value (maximum number of users) as a default.</p> <hr/>  <p>Administrators can provide either Quota Size or Resident Users value. If both values are provided, MDM server uses Quota Size as default.</p> <hr/>
User session timeout	<p>(iOS 14.5+) Shared iPad for Business</p>

Setting	What To Do
	<p>Shows the timeout in seconds for a user session. The user session logs out automatically after the specified period of inactivity. The minimum value is 30 seconds. Setting this value to 0 removes the timeout and sets to device default timeout.</p> <hr/> <p> Value from 1 to 29 is invalid. When set, the device is set to default timeout.</p> <hr/>
Temporary Session Timeout	<p>(iOS 14.5+) Shared iPad for Business</p> <p>Shows the timeout in seconds for a guest or temporary session. The temporary session logs out automatically after the specified period of inactivity. The minimum value is 30 seconds Setting this value to 0 removes the timeout and sets to device default timeout.</p> <hr/> <p> Value from 1 to 29 is invalid. When set, the device is set to default timeout.</p> <hr/>
Temporary Session Only	<p>(iOS 14.5+) Shared iPad for Business</p> <p>If true, the user only sees the Guest Welcome pane and can only log in as a guest user.</p> <p>If false, the user can sign in with a managed Apple ID (the existing behavior).</p> <p>Default: false</p>

Setting	What To Do
Managed Apple ID Default Domains	(iOS 16.0+) Shared iPad for Business Specify a list of domains. Users can select their account domain from the list of domains in the QuickType keyboard.
Online Authentication Grace Period	(iOS 16.0+) Shared iPad for Business Specify the number of days the user can login without connecting to the network. Setting this value to zero enforces online authentication every time. Default: 0
Time Zone	Specify the timezone the device must belong to. Example: Pacific/Midway

Define which steps may be skipped by the user during device activation for the following setup options:.

Setup Options

- Skip Entering Passcode - Selecting this will auto enable Skip Apple Pay setup and Skip Touch ID.
- Skip Location Services
- Skip Restore From Backup
- Skip "Move to iOS" From Android
- Skip Terms Of Service
- Skip Signing In To Apple ID And iCloud - Selecting this will auto enable Skip Apple Pay setup.
- Skip Touch ID Setup (iPhone 5s, 6, 6+, iPad Air 2, iPad Mini 3 only) - Selecting this will auto enable Skip Apple Pay setup.
- Skip Apple Pay Setup (iPhone 6, 6+, iPad Air 2, iPad Mini 3 only)
- Skip Zoom Setup
- Skip Siri
- Skip automatically sending diagnostic information
- Skip Cloud Storage (iOS 10.3+ & macOS 10.13.4+)
- Skip Display Tone Setup (iOS 9+ & macOS 10.14+)
- Skip Home Button Sensitivity
- Skip the keyboard selection screen
- Skip on-boarding informational screens - This information is for user education. For example: Cover Sheet, Multitasking & Control Center.
- Skip the screen for Apple Watch migration
- Skip Choose Your Look screen (iOS 13.0+ & macOS 10.14+)
- Skip Screen Time (iOS 12.0+ & macOS 10.15+)

Setup Options

- Skip Privacy (macOS 10.13.4+ & tvOS 11.3+)
- Skip Add Cellular Plan Pane (iPhone Xs, iPhone Xs Max, iPhone XR)
- Show custom text on the Login page - Select this option to enter a custom text message in the text box. This message will be displayed on the login page on the device during the Device Enrollment setup to provide any additional instructions to end-users to help them through the process.
- Auto advance setup - Select this option to setup assistant to automatically advance through the device setup screens. The default is set to false. Supported on tvOS and macOS 11 and later. Auto advance setup does not work on a WiFi connection, the device should be connected over an ethernet.
- Terms Of Address- Skips the Terms of Address pane. (iOS 16+)

iOS

- Skip Software Update (12.0+)
- Skip Get Started pane (13.0+)
- Skip iMessage & FaceTime (12.0+)
- Skip Restore Completed (14.0+)
- Skip Update Completed (14.0+)

macOS

- Skip iCloud Analytics screen
- Skip True Tone Display screen (macOS 10.13.6+) - (Optional)
Select this option to skip the True Tone Display window.
- Skip Accessibility (macOS 11.0+)
- Skip Unlock with Watch (macOS 12.0+)
- Skip Enable Lockdown Mode (macOS 14.0+)

Setup Options
<ul style="list-style-type: none">• Skip Wallpaper Selection (macOS 14.1+)
tvOS
<ul style="list-style-type: none">• Skip Apple TV home screen layout sync screen• Skip the Apple TV provider sign in screen• Skip Tap To Setup Option• Skip The Aerial Screensaver Setup
macOS account setup assistant options
<ul style="list-style-type: none">• Skip admin account creation• Skip Primary Setup Account Creation• Create primary accounts as regular users (as admin if not checked)
Await Device Configuration during Device Enrollment Setup
<ul style="list-style-type: none">• Wait until configurations and high priority applications are pushed to devices - Select to push the configurations and high priority applications to the device before continuing with the remaining Device Enrollment setup screens. This setting will prevent the end-user from using the device before the required configurations and high priority applications are pushed to the device.• Time Limit - Default time limit is 3 minutes. Maximum time is 10 minutes. <p>To enable this feature, select the Supervised Mode option while editing the Device Enrollment profile.</p>

-
- Click **Save**.

The following table is populated in the **Admin > Apple > Device Enrollment** page:

Setting	What To Do
Name (Click on column heading to sort alpha-numerically.) Use the Search field to search for items from this column	MDM server name
Apple Account Name (Click on column heading to sort alpha-numerically.) Use the Search field to search for items from this column	Managed Apple ID
Number of Devices	Assigned devices count
Enrollment Profile(s)	Assigned device enrollment profiles count
Last Sync (Click on column heading to sort alpha-numerically.)	Last contacted time
Token Expires (Click on column heading to sort alpha-numerically.)	Token expiry date

- When new devices are added to Apple Device Enrollment, it might take up to 15 minutes for Ivanti Neurons for MDM to discover those new devices. The new devices are then assigned an enrollment profile. If you cannot add new devices to the Device Enrollment go to **Dashboard > Notifications** to check for notifications from Apple for Device Enrollment. If there are any updates to the EULA you will notified by email with steps to accept the new EULA.

- You can view all the custom device attributes that exist in your tenant and assign them to the devices during their enrollment via Apple Device Enrollment.
- In shared macOS devices, the `ListUsers` command shows a list all local users on the device and only the last check-in details of the user who registered the device.

Editing the Device Enrollment profile

Procedure

1. Go to **Admin > Apple > Device Enrollment**.
2. Find the name of the Apple Business Manager server (you created on the Apple site) in the Apple Account Name column.
3. Click the number link in the Enrollment Profile(s) column.
4. For a specific profile, select **Actions > Edit Device Enrollment Profile**.
5. Update and save the profile.
 - If a Device Enrollment profile is edited, the device count of the modified profile will be updated shortly.
 - If you refresh the server token on Apple site, then the existing token will become invalid. However, the display in the Device Enrollment page, including the token expiration date, will remain until you upload the new token.

The Device Enrollment Profile contains the following details:

Setting	What To Do
Profile Name (Click on column heading to sort alpha-numerically.)	Enter a name that identifies this Device Enrollment profile.
Description (Click on column heading to sort alpha-numerically.)	Enter a description for the profile.
Department (Click on column heading to sort	Enter the department in your organization that is associated with this profile.

Setting	What To Do
alpha-numerically.)	
Support Phone Number (Click on column heading to sort alpha-numerically.)	Provide a phone number that device users can contact for help.
Number of Devices	Displays the number of devices for the profile
Actions	Manage profiles

Managing multiple Device Enrollment profiles

You can create multiple Device Enrollment profiles against each Apple Business Manager server. This way, different sets of devices can receive different configurations. Devices can also be moved from one Device Enrollment profile to another.

Procedure

1. Go to **Admin > Apple > Device Enrollment**.
2. Find the name of the Apple Business Manager server in the Apple Account Name column.
3. Click the number link in the Enrollment Profile(s) column.
4. To create a new Device Enrollment profile to be associated with the selected server, click **Create New Profile**. Create and save the profile.

-
5. To manage each profile, click **Actions** and select one of the following options:
 - **Set as Default Profile** - Set the profile as the default profile within same virtual server. New device registrations will receiving this default profile.
 - **Edit Profile** - Update existing profile.
 - **Edit Authentication** - Edits Device Enrollment authentication setting.
 - **Assign Device Enrollment Device Attribute** - Administrators use custom attributes for devices to associate additional properties with these objects. These properties can then be used to build groups or distribute configurations.
 - **Delete** - The default profile cannot be deleted. When a non-default profile is deleted, all the associated devices will be re-assigned to the default profile.
 6. To move an enrolled device to from one profile to another within the same virtual server (and not between different Apple Business Manager servers), click the number link under the Number of Devices column. The reassignment of profiles are applicable to devices that are yet to be enrolled.
 - a. To move a single device, click **Assign Enrollment Profile** for the specific device, select the profile from the drop-down list, and click **Assign**.
 - b. To move multiple devices, select the devices and click **Actions** > **Assign Enrollment Profile**, select the profile from the drop-down list, and click **Assign**.

-
- If a Device Enrollment profile is edited, the device count of the modified profile will be updated shortly.



- If you refresh the server token on Apple site, then the existing token will become invalid. However, the display in the Device Enrollment page, including the token expiration date, will remain until you upload the new token.

Adding a custom Device Enrollment web page

Applicable to: iOS 13.0 and macOS 10.15 and supported newer versions

In the Custom Enrollment section, you can specify your own custom web page (web view) to authenticate users during Device Enrollment. Use this page to display custom information such as authentication type, branding, consent text, and privacy policy.

Procedure

-
1. Go to **Admin > Apple > Device Enrollment**.
 2. Find the name of the server you created on the Apple site.
 3. Select **Actions > Edit Device Enrollment Profile**.
 4. In the Custom Enrollment section, select **Enable Custom Enrollment**.
 5. Select one of the following options:
 - **MobileIron Hosted webpage** - redirected to an Identity Provider (IDP) if the enrollment is using an identity provider such as Microsoft Active Directory Federation Services (ADFS) or Okta. This can also be redirected to the self-service portal for a Ivanti Neurons for MDM user with a non-IDP based authentication.
 - **Custom URL** - enter a URL such as <https://mycustomweburl.com>. This URL defines the value of the custom URL to present to the user in a web view loaded during the initial setup of a new Device Enrollment device or an erased device. Use this field to define your own authentication UI with authentication method. After the user is authenticated, the MDM enrollment profile is downloaded.

Workflow of the custom Device Enrollment web page

This section elaborates the behavior of the custom Device Enrollment web page and the procedure to create the custom web page (web view).

When the custom web page specified in the **URL** field loads initially:

- The configuration web URL has an **https** scheme and is a **GET** request. The web page should use a publicly trusted certificate.
- A custom header **x-apple-aspen-deviceinfo** is appended to the GET request by the Apple device on which enrollment is initiated. It contains a base64 encoding of a CMS (Cryptographic Message Syntax) envelope that contains a plist with device attributes. This is the same information, in the same format, as provided in the initial POST request with token-based device enrollments.

When the custom web page loads subsequently:

-
- The device user interacts with the web page (web view) until the administrator's host server provides a **custom.mobileconfig** file to the client. The Ivanti Neurons for MDM server returns byte code of the MDM profile. In the administrator's host server, the custom.mobileconfig file should be set with a MIME type of **application/x-apple-aspen-config** so that the MDM profile for the device is downloaded and installed on the device.
 - For authentication with Ivanti Neurons for MDM, the web page should contain the authentication user name and password credentials. It is recommended to create a separate user in Ivanti Neurons for MDM and assign Custom Enrollment role to the user fetching the MDM profile with the Ivanti Neurons for MDM server URL (for example, <https://micloudDomain.com/c/i/dep/custom.mobileconfig>).
 - For device registration and to get the MDM profile from Ivanti Neurons for MDM, the administrator's host web server should make a POST call to the Ivanti Neurons for MDM server URL. It should also pass the header x-apple-aspen-deviceinfo with the value provided by the device when the device hits the GET URL to load the custom web page. If the registration user ID is not provided, the device is registered to the nobody user. Here are the additional details:
 - When a device hits the custom web URL configured in the Device Enrollment profile, administrator's host web server should capture the header "x-apple-aspen-deviceinfo" presented by the device.
 - To get the MDM profile for that device and its related user, administrator's host web server should make a POST call to the Ivanti Neurons for MDM server URL with the header x-apple-aspen-deviceinfo. It should contain basic authentication using a Ivanti Neurons for MDM user ID as a request parameter (for example, <https://miCloudDomain.com/c/i/dep/custom.mobileconfig?user=name@company.com>). The user should be assigned the Custom Enrollment role.
 - After the administrator's host web server receives the byte code, it should download the byte code to the device by setting response headers, Content-Disposition = attachment;filename="profile.mobileconfig" and Content-Type = application/x-apple-aspen-config.
 - The web view closes and the OS attempts to install the profile, which must be an MDM enrollment profile.



Ivanti Neurons for MDM does not authenticate the user ID for which the MDM profile is returned. Therefore, administrators should perform the necessary authentication for the user ID before requesting for the MDM profile.

For iOS, this workflow is supported during initial setup of an erased device. For macOS, this workflow is supported both within Setup Assistant and also via the Profiles preference pane, if Device Enrollment was skipped during Setup Assistant.

For developer information related to creating a custom web page, see the following Apple documentation references:

- [Web Views](#)
- [Authenticating Through Web Views](#)
- [Sample code to implement a simple iPad web browser that can view either the desktop or mobile version of a website](#)

Editing the Device Enrollment authentication setting

Procedure

1. Go to **Admin > Apple > Device Enrollment**.
2. Find the name of the server you created on the Apple site.
3. Select **Actions > Edit Authentication**.

Bootstrap token management for mobile accounts

Applicable to: macOS 10.15 devices and supported newer versions that are device enrolled in MDM using Apple School Manager or Apple Business Manager.

Ivanti Neurons for MDM supports bootstrap token management for mobile accounts. Bootstrap tokens enable mobile accounts to sign in to macOS devices that are using FileVault. Using this feature, all mobile accounts that log in get a SecureToken automatically. This feature is beneficial when multiple users log in to an encrypted machine.

When a managed admin account tries to login to a device:

- For the first login, the bootstrap token is requested from the MDM server.
- If the MDM server provides the bootstrap token, the device will create a SecureToken for the account automatically.
- The device enables FileVault for the user.

Bootstrap Token Available is a field available in the device details page and as a filter attribute while creating a new device group or a custom policy.

For troubleshooting and verification purposes, go to the device details page for a device. Use the Logs page to narrow the device logs using filters based on action names Set Bootstrap Token and Get Bootstrap Token.

Setting up managed macOS admin account using Device Enrollment

Ivanti Neurons for MDM supports Device Enrollment registration on devices that have been reset to factory default or are being activated for the first time. Using Device Enrollment, an admin account can be created on the macOS device. Ivanti Neurons for MDM supports only optional enrollment for macOS and, therefore, Ivanti Neurons for MDM ignores the **MDM Mandatory** field in the Device Enrollment profile because it only applies to iOS devices.

Procedure

1. Go to **Admin > Apple > Device Enrollment**.
2. Find the name of the server you created on the Apple site.
3. Select **Actions > Edit Device Enrollment Profile**.
4. Select one of the following options from the macOS account setup assistant options:
 - **Skip admin account creation** - Select this option to disallow creating an admin account, either visible or hidden. Deselect this option to allow an admin account to be created in the **Set up Managed macOS Admin Account** section (described below).
 - **Skip primary setup account creation** - Select this option to skip setting up the primary account on the macOS device. No user account is created besides an admin account. An additional section, **Set up Managed macOS Admin Account**, will be displayed (described below) to create the managed macOS admin account. The account can also be hidden from Users & Groups.
 - **Create primary accounts as regular users (as admin if not checked)** - Select this option to create a non-admin standard account as part of the enrollment. An admin account can still be created by the Admin and pushed to the device. An additional section, **Set up Managed macOS Admin Account**, will be displayed (described below) to create the managed macOS admin account. The account can also be hidden from Users & Groups.
5. After selecting one of the above options, enter the following details in the **Set up Managed macOS Admin Account** section if you want to create a managed macOS admin account:

-
- Full Name
 - Account Name
 - Password
 - Confirm Password
 - (Optional) Hide managed administrator account in Users & Groups
6. If you do not select **Skip Primary Setup Account Creation**, enter the following details in the **Set up Primary Account** section. This adds user channel support for managed admin account by setting managed local user short name to an administrator's short name.
- **Full Name**
 - **Short Name**
 - (Optional) **Prevent modification by end user** - This setting will be overridden if Full Name and/or Short Name have substitution variables and are evaluated empty. If you select this option, confirm you understand that this primary admin account setup is applicable only if one of below option is set appropriately:
 - a. Prompt User Registration/Login is selected in the Authentication setup view.
 - b. MobileIron-hosted webpage is selected for Enrollment Customization.
7. Select **Skip Primary Setup Account Creation** to enable user channel support for managed admin account. You can set managed local user short name to an administrator's short name.
8. Click **Save**.

Changing the local macOS admin account password

An administrator can change the local password of a local macOS admin account that was created by Setup Assistant during Device Enrollment.

Applicable to: macOS 10.11 or supported newer versions.

Procedure

1. Go to **Devices**.
2. Click the user name the device is associated with to view the device details page.

-
3. From the Actions menu, click **Set macOS Admin Password**. This action can be performed in Device List page as well by selecting one or more devices.
 4. Enter the password.
 5. Click **Save**.

Export to CSV

Ivanti Neurons for MDM lets you export the Device Enrolled devices to a CSV file.

Procedure

1. Go to **Admin > Apple > Device Enrollment**.
2. Click the specific device count link under the **Number of Devices** column.
3. Click the **Export to CSV** option to export the devices list and related details to a CSV file. Once the report is ready, you will be prompted with a message to either Download or Delete the report. You will also receive an email containing a link to download the report.
4. Click **Download**.
5. (Optional) Click **Delete** to delete the report.

Configuring the Setup Assistant

The Configuration Setup Assistant lets you select the setup screens that you want to skip or include during device setup for iOS and macOS devices.

Procedure

1. Log in to the Ivanti Neurons for MDM administrative console.
2. Go to **Configurations**.
3. Select **Setup Assistant**.
4. Click the pencil (edit) icon.
5. Select the check boxes to skip the specific setup screens from the device.
6. Click **Done**.
7. Select **Device Channel**.
8. Select **All Devices**. The Setup Assistant configuration is pushed to the devices and the Configuration tab under in the Device Details page displays the Installed state.
9. Log in to the device. All the initial setup screens are skipped.

Install MDM Certificate

You must request and install an Apple MDM certificate to manage iOS devices. You also need to renew this certificate once a year. (The Apple account used for creating the certificate receives a notification from the Apple site when the expiration date approaches.) Use the MDM Certificate page to add or renew this certificate.

Acquiring and installing the MDM certificate

Procedure

1. Use the **MDM Certificate** page to download a certificate signing request (CSR) from your Ivanti Neurons for MDM tenant.
2. Upload the CSR to Apple to create a new certificate.

On the Apple site, add a note indicating what the certificate is for. This note will help you when it is time to renew the certificate.

3. Save the resulting certificate.
4. Install the certificate for your Ivanti Neurons for MDM tenant.

Renewing the MDM certificate

Procedure

1. Click **Renew Certificate**.
2. Download a certificate signing request (CSR) from your Ivanti Neurons for MDM tenant.
3. Upload the CSR to Apple to renew the corresponding certificate.

On the Apple site, make sure you are renewing the correct certificate. Uploading a different certificate to Ivanti Neurons for MDM will automatically retire all registered iOS devices.

4. Install the certificate for your Ivanti Neurons for MDM tenant.

You will receive a warning if you attempt to upload the wrong certificate.

If you cannot see the **Install MDM Certificate** page, it might be that you do not have the required permissions. You need one of the following [roles](#):

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- System Management
 - System Read Only

Shared iPad devices for business

Shared iPad devices for business is available for the Managed Apple IDs that are created in Apple Business Manager with iOS 13.4 or supported newer versions.

- Shared iPad devices enable businesses to share devices between multiple employees, while still providing a personalized experience.
- Employees can sign in with a Managed Apple ID to begin loading their data, including their mail accounts, files, iCloud Photo Library, app data, and more.
- The data is stored in iCloud, so employees can sign in to any shared iPad device that belongs to the organization.

Shared iPad devices can be used in healthcare, retail, and industrial applications. For example, doctors and nurses can share one iPad device, as they can each securely access the user profile uniquely designed for them. In retail stores, front-line workers can be empowered with access to product information, resources, expertise to delight the customers and provide better shopping experiences.

How it works

- The iPad devices are added to Apple Business Manager, and are enrolled using an automated enrollment profile with the shared mode on.
- Employees sign in to the shared iPad device with a company-provided Managed Apple ID and password. Apple Business Manager administrator can manually create the accounts for the users or federate the account creation to an identity provider such as Azure Active Directory.
- Each user can have their custom profile when they are logged into the shared iPad device. Administrators can distribute apps based on the users role, responsibilities, and department.
- Users can log in as guest users on a shared iPad device. The guest user log-in is enabled by default. A guest user need not sign in with a Managed Apple ID and password. The guest user login can be disabled by setting the **Allow Guest Session for Shared iPad** option to **False** in the [iOS Restrictions](#) configuration.
- Go to Ivanti Neurons for MDM > **Devices**, click on a shared iPad device name, and click the **Users** tab to view the list of users on the device and their details (such as Managed Apple ID, Data Available in bytes, Data Used in bytes, Has Data to Sync to Ivanti Neurons for MDM).
- Go to the **Logs** tab, from the filters select the **Report User List** action to view additional user details.

