



## CSM 9.6.0 Release Notes

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# Release Notes

View CSM enhancements and fixes, organized by version.

# CSM 9.6.0 Enhancements List

CSM 9.6.0 Release Notes: enhancements include new features and changes in functionality.

- CSM-37494 CSM Services: To enable horizontal scaling, queues have been added to distribute the workload for these CSM services: Automation Processes, Email and Event Monitor, Scheduling, and Mail Delivery. The services are now contained in the Cherwell Service Host and referred to as microservices. The Cherwell Service Host, its four microservices, and Cherwell Message Queue Service (CherwellMQS) are automatically installed with the Server Installation, but you can choose which microservices to enable by default. You can later enable or disable microservices and configure logging for each microservice in the Cherwell Server Manager. CherwellMQS requires Erlang and RabbitMQ, which are included with the Server installation.
- CSM-13377 Globalization: Tab order on Forms can now be set for each culture.
- CSM-28919 Modal: The look and feel of the email modal toolbar was updated.
- CSM-29132 Installer: You can now configure Auto-Deploy through the Command -Line Configuration (CLC) options.
- CSM-30640 Application Service: Upon upgrading to CSM 9.6.0, CSM connections using TCP will be converted to HTTP. In addition, the /connectionprotocol Command-Line option is no longer supported.
- CSM-32161 Browser Client and Portal: Controls for radio button, check box, link labels, and Rich Text textbox moved to client-side rendering for improved performance.
- CSM-33369 Globalization: Added the ability to apply Language Packs to one or more controls on the Form Editor.
- CSM-33512 Business Objects: Added a new option for View Counter in Business Object Properties for Major Objects. The View Counter adds two read-only fields to the Object (Portal View Count and Technician View Count), which can be added to features such as Dashboard Widgets, Reports, and Forms. The Portal View Count field incrementally tracks the number of times a record is viewed in the Customer Portal and the Technician View Count field incrementally tracks the number of times the record is viewed in the Desktop Client or Browser Client.
- CSM-33517 Business Objects: The view count for a Business Object can be modified using the Update a Business Object One-Step Action. This works for both Technician View and Portal View if the view count feature is enabled for the targeted Business Object type.
- CSM-33920 Browser Client: Modernized the styling of Form Arrangement tabs in the Browser Client. You can now use a scrollbar to access hidden tabs when using a small window.
- CSM-33922 Toolbars: The Business Object toolbar now has a responsive icon when the window is sized to display the hamburger menu.
- CSM-33923 Toolbars: The Business Object, Form Arrangement, and grid toolbars have been modernized and updated. Fonts and colors in Portal toolbars are not affected since they are set according to Users' preferences.
- CSM-34400 Dashboards: Added the ability to set the background on Dashboard button Widgets.
- CSM-34465 Blueprints: Warnings are now including in scans of Blueprints that contain Security Group and Role changes applied to the Blueprint from a mApp Solution.

- CSM-34574 Command-Line Configuration Utility: Added support for accepting the security message that explains that a mApp Solution contains Security Groups and/or Roles that may impact security rights in the target database.
- CSM-34692 Browser Client: When viewing Knowledge Articles from a Business Object form with the appropriate security rights, added the ability to select an item from the grid to open in full edit view.
- CSM-34749 Forms: You can now add URLs to Link Label controls on Forms.
- CSM-35069 One-Step Actions: The content from the File One-Step sub-action now executes in the Browser Client and prompts the user for a file. Previously, the file could only be set when initially configuring the One-Step Action, and it would not dynamically prompt the user for the file to be used on the client.
- CSM-35211 Logging: Added a log viewer utility to CSM Administrator.
- CSM-35667 Security: Changed the User login session token from a ten-digit integer to a 16-byte base-64 string to increase security.
- CSM-35859 Business Objects: You can now convert any Major or Supporting Business Object into a Group Object from a Blueprint or mApp Solution. This enables you to share a set of common items (Fields, Relationships, Actions, and a default Grid) with other Business Objects.
- CSM-36163 Mobile Browser: Removed the Mobile browser from CherwellService (/CherwellService/Mobile), as Mobile browser has been sunset.
- CSM-36356 Accessibility: Improved alternative text for Related Item Picker options.
- CSM-36368 Portal: You now can use Google Analytics to track User selections, such as mouse clicks and taps, in the CSM Portal. For example, you can track User logins, Portal Site usage, Dashboard usage, Service Catalog, including categories and services, usage Searches (from the toolbar Quick Search only), and Action Link clicks from the home page. User information, search criteria, and other data entered by Users is not tracked.
- CSM-37153 Browser Client and Portal: Improved caching mechanism for form templates.
- CSM-37373 General: Upgraded Newtonsoft Json .NET framework to version 11.0.2.
- CSM-37488 Command-Line Configuration Utility: Added options for the new Cherwell Service Host and its microservices: Automation Processes, Email and Event Monitor, Mail Delivery, and Scheduling. Use commands to configure, start, stop, and uninstall the Service Host.
- CSM-37533 Portal: CSM Administrators can now configure Portal sites to allow Anonymous Users to view Business Objects (e.g., Knowledge Articles) and click a Deep Link to go directly to a specific record. Administrators configure view access for the Anonymous User Group through Business Objects. They can also limit records available to anonymous users by configuring a custom query for the Business Object. Anonymous users only have the ability to view records. Login is required for users who want to interact with or edit records in the Portal.
- CSM-37842 Accessibility: Improved accessibility with JAWS (Job Access With Speech).
- CSM-38359 Toolbars: The Form Arrangement toolbar on mobile devices is now responsive instead of wrapping toolbar options to new rows.
- CSM-38381 Browser Client: Added an error message to indicate when the database needs an upgrade.
- CSM-38529 CSM Installation: .NET Framework 4.7.2 is now required for CSM.

