Upgrading to Avalanche 6.2.2 from Avalanche 5.3

During an upgrade, the installer for Ivanti Avalanche (powered by Wavelink) migrates the profiles, users, and navigation tree; removes any Avalanche services that are installed locally; and installs the new version. Some data in the Enterprise Server database may be restructured.

What gets migrated/upgraded in this process

- profiles

- users

- the navigation tree

- Certificate Manager

What doesn't get migrated in this process

- reports (scheduled or completed)

- software packages

- scheduled deployments

- mobile device details

- LDAP user accounts

Completed reports (in PDF, XML, or CSV format) are not migrated, but they are not deleted and can still be accessed through the file system. When you install Avalanche 6.2 at a different location than your original server, software packages are not copied to the new environment and must be moved manually.

Supported Versions for Migrating to Avalanche 6.2

- Avalanche SE 5.3.0.572

- Avalanche MC 5.3.0.543

- Avalanche MC External DB 5.3.0.543

- Avalanche MC 5.3.1.50

- Avalanche MC External DB 5.3.1.50

- Avalanche 6.0

- Avalanche 6.1

If you have an earlier version than those listed above, you must first upgrade to Avalanche 5.3.1 before upgrading to 6.2.

The steps below are an overview of what you must do to upgrade to Avalanche 6.2.2.

To upgrade to Avalanche 6.2

1   Create a backup of your current Avalanche databases and software packages.

2   If you are running a version of Avalanche that is earlier than Avalanche SE 5.3.1, you must upgrade your existing instance to Avalanche 5.3.1. To obtain the install files, contact Ivanti Support. For more information on installing and upgrading to Avalanche 5.3.1, see Migrating from Avalanche 4.6+ to Avalanche 5.3.

3   Configure your existing database server to allow remote access.

4   Install and configure Microsoft SQL Server.

5   Run the Avalanche installer as an upgrade.

6   Merge the software packages backup with the `avapackages` folder located at `C:\Program Files\Wavelink\Avalanche`.

7   (Optional) Install or upgrade additional device servers.

8   Download 6.2 Enablers from the download site, and install them on your devices. New smart devices that enroll after you have upgraded to 6.2 must be using 6.2 Enablers. AIDC devices will still use 5.3 enablers.

9   (Optional) If you want devices to connect to a different device server, use a network profile or mobile device profile with the new server address to redirect devices.

10   If you haven't yet, you will need to obtain SSL certificates and GCM/APNS credentials before you can connect smart devices. For information on obtaining SSL certificates, see SSL Certificates.

11   Upgrade licenses.

12   Back up the encryption key.

Allowing Remote Access to the Database

If you currently have your database server installed on the same computer as Avalanche, you do not need to configure the server for remote access. However, if your database server is on a different machine from where you will upgrade Avalanche, it must be configured to allow remote access.

To configure a PostgreSQL database for remote access

1 Ensure that no firewall settings are blocking port 5432.

2 Navigate to:

```
[PostgreSQL installation directory]\9.x\data
```

```
-Or-
```

```
[Avalanche installation directory]\db\data
```

3 Using a text editor, open `pg_hba.conf`.

4 Add the following line to the host records at the bottom of the file:

```
host all all 0.0.0.0/0 md5
```

Where 0.0.0.0/0 is the range of addresses you will accept a connection from. For example, 10.10.29.0/24.

5 Save your changes, and close the file.

6 Restart the PostgreSQL Server database service.

Configuring Microsoft SQL Server

As part of the installation process, you must set up databases with Microsoft SQL Server to store and access device information.

Avalanche can use the following database platforms:

• SQL Server 2008

• SQL Server 2012

• SQL Server 2014

• SQL Server 2016

If you install the Express edition, you must use Microsoft SQL Server Express with Tools.

> ℹ Microsoft SQL Server Express with Tools is available for free commercial use, but comes with hardware limitations that govern the number of CPU cores, memory, and hard drive space that can be used per instance. If you use a different version of SQL Server, you are responsible for all licensing and fees associated.

The steps below are an overview of what you must do to configure SQL Server. For detailed steps about installing SQL Server, see the Ivanti Community article Setting up SQL Server 2008 R2 Express.

To configure SQL Server

1   Install your desired, supported version of Microsoft SQL Server and Microsoft SQL Server Management Studio. Instructions for doing this can be found on the Microsoft Developer Network web site.

> ℹ Ensure you use **Mixed Mode** authentication. Avalanche supports Microsoft SQL Server's default instance as well as any custom instances.

2   Open SQL Server Management Studio and log in.

3   Navigate to **Security > Logins**.

4   **Right click** and select **New Login** from the context menu.

5   Enter a username.

6   Select the **SQL Server authentication** option.

7   Enter the database password and confirm it.

8   Clear the **Enforce password expiration** option.

9   Click **OK**.

10 Right-click on the new login, and select **Properties**.

11 Click **Server Roles**.

12 Select **dbcreator**.

13 Click **OK**.

14 Open the SQL Server Configuration Manager, and navigate to **SQL Server Network Configuration > Protocols**.

15 Locate your server, and right-click to select **Enable TCP/IP**. Dismiss the warning dialog box that pops up.

16 Double-click **TCP/IP**, and click on the IP Addresses tab.

17 Scroll to IPAll, and enter `1433` for the **TCP Dynamic Ports** field. This port will also need to be opened through your network and computer firewalls. If you use named instances, you must also open port 1434.