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- The guest user log-in in a shared iPad device is different from the guest user management by Ivanti Neurons for MDM. By default, guest user account is disabled in Ivanti Neurons for MDM. To manage a guest user in a shared iPad device, enable the guest user account.
 - Screen recording is available from Control Center on shared iPad devices.
 - Ivanti Neurons for MDM supports a substitution variable for Managed Apple ID, `#{managedAppleID}`. This system variable is displayed in the system attributes section and in the device attributes section.
 - Ivanti Neurons for MDM restricts an administrator from changing the Managed Apple ID of resident user(s) who were logged in to the shared iPad device in the past along with the currently logged in users. If you try to change the Managed Apple ID, an error message indicates that the user's Managed Apple ID cannot be changed since the user is using a shared iPad device.
 - In the case of [Apple Apps and Books](#), Apps and Books are installed on shared iPad devices based on device-based licenses regardless of whether device-based licenses are selected or not.

Prerequisites

Ensure that the following prerequisites are met:

- A shared iPad device requires Managed Apple ID. Administrators can manually create the accounts or federate to an identity provider such as Azure Active Directory.
- The shared iPad devices must contain iOS 13.4 or supported newer versions.
- The devices must be associated with Apple Business Manager accounts.
- The devices must contain storage of 32GB or more.

Note the following points:



- Ivanti Neurons for MDM restricts certain configurations, such as Passcode, for shared iPad devices as Apple does not support them. Such configurations are not pushed to the devices (Devices > click a device name link > Configurations tab).
 - The [Passcode](#) configuration does not apply to the shared iPad devices as they require Managed Apple IDs, which are associated with passwords and not passcodes. The Unlock action from the Ivanti Neurons for MDM administrative portal will not clear passcode on a shared iPad device.
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- Select either the Device Channel or the User Channel during the distribution of the [iOS Restrictions configuration](#) to shared iPad devices. You can distribute separate configurations and enforce restrictions that are applicable only to the device or the user channel.
 - Ivanti Neurons for MDM verifies the expired accounts and retires the devices with expired accounts as owners. However, for a shared iPad device, the device owner is the last logged-in user and may not be the legal owner. If an owners account expires, Ivanti Neurons for MDM excludes the shared iPad devices from retiring .
 - Go for iOS client is not supported for shared iPad devices.
 - Users cannot perform actions such as retire and wipe on shared iPad devices. Only administrators can perform retire and wipe actions from the Ivanti Neurons for MDM administrative portal.
 - Administrators cannot change the owner of shared iPad device from the Ivanti Neurons for MDM administrative portal.
 - Zero sign-on is not supported for shared iPad devices.
 - When the `ListUsers` command is enabled, all managed user IDs and their check-in time are displayed in the Device Enrollment (Part of Apple Business Manager) under the **Admin** tab.
-

Configuring a shared iPad device

You can set up a shared iPad device and configure the settings.

Procedure

1. Go to **Admin > Apple > Device Enrollment**.
2. Add the device to Apple Business Manager by enrolling the device using an automated device enrollment profile. For information about this procedure, see [Device Enrollment](#).
3. In the Device Enrollment settings, enable:
 - **Supervised Mode**.
 - **Multi-User Mode** under **Shared iPad device for business**.

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4. (Optional) Create a local user account. The device will be registered to this user. The authentication as this user happens only once during the registration.
 5. Reset the shared iPad.

The registration process starts only after the reset. It takes a few minutes for the device to be registered and configured as a shared iPad device.

6. The legal owner is assigned to the user account who registered the device. The administrator can change the legal owner from the **Devices** page.
7. On the device login screen, enter the Managed Apple ID credentials of the user.
 - Similar to macOS devices, you can push configurations on shared iPad devices through both device and user channels.
 - The user substitution variables are not substituted for configurations (including the Managed App configuration) pushed in the device channel.
 - If the logged in user in a shared iPad device is not a managed user- the Managed Apple ID does not belong to any user in the Ivanti Neurons for MDM administrative portal, the device is not assigned to anyone. The users will not be managed - the administrator cannot push user channel configurations from Ivanti Neurons for MDM.
 - By default, the default guest user created by Ivanti Neurons for MDM is disabled. When a guest user logs in, the device is not assigned to any user and the user is not managed. If the guest user has to be managed, the default guest user created by Ivanti Neurons for MDM must be enabled and the device is assigned to the default guest user after the guest user logs in. The user can then be managed.
 - The device owner information is displayed in the Ivanti Neurons for MDM > **Devices** page and in the device logs (device details page > **Logs**).

Managing legal owners for Shared iPads

You search and view the legal owners of the shared iPad devices using their email IDs from the device listing page. You can change the legal owners of the shared iPad devices by reassigning the existing legal owners to the new legal owners. If the legal owner of a non-shared iPad device is reassigned, Ivanti Neurons for MDM ignores the assignment.

Procedure

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1. Go to **Devices**.
 2. Click the gear icon to select and add the **Legal Owner** column to the devices list page.
 3. Select the shared iPad devices.
 4. Click **Actions > Assign to Legal owner**.

Sending an email to the legal owner of a shared iPad device

You can send emails to the legal owner of a shared iPad device.

Procedure

1. Go to **Devices**.
2. Click the name of the shared iPad device.
3. Click the **email** icon.
4. Compose the email.
5. Click **Send**.

Using the Multi-User Mode attribute

You can use the Multi-User Mode attribute of the shared iPad devices in Ivanti Neurons for MDM.

Procedure

1. In the **Devices** page, use the **Multi-User Mode** attribute.
2. Click **Advanced Search** and create a rule to find the devices using the **Multi-User Mode** attribute.
3. In the **Devices > Device Groups** page, create a dynamic device group for the shared iPad devices using the **Multi-User Mode** attribute. For example, you can use this group as a distribution filter to distribute configurations.
4. In the **Policies** page, create a custom policy for the shared iPad devices using the **Multi-User Mode** attribute.
5. In the **Apps > Distribution Filter**, use the **Multi-User Mode** attribute to limit the number of applications available for installation.



- Ivanti Neurons for MDM does not support multi-user mode for Apple School Manager devices. It is not recommended to enable the setting and push the Device Enrollment profile to Apple School Manager devices.
 - The Multi-user Secure Sign-In for iOS configuration is not applicable to shared iPad devices.
-

Deleting users from a shared iPad device

You can delete a user or multiple user accounts from the shared iPad devices. In the User list tab, the **Active** label is displayed for the currently logged in user. The Delete option is not applicable for the currently logged in user on the shared iPad device. Users can be deleted from the **Devices** or the **Users** tab.

Deleting users from the Devices tab

Procedure

1. Go to the **Devices** tab > **Device Details**.
2. Go to the **Users** tab. The list of users are displayed.
3. Click **Delete All Users**.
4. Click the "-" minus sign to delete specific users.
 - (Optional) In the **Delete User** window, select **Force delete user even if the data sync to Ivanti Neurons for MDM is pending** option and click **Yes**.



Selecting **Force Delete user even if the data sync to Ivanti Neurons for MDM is pending** will force delete the user even if the data is not already synced to the Ivanti Neurons for MDM administrative portal.

Deleting users from the Users tab

Procedure

1. Go to the **Users** tab.
 2. Select a user or multiple users, go to the **Actions** drop-down menu, click **Delete**. A confirmation message appears. After you confirm the delete user command is issued to the devices.
 3. Go to **Device logs** in the device details and verify that the Delete user command is sent to the selected users of the shared iPad device.
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Logging out users from a shared iPad device

The administrator can log out users from a shared iPad device.

Procedure

1. In the **Devices** page, select a shared iPad device.
2. Select **Force Logout** from the **Actions** menu. A pop-up prompts for confirmation on logging out users from the shared iPad device.
3. Click **OK** to approve the force logout.

School Manager

License: Gold

Applicable to: Supervised iOS 9.3+

Apple School Manager is an Apple cloud service dedicated to education institutions to provide services including purchasing applications in Apple Apps and Books, enrolling iPads through Apple Device Enrollment, and creating managed Apple IDs. With full integration with Apple School Manager, Ivanti Neurons for MDM UEM solution provides a seamless way to fully manage the iPads designated for teachers and students in order to leverage the School Manager ecosystem and apps such as Classroom.



Apple Books are not supported.

Configuring School Manager

1. Go to **Admin > School Manager**.
2. Click the **Setup Education** option if it is turned off.
3. Select one of the following options:

- **Sync with the Apple School Manager account to import school information:**

- a. Go to **Admin > Apple > Device Enrollment** to download your organization's key files.
- b. Upload the key files to your Apple School Manager account to generate encryption keys.

Download the encryption keys from Apple School Manager and upload the keys into Ivanti Neurons for MDM (**Admin > Apple > Device Enrollment**).



Existing Apple Device Enrollment accounts can be reused for Apple Education. Apple will give you the option to upgrade your Device Enrollment account to include Education capabilities when you access the Apple School Manager. For the upgrade instructions, visit <https://support.apple.com/en-in/HT206960>.

- c. When the encryption keys are accepted, the **Sync Now** button appears.
- d. Click **Sync Now** to start data sync with Apple School Manager.

- **Import data from CSV files:**

- a. (Optional) Click **Download CSV templates ZIP file** to download a zip file that contains templates of all the data types.
- b. Click **Select files...**
- c. Add the following six CSV files:
 - Students data file (students.csv)
 - Roster data file (roster.csv)
 - Staff data file (staff.csv)
 - Classes data file (classes.csv)
 - Courses data file (courses.csv)
 - Locations data file (locations.csv)



You must select all the six CSV files together, every time, before uploading them.

- d. Click **Upload**.
 - e. (Optional) If the CSV files need to be modified, please retain all necessary data in all six files that had been previously uploaded. Make the required edits and upload them together once again.
4. Search for data from the **Classes** and **Individuals** tab.



The individuals (students and staff) also appear in the **Users** page of Ivanti Neurons for MDM.

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5. Create two device groups for devices that will be used for education by students and staff as follows:
 - a. Go to **Admin > Custom Attributes**.
 - b. Create custom attributes for students and staff that will be used to create dynamically managed device groups.
 - c. Go to **Devices > Device Groups**.
 - d. Click **Add+**.
 - e. Create one each dynamically managed device group for students and staff using the custom attributes created previously as filters.
 6. Assign registered devices to students and staff from the **Devices** page using the **Actions > Assign to user** option.
 7. Create a Leader (staff) configuration and a Member (students) configuration by adding the **Configurations > Education** payloads.
 8. Distribute the Leader (staff) and Member (students) configurations to the staff and student device groups.

This distribution will push these configurations and install certificates on the respective devices.



On the **Admin > School Manager** page, if there is no value present for the Class Name, the value is derived from the class system source identifier and the course identifier fields. These fields are optional in the Apple School Manager or the CSV file. However, it is recommended to enter a value at all times as their combination is used as the default identifier in the absence of a Class Name.

Pushing the Classroom app to the teachers

Using the Classroom app, the teachers (Leader) can manage the following scenarios:

- Classroom management ability to control iPads and apps remotely.
- Ability to create a class group.
- Ability for a teacher to view the student members of that group.
- Ability for a teacher to send content to the students in that group.
- Restrict what apps and content the students can view.

You can push the Classroom app from the Apple App Store.

Procedure

1. Go to the **Apps > App Catalog** page.
2. Click the **+Add** button.
3. Search for and select the Classroom app by Apple.
4. Click **Next**.
5. Enter the category and description.
6. Click **Next**.
7. Distribute the app to the teachers device group created previously.
8. Configure the app settings in the App Configurations page.
9. Click **Done**.

Disabling School Manager

Disabling School Manager will wipe all the current data. Please exercise caution while doing so.

1. Go to **Admin > School Manager**.
2. Click the **Setup Education** option if it is turned on.
3. Click **Yes**.

Settings (Apple)

Administrators can configure, enable, disable various settings for Apple devices.

Silent registration (for macOS only)

Silent registration for macOS devices is locked as Enabled. This applies to all new device registrations in the tenant and is supported by Mobile@Work 1.4 and or supported newer versions.

Profile settings

Administrators can enable or disable sending emails to the end-users and notifications to the macOS and Go for iOS clients if the MDM profile is not installed. The MDM profile notifications feature is enabled by default.

Procedure

1. Go to **Admin > Settings**.
2. Select or deselect the **Send email to user and notification to client if MDM profile is not installed** option.
3. Select the maximum number of emails/notifications between 1 to 4.
4. Click **Save**.

OS updates for automated device enrollment (iOS only)

Administrators can turn on iOS operating system updates for automated device enrollment. If this option is enabled, then the Device Enrollment devices will use the [Software Updates](#) configuration instead of the schedule OS update setting in the Device Enrollment Profile.

This option is disabled by default, in which case the schedule OS update setting in the Device Enrollment Profile is used. Turning on this setting is permanent and cannot be turned off. This setting will remove the schedule OS update setting in all the available Device Enrollment profiles.



Supervised non-Device Enrollment devices use the Software Updates configuration.

Procedure

-
1. Go to **Admin > Settings**.
 2. Select or deselect the **Use Software Update Configuration for Automated Device Enrollment** option.
 3. Click **Yes** to confirm.
 4. Click **Save**.

Multi-user Secure Sign-In

The administrators can clear the device password when the user logs out from the Multi-user Secure Sign web clip on iOS shared devices by selecting the "**Clear passcode after User logout**" option in the "**Multi User secure sign-in**" section under Admin > Apple > Settings

Priority Settings for Restrictions Configuration

The administrator can enable priority for multiple iOS and macOS restrictions configurations by selecting the **iOS Restrictions Configuration** or **macOS Restriction Configuration** options in the **Priority Settings for Restrictions Configuration** section under the **Admin > Apple > Settings**. This option is disabled by default. For more information on how priority works, see "[Prioritizing Configurations](#)" on page 452

Procedure

1. Go to **Admin > Apple > Settings**.
2. In the **Priority Settings for Restrictions Configuration** section, select the **iOS Restrictions Configuration** or **macOS Restriction Configuration** option.

-
3. Click **Save** to enable priority. The "**Priority Settings for Restrictions Configuration (iOS or macOS) has been enabled**" banner is displayed. Before the priority is **Approved**:
 - **Edit distribution summary(if applicable)**: When priority setting is enabled, the distribution summary for the selected restrictions configuration is changed from "**Apply to devices in other spaces**" is changed to "**Apply to all devices in other device spaces as highest priority**" by default.
 - **Default priority is assigned in the order of creation**: For selected restriction type configuration, an existing default priority is assigned in the order it was created.
 - **Suspension of management of the configuration**: The management of the selected restrictions configuration (for example, iOS Restrictions Configuration) is suspended until you approve the priority.



After priority is enabled, any changes in the restrictions are not processed until they are approved. Before approving, the admin can edit the distribution, distribution summary, or priority for restrictions configuration in the **Configurations** section.

4. Select the **Approve** option to put priority in effect.
5. Click **Save**.



The **Approval** option is not available when deselecting an iOS or macOS Restrictions configuration option, the changes are applied instantly.

When priority setting is disabled, there is no priority associated with the configurations. All restriction configurations are pushed to the device if applicable (on next device sync).

- **Distribution summary (if applicable)**: When priority setting is disabled for restriction configuration, distribution summary is changed from **Apply to all devices in other device spaces as highest priority** or **Apply to all devices in other device spaces as lowest priority** to "**Apply to devices in other spaces**".
- **No priority is assigned**: Assigned priority is removed for selected restrictions configuration

Work with Windows Devices

This section contains the following topics:

- ["Configuring Windows Autopilot Profiles" on page 1220](#)
- ["Audit Trails on Windows Autopilot Profiles" on page 1228](#)
- ["TenantLockdown CSP" on page 1229](#)
- ["ADMX \(GPO\) Browser" on page 1230](#)
- ["Configuring app inventory intervals" on page 1231](#)
- ["Hardware Inventory" on page 1232](#)

Configuring Windows Autopilot Profiles

Windows Autopilot is a Microsoft feature that helps administrators to setup and pre-configure new devices to make them business ready. The Autopilot feature helps with a quick, reliable, and seamless provisioning of Windows Desktop or HoloLens2 devices. In addition, the Autopilot feature helps perform the following tasks:

- Automatically join devices to Azure Active Directory (AAD)
- Auto-enroll devices into MDM services
- Create and auto-assign devices to configuration groups based on the profile of the device
- Customize the enrollment experience
- Apply configurations and policies
- Install essential applications

Prerequisites

To operate the Windows Autopilot page, review the Ivanti Neurons for MDM partner steps and Azure licensing requirements. Make sure that the following prerequisites are met for the Autopilot feature to function as expected:

- **Azure Licensing for Autopilot requirements:** Check for "Windows Autopilot licensing requirements."
- **Azure Windows Autopilot Devices Registration:** Check for "Windows Autopilot registration overview."
- **Resellers adding devices to customer account:** Check for "Use Windows Autopilot profiles on new devices to customize a customer's out-of-box experience."

Additional Requirements

1. Integrate Azure AD tenants and Ivanti Neurons for MDM. For more information, see ["Setup with Microsoft Azure" on page 1233](#).
2. Make sure that you have an administrator account in Ivanti Neurons for MDM and AAD.

-
3. To leverage self-deploying profiles, create a fake user for enrollment of user-less self-deploying devices in Ivanti Neurons for MDM.
 4. Create and sync a dummy user, fooUser@AADPrimaryDomain.com from AAD Primary Domain.



Microsoft licenses are not needed to create and sync a dummy user.

5. The "Custom domain names" page in AAD displays the primary domain of your AAD environment.
6. Make sure that the user can enroll devices and is not disabled. For example, if the primary domain is contoso.com, resulting user will be fooUser@contoso.com. If the primary domain is contoso.onmicrosoft.com, resulting user will be fooUser@contoso.onmicrosoft.com.
7. To provision the user with SCIM into Ivanti Neurons for MDM, edit the user details in AAD and add the email address. Generally, the email address will be the same as UPN.
8. Make sure that all the users, including the fooUser are present in Azure and Ivanti Neurons for MDM.
9. Administrators can create Autopilot Profiles using Microsoft Store for Business or Ivanti Neurons for MDM. To create profiles using Ivanti Neurons for MDM administrators require Global Azure Admin and Intune administrator permissions.



Administrators need Azure P1 or P2 and Ivanti Neurons for MDM Secure UEM or Secure UEM Premium licenses are needed. The Intune license is not needed for administrators.



In Neurons for MDM, creating Autopilot Profiles feature leverages Microsoft Graph APIs for Autopilot, which are still in beta.

Autopilot Enrollment Modes

After you associate devices with a specific user profile group, basis the device usage, you can configure the Autopilot enrollment mode to allow users to quickly get started with their device. Ivanti Neurons for MDM provides the following Autopilot enrollment modes:

- Self-Deploying mode
- User-Driven (Pre-Provisioned mode)
- User-Driven

Self-deploying autopilot mode - The self-deployment Autopilot device enrollment mode makes sure that a seamless deployment of an enterprise device for a user by bypassing the initial device setup and by pushing all the necessary configuration files that are required for the device to securely get started. This mode secures the hardware, connects the device to the enterprise network, enrolls the device to the Azure Active Directory (AAD), the MDM service, and to the Ivanti Neurons for MDM administrator portal using a dummy user ID and all the necessary configuration files are pushed to the device before the user logs in. After the mandatory configuration files are pushed to the device, the device restarts and displays the login screen for the enterprise user to get started. You can use the self-deploying mode for a device that can be used as a kiosk or digitally signed device.

User-driven pre-provisioning profile mode – Once the administrator creates a User-driven pre-provisioned profile, the administrator assigns the profile to a user group, and the device hardware ID is uploaded and assigned to the AAD group. The device will be associated to the user-driven pre-provisioned profile. This mode is used by the administrator to setup a device before it is handed over the enterprise user.

Procedure

Follow the steps for pre-provisioned deployment:

1. Connect the new hardware device to the LAN and press the Windows button five times.
2. The device displays a question prompt. Select the option Windows autopilot provisioning and click Continue. The AAD detects the User-driven pre-provisioning profile mode, and all the basic configuration settings are deployed in the device. The Windows Autopilot Configuration screen is displayed.
3. Click Proceed. The device progresses and secures the hardware, connects the device to the enterprise network, enrolls the device to the Azure Active Directory (AAD), the MDM service, and to the Ivanti Neurons for MDM administrator portal using a dummy user ID and all the necessary configuration files are pushed to the device and a confirmation message appears.
4. You can now hand over the device to the user. When the user logs in to the device, the user ID is enrolled into the Ivanti Neurons for MDM administrator portal with the device details.

The following configurations are pushed automatically before the user logs in to the device:

- Identity Certificate
- Wi-Fi
- Windows Hello For Business
- Windows Restrictions



The rest of the configurations are in Pending state and are pushed after the user logs in to the device using an email address.



During the Autopilot enrollment process in Self-deploying and User-driven (pre-provisioning) modes, the assigned .MSI, and .EXE apps will be installed on the device to complete the enrollment process. When installing the .MSI, and .EXE apps during Autopilot enrollment process, if the apps report or fail to report during the installation, the Autopilot process will be completed and the Reseal button will be enabled.

Creating Windows Autopilot User Profiles

After you configure the Azure Active Directory (AAD) User Source and sync the users and AAD user groups with the Ivanti Neurons for MDM tenant, you can create the Autopilot profiles.

Procedure

1. Log in to the Ivanti Neurons for MDM administrator portal.
2. Go to **Admin > Microsoft Azure > Windows Device Management**.



If the AAD User Source is not configured, the **Add** button will be disabled. You need to configure the User Source using the **Windows Device Management** option present under the **Microsoft Azure** section.

3. Click **Add**.

The **Add Windows Autopilot Profile** page appears on the screen.

4. Enter a profile name in the **Name** box.
5. Complete the **Profile Settings** using the table below this procedure.

6. Click **Next**.

A new page with all the AAD Device Groups appears on the screen.

7. Select the one or more AAD Device Groups to which the Autopilot Profile must be assigned.

You can also create a AAD Device Group and assign the Autopilot Profile to this newly created group. See "[Creating AAD Device Groups](#)" on page 1226 for more information.

8. If you want to assign the Autopilot Profile to all the AAD Groups, select the **Assign to all AAD Groups** option.



You cannot assign more than one profile to "All Groups" due to a limitation from Microsoft.

9. Click **Done**.

Setting	Description
Device Type	<p>Select one of the following two options depending on the device:</p> <ul style="list-style-type: none">• Windows PC• HoloLens - When this option is selected, the default deployment mode should be set to Self-Deploying mode. <hr/> <p>In rare cases, when enrolling HoloLens 2 devices using Autopilot, the enrollment might get stuck on the 'Setting up your device for work' screen. In such a rare case, the user must power off and on the device by pressing the Power button. The device then shows the Login screen where the user should enter the AAD credentials to complete the enrollment.</p>
Deployment mode	<ul style="list-style-type: none">• Self-Deploying: In this mode, the device deployment happens with little or no manual involvement.• User-Driven: Administrators can use this option to select the enrollment mode to configure a new device for the user before they hand over the device to the user.
User account type	<ul style="list-style-type: none">• Administrator: Select this option if the user needs complete control once the device is deployed.