- CSM-38718 External Connections: MySQL dlls are no longer distributed with CSM. You can download the dlls here: <https://downloads.mysql.com/archives/c-net/>.
- CSM-39144 Globalization: Provided a Platform Resource Manager command-line utility that can export and import CSM platform string satellite assemblies. Assemblies are exported as .dll files, which can be imported into software localization tools. You can review and modify strings in the localization tool, then export them as a satellite assembly that can be reimported into CSM using the Platform Resource Manager utility.
- CSM-39193 mApp Solutions/Security: You can now add predefined Security Groups and/or Roles to mApp Solutions using the new Security Group Manager and Role Manager available when you are creating or editing a mApp Solution.
- CSM-39305 mApp Solutions: Removed the error dialog that opened when Users prepared a mApp Solution for distribution and mApp properties were not specified for all cultures included with the mApp Solution. Now, when the properties are not defined for each culture, properties for the default culture are applied to the mApp Solution.
- CSM-39472 Third-Party Reporting: CSM now supports the use of third-party reporting tools for searching. These tools can retrieve data from CSM via the Cherwell REST API. Use the provided Data Connectors to pull data from a Search Group (saved search) into the third-party tool for reporting and analysis. Currently supported third-party tools are Microsoft Power BI Desktop and Tableau Desktop.
- CSM-39582 Expressions: Added the ability for a customer to save a custom Expression to a stored Expression.
- CSM-39892 Themes: You can now apply Themes to Action Catalogs.
- CSM-40059 Dashboards: Added the ability to clear existing tab stop indexes set on a Dashboard.
- CSM-40242 Accessibility: Uploaded images from the Rich Text Editor now include an alt tag of "Image". This provides notification to a user that an image is present when using the JAWS screen reader.
- CSM-40568 Widgets: The Cards with Search Action Catalog Widget is no longer a standalone widget; now you can embed it in a Dashboard.
- CSM-40572 Browser Client and Portal: Updated the header, menu bar, and app bar, including color, font, hover style, logo, and menu structure to be in line with branding guidelines.
- CSM-40848 Health Check: Added a Health Check rule to verify Defs match the DefID in the database. You can also repair any mismatches.
- CSM-41525 Search Relevancy: You can now run a single-use Quick Search or Knowledge Search with results sorting according to their Relevance. This means that the records most likely to be relevant to your search string display at the top of the results. This new feature is implemented in the CSM Desktop Client, CSM Browser Client, and CSM Portal. Relevance is always the default sort order when searching records for all Business Objects. When searching records for a specific Business Object, you can modify the Sort By selection, but the modified setting only applies to the current search session. When you start a new Quick Search or Knowledge Search, the default sort order returns to Relevance. You can no longer save or edit a Quick Search because Quick Search now processes and sorts search results based on Relevancy ranking and this functionality is not yet implemented for saved searches or in the Query Builders.

- CSM-41744 Foreign Key Fields: Foreign keys are automatically updated when you publish a Blueprint that contains changes made to foreign key settings for validated Fields. The update only occurs for modified foreign key Fields and foreign key Fields referenced by those Fields. For example, foreign keys for the Sub-Category field would be updated if changes are made to the Category field. Options to manually update foreign keys have been removed from the Blueprint Publish dialog and the Globalization page in CSM Administrator.
- CSM-41874 Globalization: You can now distribute translated strings to various target systems by adding Language Packs to a Blueprint or mApp Solution. After the Blueprint or mApp Solution is published, apply the included Language Packs to your target system.
- CSM-42334 Form Designer: New Cherwell fonts are available for use in the Form Designer.
- CSM-42460 CSM Services: The Service Health Monitor is no longer available. Use the Cherwell Service Host to verify that the following services are operating normally: Automation Processes, Email and Event Monitor, Mail Delivery, and Scheduling.
- CSM-42831 Browser Client: When Quick View is clicked to view a record, it now opens in a new tab in full view, with full form, form arrangement, and toolbar functionality.
- CSM-43009 Globalization: Added the ability to create a list of locked strings to prevent certain strings from being translated when a Language Pack is applied. To ease translation efforts, you can also merge multiple locked strings lists from the new Locked Strings Manager, which is available in Blueprints or mApp Solutions.
- CSM-43111 Globalization: The option to save or publish a Blueprint when a Language Pack is applied has been removed. Now, a Blueprint is automatically created and opened when you apply a Language Pack. You can choose to modify, save, or publish the Blueprint as needed.
- CSM-43544/CSM-43988 Dashboards: Updated Dashboard grid styling for a more modern look and feel.
- CSM-43594 Foreign Key Fields: Validation checks have been added to help you determine if indexes are incorrectly applied to shared foreign key fields. If they are not, you will now will receive validation warnings when you edit a field in a Blueprint.
- CSM-43897 Cherwell Service Monitor: Added Cherwell Service Host and removed the Automation Processes, Email and Event Monitoring, Mail Delivery, and Scheduling microservices. When you stop, start, or restart the Service Host from the Service Monitor, the action is applied to all four microservices.
- CSM-44054 Command-Line Configuration Utility: Added options for configuring and managing several components: Auto-Deploy, Cherwell Message Queue Services (CherwellMQS), Cherwell Service Host, and Trusted Agents. Also added options for managing Command-Line Configure logging.
- CSM-44201 Action Catalog: Action Catalog style names are now available translated to the five base CSM languages.
- CSM-44228 Attachments: Marked temporary attachments uploaded from the CSM Browser Client and Portal as permanent if they are being used in the system.
- CSM-44546 Globalization: You can now choose to scan all cultures, enabled cultures, or the currently selected culture when a Blueprint is published.
- CSM-44674 Security: Upgraded third-party SAML library to latest version to support .Net 4.7 and latest security standards.