18 Click **OK**, and dismiss the warning dialog box that pops up.

19 Navigate to SQL Server Services, right-click your server, and click **Restart**.

ⓘ When upgrading from Avalanche 5.3 when Microsoft SQL Server is not local to the Enterprise Server, the following tools must also be manually installed:

Microsoft SQL Server 2012 Native Client
Microsoft ODBC Driver 11 for SQL Server
Microsoft Command Line Utilities 11 for SQL Server

In some instances, you may need to verify the path to Microsoft Command Line Utilities. After installation, the `sqlcmd.exe` file should be located at `C:\Program Files\Microsoft SQL Server\100\Tools\Binn\`. To ensure connectivity from the computer you're installing Avalanche on, open a command prompt and type `sqlcmd -S[Server Address] -U[Microsoft SQL Server User Login] -P[Login Password]`. If a `1>` appears, you will be able to connect to the database. If not, additional troubleshooting is needed.

Running the Avalanche Installer as an Upgrade

The Avalanche installer is designed to include all components of the service, including the Web Console, Certificate Manager, and Remote Control server. This installer allows you to create all services on the same computer through one installation process.

Avalanche installs its own JRE and changes the JRE_HOME system variable. If you have a JRE already installed, it is not affected by Avalanche. However, any program using the JRE_HOME variable will be redirected to use the Avalanche JRE.

ⓘ Do not install Avalanche 6.2 on any machines currently running LANDESK Management Suite or Mobility Manager as this will prevent integration between applications.

ⓘ If you use LDAP user accounts in Avalanche 5.3, before you begin the upgrade process, ensure that you know the password for the amcadmin account. LDAP user accounts will not be migrated and will be created as new accounts with no permissions the first time they log in to Avalanche 6.2.2. To recover the amcadmin password, contact Ivanti Support.

To upgrade Avalanche

1   Double-click the Avalanche 6.2.2 installer.

2   Select a language and click **OK**.

3   Review the pre-install checklist and click **next**.

4   Read the license agreement, click **I accept the agreement**, and then click **Next**.

5   Browse to your preferred install destination directory and click **Next**.

6   Select **Upgrade** and the database server type that contains your existing database; then click **Next**.

7   Select which components you want included on the installation and click **Next**.

8   Enter the credentials for your old installation and click **Next**.

9   Enter the credentials for the new SQL Server database and click **Next**. The **Main DB Name** defaults to `Avalanche` and the **Stats DB Name** to `AvaStats`. If you use a named instance instead of the default MSSQLSERVER instance, select the check box for **Use Named Instance** and enter the name of your custom instance. The **Hostname** is the IP address or hostname of the machine running SQL Server. The username and password were set during the Microsoft SQL Server installation process. The port used by Avalanche is 1433.

10 The installer may ask for permission to create an Avalanche database and an AvaStats database. If this happens, click **Yes**.

11 Click **Next** to accept the default shortcut location, or modify it as desired.

12 Click **Next** to accept the configuration information for the Central Web File Server.

13 Review your selected configuration information, and click **Next** to begin the installation.

14 If an earlier version of Avalanche was on this system, click **Next** to remove the earlier version, and then click **Finish**.

15 Read the information about the new encryption keyfile, click the **Acknowledge** check box, and click **next**.

16 Click **Finish** to complete the Avalanche 6.2.2 installation.

Upgrading Mobile Device Servers

Use the device server installer to install and upgrade individual mobile device servers.

To upgrade your device servers

1   Check to make sure your existing device server is installed on a system that meets the minimum system requirements.

2   Download the device server installer from the [download site](#), and copy it to the place where your current device server is installed.

3   Double-click the device server installer to start the upgrade process.

4   Select **Yes, update the existing installation**, and click **Next** to continue.

5   Enter an Avalanche address in the form of a hostname or IP address to identify the Enterprise Server's address.

6   Click **Next** to begin the installation process.

7   Click **Finish** to complete the installation.

After you upgrade the mobile device servers, they will connect to the Enterprise Server and sync to make sure they have the latest information.

Mobile devices already enrolled may not appear on the Inventory screen until their next scheduled check-in.

Backing Up the Database Encryption Key

When initially installing or upgrading to Avalanche 6.2.2 or newer, all of the confidential information in the database will be encrypted. To protect this critical, confidential data, your encryption key is stored outside of the database. This ensures that merely having an unauthorized backup copy of the database is not sufficient to access confidential data.

You must back up your encryption key to a secure location that is separate from the database. The encryption key is stored as a file called `avalanche.ikeyfile`.

To back up the encryption key

The first time you create a backup of Avalanche 6.2.2 or newer, the `avalanche.ikeyfile` will need to be saved in a separate location from the database backups. Copy the file from `c:\Program Files\Wavelink\Avalanche` to a secure location. When determining where to store the backup, consult your company's secure file policy.

To restore the encryption key

The `avalanche.ikeyfile` will be needed every time you restore a backup. To restore the encryption key, copy the `avalanche.ikeyfile` back to `c:\Program Files\Wavelink\Avalanche`.