Setting	Description
	<ul style="list-style-type: none"> • Standard: Select this option if the user needs authorization to the basic options once the device is deployed.
Language	By default, the language will be Operating system specific. You can change to a different language from the list.
Convert all targeted devices to Autopilot	Select this option to convert all devices in the assigned group to Autopilot.
Allow Pre-provisioning	Select this option to register devices for Autopilot using the normal registration process. This option is not available when the Self-Deploying option is selected.
Automatically configure keyboard	Select Yes to skip the Keyboard selection in case the Language option is set to a different value other than the default value.
Device name template	Enter a template name to use during the device enrollment process.
Microsoft Software License Terms	You can Show or Hide this option only in User-Driven Deployment mode only.
Privacy settings	You can Show or Hide this option only in User-Driven Deployment mode only.
Change account options	You can Show or Hide this option only in User-Driven Deployment mode and when the User account type is Standard type.

Windows Device Management

The administrator can configure the Autopilot feature on a tenant using the new option Windows Device Management. This option makes it easier to integrate with Ivanti Neurons for MDM if the user has an AAD environment.

To access this option, **Admin > Microsoft Azure > Windows Device Management**.

This integration grants permissions to Ivanti Neurons for MDM to manage devices, Autopilot profiles, check Windows device compliance, and validate the Azure tenant.

Related Topics

- [TenantLockdown CSP](#)

Creating AAD Device Groups

The administrator can create AAD Device Groups, as and when needed, from the AAD Device Groups section. The AAD tenant validation must have been configured under the Device Compliance section to create AAD Device Groups.

Procedure

1. Go to **Admin > Microsoft Azure > AAD Device Groups**.

The **Azure Active Directory Device Groups** page appears on the screen.

2. Click **ADD**.

The **Group Settings** page appears on the screen.

3. Provide the following details:

- Group Name
- Group Description
- Membership Type
 - Static Device - The administrator will get the list of available static devices on the **Assign Members to Group** window. Select the required devices and click **Save**.
 - Dynamic Device - The administrator has to provide certain criteria from the **Dynamic Query** window.

The new AAD Device Group will be created and the administrator can add devices to the newly created group.



After creating a dynamic group, the devices will be listed under the Devices tab of the specific device group after sometime.

Editing Autopilot Devices

Users can edit the Autopilot devices from the Ivanti Neurons for MDM administrative portal.

Prerequisites

Make sure that the following prerequisites are met:

-
- IT Admin user should have Azure Global Admin and Intune Admin permissions.
 - A user-friendly name can be set only if the user is set.
 - The device name cannot be unset once set.

Procedure

1. Log in to the Ivanti Neurons for MDM administrative portal.
2. Go to **Admin > Windows > Autopilot**. The Autopilot Devices are listed under the Autopilot Devices tab.
3. Click **Edit** (pencil icon). The edit page appears.
4. Edit the following details:
 - **User**
 - **User Friendly Name**
 - **Device Name**
 - **Group Tag**
5. Click **Save**. The device details are updated.

Deleting Autopilot Devices

Users can delete the Autopilot devices from the Ivanti Neurons for MDM administrative portal.

1. Log in to the Ivanti Neurons for MDM administrative portal.
2. Go to **Admin > Windows > Autopilot**. The Autopilot Devices are listed under the Autopilot Devices tab.
3. Click **Delete**. The device details are deleted.

Audit Trails on Windows Autopilot Profiles

Audit Trails keeps track of all the activities performed on all entities within Ivanti Neurons for MDM. These activities include adding, deleting, updating new devices, etc.

For more information, see [Audit Trails](#).

The admin can perform the following activities using Audit Trails on all Windows devices enrolled in the Autopilot mode:

Autopilot Profiles

- Create
- Edit
- Delete
- Assign the profile to groups

Autopilot Devices

- Upload CSV
- Edit
- Delete

TenantLockdown CSP

The admin can lock all Windows devices to tenants using the TenantLockdown CSP feature. To use this feature, the devices must be enrolled using the Autopilot option. This configuration can be done at the device level.

In the Autopilot Self-deployed and User-driven modes, the admin can lock the devices directly to tenants. This is useful when the devices are lost or stolen. In such cases, even if the device is reset, the user will be forced to connect to the tenant and the local account creation is not supported in Self-deployed mode. But if the account creation has to be prevented in User-driven mode, the admin must enable the **Hide** option in **Change account options** setting during the Autopilot Profile configuration.

The admin can enable the TenantLockdown CSP by creating a Windows Restriction Configuration and selecting the **Require users to connect to the network during device set up (Autopilot profile is required)** option under **Other Restrictions**.

To remove a device from the TenantLockdown CSP, the admin must manually remove the device from the group or change the restrictions.

ADMX (GPO) Browser

Using ADMX (GPO) browser, you can view the GPO settings organized on the basis of the ADMX objects that exist in the tenant. You can search and view the default ADMX objects and also add (upload) custom ADMX files that provide an XML-based structure for defining the display of the GPO settings

To upload custom ADMX object:

1. Select **Admin > ADMX (GPO) Browser**. The **ADMX (GPO) Browser** page is displayed.
2. Click **Append**. The **Append Custom ADMX(GPO) Objects** window is displayed.
3. Click **Choose File** to select the ADMX file to be uploaded.



Make sure that the ADMX file is a zip file.

4. Click **Append**. A confirmation message is displayed for a successful upload.



Make sure that the root folder contains the **.admx** extension file after unzipping the zip file.

Searching GPO settings

In the ADMX (GPO) browser, you can search and select a GPO by clicking the relevant component from the GPO hierarchy tree in the left pane. The GPO hierarchy tree represents the path of the policy settings. You can alternatively, search for a specific GPO setting by typing the GPO name or the ADMX file name in the Search field. The details of the selected GPO setting is displayed in the right pane.

Configuring app inventory intervals

You can set Windows 10 application inventory collection intervals for multiple app source type inventories. The intervals are used when Privacy configuration is set to collect all apps from the device .

1. Navigate to **Admin > App Inventory Intervals**.
2. Select the interval (in hours) for collecting the app inventory from the drop down list for the following app source types.

- **Non App Store Inventory Interval**
- **App Store Inventory Interval**
- **System Inventory Interval**
- **Win32 Inventory Interval**

The interval options to collect Windows app inventory are between **24** to **48** hours. The default value is **24** hours.

Hardware Inventory

You can enable the collection of hardware information from Windows 10 devices . Hardware Inventory details are retrieved using Bridge.

1. Navigate to **Admin>Hardware Inventory**.
2. Enable the option **Enable the collection of hardware inventory**.
3. In the **Inventory Interval**, select the frequency for collecting the hardware inventory. The following are the available options:
 - **Once a day**(default)
 - **Once a week**
 - **Every 30 days**

When the hardware inventory option is enabled, you can view the hardware details of the device under the **Hardware** tab in the device details page.

Setup with Microsoft Azure

This section contains the following topics:

- ["Using Microsoft Azure" on page 1234](#)
- ["Azure Active Directory Windows 10 Unified Endpoint Management Setup" on page 1239](#)
- ["Assigning AAD UEM app" on page 1241](#)
- ["Connect Ivanti Neurons for MDM with Azure Active Directory User Source" on page 1242](#)
- ["Azure Tenant" on page 1245](#)
- ["Admin > Microsoft Azure > Office 365 App Protection" on page 1268](#)

Using Microsoft Azure

Ivanti Neurons for MDM can be setup with Microsoft Azure for seamless enrollment for your users on their Windows desktop and Tablets devices running on Windows 10. Follow the steps below to configure and connect your instances.

This section contains the following topics:

- ["Setting up AAD account" below](#)
- ["Creating Users on Azure AD" below](#)
- ["Connecting AAD to UEM for Windows 10 Devices" on the next page](#)
- ["Multi-User Support for Windows devices" on page 1236](#)

Setting up AAD account

To set up Azure AD:

1. Go to <https://azure.microsoft.com/en-in/pricing/purchase-options/> to purchase your Azure account.
2. Use your existing Hotmail or Outlook.com account, or create a new account and register as a new user.
3. Buy an Azure account by using one of the payment options and following the verification steps.
4. Ask Microsoft to Allowlist the Ivanti Neurons for MDM tenant.
5. Use the same Hotmail or Outlook.com account you used in step 2 to login to AAD at <https://manage.windowsazure.com/> as an admin.
6. Go to **Domain** tab.

A default the domain, TestMiBGLRoutlook.onmicrosoft.com, is created for your account and any users created will belong to this domain. If needed you can recreate a custom domain.

Creating Users on Azure AD

To create users on Azure AD:

-
1. Go to active directory - > **Default Directory** - >**Users**.
 2. Selecting the Add user option -> Select New user in your organization.
 3. Enter the username. Click next (->).
- The **User Profile** page is displayed.
4. Add the user information such as, first and last name and the display name.
 5. Use the dropdown menu to assign the appropriate role to the user.
 6. Generate the temporary password.

The user will be required to change this password at the first login.

Connecting AAD to UEM for Windows 10 Devices

To connect AAD to UEM:

1. **Go to Admin > Microsoft Azure > Windows Enrollment And Compliance Using AAD.**
2. Complete the UEM setup steps described in the section, "[Azure Active Directory Windows 10 Unified Endpoint Management Setup](#)" on page 1239
3. Complete the "[Assigning AAD UEM app](#)" on page 1241 setup in the Azure portal.
4. In the Ivanti Neurons for MDM Admin Portal, type the domain name of your AAD account, and click Connect Azure portal, and then select the checkbox.
5. After signing in successfully, accept the consent that allows MobileIron AD Tenant Validation APP to verify that your Ivanti Neurons for MDM UEM APP is set up. A message appears indicating a successful connection.

Microsoft Passport for Work for Windows 10 Devices

Microsoft Passport for Work is replaced with Windows Hello for Business. For more Information, see "[Windows Hello for Business Configuration](#)" on page 710.

Windows device AAD enrollment

Prerequisites

Users must be registered in Ivanti Neurons for MDM.

Connect your domain to enroll user on their Windows 10+ devices.

1. Click **Join Azure AD**.
2. Enter username and password.
3. Click **Sign-in**.
4. Accept the EULA
5. Click **Create PIN**.
 - If you have enabled Microsoft Passport for Work PIN complexity, you are prompted to set up a complex PIN as per the configured policy.
 - Azure AD authenticates the user and downloads a JWT (JSON Web Token) to the device.
 - The device is now enrolled.
 - User is contacted through the device for verification.
6. Enter and confirm a PIN.
7. Click **OK**.

Multi-User Support for Windows devices

Ivanti Neurons for MDM supports multi-user capabilities for the Windows 10 Azure AD enrolled devices. This capability includes pushing some profiles like VPN, WiFi, default email client profiles and Certificates to an individual user and not a device. It also supports distribution of in- house and public apps for the logged- in user. Each time a new Azure AD user logs onto a device, Ivanti Neurons for MDM evaluates not just the device but also the user. If the user is new, Ivanti Neurons for MDM updates the device for that user. If the user is an existing user on the device then any changes to the device and user settings that need to be updated since their last login are evaluated.

The details of the Azure AD user who is logged into the device are reported in the Ivanti Neurons for MDM Admin portal. When the user logs out of the device and the second user logs into the device, the details of the second user is updated in the device details page.

Setting up Microsoft Store for Business with UEM

Microsoft Store for Business is a portal provided by Microsoft as a part of Azure. Administrators can login to this portal and shop the apps and distribute them to all the managed devices. Ivanti Neurons for MDM

can be setup with Microsoft Store for Business to manage applications from within the Ivanti Neurons for MDM admin portal by setting up the following steps.

Step 1: Registering AAD application in the Microsoft Azure Portal

1. Open the first browser and log into the Microsoft Azure portal (<https://portal.azure.com/>).
2. Click **App registrations** on the left pane.
3. Click **+New application registration**
4. Enter the following information to register MobileIron as an Azure app:
 1. **Name:** Enter a name for the MobileIron app. (This field is required with a minimum of 4 characters.)
 2. **Application Type:** Select Web app / API.
 3. **Sign-on URL:** Enter the URL device users access to sign into MobileIron (required).
5. Click **Create** to add the app and return to the Azure home page.
6. Go to Settings and create a new key.

Step 2: Adding the application as a management tool

1. In Microsoft Store for Business Settings, click Manage
2. Distribution Settings
3. In the Add Management tool activate the created application.

Connecting the account in the Admin Portal

1. Go to **Admin > Microsoft Azure > Microsoft Store for Business**.
2. Under Step 1, **Register AAD application**, select the checkbox **Yes, I completed this step**.
3. Under Step 2, **Add Management Tool**, select the checkbox **Yes, I completed this step**

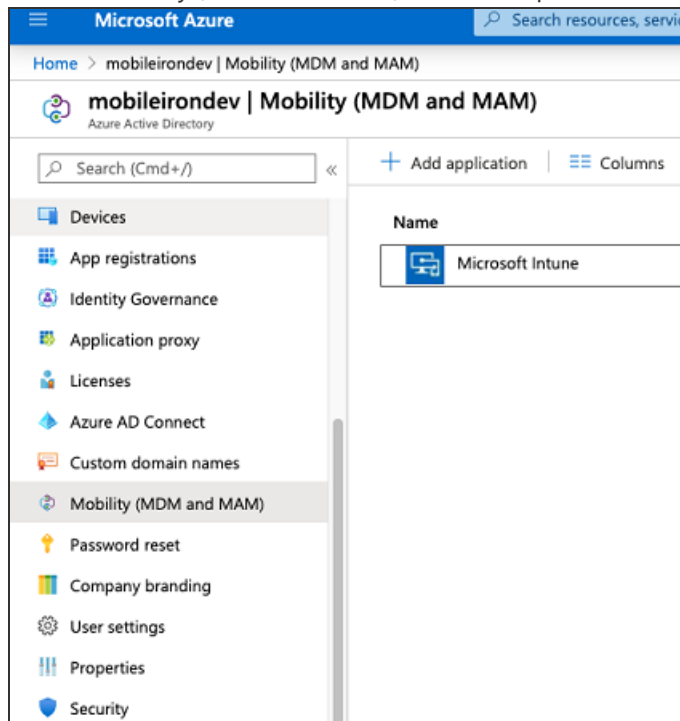
-
4. Under Step 3, Connect Account, update the following fields:
 1. Azure AD Domain
 2. Application Identifier
 3. Application key
 4. Sync Interval (hours)
 5. Click **Connect**. You will see a confirmation message that the MobileIron store for business is successfully setup.
 6. Click **Sync App**. When successfully synced, the status displays as **Applications synced successfully**.

When the Microsoft Store for app is pushed to the device, the app details are available in the under **Installed apps** tab in the device details. Each Microsoft Store for business app reported from device, can be identified as **Microsoft Store for Business** in the **Source** column.

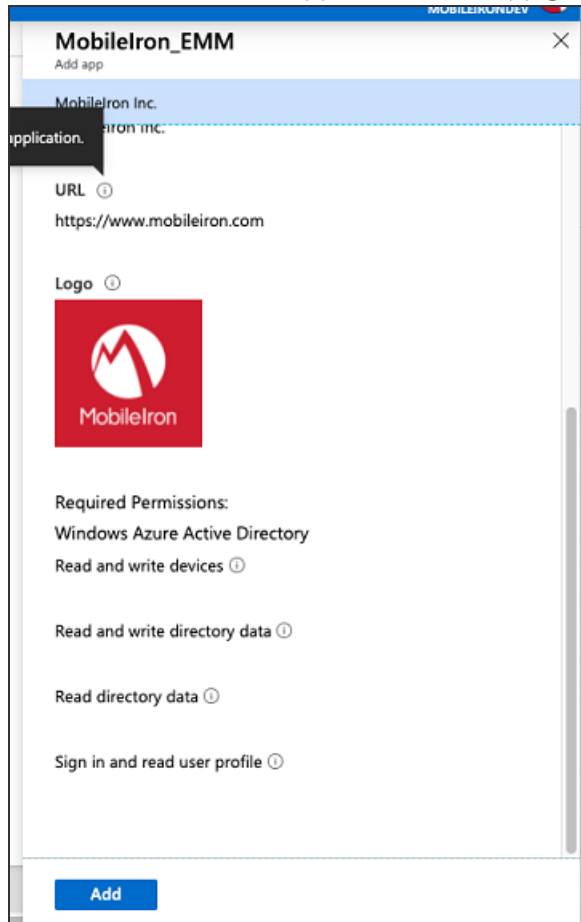
Azure Active Directory Windows 10 Unified Endpoint Management Setup

To setup Windows 10 Unified Endpoint Management (UEM):

1. Login at <https://portal.azure.com> as admin user, and select Azure Active Directory.
2. Select "Mobility (MDM and MAM)" in the left panel and then click + **Add Application**.



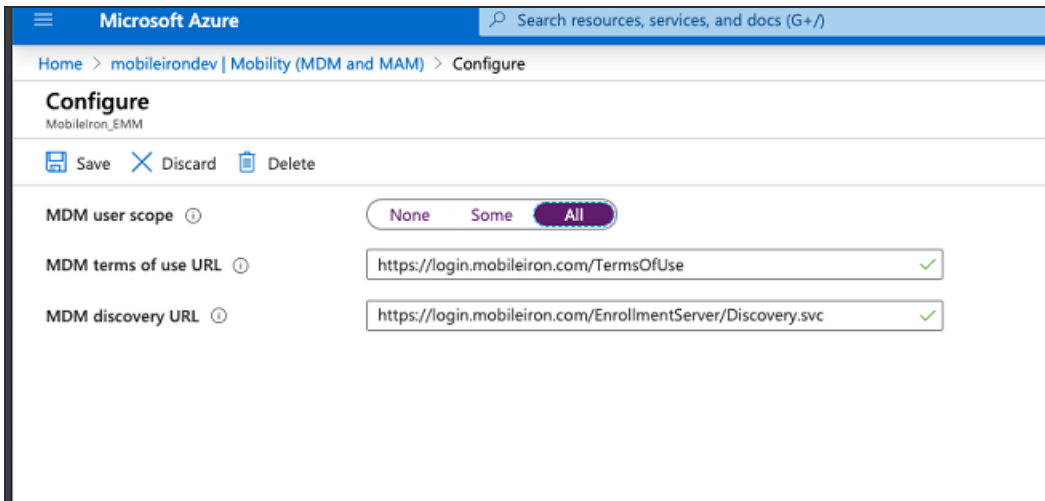
-
3. Select MobileIron_UEM application from App gallery and click **Add**.



Assigning AAD UEM app

To complete the assign user setup:

1. Click the MobileIron UEM app you created in Step 2 in "[Azure Active Directory Windows 10 Unified Endpoint Management Setup](#)" on page 1239
2. Under MDM user scope, assign it to your customized user groups or select **All**.



Connect Ivanti Neurons for MDM with Azure Active Directory User Source

To work with Azure Active Directory (AAD), you must configure Ivanti Neurons for MDM with details about your Microsoft AAD account. You require an existing and configured Microsoft AAD account. This solution requires no on-premise connector or LDAP.

This section contains the following topics:

- ["Use cases" below](#)
- ["Using Azure Active Directory" on the next page](#)
- ["Azure Active Directory Settings" on the next page](#)

Use cases

You can connect Ivanti Neurons for MDM with AAD for one of the following use cases:

- Work with Microsoft Office 365
- Set up Microsoft AAD, Microsoft ADFS, or another SAML 2.0 Identity Provider (IdP) for user authentication
- Set up Microsoft AAD as your user source
- Sync users from Microsoft AAD and get started. All users and groups in your AAD domain will be synced to your Ivanti Neurons for MDM instance

A notification is displayed in the **Notifications** page if there is an error in AAD sync due to the following reasons:

- AAD service is unreachable
- All user attributes are not synchronized with AAD
- Some user attributes are not synchronized with AAD



- Environments with multiple IdPs are currently not supported.
 - If you are not using Microsoft AAD as your user source, you can use Local Accounts or source users from LDAP. This requires setting up an Ivanti Neurons for MDM connector to access LDAP resources on-premise.
 - Using Microsoft AAD only for user authentication and using an on-premise LDAP for user directory is currently not supported.
-

Using Azure Active Directory

To use AAD, set up your Identity Provider for user authentication in one of the following methods:

- To use Microsoft AAD for both user source and user authentication, setup AAD as your IdP. Go to **Admin > Identity > Ivanti Neurons for MDM IdP Setup** and select **AAD** from the menu.
- To use Microsoft AAD for user source and to use ADFS for user authentication, setup ADFS as your IdP. Go to **Admin > Identity > On-Prem IdP Setup** and select ADFS from the menu.
- To use a SAML 2.0 IdP other than AAD and to use ADFS for user authentication, go to **Admin > Identity > Generic IdP Setup** and follow the instructions on the page.

For more information, see ["Configure Identity Provider" on page 1145](#).

Azure Active Directory Settings

This topic helps you configure the Azure Active Directory settings from the Ivanti Neurons for MDM.

Procedure

1. Go to **Admin > Microsoft Azure > AAD User Source**.
2. Specify the following details:
 - a. **AAD Name**.
 - b. **Sync Interval** - Modify the frequency that Ivanti Neurons for MDM synchronizes user data from your AAD.
 - c. **Enable this AAD** - Use this option to enable or disable AAD instance.

-
- d. Select **Automatically invite users imported from AAD** - Manage whether users imported from AAD to Ivanti Neurons for MDM are automatically invited to register via email.
 - e. Select **Managed Apple ID** - Choose to sync Managed Apple ID for the AAD users.
 - **None**
 - **Pattern** -
 - **User email address**
 - **userUPN**
 - (Optional) select the Include "appleid" subdomain option to avoid conflict with existing Apple IDs.
 - f. (Optional) Click **Add Custom Attribute** - Specify custom user attributes from your directory service that you want to apply to device management. Each attribute can then be referenced by \${attributeName} in configuration fields that support variables. Use of this option requires consistent implementation of custom attributes across AAD servers. If an AAD server included in your implementation does not use this attribute, then features dependent on this attribute might not work as expected.
3. Click **Save** after modifying the AAD settings.