- CSM-44682 Desktop Client: The Show Ranking check box in the Knowledge Pane was removed. This pane now sorts by relevance.
- CSM-45829 Security: Transport Layer Security (TLS) 1.2 is now supported.
- CSM-45837 SAML Authentication: The default and recommended SAML signature algorithm is now SHA-256.
- DR 7463: Attachments: When Attachments are deleted from Business Objects, the corresponding records are now removed from the database.
- DR 9003 Browser Client and Portal: Added the ability to upload multiple file attachments at once for Business Objects, Document Repository, and Email using multi-select and drag and drop.
- DR 10743 Browser Client and Portal: Added the ability to download all Business Object attachments at once. The files download as a single zip file, which can then be extracted as separate files. Attachments must be saved to the Business Object to be downloaded as a part of the zip file.
- DR 14654 Business Objects: Added the ability to create an audit log when adding, removing, or updating/changing Attachments for a Business Object.
- DR 26301 Browser Client and Portal: Users with rights to delete attachments from Business Objects can now do so.
- DR 32118/DR 42984 Email: Added ability to open, reply to, and forward emails from the Business Object Tab Arrangement in the Browser Client. If you have configured email message queuing through Mail Delivery Service and ActiveMQ, queued emails that have not yet been sent are not listed on your email history page. After the emails have been sent, you can refresh the history page to see them listed in your email history.
- DR 32137 Expressions: User/Customer Data Expressions have been extended to support all fields in the UserInfo or Customer table.
- DR 33891 Prompts: Added the ability for Prompt definitions to use an Expression for the default value.
- DR 34743 Forms: Converted Rich Text text box Business Object form controls to client-side rendering.
- DR 3510 One-Step Actions: Added support for Excel 2007 and above file formats for Excel Merge Action in One-Step Actions.
- DR 37127 Dashboards: Added the ability to list Widgets from other folders in the Dashboard Editor.
- DR 43728/DR 44382 Form Arrangements: Added a link to “Show more” to Business Object search results in the Portal list view for results with long descriptions.
- DR 43906 Logging: Added additional INFO and STAT log statements to the AppServer logs for various user login/logout events.
- DR 43991 Browser Client and Portal Forms: Added the ability to select vertical and horizontal alignments for both images and text on buttons. Existing content may look different that before.
- DR 44034 Rich Text: The Default Theme Form control font is now set as the default font selection for the Rich Text Editor if a default font is not set for the associated Business Object Field or the Global Rich Text settings.
- DR 44045 Forms: The Form Designer now has an option to clear tab ordering on a Form.

- DR 44051 Foreign Key Fields: During the upgrade to CSM 9.6.0, indexes for foreign key fields are modified to reference a special internal validation sub-field that is created automatically. This is an internal reference only, however; on the Business Object Database Properties page in CSM Administrator, the index is shown for the main foreign key field.
- DR 44335 Blueprints: Added the ability to add a Business Object to associated views when adding to a Blueprint.
- QWIK-102 One-Step Actions: Added the ability to specify a Token as the type of Business Object in a "Go to a Record" Action in a One-Step Action.
- QWIK-129 One-Step Actions: When editing the "Update a Variable or Stored Values" for a One-Step Action, if multiple variables are defined, they will now appear sorted alphabetically in the variable selection drop-down.
- QWIK-132 One-Step Actions: Added the ability to set/update multiple variables and Stored Values within a single "Update Variables and Stored Values" Action. Added the ability to combine multiple side-by-side "Update Variables and Stored Values" Actions into a single Action. Added the ability to rename a variable within a One-Step Action and to remove unused variables.
- QWIK-143 Cherwell Service Monitor: Updates were added to logging in to the Cherwell Service Monitor to include an authentication process and removal of the machine specific log in. The new log in now leverages the Cherwell REST API and supports the same log in options as the Desktop Client and web applications.
- QWIK-232 Blueprints, mApp Solutions: Several Item Managers have been added to Blueprints and mApp Solutions, increasing the number of items that can be published to a Blueprint or added to a mApp Solution and shared across systems. Added Item Managers are: Attachments, HTML Page Manager, Queues, Scheduled Items, and Twitter Accounts.
- QWIK-281 Form Arrangements: CSM Web Applications now display the splitter location on Forms in the same location defined in the Business Object Form Arrangement Editor. After the User moves the splitter, the new location will be saved and used for that Business Object until the browser tab or window closes. After opening the site and logging in again, the splitter location will default back to the placement settings for the Form for that Business Object. This setting does not persist across browsers.
- QWIK-308 Form Arrangements: Added the ability for an administrator to disable a User's ability to reposition the splitter in the CSM Desktop Client or CSM Web Applications.
- QWIK-312 Blueprints: Added the ability to create a rollback Blueprint, when downloading a Blueprint from the Blueprint Publish Log.
- QWIK-318 Browser Client: The color and contrast has been improved on disabled/read-only Fields on Browser Client Forms, making them easier to read.
- QWIK-323 Attachments: Added the ability to remove orphaned Attachment records from the database.
- QWIK-329 Forms: Added the ability to specify placeholder text for Fields on Forms.
- QWIK-382 Browser Client and Portal: Updated the web applications Form splitter styling to the default Kendo UI styling.

# CSM 9.6.0 Fixes List

CSM 9.6.0 Release Notes: this list describes fixed issues that were reported in previous releases.