Azure Tenant

This section contains the following topics:

- ["This section describes setting up Ivanti Neurons for MDM with Microsoft Azure Tenant." on page 1246](#)
- ["Apply the Intune license to device users" on page 1248](#)
- ["Adding MobileIron as a compliance partner" on page 1249](#)
- ["Creating a conditional access policy in Microsoft Endpoint Manager" on page 1253](#)
- ["Connecting Microsoft Azure to Ivanti Neurons for MDM" on page 1258](#)
- ["Creating a partner device compliance policy" on page 1260](#)
- ["Device status reporting from Ivanti Neurons for MDM to Azure" on page 1263](#)
- ["De-provisioning of the Azure tenant" on page 1266](#)

This section describes setting up Ivanti Neurons for MDM with Microsoft Azure Tenant.

Requirements

Microsoft

Ivanti Neurons for MDM customers must have a valid subscription to Microsoft Intune and assign a Microsoft Intune license to device users.

MobileIron

- Ivanti Neurons for MDM - Ivanti Neurons for MDM version 75 through the latest version as supported by MobileIron.
- Additional licensing - Azure Device Compliance is a Premium offering and is available to [Secure UEM Premium](#) and Platinum customers. A Platinum license suffices for existing customers.
- Go for iOS (client) or Go for Android (client) version 75.0 through the latest version as supported by MobileIron.

Multiple Ivanti Neurons for MDMs support

If you have multiple Ivanti Neurons for MDMs connected to the same Azure tenant, disconnect from all Ivanti Neurons for MDMs or disable compliance policy for AAD compliance integration from a specific (single) Ivanti Neurons for MDM so that it does not upload device data to Azure



Be sure to disable the compliance policy prior to disconnecting Ivanti Neurons for MDM.

Ivanti Neurons for MDM administrator's process

The process from the Ivanti Neurons for MDM administrator's perspective:

1. Administrator applies Intune licenses to device users. See ["Apply the Intune license to device users" on page 1248](#).
2. Administrator logs into Azure Portal.
3. Administrator adds MobileIron as an Azure compliance partner. See ["Adding MobileIron as a compliance partner" on page 1249](#).

-
4. Administrator creates the Conditional Access policy for the apps. See "[Creating a conditional access policy in Microsoft Endpoint Manager](#)" on page 1253.
 5. Administrator sets up the connection between MobileIron and Azure. See "[Connecting Microsoft Azure to Ivanti Neurons for MDM](#)" on page 1258.
 6. Administrator creates the device compliance policy in Ivanti Neurons for MDM. See "[Creating a partner device compliance policy](#)" on page 1260.
 7. The Conditional Access policy goes into effect. Depending upon whether the device is compliant or not, the access to the app(s) is granted or denied.



Ivanti recommends the administrator run tests on each Microsoft app.

Apply the Intune license to device users

- Do not use this feature if:
 - you are changing users or administering situations where users are likely to change
 - the device is owned by multiple users
- Ivanti recommends you do not perform **Assign to User**, and do not distribute the device compliance configuration to multi-user devices such as:
 - devices with Secure Sign-In WebClip
 - shared iPad devices
 - Android Kiosk mode devices

Ivanti Neurons for MDM license requirements

Device Compliance is a Premium offering and is available to Secure UEM Premium and Platinum customers. For existing customers, a Platinum license suffices.

Assign bulk licenses to device users

To bulk assign licenses to existing device users:

Group based assignment

<https://docs.microsoft.com/en-us/azure/active-directory/users-groups-roles/licensing-groups-assign>

PowerShell based assignment

<https://docs.microsoft.com/en-us/microsoft-365/enterprise/assign-licenses-to-user-accounts-with-microsoft-365-powershell?view=o365-worldwide>

Adding MobileIron as a compliance partner

Prerequisites

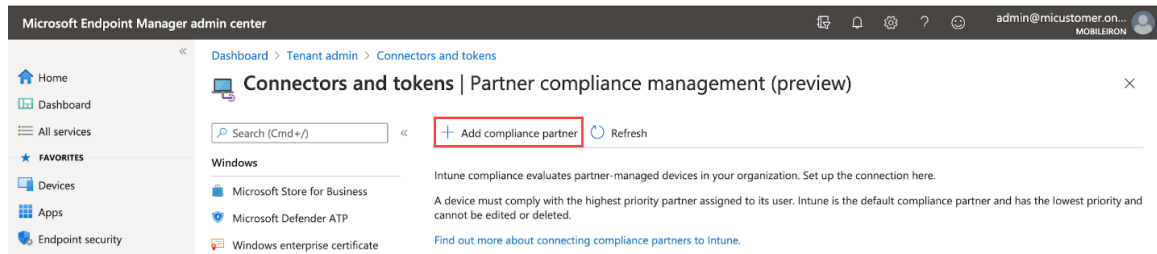
- installed a Microsoft Intune license. See ["Apply the Intune license to device users"](#) on page 1248.
- users created in Microsoft Azure
- groups created in Microsoft Azure

Procedure

1. Login into: <https://endpoint.microsoft.com>.
2. In the left panel of the Microsoft Endpoint Manager admin center page, click on **Tenant Administrator**. Click **Connectors and Tokens > Partner Compliance Management**.

The screenshot shows the Microsoft Endpoint Manager admin center interface. The breadcrumb path is Dashboard > Tenant admin > Connectors and tokens. The main heading is 'Connectors and tokens'. On the left, there is a navigation pane with categories like Home, Dashboard, All services, and FAVORITES. Under FAVORITES, there are links for Devices, Apps, Endpoint security, Reports, Users, Groups, Tenant administration, and Troubleshooting + support. The main content area is divided into sections: Windows, Apple, Android, Cross platform, and macOS. The 'Partner compliance management...' connector under the Cross platform section is highlighted with a red box. To the right of the connectors, there are sections for 'Intune complia...', 'Android', 'iOS', and 'macOS', each with a 'Priority' field set to '1' and a 'Default' field.

- To the right of the Search field, click **+ Add compliance partner**.



- In the Basics tab, select **MobileIron Device Compliance Cloud** from the drop-down of the Compliance partner field.

[Home](#) > [Tenant admin](#) > [Connectors and tokens](#) >

Create Compliance Partner

1 Basics 2 Assignments 3 Review + create

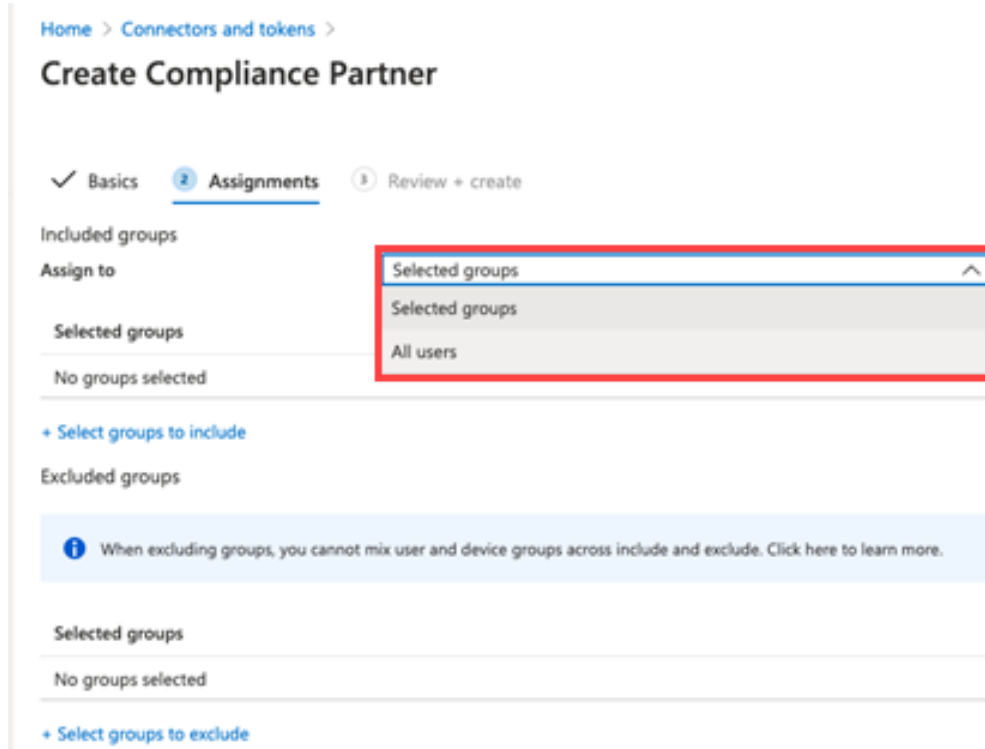
Compliance partner *

MobileIron Device Compliance Cloud

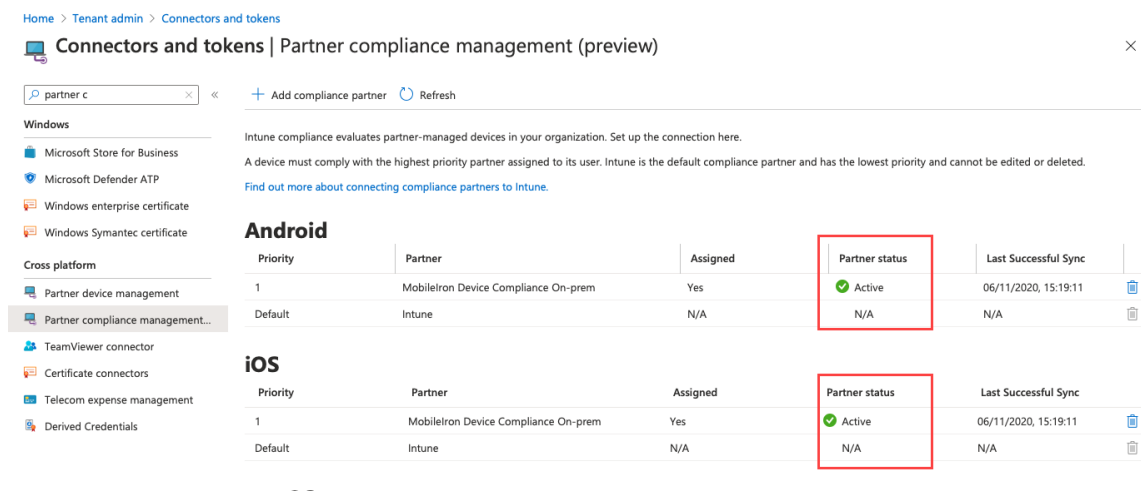
Platform *

Android

- In the Platform field, select iOS or Android and then click **Next**.
- Click the **Assignments** tab. In the Assign to drop-down, select the user / group of device users the compliance status is for. Select the user / group that has the license.



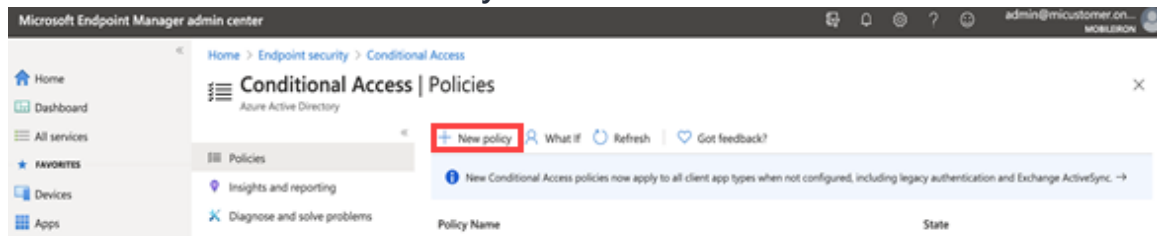
- Select **Next**.
- Click **Create**. The new compliance partner appears on the Partner compliance management page.



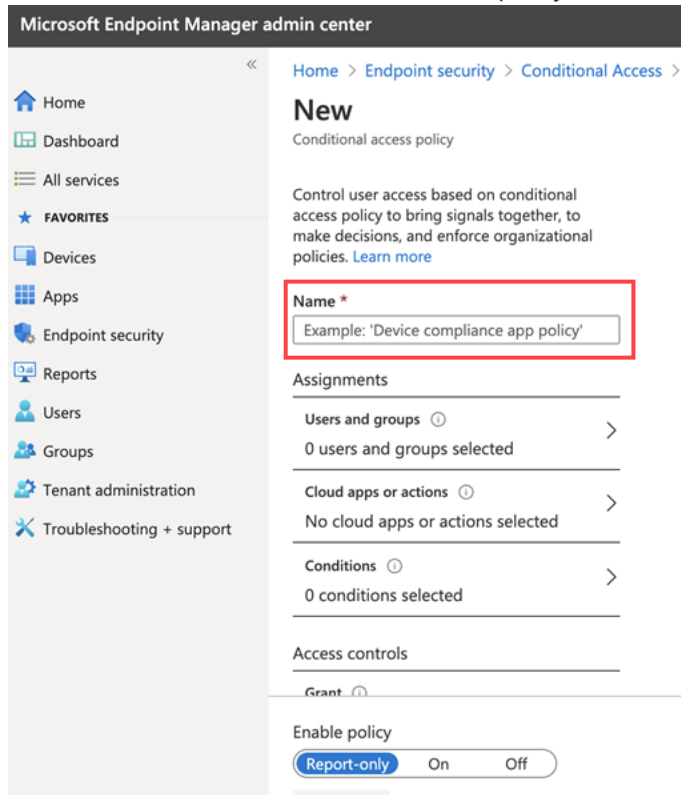
Creating a conditional access policy in Microsoft Endpoint Manager

Procedure

1. Log in to Microsoft Endpoint Manager <https://endpoint.microsoft.com>.
2. In the Microsoft Endpoint Manager admin center page, go to **Home > Endpoint Security > Conditional Access**.
3. Click Policies and then click **+ New Policy**.



4. Enter the Name of the conditional access policy.



5. In Assignments, click to assign the policy to users and groups.

[Home](#) > [Endpoint security](#) > [Conditional Access](#) >

New

Conditional access policy

Control user access based on conditional access policy to bring signals together, to make decisions, and enforce organizational policies. [Learn more](#)

Name *

Example: 'Device compliance app policy'

Assignments

Users and groups ⓘ **!** >

Specific users included

Cloud apps or actions ⓘ **!** >

No cloud apps or actions selected

Conditions ⓘ >

0 conditions selected

Control user access based on users and groups assignment for all users, specific groups of users, directory roles, or external guest users [Learn more](#)

Include Exclude

None

All users

Select users and groups

All guest and external users ⓘ

Directory roles ⓘ

Users and groups

- Click **Cloud apps or actions** and then click **Select**. Search for and select the apps required to be protected.

Home > Endpoint security > Conditional Access >

New

Conditional access policy

Control user access based on conditional access policy to bring signals together, to make decisions, and enforce organizational policies. [Learn more](#)

Control user access based on all or specific cloud apps or actions. [Learn more](#)

Select what this policy applies to

Cloud apps User actions

Name *

Example: 'Device compliance app policy'

Assignments

Users and groups 0 users and groups selected

Cloud apps or actions **No cloud apps or actions selected**

Conditions

Select

Cloud apps

Search

- Office 365 (preview)
- Azure Analysis Services
- Azure Media Service
- azure-tenant-validation-app
- Common Data Service

Selected items

- Office 365 (preview) Remove

- Click **Conditions** and then click **Device Platform**. Select the appropriate device platforms.

Home > Endpoint security > Conditional Access >

New

Conditional access policy

Control user access based on conditional access policy to bring signals together, to make decisions, and enforce organizational policies. [Learn more](#)

Control user access based on signals from conditions like risk, device platform, location, client apps, or device state. [Learn more](#)

Name *

Example: 'Device compliance app policy'

Assignments

Users and groups 0 users and groups selected

Cloud apps or actions No cloud apps or actions selected

Conditions 0 conditions selected

User risk (Preview) Not configured

Sign-in risk Not configured

Device platforms Not configured

Locations Not configured

Client apps Not configured

Device platforms

Apply policy to selected device platforms. [Learn more](#)

Configure Yes No

Include Exclude

- Any device
- Select device platforms
 - Android
 - iOS
 - Windows Phone
 - Windows
 - macOS

-
8. In the **New conditional access policy page** > **Access controls**, click **Grant** and make the access and block selections.

Grant ✕

Control user access enforcement to block or grant access. [Learn more](#)

Block access

Grant access

Require multi-factor authentication ⓘ

Require device to be marked as compliant ⓘ

Require Hybrid Azure AD joined device ⓘ

Require approved client app ⓘ
[See list of approved client apps](#)

Require app protection policy (Preview) ⓘ
[See list of policy protected client apps](#)

Require password change (Preview) ⓘ

For multiple controls

Require all the selected controls

Require one of the selected controls

9. To enable the new policy, click **On**.

Enable policy

Report-only **On** Off

Create

10. Click **Create**.

Connecting Microsoft Azure to Ivanti Neurons for MDM

Procedure

1. Log in to Ivanti Neurons for MDM and go to **Admin > Microsoft Azure**.
2. In the left navigational pane, click **Microsoft Azure > Device Compliance**.
3. Scroll to the **Device Compliance for iOS, macOS and Android** section. Click **Setup Account**.
4. Under the Connect Account section, provide the following details:
 - **Azure Tenant ID** - Find in your Microsoft Azure instance.
 - **Enrollment URL** - (Optional) If the device is not MDM enrolled, device users will be pointed to this URL for enrollment. When configuring, use HTTPS format. If you host a page in your organization to redirect your device users for Enrollment information, add that link here.
 - **Remediation URL** - (Optional) If the device is not in compliance, device users will be pointed to this URL for remediation. When configuring, use HTTPS format. If you host a page in your organization to redirect your device users for Remediation information, add that link here.
5. Click **Connect Account**. The Connect Azure Account dialog box opens.



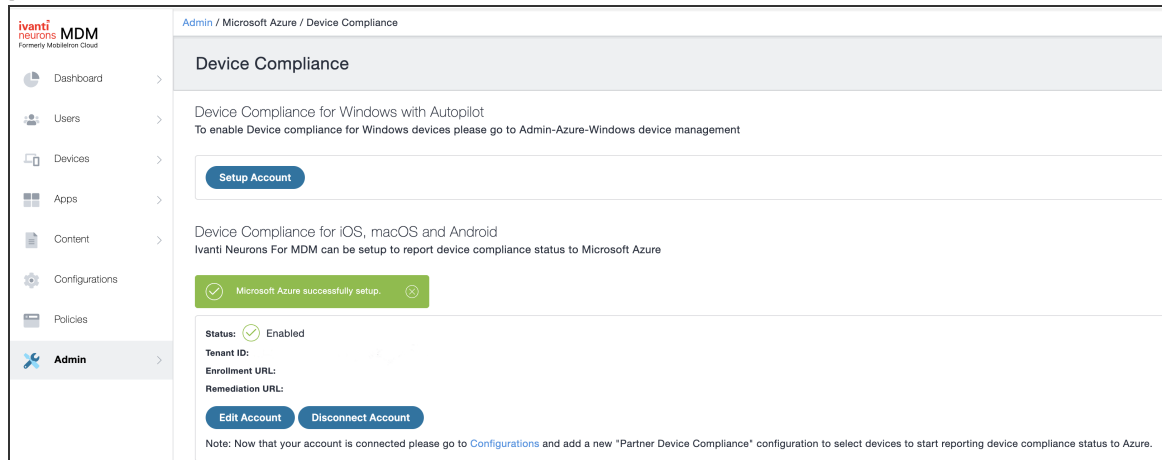
Existing tenants that have already connected with Azure, and want to add device compliance for macOS devices, have to disconnect the account, and re-establish the connection.

6. In the Connect Azure Account dialog, click the **link** present in Step 1.
7. **Log in**.
8. Review the permissions and then click **Accept**.



If you log in and the page prompts you to log in again, close the browser tab/ window.

- Return to Ivanti Neurons for MDM. In the Connect Azure Account dialog box, select the **I have provided the consent** check box. Click **Confirm**.



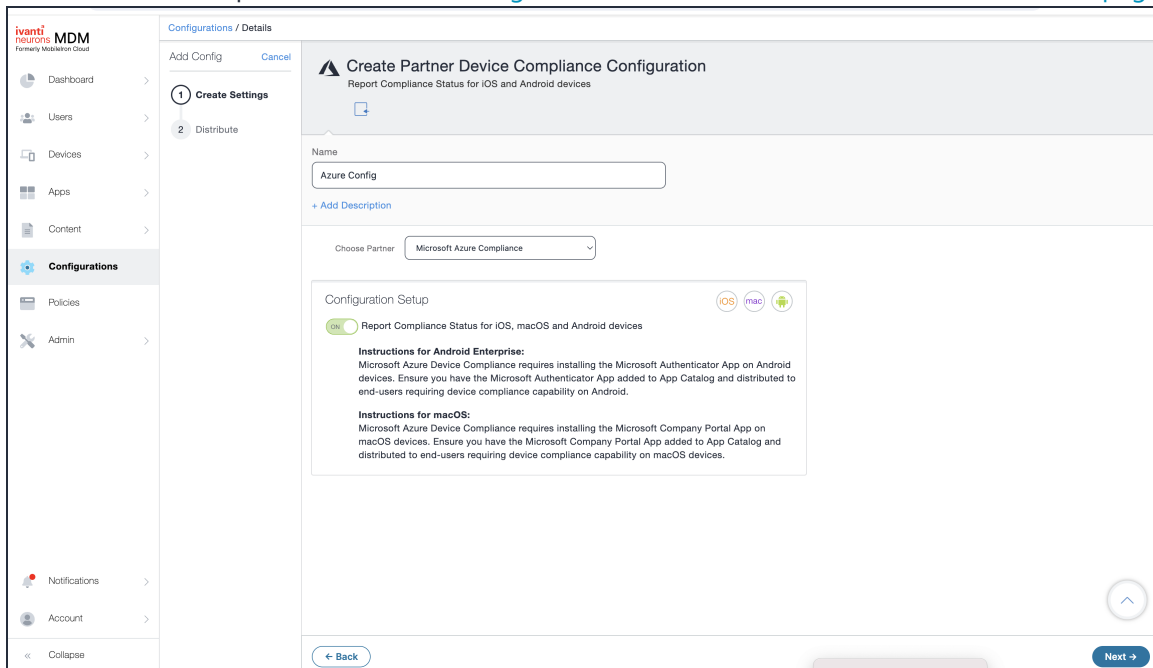
- To edit the account, click **Edit Account**.
- To disconnect the account, click **Disconnect Account**. For additional instructions, see "[De-provisioning of the Azure tenant](#)" on page 1266.
- All activity of adding, editing, and deactivating an account are recorded in the Logs.

Creating a partner device compliance policy

Create a partner device compliance policy in Ivanti Neurons for MDM and apply the desired label. The partner compliance policy reports the device compliance status to Azure or BeyondCorp for conditional access.

Prerequisites

You must have an Azure Tenant ID or a Google BeyondCorp ID set up. For more information about Azure Partner Device Compliance, see "[Connecting Microsoft Azure to Ivanti Neurons for MDM](#)" on page 1258.



Procedure

1. Log in to the Ivanti Neurons for MDM, go to **Configurations**.
2. Click **Add** and search for the **Partner Device Compliance** configuration.

3. Enter the following details on the **Create Partner Device Compliance Configuration** page:

Item	Description
Name	Enter a name.
+ Add Description	Enter an explanation.
Choose Partner	Select Microsoft Azure Compliance , or Google BeyondCorp Compliance - Beta .
Configuration Setup Report Compliance Status to Azure for iOS, macOS, and Android devices	<p>Toggled ON by default. If you do not see this field, you need to set up your Azure Tenant ID.</p> <p>If the Report Compliance Status for iOS, macOS, and Android devices option is enabled, and the compliance policy is applied to the client, the client will display "Microsoft 365 Access" in the devices under Settings. The compliance status of the device is reported when:</p> <ul style="list-style-type: none">• device is out of compliance• the device is compliant• the device returns to compliance• 24 hours passes. If there is no change in the status, a report is sent once a week / every seven days.
Report Compliance Status to Google BeyondCorp for iOS, macOS and Android devices	<p>Toggled ON by default.</p> <p>The compliance status of the device is reported when:</p> <ul style="list-style-type: none">• device is out of compliance• the device is compliant• the device returns to compliance• 24 hours passes. If there is no change in the status, a report is sent after every 24 hours.

4. Click **Next**.

5. **Enable this configuration** is selected by default.

-
6. Select a distribution level for the configuration. For more information about configuration distribution, see ["Adding a configuration" on page 425](#).
 7. Click **Done**.

Device status reporting from Ivanti Neurons for MDM to Azure

For the following cases, Ivanti Neurons for MDM reports device inventory and compliance status.

- On-device compliance state change
- On-device inventory change
- Once a week, Ivanti Neurons for MDM reports compliance and inventory status

Depending on the action chosen in the compliance policy, the following device status will be sent:

TABLE 2. ACTIONS IN COMPLIANCE POLICY

Action (most restrictive one applies)	What Ivanti Neurons for MDM sends
Block Email, AppConnect Apps, Quarantine	Device Non-compliant
Send Alert	Compliant to Azure
Retire device	Device data removed from Azure platform

Device Details page

To view the Azure information about the device, go to the Device Details page. The description of the fields and their possible values:

TABLE 3. AZURE DEVICE DETAILS

Field	Description
Azure Device Identifier	<p>The device ID reported by Microsoft to the iOS or Android device. For example: 007c8232-9489-4074-9b35-345b16f0a72d. Ivanti Neurons for MDM receives this device ID as device users are required to register to Microsoft Authenticator application to use this feature.</p> <p>If unable to retrieve the Device ID, this field is left blank.</p>
Azure Device Compliance Status	<p>Lists the device's compliance status in Azure. Possible values:</p> <ul style="list-style-type: none"><li data-bbox="721 688 889 720">• In-progress<li data-bbox="721 762 870 793">• Successful<li data-bbox="721 835 818 867">• Failed

TABLE 3. AZURE DEVICE DETAILS (CONT.)

Field	Description
Azure Client Status Code	<p>Indicates whether device is connected to Azure. Possible values:</p> <ul style="list-style-type: none">• Success - Able to retrieve device ID.• Internal_Error - An unrecoverable error occurred either within the client or on server side.• Workplace_Join_Required - Registration of device required. Device user can mitigate this status.• Interaction_Required - An interactive log-in is required. Device user can mitigate this status.• Server_Declined_Scopes - Some scopes were not granted access to.• Server_Protection_Policies_Required - The requested resource is protected by an Intune Conditional Access policy.• User_Canceled -The device user cancelled the web Auth session by tapping the "Done" or "Cancel" button in the web browser.• Account_logged_out - Account logged out.
Azure Device Compliance Report Time	<p>The time Ivanti Neurons for MDM reported the device compliance status to Microsoft Intune. A blank field indicates one of the following:</p> <ul style="list-style-type: none">• that feature is disabled• Ivanti Neurons for MDM received the data and has yet to call the Microsoft API• there is an error such as user_Cancelled or Internal Error

De-provisioning of the Azure tenant

If multiple Ivanti Neurons for MDMs are enabled to use the same Azure tenant, de-provision from all Ivanti Neurons for MDMs. If a single Ivanti Neurons for MDM needs to stop using Azure, you can disable the partner compliance policy for that Ivanti Neurons for MDM only.

If the administrator performs a disconnect on Ivanti Neurons for MDM, then Ivanti Neurons for MDM stops reporting the device inventory and compliance status to Azure.

Prerequisites

- make sure all the devices as unmanaged
- make sure all the devices as non-compliant

Procedure

Microsoft

1. Log in to Microsoft Azure.
2. Go to **Intune > Conditional Access**. Make sure the conditional access policy is disabled.

Ivanti Neurons for MDM

1. Log in to Ivanti Neurons for MDM and go to **Admin**.
2. In the left navigational pane, click **Microsoft Azure > Device Compliance for iOS & Android**.

3. Click on **Disconnect Account**.



Are you sure you want to disconnect your Azure account? Please be aware that this action can not be undone and all Azure device compliance policies currently being distributed to devices will be removed once account is disconnected.

Note: Please make sure to delete/update Conditional Access Policy in Azure, to avoid blocking users from accessing cloud resources.



4. Click **Yes**.

Retiring a device from Azure

Upon device retirement, Ivanti Neurons for MDM reports to Azure that the device is no longer under management and is non-compliant.

Azure deletes the retired device entry after 90 days.

Azure account activity recorded in the logs

All activity is recorded in the Logs.

The screenshot shows the "Audit Trails" section of a management console. It includes a search bar, a "3 Flows" indicator, and a "Show: Expanded View" dropdown. A "Click here to configure Audit Trail Export Setting" button is also present. Below these are filter options for "Filter by Date Range" (with "Start Date" and "End Date" inputs) and "Category" (with a dropdown menu). The main area is a table with columns: ACTIVITY, STATUS, PERFORMED BY, PERFORMED AT, PERFORMED ON, DETAILS, and BEFORE/AFTER. The table contains three rows of activity logs.

ACTIVITY	STATUS	PERFORMED BY	PERFORMED AT	PERFORMED ON	DETAILS	BEFORE/AFTER
'Intune_Device-compliance' Config deleted	Success	[Redacted]	2020-12-11 07:54:07 AM IST	[Redacted]	Status: Enabled	
'Intune_Device-compliance' Config added	Success	[Redacted]	2020-12-11 07:53:46 AM IST	[Redacted]	Status: Enabled	
Admin logged in	Success	[Redacted]	2020-12-11 07:45:20 AM IST	[Redacted]	Last logged in at 2020-12-11 02:13:09 AM UTC	

Admin > Microsoft Azure > Office 365 App Protection

License: Gold

You can set up Office 365 App Protection policies to help protect your company's data. The policies enforce Data Loss Prevention (DLP) controls for Microsoft Office 365 apps using Microsoft Graph APIs. Some of these Graph APIs allow administrators to enforce app protection for native iOS and Android apps that leverage the Graph SDK.

Use this feature to enforce policies such as:

- Prevent users printing from Office 365 apps.
- Preventing outbound data sharing from Office 365 apps.
- Enforce PIN for Office 365 apps.
- Disable Contacts sync from Office 365 apps.

Prerequisites for using Office 365 App Protection

Before you can use Office 365 App Protection, you must have:

- A valid MobileIron license.
- Office 365 App Protection Feature enabled in Ivanti Neurons for MDM
- Intune subscription or an Microsoft EMS subscription that includes Intune.
 - Each use to which the policy is applied to requires a license, however to enable and test the integration requires only a single license.
- A valid Office Enterprise or Business subscription with access to Office 365 apps on a mobile device.
- One or more Office 365 apps.
- Synced your Active Directory users to your Azure Active Directory.
- One Drive for Business installed on devices to protect data on Word, Excel, and PowerPoint. This is not mandatory.

-
- Access to Microsoft Azure portal (<https://portal.azure.com/>) to configure intune app protection policies.
 - Intune Company Portal app installed on Android devices.
Device users are not required to sign in, but this app must be installed on the device to protect data on device. Protection will be applicable when the user signs in to the app.

Registering MobileIron as an Azure app

This topic describes how to register and store your Azure tenant credentials with Ivanti Neurons for MDM software and to remotely manage app protection policies in the Microsoft Azure cloud for Android and iOS Office 365 apps. Though not necessary, you may open two browsers to perform the steps in the following procedures. Use the first browser to log into the Microsoft Azure portal. Use the second browser to log into the Ivanti Neurons for MDM Admin portal.

Procedure for Microsoft Azure Portal



Microsoft may change the Azure portal user interface from time to time. These instructions assume that you are familiar with the Microsoft Azure Portal and can make necessary adjustments as you register MobileIron as an Azure app.

1. Open the first browser and log into the Microsoft Azure portal (<https://portal.azure.com/>).
 2. Click **App registrations** on the left pane.
 3. Click **+New application registration**.
 4. Enter the following information to register MobileIron as an Azure app.
 - **Name:** Enter a name for the MobileIron app. (This field is required with a minimum of 4 characters.)
 - **Application Type:** Select Web app / API.
 - **Sign-on URL:** Enter the URL device users access to sign into MobileIron (required).
 5. Click **Create** on the bottom of the pane to add the app and return to the Azure home page.
 6. Click the newly created MobileIron app in the Azure home page.
 7. Return to the Azure home page to assign permissions to the MobileIron Azure app.
-

-
8. To set required API permissions for the newly created MobileIron app, click the app name under App Registrations.
 9. Click **API permissions > Add a permission**.
 10. In the **Microsoft Graph > Delegated Permissions > Device Management Apps** section, select the **DeviceManagementApps.Read.All** permission and click **Save**. By default, the user.Read permission is enabled for the app.
 11. To grant access, click **Grant admin consent for MobileIron**.
 12. Perform the following procedure for Ivanti Neurons for MDM admin portal.

Procedure for Ivanti Neurons for MDM Admin Portal

1. Open the second browser and log into the Ivanti Neurons for MDM admin portal.
2. Go to **Admin > Microsoft Azure > Office 365 App Protection**.
3. Paste **Application ID** in the Ivanti Neurons for MDM admin portal.

Procedure

- a. Go to the Azure portal.
 - b. Select the MobileIron app > **Properties**.
 - c. Copy the **Application ID**.
 - d. Return to **Admin > Microsoft Azure > Office 365 App Protection** on the Admin Portal.
 - e. Paste it into the **Application ID** field.
4. Paste the **Application Secret** (Client Secret) in the Ivanti Neurons for MDM admin portal.

Procedure

- a. Go to the Azure portal.
- b. Select the MobileIron app.
- c. Click **Keys** and enter a name in **Key description** and select an expiration time-period in **Duration**.

-
- d. Click **Save** and copy the **Key** value.
 - e. Return to **Admin > Microsoft Azure > Office 365 App Protection** on the Admin Portal.
 - f. Paste it into the **Application Secret** (Client Secret) field.
5. Paste the **Tenant ID** in the Ivanti Neurons for MDM admin portal.

Procedure

- a. Go to the Azure portal.
 - b. Click Azure Active Directory in the left pane then click Properties.
 - c. Copy the Directory ID.
 - d. Return to **Admin > Microsoft Azure > Office 365 App Protection** on the Admin Portal.
 - e. Paste it into the **Tenant ID** field.
6. Enter your Intune admin **Username** and **Password**.
 - The Azure account should have either global admin rights or limited admin + Intune service administration rights.
 - Ivanti recommends creating a local Azure account with just the Intune service administration rights. User accounts that are federated to an identity provider are not supported by Microsoft for authentication with the Graph API's.
 - The account cannot have any MFA requirements. This will cause authentication to fail.
 7. Click **Authenticate and Save**.

If the date submitted is incorrect, an error message is displayed.

Policies for Office 365 App Protection

After configuring Microsoft Graph credentials, go to **Apps > Office 365 App Protection** to add new Office 365 App Protection policies for iOS or Android devices for different user groups.

The policies are listed on the **Apps > Office 365 App Protection** page, under the **App Policies** tab. This list of policies provides tabular details such as the updated time stamp, platform, apps assigned, and user groups deployed.

Adding an Office 365 App Protection policy for iOS devices

Procedure

1. Go to **Apps > Office 365 App Protection**.
2. Click **App Policies > + Add**.
3. Enter a **Name** and an optional **Description** for the policy.
4. Under Choose OS, click **iOS**.
5. Under **Data Relocation**, select from the following settings and options:
 - Prevent iTunes and iCloud backups
 - Allow app to transfer data to other apps - All apps (default), Policy managed apps, None
 - Allow app to receive data from other apps - All apps (default), Policy managed apps, None
 - Prevent "Save As"
 - Restrict cut, copy and paste with other apps - Any app (default), Blocked, Policy managed apps, Policy managed with paste in
 - Restrict web content to display in the Managed Browser
 - Encrypt app data - When device is locked (default), When device is locked and there are open files, After device restart, Use device settings
 - Disable contact sync
 - Disable printing
6. Under **Access**, select from the following settings and options:
 - Require PIN for access
 - Number of attempts before PIN resets (default 5)
 - Allow simple PIN
 - PIN length (default 4)
 - Allow Fingerprint instead of PIN (iOS 8+)

-
- Disable app PIN when device PIN is managed
 - Require corporate credentials for access
 - Block managed apps from running on jailbroken or rooted devices
 - Recheck access requirements after (Minutes)
 - Timeout - Must be a value between 1 and 65535 (default 30)
 - Offline - grace period Must be a value between 1 and 65535 (default 720)
 - Offline interval (days) before app data is wiped - Must be a value between 1 and 65535 (default 90)
 - Require minimum iOS operating system
 - Require minimum iOS operating system (Warning only)
 - Require minimum app version
 - Require minimum app version (Warning only)
 - Require minimum Intune app protection policy SDK version
7. Click **Next**.
 8. Select and assign apps that this policy will apply to.
 9. Click **Next**.
 10. Select user groups that this policy will apply to.
 11. Click **Done**.

Adding an Office 365 App Protection policy for Android devices

Procedure

1. Go to **Apps > Office 365 App Protection**.
2. Click **App Policies > + Add**.
3. Enter a **Name** and an optional **Description** for the policy.

4. Under Choose OS, click **Android**.

5. Under **Data Relocation**, select from the following settings and options:

- Prevent Android backups
- Allow app to transfer data to other apps - All apps (default), Policy managed apps, None
- Allow app to receive data from other apps - All apps (default), Policy managed apps, None
- Prevent "Save As"
- Restrict cut, copy and paste with other apps - Any app (default), Blocked, Policy managed apps, Policy managed with paste in
- Restrict web content to display in the Managed Browser
- Encrypt app data
- Disable app encryption when device encryption is enabled
- Disable contact sync
- Disable printing

6. Under **Access**, select from the following settings and options:

- Require PIN for access
- Number of attempts before PIN resets (default 5)
- Allow simple PIN
- PIN length (default 4)
- Allow Fingerprint instead of PIN (Android 6+)
- Disable app PIN when device PIN is managed
- Require corporate credentials for access
- Block managed apps from running on jailbroken or rooted devices
- Recheck access requirements after (Minutes)
 - Timeout - Must be a value between 1 and 65535 (default 30)
 - Offline - grace period Must be a value between 1 and 65535 (default 720)
 - Offline interval (days) before app data is wiped - Must be a value between 1 and 65535 (default 90)
- Block screen capture and Android assistant
- Require minimum Android operating system
- Require minimum Android operating system (Warning only)
- Require minimum app version
- Require minimum app version (Warning only)
- Require minimum Intune app protection policy SDK version

7. Click **Next**.

8. Select the apps that this policy will apply to.

9. Click **Next**.

10. Select the user groups that this policy will apply to.

-
11. Click **Done**.

Modifying an Office 365 App Protection policy

Procedure

1. Go to **Apps > Office 365 App Protection**.
2. Click **App Policies**.
3. Click the name of the policy you want to modify.
4. On the policy details page, click **Edit**.
5. Modify the policy configuration settings.
6. Click **Next**.
7. Modify the list of apps that this policy will apply to.
8. Click **Next**.
9. Modify the user groups that this policy will apply to.
10. Click **Done**.

Deleting an Office 365 App Protection policy

Procedure

1. Go to **Apps > Office 365 App Protection**.
2. Click **App Policies**.
3. Under the **Actions** column, click the remove icon against the policy name you want to delete.
4. Click **Yes** to confirm.

Office 365 App Configurations

Go to the **Apps > Office 365 App Protection** page, under the **App Configuration** tab to add, modify, or delete Office 365 App Configurations for different user groups. In these app configurations, administrators can add a list of key-value pairs, and assign the configurations to one or more Office 365 apps. The App Configuration tab lists configurations with tabular details such as the updated time stamp, apps assigned, and deployment status.

Adding an Office 365 App Configuration

Procedure

1. Go to **Apps > Office 365 App Protection**.
2. Click **App Configuration > + Add**.
3. Enter a **Name** and an optional **Description** for the configuration.
4. Enter the key-value pairs.
5. Click **Next**.
6. Select the apps that this configuration will apply to.
7. Click **Next**.
8. Select the user groups that this configuration will apply to.
9. Click **Done**.

Modifying an Office 365 App Configuration

Procedure

1. Go to **Apps > Office 365 App Protection**.
2. Click **App Configuration**.
3. Click the name of the configuration you want to modify.
4. On the configuration details page, click **Edit**.
5. Alternatively, click either **App Distribution** or **User Group Distribution** tabs. Click **Edit** to modify only those settings and click **Save**.
6. Modify the configuration settings.
7. Click **Next**.
8. Modify the list of apps that this configuration will apply to.
9. Click **Next**.

-
10. Modify the user groups that this configuration will apply to.
 11. Click **Done**.

Deleting an Office 365 App Configuration

Procedure

1. Go to **Apps > Office 365 App Protection**.
2. Click **App Configuration**.
3. Under the **Actions** column, click the remove icon against the configuration name you want to delete.
4. Click **Yes** to confirm.

Out of compliance users with Office 365 apps

Administrators can review the list of users and their devices due to non-compliance. Use this page to wipe any Office 365 apps on such flagged devices.

Wiping Office 365 apps

Procedure

1. Go to **Apps > Office 365 App Protection**.
2. Click **Out of Compliance Users**.
3. Perform one of the following actions:
 - Select the users from the list and click **Wipe Office 365 Apps**.
 - Click the name of the user to display the list of devices that have out of compliance apps. Under the **Action** column, click **Wipe Office 365 Apps** icon against a specific device.
 - Click the name of the user to display the list of devices that have out of compliance apps. Click the name of a specific device to view the apps listed with bundle IDs / package names and the flagged reasons. Click **Wipe Office 365 Apps**.
4. Click **Yes** to confirm the action.

Alternatively, perform the following steps:

-
1. Go to **Users**.
 2. Click the name of the user to display the user details page.
 3. Click **Action > Wipe Office 365 Apps**.
 4. Select the devices from which the Office 365 apps need to be wiped.
 5. Click **OK** to confirm the action.

Canceling wipe requests of Office 365 apps

Procedure

1. Go to **Users**.
2. Click the name of the user to display the user details page.
3. Click the **Office 365 Protection** tab.
4. From the **Select Report Type** drop-down box, select the **Wipe Requests** report to display the corresponding information.
5. Select the devices from which the wipe requests need to be canceled. Only devices with the Wipe Pending status can be selected.
6. Click **Cancel Wipe**.
7. Click **OK** to confirm the action.

App reports for users with Office 365 App Protection

Administrators can select one of the following reports to review the list of users with Office 365 App Protection and related information:

- App Policy Report
- App Configuration Report
- Wipe Requests

Information in the App Reports includes Bundle ID / Package Name, Device Name, Device Type, Policies or Configurations (deployed to the device), Status (Synced, Synced but out of date, or Not Synced), and the time of Last Check-in. Information from the App Reports can be exported to a CSV file for later reference or analysis.

Information in the Wipe Requests report includes Display Name, User Name, Device Name, Device Type, and Wipe Status (Wipe Pending or Wipe Complete).

Perform the following steps to view one of the reports:

1. Go to **Users**.
2. Click the name of the user to display the user details page.
3. Click the **Office 365 Protection** tab.
4. From the **Select Report Type** drop-down box, select one of the reports to display the corresponding information.
5. (Optional) From the Wipe Requests report page, select the devices from which the wipe requests need to be canceled and click **Cancel Wipe**. Only devices with the Wipe Pending status can be selected.
6. (Optional) Click **Export to CSV** to download the report contents in a CSV file for later reference or analysis.

Connect with Google Apps

This section contains the following topics:

- ["Managed Google Play Accounts \(Android Enterprise Accounts\)" on page 1282](#)
- ["Android device registration" on page 1284](#)
- ["Android Management API" on page 1285](#)
- ["Google Apps API" on page 1294](#)
- ["Admin - Android Enterprise" on page 1295](#)

Managed Google Play Accounts (Android Enterprise Accounts)

License: Silver

Managed Google Play Accounts are required to enable use and configuration of Android Enterprise devices. You no longer have to use Google Apps Directory Sync (GADS) or use Google accounts to register devices.

Important: If you have already set up Android Enterprise, you must first retire those devices to be able to use this feature.