- CSM-13829 Browser Client: Added a confirmation dialog when deleting a saved search by clicking the red 'X' (Delete) button in the Search Manager toolbar.
- CSM-19404 Globalization: Fixed an issue that prevented some strings from being translated.
- CSM-21778 Browser Client: Fixed an issue that caused incorrect button sizing and a horizontal bar to appear in the Quick Search Builder.
- CSM-30038 Expressions: When editing an Expression, the Properties context menu item is now correctly disabled for cases where the context menu also contains an enabled Modifiers menu item.
- CSM-32043 System Settings: Fixed an issue that prevented the reload of catalog files for users on login when the "Invalidate Current Catalogs" system setting was selected in CSM Administrator.
- CSM-32448 Widgets: Fixed a problem where the sample data shown in text gauge Dashboard Widgets in the Dashboard Editor would not show the correct user specified number of digits for some cultures.
- CSM-33606 Blueprints: Fixed an issue that caused the "Different Items Only" check box to be partially hidden on the Blueprint Differences dialog.
- CSM-34399 Forms: Added support for rendering custom button foreground color.
- CSM-34585 Modals: Fixed text editor modals to fit the screen on iOS devices.
- CSM-34845 Globalization: Fixed an error that could occur when publishing a Language Pack Blueprint.
- CSM-34886 Rich Text Editor: Fixed an issue in the Rich Text Editor to maintain changes made to an image size when returning to the initiating screen.
- CSM-34970 Globalization: Fixed possible intermittent issues that occurred when Language Packs were applied.
- CSM-35302 Related Item Picker: Fixed an issue that caused cancelled changes to remain for Related Item Picker selections.
- CSM-35707 Grids: Fixed an issue that prevented results from being returned for custom Grid filters that used the Equals operator with a Date/Time column.
- CSM-35708 Browser Client: Fixed an issue that caused the Empty and Not Empty filters to return correct results for Date Fields in Grids.
- CSM-36079 Searching: Fixed an issue that caused incorrect count displays for Grid and List views after users refreshed the search results.
- CSM-36162 Modals: Fixed an issue that occurred when deleting a record and two confirmation modals appeared.
- CSM-36611 Browser Client: Fixed an issue with creating the first record in a lookup table from the Browser Client.
- CSM-36868 Browser Client: Fixed an issue that caused the Sort By field in a Stored Query to load incorrectly in editor after a change was made to the query in the Desktop Client.

- CSM-37075 Browser Client: Fixed an issue with the main menu toolbar where it was left in a state where only hovering (and not clicking) was required to interact.
- CSM-37148 Desktop Client: Fixed Bar code icon appearing as the wrong color for the theme.
- CSM-37180 Database: Fixed an issue where the CMDB lookup for related items was duplicating the Grid results when filtering by a customer.
- CSM-37186 Modals: Fixed dimmed login modal display observed on iPad Air, iOS 11.2, Mobile Safari.
- CSM-37233 Dashboards: Fixed a problem where transitions between Dashboard adaptive layouts in the Desktop Client were jerky or simply aborted when a Widget used a transparent border color.
- CSM-37465 Blueprints: Fixed an issue that caused duplicate Business Object Actions to be created. This caused warnings when running a Blueprint scan after an Action was deleted.
- CSM-37571 Browser Client: Users are now prompted to select at least one column for Grids if no columns are selected.
- CSM-37676 CSM Administrator: Fixed the Barcode Scanner Business Object to inherit attributes from parent to child.
- CSM-37706 Quick Search: Fixed issue in the Browser Client and Portal to display the default value in the Changed field after interacting with the Search widget in the CSM Administrator.
- CSM-37737 CSM Administrator: Fixed an issue that caused help text to be cut off on the Links page of the Relationship Property dialog.
- CSM-37822 Browser Client: Adjusted modal dialog style sheet to remove extraneous scrollbar displayed in Internet Explorer and Firefox.
- CSM-37826 Form Arrangements: Fixed an issue where a Form Arrangement tab in the Browser Client could have a toolbar despite it being disabled in the Blueprint.
- CSM-37867 Browser Client and Portal: Fixed an issue that caused check boxes included with Logical Fields to be hidden on Forms when the "Send to Back" button was used to later the control.
- CSM-37970 Browser Client: Fixed text editor modals to display zoom slider instead of a text field in embedded forms.
- CSM-38055 Globalization: Fixed an issue that caused strings not to be updated in the CSM Desktop Client and CSM Administrator after Users switched platform cultures.
- CSM-38188 Browser Client and Portal: Fixed an issue with resource management while loading Dashboards.
- CSM-38436 Browser Client: Fixed an issue where the Save Action within a One-Step Action prompt in the Browser Client did not execute the Actions.
- CSM-38519 CSM: Fixed an issue that caused the "Building Local Definition Catalog" dialog to open each time a User logged into the CSM Desktop Client or CSM Administrator.
- CSM-38591 Globalization: Fixed a translation issue with the "Operation in Progress" page.
- CSM-38994 Browser Client: Fixed an issue that caused the alignment issues for text check boxes.
- CSM-39072 Portal: When the option is selected on the properties of the Business Object and a valid Expression is provided, a row image now displays for result sets on the web.

- CSM-39080 Mobile Browser: Fixed an issue where iOS Portal users could not save a new Discussion without first clicking Done on the virtual keyboard. Mobile browser users can now click on toolbar items immediately after changing values in text fields, and that changed value will be updated prior to the toolbar action taking place (like save or refresh).
- CSM-39110 Browser Client: Fixed anchoring to allow better horizontal and vertical resizing in the Browser Client.
- CSM-39240 Searching: Fixed an issue that caused differences in the number of records shown in the result counter and in the results list.
- CSM-39311 Globalization: Fixed issue where trying to open a Blueprint file could cause an error stating "You cannot edit a definition that is not in edit mode."
- CSM-39888 Scheduled Items: Fixed an issue that caused the first scheduled run to be skipped if a recurring Scheduled Item was edited.
- CSM-40060 CSM General: Fixed an issue that may have caused performance issues during serialization for certain Fields and properties.
- CSM-40131 CSM: General security fix.
- CSM-40138 Authentication: Fixed an issue that occasionally logged out Users immediately after they logged in.
- CSM-40532 Performance: Enhanced performance for Field ID processing.
- CSM-40577 Installer: Due to changes in third-party utilities, you may be prompted to download and install third-party tools when you install or upgrade to CSM 9.6.0.
- CSM-40654 CSM: General security fix.
- CSM-40657 Portal: Fixed an issue that caused text to overlap the on certain forms when viewed in a browser on an Android OS.
- CSM-40658 Dashboards: Fixed issue for anonymous users in which Dashboard actions appeared frozen because they required login.
- CSM-41059 Form Arrangements: Fixed an issue in the Tab Contents Properties of a Form Arrangement where after selecting a Form from the list, the Default Form reverted to the first item in the list.
- CSM-41140 Cherwell REST API: Fixed an issue that caused errors to occur for operations that called tables with no culture translations. Now, the primary culture is used as a fall-back culture.
- CSM-41751 Foreign Key Fields: Fixed an issue that prevented constraints in an expression from validating when one field used foreign keys but the other did not.
- CSM-41812 Browser Client and Portal: Fixed an issue where Action Catalog items can be clicked even when disabled. User can now view the disabled Services, Categories and Actions, but cannot click them.
- CSM-41864 Server Farms: Fixed issue that could occur when running CSM with multiple Application Servers in a server farm. When the error occurred, the user activity log on each Application Server would not synchronize with all other servers, resulting in some instances of users being logged out inappropriately if the farm's load balancer did not evenly direct traffic to all application servers regularly.

- CSM-41883 Searches: Fixed an issue in the Browser Client that used incorrect values for the queue clause when editing a Saved Search with a queue clause.
- CSM-41913 Browser Client: Corrected grid results in the Quick Search and Search Builder to sort according to the settings in the List View and Advanced Search. When viewing a grid outside of the Search Builder and Quick Search, the User Preferences, Admin Sort Settings, or default sort column for the grid is applied, respectively.
- CSM-42168 Performance: Updated SQL Data Definition Language (DDL) statements to detect if objects exist before trying to remove them.
- CSM-42201 Command-Line Configuration Utility: Fixed an issue that caused the database to be automatically upgraded whether or not the upgrade command was passed.
- CSM-42440 Forms: Fixed an issue where font settings were not being respected by the date time form control on the Browser Client.
- CSM-43255 Adaptive Layouts: The names of adaptive layouts in the Form and Dashboard Editors were not being stored per language. The names are now set and retrieved per language.
- CSM-43641 Search Relevancy: A label was added to the Search Settings dialog in CSM Administrator to clarify that Text Search settings only apply to certain search types.
- CSM-43702 Foreign Key Fields: Relationships that autopopulate constraints using foreign key fields now populate values correctly.
- CSM-44261 Related Item Picker: Fixed an issue where a Related Item Picker on a control would sometimes not show the current value from a relationship.
- CSM-44439 Automation Processes: Fixed an issue with the abort conditions for a Visual workflow process that occurred when the process was set to limit records based on a query and had "Criteria used to initiate process is no longer valid" selected.
- CSM-44479 Search Relevancy: The Knowledge Pane in the CSM Desktop Client and the Knowledge option in the toolbar on a Business Object form in the CSM Browser Client now order search results by Relevancy. Users may not modify this sort order default.
- CSM-44635 Web Forms: Fixed an issue where resizing a browser window multiple times caused the width and height to expand.
- CSM-44833 Grids: Fixed an issue with the filter that excluded white space as a valid item and perform searches without errors.
- CSM-44840 Grids: Corrected an issue that occurred when exporting a grid as CSV containing special characters. The exported grid now displays special characters correctly.
- CSM-44898 Widgets: The Dashboard Search Widget now sorts results by Relevancy rating (if selected).
- CSM-44989 Attachments: Fixed an issue where improperly imported attachments would cause email sent from a Business Object to fail with an error.
- CSM-45166 Email: Fixed an issue where email attachments sent by One-Step Actions and Automation Processes showed up as broken links when the Import File Attachments Automatically setting is enabled.
- CSM-45168 Attachments: Fixed an issue where attachments in Journal - Mail History records behaved differently in the Desktop Client and Browser Client.



- CSM-45267 Security Groups, Widgets: The Manager Dialog (Widget, Dashboard, Security, One-Step, and Queue) now shows and hides the Show Items for My Roles menu item based on the Admin Rights that are defined for the role. When the rights are removed, the menu item is hidden; otherwise, it is visible.
- CSM-45343 Cherwell REST API: Improved the getqueues folder parameter description and improved the response code when a folder is not valid.
- CSM-45526 CSM Desktop Client: Fixed an issue that caused the Desktop Client to become unresponsive if changes in a form were abandoned.
- CSM-45590 Encryption: Fixed an issue that prevented encrypted text fields from working correctly in the Portal and Browser Client.
- CSM-45803 Email: Fixed an issue where test email messages sent over a 3-tier connection would fail.
- CSM-46052 Anonymous Access: Corrected an issue that occurred when clicking a Deep Link to access a Business Object that does not have Anonymous access rights. The login modal is now displayed.
- CSM-46334 Browser Client and Portal: Fixed an issue that prevented new sessions from being created when they were configured to connect to the Application Server using a 3-tier connection.
- CSM-46666 Prompts: Fixed an issue that prevented searches that contain prompts from running as expected when the search was created in the Browser Client.
- DR 1348 Forms: Added support for rendering custom button background color with automatic hover and button press coloring.
- DR 13548 Browser Client: In Form Designer, any layered Image must now be explicitly sent to front or back when layered on a text box control. This change ensures that image placement will be respected.
- DR 31810 One-Step Actions: Added an error message that informs users that One-Step Actions that contain Go to Records Actions are not supported in Quick Views.
- DR 32044 Reports: Fixed an error with creating a report against a grouped Business Object containing a SortAsNumber field.
- DR 35734 Email and Event Monitor: Fixed an issue where Business Objects would be saved multiple times when processing emails with attachments.
- DR 40046 Time Zones: Fixed an issue that prevented a midnight time stamp from being displayed correctly during grid exports.
- DR 41783 Active Directory: Fixed an issue where importing AD User data did not include Group Attributes such as "memberOf" if the Attribute was mapped to a Business Object Field.
- DR 42372 CSM Browser Client: Fixed an issue that caused a maximum of 100 rows to be exported from CMDB Grids.
- DR 42422 Widgets: Auto-scale for graph widgets in the Browser Client was adjusted to allow the graph to set the Y axis (both primary and secondary) scale to a range below zero.
- DR 42491 Desktop and Browser Client: Fixed an object reference error that occurred for Print Preview when accessed from the Rich Text Zoom dialog > File > Print Preview.