Configure Android Enterprise

Procedure

1. Log in to the Ivanti Neurons for MDM portal.
2. Go to **Admin > Google > Android Enterprise**.
3. Under **Managed Google Play Account**, click **Authorize Google** to display the Google Play for Work page.
4. Click **Get Started**.
 - Enter your company name.
 - Accept the Android Enterprise agreement.
5. Click **Confirm**.
6. Click **Complete Registration**.

When Android Enterprise is set up using managed Google Play Accounts, there is a limitation on the number of devices enrolled per user. To overcome this limitation, while creating a new user, select the **Android Enterprise device Account** option to enable Android Enterprise work managed device enrollments attached to this account to be automatically assigned a Google Device Account.

Device Accounts are intended for COSU (single-use) deployments (e.g., with Kiosk mode). Users with device accounts may have limited access to Google Play.

Occasionally, a managed Google Play account or its token expires for a variety of reasons like authentication token expiry or the account or enterprise being deleted. In such scenarios, Google Play

services will notify the client with a broadcast action that will trigger the client to re-provision the device by removing the existing account and adding an account with a new token obtained from the UEM server.

In case, account re-provisioning fails either because the old account could not be removed or due to many attempts at re-provisioning, user will be notified to start over again by retiring the client or factory resetting the device as the case may be depending on whether device is in work profile mode or in managed device mode, respectively.

Android device registration

During an Android device registration, if you require phone permissions from users which is required to report IMEI, phone number and other phone identifiers to complete registration, you can configure this option. When configured, the device users will be prompted to grant permission to allow Go client to access device identifiers.



This configuration is applicable only for new registrations of all Android devices with Android version above 6.0.

1. Select **Admin > Google > Registration**.
2. Select **Require Android device identifiers during registration (Work Profile & Device Admin)**.
3. Click **Save**.

Android Management API

Android Management API (AMAPI) is the Cloud Platform API from Google that integrates Google Android UEM functions to Ivanti Neurons for MDM. In the Android Enterprise setup, you can enable the Android Management API framework to manage Android Enterprise devices without the need to have a client app to be installed on the devices for device management. Currently, Go app is not supported to be pushed to the device for other features such as MTD, etc.

When you have an Android Enterprise account configured in your setup, you will be able to enable and use the Android Management API framework. After enabling, you can:

- Add an enrollment profile to use the QR code for device enrollment.
- Create a dedicated devices configuration (corporate-owned single-use, or COSU) for the enrolled device to serve a specific purpose.

Android Management API is currently supported only on devices running on Android version 9 or above that has Google Play installed and provisioned in Dedicated mode. The Corporate Dedicated mode is also referred to as Corporate Owned Single Use (COSU) mode and is a flavor of the device owner mode. This feature also supports the following device actions:

- Lock
- Reboot
- Sync to server
- Wipe

Device check ins are scheduled at regular intervals (hourly). But for immediate action, use the device action 'Sync to server' in the device details page. AMAPI devices do not send mandatory check-ins to Ivanti Neurons for MDM. Inventory updates are performed as and when there is an activity on the device.

Enabling Android Management API

To enable the Android Management API, go to **Admin > Android Enterprise > Authorize Google (needs a valid Google address) > Android Enterprise Enabled**.

The status of the enabled Android Management API feature (**Yes** for enabled and **No** for disabled) is also shown in the Device details page.





GSuite accounts are currently not supported with COSU.

Adding an Enrollment Profile

Enrollment profile is required to be created for enrolling Android device using the QR code scan or the alphanumeric string of the token. Enrollment Profiles can only be created when the Android Management API is enabled. You can also create custom device attributes to be associated with the enrollment profile.

1. Select **Admin > Android Enterprise > Enrollment Profiles**.
2. Configure the following settings in the **Enrollment Profile - Corporate Owned Dedicated Device** window.

Setting	Description
Name	Enter a name that identifies this enrollment profile.
Description	Enter a description that clarifies the purpose of this enrollment profile.
Username	<p>Enter the first few letters of a valid user name and select the one from the matching results that are displayed.</p> <hr/> <p> A valid user name could be from a local user or an LDAP user.</p> <hr/> <p>Enrollment profiles tag the devices enrolled using the QR code in the profile to be displayed as a device belonging to the user for whom the enrollment profile was created.</p>
Token Validity	Enter the number of days for the validity of the authentication token QR code scan. The number entered should be between 1 - 30. Device resets if you use the token or enrollment profile post the expiry period.
Custom Device Attributes	<p>In the Actions column click +Add New to add custom device attributes to be associated with the enrollment profile.</p> <ol style="list-style-type: none">a. Select the custom device attribute from the drop-down list in the Attribute name column.b. In the Value column, enter the value of the custom attribute.

Setting	Description
	<p>c. Click Save. The added custom device attribute is displayed in the table. To delete, click Delete options in the Actions column.</p> <hr/> <p> The custom attributes can only be added to an enrollment profile during profile creation. The attributes fields cannot be edited after the profile creation.</p> <hr/>

3. Click **Save**. The **Profile Summary** window shows the following token details:

- Name
- Description
- Username
- Token creation date
- Token expiry date
- Token value
- QR Code
- Custom Device Attributes.



Devices are reset if proper configuration for the device fails to be acquired within the time interval of 10 minutes post registration. In such cases, you should re-register using the enrollment token/QR code

When an enrollment profile is created, it is listed in the **Enrollment Profiles** page. You can perform any of the following actions on the **Actions** column.

- Click on the View icon to view the details of the enrollment profile in the Profile Summary window. The QR code is also displayed in this window.
- Click on the Edit icon to edit the details of the enrollment profile.




You can edit only the token validity. Other attributes cannot be edited.

- Click the Delete icon to delete the enrollment profile.
-

Creating the COSU configuration

Administrators can configure dedicated devices that can be used for a specific purpose using Android enterprise using the Dedicated devices (corporate-owned single-use, or COSU) configuration. The COSU configuration is distributed to Work Managed Devices (Device Owner mode) to provide only one app available to users in Kiosk mode. Devices that are in Work Profile on Company Owned Device are not supported.

Using this configuration, the admin can configure the devices to have the app pinned to the screen so that the Kiosk mode user cannot unpin this app and navigate away from the app to other screens of the device or use any other app on the device.

 Other apps can also be force-installed on the AMA device by selecting the "Install on device" option under Advanced Options & App Configuration, but you will not be able to interact with them while the Kiosk app is pinned to the screen via the configuration. For multi-app Kiosk, it is recommended to use the Kiosk functionality of Work Managed Device (device owner mode). This gives more control on apps and device settings and can also be extended to a multi-user mode.

Admins can make configuration changes such as allowing system navigation and the ability to use other apps pushed to the device for the end-user via the Google DPC by reviewing the various options based on the needs.

COSU configurations are determined by the priority assigned to them. The highest priority configuration is used in pushing the policy configuration to Google. COSU configurations are applied to devices within the defined space. It can be delegated to other spaces, if defined in default space.


To configure:


1. Go to **Configuration > +Add**.
2. In the **Lockdown & Kiosk: Android enterprise Configuration**, click **Dedicated devices (corporate-owned single-use, or COSU)**.
3. Enter a name for the configuration.
4. Enter a description.


5. You can configure the following settings by clicking the relevant tabs:


- **App settings**
- **General lockdowns**
- **Kiosk customization**
- **System Settings**

The following table provides the details of the configurable fields:

Setting	Description
App Setting	
App Name	<p>Select the app to be pinned on the device by typing the name of the app by typing the initial letter of the app name until you see the desired app in the drop-down. If you do not see the desired app in the drop-down, ensure that the app you wish to deploy is a Public/Private app available in the Play Store and is added to the app catalog.</p> <hr/> <p> This field is mandatory. You will not be allowed to create the configuration if you do not select an app to be added in this field. You can add only public and private apps. In-house apps and Web Apps (Private) cannot be added .</p> <hr/>
General Lockdowns	
Keep Display On	<p>Configure the battery plugged in modes for which the device stays on. Select any of the following options :</p> <ul style="list-style-type: none">• AC - Power source is an AC charger• Wireless

Setting	Description
	<ul style="list-style-type: none"> • USB - Power source is a USB port • Any - Power source is from either AC charger or USB port or a wireless charger.
Kiosk Customization	
Customize Status Bar	<p>Select any of the following options for customizing the status bar on the target devices:</p> <ul style="list-style-type: none"> • Notification and system info enabled - To show system info and notifications on the status bar. • Only System info enabled- To show only system info on the status bar.
Customize System Navigation	<p>Select any of the following options to specify the access to navigation features (Home, and Overview buttons) in kiosk mode.:</p> <ul style="list-style-type: none"> • Enabled - Enables Home and Overview buttons navigation. Users can navigate out of the specified app if this option is selected. • Disabled - Disables Home and Overview buttons navigation. • Home button only - Enables only the home button navigation. <hr/> <p> Back button is available with all these options.</p> <hr/>
Enable Global Actions	<p>Select to enable global actions in kiosk mode. Restart and shut down functionality associated with the power buttons is</p>

Setting	Description
	controlled via this option.
Enable System Error Dialogs	Select to enable error dialogs for crashed or unresponsive apps in kiosk mode.
System Settings	
System Updates Settings	<p>Configure the following settings to manage system updates:</p> <ul style="list-style-type: none"> • System Update - Select the type of system update required. <ul style="list-style-type: none"> • Automatic - Install automatically as soon as an update is available. • Postpone - Postpone automatic install up to a maximum of 30 days. • Windowed - Install automatically within a daily maintenance window. Set the start and the end hours for the maintenance window period. <hr/> <div style="display: flex; align-items: center;">  <p>The updates installed on devices might vary based on the supported feature set, Android version, and the Google DPC version installed on the device.</p> </div> <hr/> <ul style="list-style-type: none"> • Freeze Period - When a device is set within the freeze period, all the incoming system updates are blocked and not installed. Click Add Freeze Period to set the Start Date and the End Date of the freeze period. <p>When a device is outside the freeze period,</p>

Setting	Description
	<p>normal update behavior is applied. If the end date is before the start date, then the freeze period extends between the current and the successive year.</p> <hr/> <p> The freeze period can be set to a maximum of 90 days. Two consecutive freeze periods must be separated by a minimum of 60 days.</p> <hr/>

6. Click **Next**.
7. Select one of the following distribution options:
 - **All Devices**
 - **No Devices** (default)
 - **Custom**
8. Click **Done**.

Managing apps on AMAPI devices

When the COSU configuration is distributed to devices, the apps are pushed and pinned to the screen on the AMA device. Irrespective of the COSU configuration being pushed to the device, apps that are installed on the AMA device can still be managed. The following are the details on the app management on these devices:

- Only public, private apps are supported; in-house apps and web-clips are not supported.
- Apps are pushed only if the installation settings have the "Install on Device" or "Silent Install" options are enabled. Apps that are assigned to the user/device without any of these options enabled will not be seen on the device or on the device's Play Store for any user action.
- The supported app configurations are Managed Google Play, and Work Managed Device (Android for Work) Settings. Managed configurations for apps are supported, including support for managed configuration for OEMConfig apps.



The time for the completion of the installation and un-installation of configurations might vary based on the notifications from Google (messaging service) on whether the desired action is performed.

- The Go app will now be installed by default as part of the AMAPI device registration. During the registration process, the app will be pinned to the screen and once the setup is complete, will run in the background.
-



Policies except for the device registration requirement enforcement based on manufacturer, OS version and security patch level are not supported. Device Allowlisting that allows only the Allowlisted devices to register with Ivanti Neurons for MDM is supported.

Managing apps feedback support on AMAPI devices

The app feedback support can be managed on AMAPI (COSU) devices. When a device is registered in AMAPI (COSU) mode, the managed app configuration will be pushed to Ivanti Neurons for MDM directly from Google without any intervention from the Go app. The Managed App Feedback information can be viewed at the device level from **Device details > Installed apps > View feedback**, or can be viewed at the individual app level by navigating to the specific Android app in App catalog under the "App Config Feedback" tab for the overall report across all devices. For information on app feedback mechanism, see ["Synchronizing and fetching app feedback" on page 277](#).

AMAPI Limitations

Currently, AMAPI has the following limitation:

- Only dedicated devices (COSU mode) are supported.

Supported Configurations

The following configurations are supported for AMAPI:

- App Distribution (single or multiple apps)
 - Managed App Config for apps pushed to the device
 - Wi-Fi configuration
 - Android Enterprise Lockdown-Dedicated (COSU) configuration
 - Always-on VPN Configuration
-

Google Apps API

Google customers who use Single Sign On (SSO) to authenticate user access to Google Apps services may not be able to use Exchange to connect users to email, contacts, and calendar due to limitations in the protocol that prevent devices from supporting SSO-triggered redirects to external authentication services. This service addresses this condition by creating and managing account passwords for ActiveSync connectivity.

Prerequisites

Before attempting to configure the Google Apps API feature, you need:

- Admin access to an account on <https://console.developers.google.com/>.
- Admin access to an account on <https://admin.google.com>.

Enabling the Google Apps API feature

Procedure

1. Select **Admin > Google > Google Apps API**.
2. Click **Step 1: Google Dev** at the bottom of the rectangle on the left labeled 1.

The Step 1: Google Dev page appears.

3. Follow the instructions that appear on the Step 1: Google Dev page, and then click **Done**.
4. Click **Step 2: Google Admin** at the bottom of the middle rectangle labeled 2.

The Step 2: Google Admin page appears.

5. Follow the instructions that appear on the Step 2: Google Admin page, and then click **Done**.
6. Enter the Google Admin user name in the **Enter the Google Admin user name** field in the rectangle on the right labeled 3.
7. In the same rectangle, click **Choose File** to upload the JSON file you downloaded in Step 1.
8. Click **Save**.

If you cannot see the Google Apps API page, it might be that you do not have the required permissions. You need one of the following [roles](#):

- System Management
- System Read Only

Admin - Android Enterprise

License: Silver

- Android Enterprise-enabled Ivanti, Inc productivity apps like Email+, Docs@Work, and Web@Work require Gold license.
- Tunnel for Android Enterprise requires Platinum license.

Android Enterprise enables use and configuration of Android Enterprise apps. Android Enterprise users can view and install apps from the app catalog as well as via Google Play.

If you are a new customer, the app distribution is set to per device by default. You cannot change this setting. For upgrading customers, you have a choice between apps distribution per user or per device. Also for upgrading customers, app distribution per user is selected by default. Many users have multiple devices. If a user has multiple devices, when app distribution is set per device then you can make a different set of apps available on each device.

This section contains the following topics:

- ["Configure Android Enterprise" below](#)
- ["Configuring the Android Enterprise Work Profile" on the next page](#)

Configure Android Enterprise

1. In the Ivanti Neurons for MDM portal, click **Admin > Google > Android Enterprise**.
2. Select one of the following options:
 - **Managed Google Play Account:** For enterprises that are not G Suite subscribers, this method allows users to be enrolled with Android Enterprise without sending any personal information (email addresses to Google). Ivanti Neurons for MDM will provision and manage users automatically with Google. You will be asked to authorize Android Enterprise with an admin Google account.
 - **Managed Google Account:** For enterprises who are G Suite subscribers, this method allows your users to enroll in Android Enterprise with their Google accounts. Each user is required to have a Google account to enroll with Android Enterprise.
3. Follow the directions on the screen for completing the configuration process:

For the automatic method, this includes:

- Enabling your UEM API and creating your Enterprise Credentials.
- Enrolling in Google by authorizing the owner of the integration. This should be an IT account rather than a personal account.
- Setting your credential by dragging and dropping your Service Account JSON Client ID.

4. For the alternate method, this includes:

- Refer to the CLIENT ID in the below section, and add it to the Google Admin.
- Look up your MDM token in the Google Admin and service account in the Google Cloud Console.
- In Ivanti Neurons for MDM, enter your MDM token, enterprise Google domain, and Enterprise Admin email address to connect to the Google service.
- In Ivanti Neurons for MDM, drag and drop your Service Account JSON Client ID.
- In Ivanti Neurons for MDM, authorize Ivanti Neurons for MDM to view and /or manage your Google Users by clicking **Authorize**.

The Ivanti Neurons for MDM user interface guides you through these steps.

CLIENT ID to bind Ivanti Neurons for MDM with Managed Google Account

Add the client id as **140561810807-tiiglke17laibbrt5darupmvo4ae7cbj.apps.googleusercontent.com** in the Admin Console to bind the Ivanti Neurons for MDM tenant with Managed Google Account.

Configuring the Android Enterprise Work Profile

1. In the Ivanti Neurons for MDM portal, go to **Configurations**.
2. Click **+Add**.
3. Select **Lockdown & Kiosk: Android Enterprise** configuration.
4. Enter a configuration name and description.
5. Click the **Work Profile** lockdown type.

Select the [lockdown settings](#) you want to apply to the target devices.

Important: When the user adds a Google Account using Add account in Settings, the Google authentication server checks if the domain of the account is registered as an UEM-managed domain. Verify that **Enforce UEM policies on Android devices** is checked. If so, the Go client is automatically installed or updated (if it is not already installed on the device) and launched. Once the user goes through the registration process, the user is prompted to create a Work Profile and the Google Account is automatically migrated to the work profile.

Work with ChromeOS Devices

This section contains the following topics:

- ["ChromeOS and Ivanti Neurons for MDM" below](#)
- ["Distribute Android apps to ChromeOS devices" on page 1299](#)
- ["ChromeOS Blueprint Configuration" on page 1300](#)
- ["Device Actions" on page 1302](#)
- ["FAQs" on page 1302](#)
- ["Recommended Steps for evaluation" on page 1304](#)

ChromeOS and Ivanti Neurons for MDM

ChromeOS is a Linux-based operating system created and distributed by Google. Ivanti Neurons for MDM supports devices working on Android, Windows, iOS, and macOS. This support has now been extended to ChromeOS devices as well. Ivanti Neurons for MDM provides a unified and simple mobility management solution for configuring and managing your ChromeOS devices. Ivanti provides a unified, simple, and feature-rich solution for ChromeOS devices similar to the admin workflows that are available for iOS, Android, Windows, and Mac on Ivanti Neurons for MDM. The administrator can simply connect Ivanti Neurons for MDM with their Google Cloud (also referred to as Google Admin console) using a simple integration from **Admin > Google > ChromeOS Management**.

Prerequisites

1. Must have a managed Google Admin account.
2. The LDAP users and OUs must be imported on Google Admin Console. Ivanti Neurons for MDM supports only OUs imported from an LDAP source. Local OUs are not supported.

-
3. The administrator must have synchronized the organization units (user groups) into the Ivanti Neurons for MDM. This can be done by configuring the LDAP server and adding the organization units.

Authorizing Google

The ChromeOS devices available on the Google Admin console cannot be registered directly on the Ivanti Neurons for MDM. Instead, these devices are registered with Google and information about these devices is synced between Google and Ivanti Neurons for MDM. The administrator must authorize Google to import the devices and perform other actions like assigning apps, configurations, etc.

Procedure

1. Go to **Admin -> Google > ChromeOS Management**.
2. Click **Authorize Google**.
3. Select the Google Admin account that you want to authorize.
4. Click **Continue** to accept the permissions to provide the required services.

The **ChromeOS successfully setup** confirmation appears on the screen. You can also find the domain information below the confirmation.

Syncing ChromeOS devices from Google

The administrator must sync the ChromeOS devices from the Google Admin console. When using the Google Admin console to access the ChromeOS devices for the first time, the administrator must manually sync the devices using the Sync Now option from the ChromeOS Management page.



After syncing the devices manually for the first time, the subsequent syncs will happen automatically on an hourly basis.

Deleting the Google Admin Console integration with Ivanti Neurons for MDM

Delete integration revokes the OAuth token we received from Google to access Google resources. It deletes the ChromeOS devices, inventory associated with Blueprint config and app config, and the enrollment metadata. The Blueprint configuration and uploaded apps will not be deleted.

In case the tenant enrollment is not deleted, you can raise a ticket to check the issue.

Procedure

-
1. Go to **Admin -> Google > ChromeOS Management**.
 2. Under the ChromeOS Ivanti Neurons for MDM Registration section, Click **Delete**.

A pop up appears on the screen indicating whether you want to proceed with the Delete operation, and all the devices associated with this integration will be deleted. Select **Ok**.

Distribute Android apps to ChromeOS devices

The administrator can distribute Android apps from the App Catalog to ChromeOS devices.

Prerequisites

1. Android Enterprise must be configured. For information on setting up Android Enterprise, see ["Setting up Android Enterprise" on page 486](#).
2. Android apps must be present in the App Catalog.
3. Ensure that the ChromeOS device (Chromebook) user is part of a User Group (also referred to as Organizational Unit) before distributing Android apps and ChromeOS Blueprint Configuration.

Once the Android app is identified, you need to distribute the app following the similar process that you follow to distribute any other app. When you are distributing the Android app, make sure to select the User Groups to which you want to distribute the app and perform a Silent Install on the device.



If your existing Android app deployment is set to be distributed to devices / device groups or users, you will have to change the distribution to be based on User Groups. This can impact existing deployments if the app is already in use. It is recommended to do this on a completely new app first.



Install Settings allows administrators to control the final silent installation and it is required to push the app to ChromeOS devices. User Groups must be selected here.

Add and distribute ChromeOS extension apps

The administrator can add ChromeOS extension apps to the App Catalog and distribute these apps to ChromeOS devices.

Procedure

-
1. Go to **Apps > App Catalog**.
 2. Click **+ Add**.
 3. Select **ChromeOS** from the list. The **Add ChromeOS App Details** page appears on the screen.
 4. Provide the following details: **App Name** - Name of the ChromeOS extension app, **Extension ID** - You can get this info from the Chrome web store.
 5. Click **Next**. The **App Configurations** page appears on the screen. You will be able to select an immediate update that will occur at the next device check-in, or you can choose to have the app update automatically when new versions become available.
 6. Select one of the app distribution options and provide the required details.



The ChromeOS app distribution is supported only for LDAP user groups.

Once the ChromeOS extension app is identified, you need to distribute the app following the similar process that you follow to distribute any other app. When you are distributing the ChromeOS extension app, make sure to select the User Groups to which you want to distribute the app and perform a Silent Install on the device.



Install Settings allows administrators to control the final silent installation and it is required to push the app to ChromeOS devices. User Groups must be selected here.

You can edit the information about a ChromeOS extension app or delete a ChromeOS extension app from the App Catalog. You must follow the similar process that you follow to edit or delete any other app from the App Catalog.