- DR 42562 Calendars: Fixed an issue where the navigation pane was too narrow when calendars initially loaded, cutting off the navigation buttons.
- DR 42569 Dependencies: Fixed an issue that prevented dependencies from being returned for Dashboard Widgets and for Scheduled Items (Business Objects, One-Steps Actions, and Reports).
- DR 42685 Blueprints: Fixed problem where grouping configurations in Form Arrangement grids was not being saved.
- DR 42714 Display Settings: This change addressed a potential issue where modal dialog boxes and pop-up windows could appear behind the active window.
- DR 42809/DR 35122 Portal: Fixed broken image links in Knowledge Articles when accessed via Deep Links, SAML, and WinLogin.
- DR 42891 Automation Processes: This change fixes an issue where the display text on the Start node of a visual Business Process workflow was incorrectly formatted when the Start event is a RelatedChildEvent.
- DR 43346 Blueprints: Fixed an issue with copying a Directory Service (Active Directory, LDAP, etc.). The copied service was getting the same name as the original service, which caused an error since service names must be unique.
- DR 43476 External Connections: Fixed an issue where the DBOWNER field was not getting updated using the External Connection Wizard.
- DR 43604 Application Service: Increased maximum message size quota for incoming messages to 250000000 characters.
- DR 43641 External Connections: Fixed an upgrade issue that caused the Trusted Agent setting of existing external connections to change to True.
- DR 43697 CSV Import: Fixed an issue that caused incorrect results when an imported file had an empty value at the end of a line.
- DR 43723 Grids: Fixed SQL query builder to resolve "order by" columns correctly.
- DR 43826 Blueprints: Fixed an issue where the number of lifecycle states could be different in different cultures, which was causing a variety of issues related to lifecycle states. Lifecycle states now have the same number of states across all cultures, and will utilize culture fallback if one culture does not have a translated state.
- DR 43858 Fields: Fixed an issue that enabled Users to set "24:00" as a time value for Date/Time fields. This value is now converted to 00:00.
- DR 43867 Browser Client: Fixed memory leaks when viewing Search Results Grid and Business Object forms.
- DR 43879 Globalization: Fixed an issue that caused all cultures to be shown when Roles were configured rather than showing only cultures that were enable for a system.
- DR 43895 CMDB: Fixed an issue that caused the incorrect record to open in a new window when Users used SHIFT+double-click to open a selected record from the CMDB Grid.
- DR 43899/DR 44048 Portal: Fixed an issue that caused the toolbar to remain on the browser window after Users logged out.
- DR 43919 Documentation: Added wording to clarify how to request a Refresh token using the REST API.



- DR 43931 Globalization: Fixed an issue that caused Users to be prompted to validate the Team Type when a Team or Workgroup name was changed in a non English (US) culture.
- DR 43938 Portal: Fixed an issue that prevented Action Catalog links from working until a Dashboard was refreshed. This problem only occurred with SAML logins.
- DR 43967 Portal: Fixed an issue that cause some Form elements to be cut short when rendering.
- DR 43971 Email: Fixed an issue that prevented attachments from certain emails from being attached to Incidents created via the Email and Event Monitor.
- DR 43994 Rich Text Editor: Fixed an issue where keyboard shortcuts were not working for the in-form editor or the dialog editor. Fixed a tabbing issue within the color picker.
- DR 44028 Form Arrangements: Fixed an issue where the Form Arrangement tab did not honor a setting to not display the toolbar.
- DR 44029 One-Step Actions: Fixed an issue that prevented data from Rich Text Fields from being exported to Reports using One-Step Actions.
- DR 44039 Browser Client: Fixed an issue that caused high usage of browser memory while navigating screens in the Browser Client.
- DR 44073 Security: Fixed an issue that caused an invalid error when a User selected a default Team for a record and that Team had been renamed.
- DR 44083 Searching: Fixed an issue that prevented Users with rights to create Search Groups in the Browser Client unless they had rights granted for the Global scope.
- DR 44100 Import Utility: Fixed an issue where there was a data import error related to the missing "OneStepCommonRunner" registration.
- DR 44193 Journals: Fixed an issue where Journal Entries describing outgoing email notifications had direction as "not set" instead of "outgoing."
- DR 44202 Server Farms: Updated documentation to provide steps for applying a machine key to internet Information Services (IIS) for all CSM servers in a Cherwell Server Farm. This configuration solves issues with running One-Step Actions from the Browser Client and Portal.
- DR 44209 Dashboards: Widgets with no horizontal anchoring are no longer pushed off the left side of the designer window when changing the current adaptive layout width.
- DR 44210 Widgets: Fixed an issue that allows the Browser Client/Customer Portal to show an individual search item when the default setting is Specific Search. Now both the Browser Client and Desktop Client match in search functionality.
- DR 44218 Desktop Client: Fixed an issue that caused Def ID errors when a custom toolbar was edited.
- DR 44221 Forms: Rich client only: Fixed an issue that occurred when using the Related Item Picker when two records of the same type of Business Object are open.
- DR 44223 Quick Search: Fixed an issue that occurred when moving a comparison clause into a group clause.
- DR 44226 Active Directory: Fixed an issue that caused an error when User accounts with avatar images were reimported.
- DR 44231 Browser Client: Fixed internal string format for representation of date/time values.