Edit a ChromeOS extension app

1. Go to **Apps > App Catalog > Details**.
2. Click **Edit**. Make the required changes and click **Save**.

For information about Deleting an app, see [Deleting Apps from the App Catalog](#).

ChromeOS Blueprint Configuration


The ChromeOS Blueprint Configuration has the following settings:


-
- Device settings
 - User and browser settings
 - Managed guest session settings

You can apply ChromeOS configuration on specific User Groups (also referred to as Organizational Units). When you try to distribute the ChromeOS Blueprint Configuration, only the User Groups section will be available, and all the LDAP User Groups that are also associated with the authorized Google Admin Console will be listed under the section. You can select one or more from the listed groups and apply the configuration.

Procedure

1. Go to **Configurations > Add**.
2. Select **Google ChromeOS** under the OS section. The **ChromeOS Blueprint configuration** tab appears on the screen.
3. Click **ChromeOS Blueprint**. The **Create ChromeOS Blueprint Configuration** page appears on the screen.
4. Enter a name for the configuration in the **Name** box.
5. Under the Configuration Setup, you can modify the Device Settings, User and browser settings, and Managed guest session settings, as needed and toggle the "Push to device" button to apply the modified settings.
6. Click **Next**.
7. Select **Custom** for the distribution options.

 Only the LDAP User Groups will be available to distribute the configuration.

 In the case of distributing the configuration to everyone, it can be done only for the LDAP User Groups available in Ivanti Neurons for MDM and Google Admin Console.

8. Select one or more groups and click **Done**.

 When the distributed settings are undistributed, the applied settings will not be reverted.

 You can upload files in ChromeOS Blueprint Configuration.

Device Actions

The following actions are supported on ChromeOS devices:

- **Wipe** - The Wipe action deletes all the data from a device and the device will be reset to factory settings. For more information, see ["Wiping a Device" on page 266](#).
- **Lock** - The Lock action restricts you to perform any further action on the device. For more information, see ["Locking a Device" on page 258](#).
- **Unlock** - The Unlock action releases the device for further use. For more information, see ["Unlocking a Device" on page 269](#).

FAQs

This section lists some of the common FAQs you might have when using the ChromeOS devices on Ivanti Neurons for MDM.

- How does Chromebook management differ from other OS?

Google allows only LDAP User Group-based distribution of configurations as of now and the administrator should ensure when working with configurations or apps, distribution is based on LDAP user groups. Local user groups and Device Groups are not supported for ChromeOS device management.

- What licensing do I need with Ivanti for managing ChromeOS devices?

ChromeOS devices should have licenses such as Chrome Enterprise Upgrade or Chrome Education Upgrade. These can be purchased from resellers as part of hardware or as standalone licenses. Refer to Google documentation for more information. To get started with Chrome device management, Secure UEM (Unified Endpoint Management) licensing is required with Ivanti.

- Will Mobile Threat Defense (MTD) or a similar solution be available? Do I need a separate license for MTD?

This is not available currently in the product, please refer to current limitations. We will provide more information on changes with feature capability via FAQ and release announcements.

- Why do the configs and apps tab not have details as is the case for other devices?

Since configurations are distributed to User Groups and not applied based on the user logged in, at present the configurations are not shown in device details. Apps follow the same logic of

distribution and have the same limitation. We will provide more information on changes with these limitations via FAQ and release announcements.

- How many configurations are currently supported for ChromeOS?

With ChromeOS, we have reduced the number of configuration tiles available and have reduced the admin tasks associated with the configuration. We refer to this configuration as “ChromeOS Blueprint”. ChromeOS Blueprint supports close to 700 configurations on these devices. Refer to Google’s documentation for configuration options.

- How is it easy to manage one configuration for all devices?

The administrators can simply clone an existing configuration and modify it (if required) for their respective user groups. You don’t have to start from scratch.

- How do I add VPN configuration to Chrome devices?

This can be done using the Android apps, and not using native VPN.

- Do device actions such as Retire and Wipe work on these devices?

Chromebooks in Enterprise are always managed by an organization and data on such a device is considered completely organizational. With this in mind:

- Retire is blocked
- Wipe is allowed
- Lock is allowed
- Unlock is allowed
- Other actions – are not supported

- Which Chromebooks, in terms of hardware are supported by Ivanti?

Devices supported by Google Cloud device management solutions are inherently expected to be supported by Ivanti. Ivanti does not currently publish a list of specific hardware supported by Ivanti’s solution.

- Which version of Chrome OS is supported?

Google Cloud supports only the latest stable version of ChromeOS and Ivanti's support follows the model supported by Google due to the nature of backend integrations.

- Can you list the current limitations since this is the very first launch of this capability?

With new Chrome OS support, we are working hard towards providing capabilities that our customers are eagerly waiting for. Below are some limitations that admins should take notice of:

- Chrome OS extensions (browser apps) are not currently supported (as "apps") for distribution.
- Managed app config for Android apps is not currently supported.
- Wi-Fi configuration API was recently released and is not currently supported.
- Certificate distribution is currently not supported.
- Distributing Ivanti Go (previously known as MobileIron Go) Android app is currently not supported.
- Ivanti Tunnel (VPN) app is currently not supported.
- Spaces and space delegation is currently not supported.
- Mobile Threat Defense solution is currently not supported.
- Ivanti's Zero Sign-on solution is supported on these devices, categorized as unmanaged devices.
- Policy actions are not fully supported.

Recommended Steps for evaluation

The following steps are recommended to validate a solution:

1. Create a separate OU (User Group) which has a test user in your directory source (example, Active Directory). This will avoid any impact to active Organizational Units.
2. Sync users between Ivanti, Google, and directory source (LDAP). Verify that the "test OU" is available in User Groups.
3. Integrate Ivanti Neurons for MDM with Google as highlighted in steps above.
4. Create ChromeOS Blueprint Configuration and distribute this only to the "test OU" User Group.
5. Boot up a Chromebook (out of box or previously registered). Ensure it is available in the Devices list.

-
6. Verify that the ChromeOS Blueprint settings are available on the device.
 7. Follow similar steps for Android app distribution.

Firmware Management

This section contains the following topics:

- ["Enrolling to Zebra OTA service "](#) on page 1307
- ["Samsung E-FOTA License Management \(Decommissioned\)"](#) on page 1309

Enrolling to Zebra OTA service

When enrolled to the Zebra OTA(Over The Air) service you can enable the Zebra OTA configuration to receive and update the firmware details of Zebra devices registered with Ivanti Neurons for MDM.

Procedure

1. Go to **Admin > Infrastructure > Zebra OTA**. The **Zebra OTA Service** page is displayed.
2. Under the **Link to Zebra's OTA service**, click **Begin**.
3. Enter your Zebra OTA credentials to login and follow the steps to request an approval to avail the Zebra services.
4. Click **Complete Verification** to get the confirmation on the connection to the Zebra service. When the connection is confirmed, the status of the successful enrollment is displayed in the Zebra OTA Service page.

To revoke the enrollment, click **Revoke** under the **Actions** column. The **Revoke** action removes all Zebra OTA configurations from the existing configurations. To re-enroll with Zebra OTA, click **Refresh**. Refresh action has no impact on the existing configurations.

After enrollment, you can enable the Zebra firmware configuration which Go client receives and applies to Zebra devices (running on Android version 8.0 or supported newer versions) in Device Owner mode. When the configuration is applied, the firmware is downloaded and installed on the device as scheduled in the configuration. For more information on enabling the Zebra firmware configuration, see [System Update Configuration](#).

On completion of firmware update, you can view the firmware update status on the Zebra device under the **System Update** column in the Devices page. The following are the possible status:

- **Unknown** - Not supported by client or OS
- **Current** - Device has the most current update available
- **Pending** - System update configuration is applied but the update has not been downloaded or applied
- **Downloading** - System update is being downloaded to the client

-
- **Available** - System update is currently available for the device
 - **Error** - Error in download or installation.

The **Zebra Patch Version** column in the Devices page displays the Zebra patch information of the device.



The **Zebra Patch Version** is not supported for devices on Android 11 and later; only the **Zebra Full Upgrade** is supported.

Samsung E-FOTA License Management (Decommissioned)

Samsung E-FOTA service will be decommissioned in July 2022. For more information, see Samsung announcement.



You cannot configure Samsung E-FOTA service from now. However, if you have an existing E-FOTA configuration, you can deactivate the configuration by navigating to **Admin > Firmware Management > Samsung E-FOTA** and clicking on **Deactivate** option.

Manage Scripts

Administrators can manage scripts which can be used in Configurations and pushed to devices.

This section contains the following topics:

["All Scripts" on page 1311](#)

All Scripts

Applicable to: macOS devices

In the **Admin > All Scripts** page, Ivanti Neurons for MDM allows users with System Management role to create or upload, and manage scripts that can be used in configurations and distributed to devices. You can associate custom attributes with the scripts and assign the resultant values to the configured devices. Use Audit Trails to view logs of the script changes and execution results.

You can write a script that configures any settings on devices. For example, you can run scripts that:

- force device users to change their passwords monthly,
- lock the screen after 5 minutes of idle time, or
- configure a secured Wi-Fi network.

This section contains the following topics:

- ["Adding a script" below](#)
- ["Modifying a script" on the next page](#)
- ["Using script variables" on page 1313](#)
- ["Testing a script" on page 1314](#)
- ["Verifying the script execution results" on page 1315](#)

Adding a script

You can create or upload a repository of bash scripts. This repository can be used in a configuration, such as [Mobile@Work for macOS Script](#), to select a script and distribute it to execute on the devices as per the specified schedule in the configuration.

For example, you can create a shell script for execution on devices. You can use wrappers if necessary. The execution of binary files from within a shell script is not supported.



Ivanti highly recommends you test your shell scripts before running them on the devices to ensure their robustness and quality. Run your script locally, and correct any errors that result.

Procedure

-
1. Go to **Admin > Scripts > All Scripts**.
 2. Click **+ Add**.
 3. Name and describe the script.
 4. Select one of the following **Script Type**:
 - **bash**
 - **zsh**
 - **python**
 - **swift**
 5. Select the **Run as root** check box to run the script as root on devices. By default, this option is cleared.
 6. In the **Script Editor**, you can type, drag and drop, or copy and paste a script in the text box.
 7. Alternatively, click **Import code from a Script** to drag and drop an existing script file or click **Choose File** to browse and select the script file to be uploaded to Ivanti Neurons for MDM. This will replace any existing script in the script editor. This action cannot be undone. Click **Import**. The code from the uploaded script will be displayed in the script editor.
 8. (Optional) In the **Custom attributes available** section, select one or more displayed device custom attributes to associate them with the script. They can be used to assign the resultant script execution values to the device custom attributes of the configured devices. Click **Sample Code for Custom Attributes** to view a sample code using custom attributes in a script.
 9. Click **Save**.

The custom attribute names in the script should be in lower case. If the custom attributes are referred to in any scripts, then the attributes cannot be removed. When you modify a custom attribute (for example, its name) and if it is associated with a script, then you should make the corresponding changes in the associated scripts.

Modifying a script

To edit or remove a script:

-
1. Go to **Admin > Scripts > All Scripts**.
 2. Under the **Actions** column for the script, click the corresponding icon for edit or delete action.
 3. Follow the instructions on the screen to complete the action.

When a script (content, name, description) is changed, all the configurations that are associated with the script are redistributed to the devices.

Using script variables

Define and store script inputs such as environment and substitution variables in the script repository. In the Mobile@Work for macOS script configuration, depending on which script is linked, the related script variables will be available for use as required. This feature requires [Mobile@Work for macOS 1.71.0](#) through the most recently released version as supported by Ivanti Neurons for MDM.


Use the variables to run a script with different values every time it runs. For example, an administrator can create a script to use the `${userEmailAddress}` environment variable as the script variable and associate it with a Mobile@Work for macOS script configuration. When the configuration is distributed and installed on each user device, Ivanti Neurons for MDM sends a different registered user email address for each device to take certain actions. The Ivanti Neurons for MDM administrative portal supports custom variables.

To add a script variable:

1. Go to **Admin > Scripts > All Scripts**.
2. In the Script Input section, click **+ Add**.
3. In the Add Script Input - Environment Variable pop-up page, enter the following details:
 - Label to Show - This text will be shown as a label in the Mobile@Work for macOS script configuration page. For example, Enter OS Folder, Enter Apache Number, and so on.
 - Environment Variable Name - For example, JAVA_HOME, OS_VERSION, and so on. Ivanti Neurons for MDM substitutes values for the script variables while sending the configuration details to a target device as the values are persisted in the database.
 - Environment Variable Default Value - For example, 1024, bin/java, `${PhoneNumber}`, and so on. The input variables would be used in the script uploaded or edited by an administrator. See also the following notes.

-
4. In the Preview region, review how the environment variable's value will be shown as script input in the configuration page.
 5. Click **Save**.

This way, only the label and the default value are available to the configuration and not the environment variable name, which provides a layer of abstraction.

-
- Alphanumeric value (for example, 1024, bin/java, root@localhost) or system attributes (for example, \${userFirstName}) are acceptable as environment variable's value.
 - The environment variable's value can be modified or deleted during deployment in the configuration page.
-  • If the environment variable's value is not provided, ensure a value is provided during script deployment. Otherwise, empty value will be passed to the script.
- After a script configuration is distributed and installed on the device, editing environment variables in the Admin > All Scripts page will not impact the existing configurations associated with the script. See also [Mobile@Work for macOS script configuration](#).
-

Editing a script variable

To modify a script variable, click the edit (pencil) icon against the variable and save the changes.

If a script configuration refers to a script having script variables, editing the label of an existing script variable will also reflect in the script configuration. However:

- A change in the default value of the script variable will not reflect in existing configurations.
- A change in the default value of the script variable will reflect in any new configurations created with the preceding script.

Deleting a script variable

To delete a script variable, click the delete (minus) icon against the variable and confirm.

A newly created script variable, or deletion of an existing script variable will reflect even in an already existing configuration.

Testing a script

Test run a script in the debug tool quickly before testing it on a device and without necessary saving the scripts. This feature requires [Mobile@Work for macOS](#) 1.67 through the most recently released version as supported by Ivanti Neurons for MDM.

Procedure

1. Go to **Admin > Scripts > All Scripts**.
2. In the Script Editor, add or import a script.
3. If the tenant has multiple spaces, then select a space.
4. In the Test Script section, select **macOS** as the platform.
5. In the **Find devices** text field, find and select the device on which the script can be tested. The device can be searched by serial number, user name, device name, and OS version.
6. Click **Test Now**. This way, an environment variable can be added, edited, and deleted, and the script can be tested with that state (without even saving the changes made).
7. Wait for the script to be pushed and executed on the device.
8. Review the published test results in the Script Input (containing environment variable details), Script Output, and Custom Attributes sections. The default values of the environment variables are also displayed.

Verifying the script execution results

To view the logs of the script execution results:

1. Go to **Devices**.
2. Click the name of the device.
3. Click the **Logs** tab.
4. In a row that displays the Script Execution action, you can verify the following information:
 - Script name in the Details column.
 - Script execution status in the Status column.
 - Script execution date and time in the Date column.
 - Script execution logs (device log plist) by clicking the eye icon under the Actions column.
5. Use filters to display the **Script Execution** rows. Logs from these rows include the output (plist) of standard output and standard error for the scripts.

-
6. Use filters to display the **Script Execution Result Processing** rows. Logs from these rows include details (plist) of how the results were processed.
- If a script did not have any custom attributes associated with it, there will not be any results to process. Such scripts will not be displayed in the list of the filtered rows.
 - If a script had custom attributes associated with it and if they were in the expected format, then the custom attributes from the results are mapped and the status is displayed as Success. You can verify the mapped custom attributes and their values in the **Attributes** tab.
 - If a script had custom attributes associated with it and if they were not in the expected format, then the custom attributes from the results are not mapped and the status is displayed as Error.
 - If the result format is correct but not all the associated custom attributes are sent in the result, the status is displayed as Error.
 - If a script variable is sent with the script, Script Execution Result Processing logs will include details (plist) for the script variable.

Related topics:

- [Mobile@Work for macOS Script configuration](#)
- [How to create a configuration](#)

Branding

This section contains the following topics:

- ["Admin > Apple App Catalog \(Branding\)" on page 1318](#)
- ["Branding the Android App Catalog " on page 1320](#)
- ["Admin > Android Kiosk Branding" on page 1321](#)
- ["Branding Email Templates" on page 1323](#)
- ["Self-Service Portal" on page 1334](#)
- ["Self-Service Portal \(Branding\)" on page 1337](#)
- ["Multi User Sign-In \(Webclip\) Branding" on page 1338](#)

Admin > Apple App Catalog (Branding)

License: Gold

You can brand the Apple app catalog to make its appearance more familiar to your end users for iPhone, iPad, and Mac devices. You can customize the following items in the Apple app catalog:

- App Icon (PNG, 360px square)
- App Name
- App Banner Image (PNG, 360x64)
- Text color



There are two modes to access Apple App Catalog: **Standalone App Catalog** and **Integrated App Catalog**. Standalone App Catalog is available on iPhone, iPad, and Mac devices. Integrated App Catalog is available for iOS and Mac devices.

Branding the Apple app catalog

The changes made in this page affects the Home Screen, Splash Screen, and App Home Screen. The procedure is similar for both Standalone App Catalog and Integrated App Catalog.

Procedure

1. In the **Apple App Catalog Branding** page, click **Customize** (upper right).
2. In the **App Icon** section, drag the logo file to the dotted box, or click **Choose File** to select it from your file system. The app icon is displayed on the iOS home screen
3. In the **App Name** section, edit the **App Catalog Name** text to change the label shown on the splash screen.
4. The name and icon are applied on the home screen banner. To change a custom banner image, deselect the **Apply the name and icon on the home screen banner** option. This will display the **App Banner Image** section.

-
5. To change the app banner image, drag and drop the new banner image file to the dotted box, or click **Choose File** to select it from your file system. The app banner image appears on the top bar in the app home screen.
 6. In the **Text Color** section, click the hex color code box to pick a color or enter the hex color code to assign to the text and icons. This will apply to the text on the splash screen, app name, the banner and action button.
 7. Click **Save Changes**.

The app catalog name you enter applies to Android, iOS, and macOS.

Branding the Android App Catalog

License: Gold

You can brand the Android app catalog to make its appearance more familiar to your end users. You can customize the following items in the Android app catalog:

- Catalog logo (PNG, 360x64)
- Catalog name
- Action bar color
- Shortcut icon
- Shortcut name

Branding the Android app catalog

Procedure

1. In the **Android App Catalog Branding** screen, click **Customize** (upper right).
2. To change the App Catalog Logo, drag the logo file to the dotted box, or click **Choose File** to select it from your file system.
3. Click the **Action Bar Color** field to display a color palette to select from or enter the hex number for the color you prefer.
4. Edit the **App Catalog Name** text to change the label for the catalog.

The app catalog name you enter applies to Android, iOS, and macOS.
5. To change the Shortcut Icon, drag the icon file to the dotted box, or click **Choose File** to select it from your file system.
6. Edit the **Shortcut Name** text to change the label for the app shortcut.
7. Click **Save Changes**.

Admin > Android Kiosk Branding

License: Silver

You can brand the Android kiosk page to make its appearance more familiar to your end users. You can customize the following items:

- banner logo (PNG, 840x114) or text
- banner border color
- banner background color
- screen background color
- screen background image (1280x800)
- screen background format

Branding the Android kiosk screen

Procedure

1. Navigate to **Admin>Android Kiosk**.
2. In the **Kiosk Mode Branding** page, click **Create Branding**.
3. In the **Name** field, type the name of the kiosk mode branding.
4. If you want to turn off the banner, uncheck **Enable Top Banner**.
5. Click the **Banner Background Color** field to display a color palette to select from or enter the hex number for the color you prefer.
6. Click the **Banner Border Color** field to display a color palette to select from or enter the hex number for the color you prefer.
7. Select **Image/Logo** or **Text** to set the banner content.
8. If you selected **Image/Logo**, drag and drop the image file or click **Choose File** to select one.
9. If you selected **Text**, type the text you want to display in the banner.

-
10. Click the **Background** tab.
 11. Click the **Background Color** field to display a color palette to select from or enter the hex number for the color you prefer.
 12. To change the background image:
 - a. Delete the default image.
 - b. Drag and drop the preferred image or click **Choose File** to select one.
 - c. Select the preferred layout.
 13. Click **Save Changes**.

The created kiosk mode branding is displayed in the **Kiosk Mode Branding** page. To further edit the customized branding, click on the Edit icon in the **Actions** column. To delete the customized branding, click the Delete icon. On deleting the custom kiosk branding, the configuration using the branding will revert to the default branding.

Branding Email Templates

You can brand the end user email invitation to make its appearance more familiar to your end users. Click **Revert to Default Settings** to clear the customizations.

You can customize the following email templates in all of your supported languages:

- **End User Invitation**- Invite a user to connect their devices to get access to apps and configurations.
- **Password Reset Notification**- The system sends reminder emails 7-days and a 24-hours prior to the password expiration for local accounts. This does not apply to LDAP accounts.
- **Registration Confirmation**- Email sent after a user completes registration. You can use this to thank users for registering and to point them to more learning resources.
- **Policy Compliance Notification**- Email sent when devices go out of compliance.

This section contains the following topics:

- ["Previewing and testing an email template" below](#)
- ["Customizing the message headers" on the next page](#)
- ["Customizing an email template" on page 1325](#)
- ["Supported email variables" on page 1331](#)

Previewing and testing an email template

You can preview and test the email templates. The test allows you to send an email based on the template to an email address you specify.

To preview and test an email template:

-
1. Click **Admin**.
 2. Under Email Templates, click **End User Invitation, Password Reset Notification, Registration Confirmation, or Policy Compliance Notification**.
 3. Click the **Preview and Test** link associated with the email template you wish to preview and test.
 4. View the rendered template in the rendered template pane.
 5. Specify a test email address to which to send the test email.

If the email address you specify belongs to a current user, the test email substitutes values for most of the email template variables, affording a very accurate idea of the user experience of the email. However, the test email does not substitute values for variables Ivanti Neurons for MDM generates at the time it generates an actual email invitation.

6. Click **Send Test Email**.

Customizing the message headers

1. Click **Admin**.
2. Click **Email Templates**.
3. Click the **Edit** icon link (under Actions column) associated with the email template you wish to edit.
4. Provide new settings as desired for **Email Display Name, From Email Address, Reply-to Email Address, and Set up SMTP Email Configuration**.

If you customize the From and Reply-To email addresses, it is recommended that you Allowlist the Email Relay Service to ensure that your emails aren't blocked by email SPAM filtering services. See [this document](#) for more information.

5. Click **Save**.
6. Review the preview of the email template and click **Save**.

Using SMTP configuration

The **Set up SMTP Email Configuration** is added to enable the admin to configure their own email server integration for outbound notifications.

-
1. Go to **Admin > Branding > Email Settings**, enable the **Set up SMTP Email Configuration** option.
 2. Update the following fields:
 - SMTP server
 - SMTP server port
 - Protocol
 - User Name
 - Password
 3. Click **Test** to send a test mail, a **Test Email** pop-up screen is displayed.
 4. Enter the **Recipient** name and **Body** of the message, click **Save**.

 If the credentials are not correct, and error message is displayed.

5. Click **Save**

The following table summarizes fields and descriptions in the SMTP Configuration window:

Fields	Description
SMTP Server	Specify the IP address or fully-qualified host name for the SMTP server the Ivanti Neurons for MDM Server will use.
SMTP Server Port	Specify the port configured for the SMTP server.
Protocol	If the SMTP server you are configuring is a secured server, that is, it uses the SMTPS protocol, then select the SMTPS button. Otherwise, leave SMTP selected.
User Name	Enter the user name required for SMTP authentication.
Password	Enter the password required for SMTP authentication.

Customizing an email template

1. Select **Admin > Branding > Email Templates**.
2. Select the template to edit, **End User Invitation**, **Password Reset Notification**, **Registration Confirmation**, or **Policy Compliance Notification**.

3. Click the edit pen icon adjacent to the email template you wish to customize.

4

6

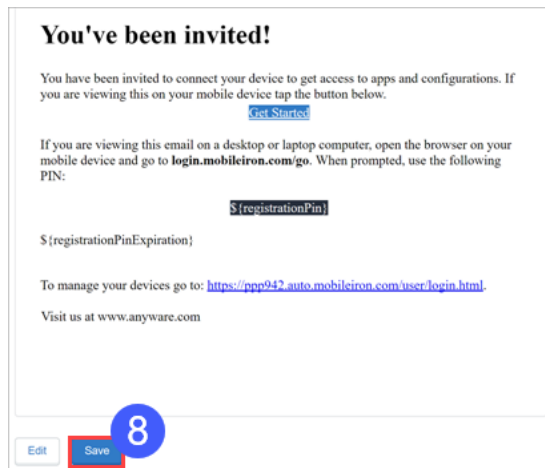
5

i

7

4. Edit the subject line if desired.
5. Edit the email template containing HTML elements in the body pane to customize the message content.
 - i You can use the variables displayed on the right in the body of the email. See [Supported email variables](#).
6. Click **Preview** to preview the email template as you create iterations to your satisfaction.

-
- When you are ready to save the template, click **Preview**. This renders the preview and provides a save function.



- Click **Save** if you are satisfied with the preview.

Allowlisted and Blockedlisted content in customized user invitation

While customizing the user invitation email template in **End user invitation**, there are a set of Allowlisted HTML tags and attributes that are allowed. There are also a list of Blockedlisted strings that are not allowed in the user invitation to prevent Cross Site Scripting (XSS) vulnerability.

You are allowed to use only the Allowlisted tags and attributes in the invitation email. The following table list the Allowlisted tags and the corresponding attributes that are allowed.



Some Allowlisted tags(Example: <big>) should not have any Allowlisted attribute and therefore are displayed blank.

Allowlisted Tags	Allowlisted Attributes
<big>	[]
	["id", "label", "editable", "height", "border", "src", "style", "width", "align", "class", "cellpadding", "alt", "title", "data-max-width", "data-default"]
	[]
<singleline>	["label"]
<tbody>	[]
<!DOCTYPE>	[]
<h1>	["style"]
<h2>	["style"]
<hr>	["noshade", "style"]
<h3>	[]
<body>	["style", "class", "bgcolor", "paddingwidth", "paddingheight", "offset", "toppadding", "leftpadding", "lang", "link", "vlink", "border", "cellspacing", "cellpadding"]
<title>	["id"]
<head>	[]

<div>	["style","class","width","align","id"]
 	[]
<path>	["d"]
	["style"]
<html>	["xmlns","xmlns:mso","xmlns:msdt"]
	["start"]
<table>	["class","width","border","cellspacing","cellpadding","style","height","bgcolor","align","background"]
<a>	["href","style","target","rel","class","title"]
	[]
<o:p>	[]
<svg>	["xmlns","class","viewbox","width","height","role","aria-labelledby"]
<center>	[]
	[]
<i>	[]
<label>	["style"]

<td>	["valign","width","height","class", "cellpadding", "cellspacing","border","bgcolor","align", "style","colspan","id"]
<p>	["style","class","align"]
<u>	[]
<meta>	["name","content","http-equiv","charset"]
<multiline>	["label"]
<style>	["type","id"]
	["style"]
<tr>	["style"]
	["style","class","lang"]
	["color"]

The following are the list of Blockedlisted strings that are not allowed in the customized user invitation.

- Script, @import, ¼script¾, script>, <script, <script>, </script>, javascript, alert(), moz-binding, expression(), +ADw-SCRIPT+AD4-, +ADw-/SCRIPT+AD4-, xml:base
- Special characters and search for javascript or script
- The meta content attribute containing "url=" case insensitive
- The img src not containing .svg.
- Attribute value containing "\00"

If any of the above Blockedlisted strings are used in the HTML content of the end user invitation, an error message is displayed when you click **Preview**. This error message lists the HTML content that is not

allowed in the end user invitation. Edit and remove the HTML content that is not allowed and then click **Preview** to proceed further.



You will not be allowed to save the edited templates containing Blockedlisted HTML content.

Supported email variables

Ivanti Neurons for MDM offers several variables you can use to customize your email templates.

End user invitation variables

Variable	Description
<code>\${userActivationUrl}</code>	The user activation URL - this is the hyperlink around the <code>\${email.idp.invitation.get.started}</code> text.
<code>\${clusterRegistrationUrl}</code>	The cluster registration URL - it is NOT found in the default template, but is referenced indirectly (via the <code>\${email.idp.invitation.pg4}</code> variable).
<code>\${productBrandName}</code>	The product brand name - this is defined as the <code><title></code> tag in the header of the default template.
<code>\${companyLogoUrl}</code>	The company Logo URL - this is the one image in the default template - it points to an image in the MobileIron CDN.
<code>\${message:\${email.idp.invitation.register.your.device}}</code>	The register the user device title.
<code>\${message:\${email.idp.invitation.title}}</code>	Email invitation title.
<code>\${message:\${email.idp.invitation.pg1}}</code>	Verification that the user in on their device.
<code>\${message:\${email.idp.invitation.get.started}}</code>	The email invitation Get Started text.
<code>\${message:\${email.idp.invitation.pg2}}</code>	Login and registration instructions.
<code>\${message:\${email.idp.invitation.pg3}}</code>	Email and apps pushed to the device information.
<code>\${message:\${email.idp.invitation.pg4}}</code>	Registration information if the user is not on their device, which includes the cluster registration URL.
<code>\${message:\${email.footer}}</code>	The email invitation footer that includes the company website label.

Variable	Description
<code>\${companyWebsiteLabel}</code>	The company website label - it is NOT found in the default template, but is referenced indirectly (via the <code>\${email.footer}</code> variable) .

Password expiration notification variables

Variable	Description
<code>\${passwordResetUrl}</code>	The password reset URL.
<code>\${productBrandName}</code>	The product brand name - this is defined as the <code><title></code> tag in the header of the default template.
<code>\${companyLogoUrl}</code>	The company Logo URL - this is the one image in the default template - it points to an image in the MobileIron CDN.
<code>\${message:\${password.expiration.notification.title}}</code>	The password expiration notification title.
<code>\${message:\${password.expiration.notification.pg1}}</code>	The password expiration notification introductory paragraph.
<code>\${message:\${email.password.reset.url.name}}</code>	The password reset URL name.
<code>\${message:\${email.footer}}</code>	The email invitation footer that includes the company website label.
<code>\${companyWebsiteLabel}</code>	The company website label - it is NOT found in the default template, but is referenced indirectly (via the <code>\${email.footer}</code> variable) .

Registration confirmation variables

Variable	Description
<code>\${productBrandName}</code>	The product brand name - this is defined as the <code><title></code> tag in the header of the default template.
<code>\${companyLogoUrl}</code>	The company Logo URL - this is the one image in the default template - it points to an image in the MobileIron CDN.
<code>\${message:\${email.confirmation.title}}</code>	The registration confirmation title.
<code>\${message:\${email.confirmation.pg1}}</code>	The registration confirmation introductory paragraph.

Policy compliance variables

Variable	Description
<code>\${policyMessageTitle}</code>	This variable will be replaced by the content that is entered into the subject line in the send email compliance action within the policy.
<code>\${policyMessageContent}</code>	This variable will be replaced by the content that is entered into the message portion in the send email compliance action within the policy.
<code>\${productBrandName}</code>	The product brand name - this is defined as the <title> tag in the header of the default template.
<code>\${companyLogoUrl}</code>	The company Logo URL - this is the one image in the default template - it points to an image in the MobileIron CDN.
<code>\${message:\${email.footer}}</code>	The email invitation footer that includes the company website label.
<code>\${companyWebsiteLabel}</code>	The company website label - it is NOT found in the default template, but is referenced indirectly (via the <code>\${email.footer}</code> variable) .

Custom user attribute variables

An admin can use [custom user attributes](#) as email variables in the customized email template under the following conditions:

- The custom user attributes exist on the **Admin > Attributes** page.
- An admin has [assigned the custom user attributes to users](#), with values given for the custom user attributes for each user.

Self-Service Portal

The invitation to register includes a link to the Self-Service Portal. End users can use this portal to do the following tasks:

- Lock
- Unlock
- View Location (if enabled in the [Privacy configuration](#))
- Wipe
- Retire
- Change account info (name, password, email address)
- Force Check-in
- Add encryption and signing certificates



To register additional devices, end users click the registration portal link displayed in the Self-Service Portal.

If end users misplace the URL for the Self-Service Portal, send them to <https://mydevices.mobileiron.com/user/login.html>. For iOS users, consider creating a [Web Clip configuration](#) for the Self-Service Portal.

Uploading signing and encryption certificates

You can allow your end users to upload their email signing and encryption certificates in the Self-Service Portal within the User Provided Certificates configuration. This setting can be configured using the User Provided Certificates configuration. When configured, the end users can upload their email signing and encryption certificates.

-
1. In the **My Certificates** tab, click **Add Certificate**. The **Add certificate** window is displayed.
 2. Update the following fields:

Field name	Description
Certificate Type	Select the type of certificate to be uploaded. The options are: <ul style="list-style-type: none">• Encryption certificate• Signing Certificate <hr/> <p> These options are created from the Ivanti Neurons for MDM Admin Portal. See Identity Certificate Configuration for more information.</p> <hr/>
Certificate to Upload	Click Choose File to select the certificate file to be uploaded. <hr/> <p> Ensure that the file is in PKCS12 format.</p> <hr/>
Password	Type the password used for the file.

3. Click **Upload**.

After uploading, you can view the list of certificates in a table displaying the following details.

Field name	Description
Certificate Name	Specifies the type of certificates either Encryption or Signing .
Issued By	the details of the certificate issued.
Uploaded On	The date when the certificate was uploaded.
Expiration Date	The expiry date of the certificate.
Actions	You can perform the following actions: <ul style="list-style-type: none">• Edit Certificate - edit certificate details.• Clear Private Key - deletes the private key from the certificate package(PKCS#12).• Delete Certificate - deletes the certificate from the Ivanti Neurons for MDM server.

When the user uploads a certificate configuration, the server re-pushes the configuration that is using the certificate.



Delete and Clear private key by a user will not re-push the configurations.

For more information, see [Self-Service Portal Branding](#).

Self-Service Portal (Branding)

License: Silver

You can customize the [Self-Service Portal](#) with your organization's logo. If you do not add your logo, the Self-Service Portal displays the default service logo.

Branding the Self-Service Portal

Procedure

1. In the Self-Service Portal Branding screen, click **Customize** (upper right).
2. Drag the logo file (PNG, 182x34) to the dotted box, or click **Choose File** to select it from your file system.
3. Click **Save Changes**.

Multi User Sign-In (Webclip) Branding

Customize your multi-user secure sign-in for iOS by adding a new title and webclip icon.

Procedure

1. Go to **Admin > Multi User Sign-In (Webclip)**.
2. In the Multi User Sign-In (Webclip) screen, click **Customize**.
3. Drag the logo file to the dotted box, or click **Choose File** to select it from your file system.
4. To change the Label, edit the **Secure Sign-in** text.
5. To change the webclip icon, drag and drop the webclip file to the dotted box, or click **Choose File** to select it from your file system.
6. Preview the updates and click **Save Changes**.

For iPhone and iPod touch devices, create icons that measure 120 x 120 pixels or 60 x 60 pixels (standard resolution).

For iPad devices, create icons that measure 152 x 152 pixels or 76 x 76 pixels (standard resolution).

For more information, see [Multi-user Secure Sign-In for iOS](#).

Adding management of non-iOS devices

License: Gold

You are currently using a version of Ivanti Neurons for MDM that is optimized for iOS devices. This section describes how to switch to allow management of non-iOS devices. After switching you will also be able to manage the following devices:

- Android 5.0 or supported newer versions
- Windows 10+

Switching to include management of non-iOS devices cannot be reversed.

To switch to include non-iOS devices:

1. Click **Admin > Allowed Platforms**.
2. Click the **Allow All Platforms** button.
3. Check **I understand that this cannot be undone** to confirm that you know and understand that this operation cannot be undone.
4. Click the **Allow All Platforms** button.

Packages

This section contains the following topics:

- ["Upgrading" on page 1345](#)
- ["Secure UEM and Secure UEM Premium packages" below](#)
- ["Legacy Bronze, Silver, and Gold packages" on the next page](#)
 - ["Silver" on page 1342](#)
 - ["Gold" on page 1343](#)
 - ["Platinum" on page 1344](#)
- ["Sandbox for preview or testing" on page 1344](#)

Secure UEM and Secure UEM Premium packages

The Secure UEM and Secure UEM Premium packages offer the following features:

	Secure UEM	Secure UEM Premium
Device management and security		
Easy on-boarding	✓	✓
Multi-OS security and management	✓	✓
Secure email gateway	✓	✓
App distribution and configuration	✓	✓
Mobile application management (MAM)	✓	✓
Scale IT operations		
Helpdesk tools	✓	✓
Reporting	✓	✓
Secure connectivity		
Per app VPN		✓
Conditional Access		✓
Secure productivity		
Secure email and personal information management (PIM) app		✓
Secure web browsing		✓
Secure content collaboration		✓
Mobile app containerization		✓
Derived Credentials		✓
Zero Sign-On		
Passwordless user authentication (single app)		✓

These packages are subject to change. You should contact [Ivanti Sales](#) to confirm the current scheme.

Legacy Bronze, Silver, and Gold packages

This section describes the legacy Bronze, Silver, and Gold packages. The packaging has evolved to the [Secure UEM and Secure UEM Premium](#) scheme.

Bronze

Ivanti Neurons for MDM basic features are provided in the Bronze package. You can expand the Bronze package by:

- adding more devices
- adding Silver
- adding Gold
- adding Platinum

These additions expand your mobile solution beyond basic device configuration.

Administrators can contact [Support](#) if they are interested in enabling one or more of the [On-demand features](#) on their tenant(s) that are disabled by default.

Silver

Upgrading to Silver adds the following features:

- **LDAP and Connector:** Support for adding corporate directories and certificate authorities to Ivanti Neurons for MDM.
- **Sentry:** Support for email access control.
- **Spaces:** Support for designating devices for management by different administrators (delegated administration).
- **Supervised mode:** Device-level support for fine-grained configuration, including single-app mode.
- **Self-Service Portal branding:** Use your logo in the Self-Service Portal.
- **Certificate Authorities:** Use Ivanti Neurons for MDM as a certificate authority.
- **Silent app install/uninstall:** Automatically deploy and remove apps from a mobile device.
- **App Allowlist/Blockedlist/required apps:** Monitor and control which apps are installed on devices.
- **Web content filter:** Apply website Allowlist/Blockedlist policies to all web browsers.
- **Apple-specific functionality:** Enable/restrict AirPlay, AirDrop, iOS wallpaper distribution, and Apple TV.

- **Open-in management:** Control which mobile apps can open what enterprise content.
- **Apple Apps and Books:** Distribute mobile app licenses to devices, and reclaim and reassign those licenses when a device is retired.
- **Android enterprise (Android for Work) support**
- **Device Enrollment:** Enables customers to purchase devices in bulk and automatically enroll Apple devices in MDM during activation.
- **Per-App Configuration:** Deploy configured mobile apps at scale, with little to no required action by the end user.
- **3rd-party Per-App VPN:** VPN security is now immediate, invisible, and specific to the mobile app.
- **Policy Tiered Actions**
- **App Distribution Filters**
- **Audit Trails**
- **Android Kiosk mode:** Support for configuring Android devices to operate in kiosk mode.
- **Android Kiosk branding:** Change the background and banner of the kiosk screen displayed when device operate in kiosk mode.
- **Office 365 Data Loss Prevention (DLP) Using Microsoft Graph APIs:** Enforces DLP controls for Office 365 apps via Graph APIs.

Gold

Upgrading to Gold adds the features provided by Silver as well as the following features:

- **Single sign on:** Users authenticate once and are automatically logged in to other enterprise mobile apps.
- **iOS and Android App Catalog custom branding:** Display your company logo in the app catalog.
- **Increased content limit:** 50 files, 25 MB each
- **AppConnect for iOS:** Secure and configure AppConnect-enabled apps.
- **AppTunnel for iOS:** Secure app access to enterprise resources.

- **Docs@Work for iOS:** Enable users to view, store, and share documents.
- **iOS 8 certificate-based single sign on**
- **iOS 8 iBook/ePub management**
- **macOS support**
- **User branding**
- **Mobile Application Management (MAM) with AppConnect**
- **Derived Credentials**
- **Windows 10 (includes Bridge) support**

Platinum

Upgrading to Platinum adds the features provided by Gold as well as the following features:

- **Tunnel:** Configure app-specific access to enterprise data.
- **Help@Work**
- **Monitor**
- **ServiceConnect (ServiceNow, Splunk)**

Sandbox for preview or testing

Ivanti Neurons for MDM customers can get a sandbox tenant to preview and test new releases before they hit production when **Premium Plus** support is purchased.

Upgrading

This section contains the following topics:

- ["Upgrading a license" below](#)
- ["Requesting an upgrade" below](#)
- ["Upgrading from a previous release" on the next page](#)

Upgrading a license

The basic features are provided in the Bronze package. You can expand the Bronze package by:

- adding more devices
- adding Silver
- adding Gold
- adding Platinum

These additions expand your mobile solution beyond basic device configuration.

Requesting an upgrade

Procedure

1. Select **Upgrade Options** from the admin drop-down menu.
2. Click **Request Upgrade / Add Devices** (upper right).
3. Select the items you want to add and enter your phone number.

An representative will contact you in about 24 hours with details.

Upgrading from a previous release

When upgrading from a previous release, the settings on the **Edit Device Enrollment Profile** page are not preserved. Note your option settings before upgrading.

- If **Skip signing in to AppleID and iCloud** is enabled before upgrading, then **Skip Apple Pay setup** will be enabled after upgrading.
- If **Skip entering passcode** is enabled before the upgrade, then **Skip Touch ID** and **Skip Apple Pay setup** will be enabled after the upgrade.

Procedure

1. After the upgrade is complete, return to the **Edit Device Enrollment Profile** page to edit the Device Enrollment profile to restore the desired settings.
2. Click **Save**.

After upgrading several configuration settings are affected.

Promotion options are set to **Off**.



Installation settings are set to **No**.

Don't Show in App Catalog option is no longer selected.

Silent Install on Android Samsung Knox is set to False.

iOS Management Flags are set to:

- Backup to iCloud.
- Remove on unenrollment.

These iOS Management flag settings can be selected for each app individually.

App settings:

- App settings are now called Configurations.
- All other app settings remain as they were prior to the upgrade.

For more information, see [Packages](#).

Device Licenses

Ivanti Neurons for MDM device-based licenses define the number of devices you can register, the amount of content you can configure for distribution to devices, and which features are available. If you reach your limit for devices, a red triangle displays in the Admin page. If you reach your limit for content, the service will prevent you from adding more and display a message to indicate that you have reached your limit.

Tenant Suspension

Access to a tenant used with an evaluation license or a production license might be suspended by Ivanti Neurons for MDM. An Evaluation License might be suspended when the evaluation period expires or when the usage allowance has been exceeded. A Production License might be suspended when the subscription period expires or when the usage allowance has been exceeded. Ivanti Neurons for MDM will restore a suspended tenant when the license has been renewed or when additional licenses have been purchased, in case of an overage.

When a tenant license is suspended:

- Existing registered devices continue to function normally.
- Administrators cannot log in to the Admin portal.
- New devices cannot be registered.
- API access to the tenant is blocked.
- End users can continue to access the Self-Service portal.

Tenant Suspension Action and Error Messages

Suspension Action	Error	Error message displayed	Location
End Customer-integration API access is blocked.	API Call fails.	Access denied. Your Evaluation License has expired. Please renew your license to re-enable API access. Contact your System Administrator for details.	API error 401.
New devices are blocked from registering.	An error message is displayed on the enrollment screen.	Unable to register your device. The license for your system has expired. Please contact your system administrator for details. Previously enrolled devices will continue to operate normally.	Following password verification.
Administrator is blocked from logging in to the Admin portal.	An error message is displayed on the login screen.	Unable to login. Your License has expired. Please renew your license to regain access to the Admin Portal and to enroll new devices. Devices that have been previously enrolled devices will continue to operate normally. Contact your sales representative to renew your licenses. Note that the Admin password expires after one year (365 days).	Following password verification.

Opening a Support Ticket

Visit the [Ivanti Support Portal](#) to open a support ticket.