- DR 44233 One-Step Actions: Fixed an issue that caused Field value selections for Update a Business Object Actions to revert to the Template option when any filter is changed or another item is selected.
- DR 44248 Documentation: Added wording to clarify that the `CurrentUserDisplayName( )` system function returns the value from the `UserInfo` table on the CSM Desktop Client, and the value from the `Customer-Internal Business Object` on the CSM Portal.
- DR 44277 Documentation: Updated online help to specify rebuilding the full-text search catalog is only available for on-premises installations of CSM.
- DR 44364 Forms: Fixed an issue where multi-line labels and link labels would render with extra spacing between lines.
- DR 44367 One-Step Actions: Fixed an issue that prevented Automation Processes from completing successfully when they included a Go to Record One-Step Action where the Open New Record After Action option was selected.
- DR 44371 Email: Fixed issue which caused multiple email records to be created in the `TrebuchetMail` table.
- DR 44396 Portal: Modal windows can now be resized.
- DR 44397 Scheduled Items: When running reports as scheduled items, prompt values were ignored; prompt values are now used correctly.
- DR 44409 One-Step Actions: Fixed an issue that prevented One-Step Actions from running from CSM Administrator.
- DR 44415 Widgets: Fixed an issue where date range filters were not applying to search Widgets on Dashboards.
- DR 44417 Documentation: Updated online help to specify the `linkrelatedbusinessobject` method is designed to only work using the `relationshipID` for the Parent side of a Relationship.
- DR 44418 System Analyzer: Fixed an issue that prevented some messages from appearing in the System Analyzer.
- DR 44421 Desktop Client: Fixed an issue that caused Task Pane buttons to be activated when enter was pressed enter press when focus was on the Business Object form.
- DR 44427 Automation Process Service: Fixed an issue that required the service to be restarted after log configuration changes were made.
- DR 44435 Email: Fixed an issue where test emails sent from CSM might not be delivered.
- DR 44437 Relationships: Fixed an issue that prevented changes to existing Relationships on Group Objects from being saved and published.
- DR 44450 mApp Solutions: Fixed an issue where certain mApp Solutions would not properly resolve folders for changed items, resulting in an error message.
- DR 44479 Rich Text Editor: Removed options from the CSM Desktop Client that prevented the Rich Text Editor from applying the selected style, when choosing the Paragraph-Styles menu options.
- DR 44482 Prompts: Fixed an issue so that users are loaded correctly in the Related Item Picker when running a One-Step Action in the Browser Client.

- DR 44496 Prompts: Fixed issue with prompting for a value from a One-Step Action. Having multiple Business Object records with the same field value caused the prompt to return the return value from one of the other records instead of the one that was selected.
- DR 44497 Widgets: Gauge widgets will no longer have a small icon in the title when dragging a Widget onto a Dashboard. This will not affect existing Dashboards.
- DR 44499 Modals: The File Upload Modal changed. Business Object form attachments, Email Modal attachments, and the Document Repository were affected allowing the User a choice to Submit or Cancel an upload. When the User clicks Submit for Business Object form attachments, the File Upload Modal attaches the uploaded file(s) to the Business Object. For Email, it stores the attachment data and updates the Email Modal toolbar for attachments. For the Document Repository, it adds the file(s). If the user clicks Cancel (or the "X" Close button), the File Upload Modal deletes the file(s) that were uploaded. The One-Step Actions file prompt was also affected, but the flow didn't change.
- DR 44508 Browser Client and Portal: Removed the dependency on Google Fonts. CSM will now serve local resources to allow Portal and Browser Client to be used in restricted environments.
- DR 44512 Email: Fixed an issue that prevented autopopulate (value) constraints from being evaluated when saving an email record.
- DR 44514 Journals: An issue involving erroneous characters resulting from rich text to plain text conversion was fixed.
- DR 44521 Application Service: Fixed an issue that caused an error when running the Application Server in IIS, even when security rights were granted.
- DR 44522 Globalization: Fixed an issue that caused the system upgrader to fail when upgrading CSM 9.3.x to 9.5.x.
- DR 44531/DR 44541 One-Steps Actions: Fixed an issue that caused some tokens to be deleted after a One-Step Action was edited.
- DR 44532 Automation Processes: Fixed an issue where abort conditions for an Automation Process were not working for processes triggered by changes to a field.
- DR 44536 Forms: Embedded forms within embedded forms no longer display because they can trigger recursive behavior.
- DR 44540 Logging: Fixed an issue that prevented log file count settings from being ignored.
- DR 44552 Fields: Fixed an issue in the Browser Client that allows a required, formatted field from being saved without data.
- DR 44558 One-Step Actions: Corrected an object reference error that occurred when One-Step Action with step through collection was edited a second time.
- DR 44561 Cherwell REST API: Fixed a performance issue which could result in high CPU usage when multiple clients connected at the same time.
- DR 44562 Business Objects: Fix an issue where combo boxes on Business Object Forms with read-only expressions could appear editable after executing a One-Step Action.
- DR 44564 Business Objects: Made improvements to error messages shown when importing from a .csv file to help make identification of root problems easier.

- DR 44568 One-Step Actions: Corrected an "Illegal characters in path" error that occurred when running more than one report in a One-Step Action and sending the results in an email using a Write to File Action.
- DR 44574 Widgets: Fixed a problem where query-based Dashboard filter Widgets which included a prompt expression would not prompt for a value after navigating back to a Dashboard via the "Back" toolbar button or other means.
- DR 44575 Security: Fixed issue where Document Repository items in the Attachment Manager would use the default Security settings instead of the specific settings for Document Repository items, which could cause unexpected security rights problems when trying to access them in the Attachment Manager.
- DR 44587 Fields: Fixed a potential issue with plain-text URLs being converted to hyperlinks. This could happen when pasting text into a rich text field in Desktop Client, or while the Email and Event Monitor processed email text.
- DR 44601 One-Step Actions: Fixed an issue that caused unsaved records to reload on using the Refresh command.
- DR 44607 Business Objects: Fixed an issue where changing the unique ID field for linked external data tables was not also changing the ReclD field or the primary key.
- DR 44609 One-Step Actions: Fixed an issue where the Wait for Program to End before Continuing option was ignored in a One-Step Action.
- DR 44621 Mobile Browser: Fixed an issue that was causing the menu items on a mobile browser to not render as disabled. Menu items that should have been grayed out were not. After this fix, the menu items on a mobile browser will be properly grayed out in accordance with security settings.
- DR 44630 Widgets: Fixed issue where bar or column logical charts would not display any results in Dashboards.
- DR 44633 System Analyzer: Fixed an issue that caused the CSM Desktop Client to become non-responsive when the System Analyzer was opened with a non-English platform culture selected.
- DR 44637 Email and Event Monitor: Fixed an issue that caused certain linked inline attachment to import incorrectly.
- DR 44653 Globalization: Fixed an issue that caused Google Translate options to be unavailable available for Norwegian languages in the Language Pack Editor.
- DR 44662 Documentation: Fixed wording in the online help that referred to an older version of Microsoft Active Directory Federation Services (ADFS).
- DR 44673 Performance: Fixed a performance issue which could cause excessively high CPU usage during server startup.
- DR 44677 Actions: Fixed issue where some Save Actions on the Browser and Portal Clients would not properly run, often accompanied by an error in the browser's console.
- DR 44686 System Functions: Updated the registry value for browser emulation in desktop application web controls to use Internet Explorer 11 emulation mode instead of Internet Explorer 9.
- DR 44741 Browser Client and Portal: Fixed an issue that capped the number of browser tabs allowed to be open at the same time.
- DR 44742 Trusted Agents: Fixed an issue in CSM Administrator that caused display problems with Trusted Agents Service Groups ping statistics when the dark theme was selected.

- DR 44743 Dependencies: Solved an issue with timeout errors for the Find Dependencies feature by increasing the default timeout period from 3 to 5 minutes.
- DR 44778 Portal: Fixed an error that caused problems with uploading files to the Portal.
- QWIK-86 External Connections: When editing an existing external field to map in the External Data Wizard, the appropriate radio button (Create new field or Use existing field) will now be selected depending on the state of what is being edited.
- QWIK-93 Visualizations: Fixed an issue where Relationships set to Load Keys only resulted in missing child nodes in a Visualization of the Relationship.
- QWIK-300 Command-Line Configuration Utility: Fixed an issue where the wrong parameter name was expected for Application Server hosting mode.
- QWIK-347 One-Step Actions: Fixed an issue where a space in a variable name could result in the variable not functioning in Expressions.
- QWIK-448 Authentication: Fixed an issue where an expired session in the CSM Browser Client could cause Object reference errors when attempting to refresh a record.
- QWIK-451 Blueprints: Fixed an issue that caused an error message when adding a Relationship to a Blueprint.
- QWIK-470 Browser Client and Portal: Fixed an issue where the validation Grid defaulted the search to the invalid value that was entered.

## CSM 9.6.1 Fixes List

CSM 9.6.1 Release Notes: this list describes fixed issues that were reported in previous releases.

- CSM-48570 Logging: The logging level for Trusted Agent operations has been changed from "error" to "debug."
- CSM-48620 Security: Fixed an issue that could prevent new users from logging into the system.
- CSM-48753 Searching: Fixed error that occurred when performing a search operation on a Business Object that includes the the Business Object's children on the search.
- CSM-48968 Searching: Fixed an error that caused invalid SQL if a search expression used a set operation and a related query that had at least one item.

## CSM 9.6.2 Fixes List

CSM 9.6.2 Release Notes: this list describes fixed issues that were reported in previous releases.

- CSM-43275 CSM: The behavior reported with the One-Step Action click-guard issue is believed to be caused by lost communication between the Browser Client and SignalR or an unhandled exception. The improvements listed below should solve those particular scenarios:
  - The One-Step Execution Engine no longer uses SignalR to communicate with the Browser Client/Portal worker process that initiated the One-Step Action (Note that the web browser itself still uses SignalR to communicate with the web server during the execution of a One-Step Action).
  - Improved error handling and exception handling and increased Debug-level logs.
  - Addressed a rare condition that could occur in some situations when UI interaction was requested after the request to launch a One-Step Action completed.
  - When Server Farm mode is enabled, Redis is now used to provide UI interaction results to the Browser Client/Portal worker process that initiated the One-Step Action.
- CSM-48796 System Upgrade: Indexes now synchronize properly across group Business Objects, which may have prevented some customers from upgrading to CSM 9.6.0.
- CSM-49042 Automation Processes: Fixed an issue that could prevent certain automation processes from running when Journal - Mail History records are added to a watched relationship.
- CSM-49162 Globalization: Fixed an issue that prevented database indexes with foreign key fields from being properly converted to internally reference the correct sub-field.
- CSM-49465 Web and Portal Clients: Fixed an issue with Web/Portal client search results. The "Show More" link will now expand the item in the results view.
- CSM-49883 Forms: In the Browser Client and Portal ONLY, customers can use embedded forms within embedded forms. The product team is actively discussing how to come up with a long-term solution for this use case.
- CSM-49890 Grids: Fixed an issue where search results grids columns were clipping together.
- CSM-50140 CSM: General security fix.
- CSM-51608 One-Step Actions: Fixed an issue that could cause validated list prompts in One-Step Actions to display items that do not match the configured constraints.
- DR 43827 Globalization: Definitions for deleted cultures are now removed from Grids and Forms. This prevents errors from occurring when publishing a Blueprint with deleted cultures.
- DR 44275 Email and Event Monitor: Message files now properly attach to Business Objects when processed from an Exchange email monitor. The newly processed files will have a generic file name in the format "Message\_#.eml".
- DR-44713 CSM: Fixed an issue where dates of 12-30-1899, which were previously used in the system to indicate an empty date, were no longer treated as empty.
- DR 44828 Desktop Client: Fixed an issue that could send back excessive amounts of data in the header from the Application Server.

- DR 44962 Scheduling: Fixed issue that caused the Scheduling Service to improperly mark running jobs as exceeded timeout when the database server and the application server were not on the same time zone.
- DR-44975 Performance: Made improvements to increase scalability and reduce memory consumption.



## CSM 9.6.3 Fixes List

CSM 9.6.3 Release Notes: this list describes fixed issues that were reported in previous releases.

- CSM-52463 Email: Fixed an issue where trying to send emails to multiple recipients in a One-Step Action when using a SQL Server on an Amazon RDS instance would cause the Desktop Client to lock up and eventually display an error message.

## CSM 9.6.0 Known Issues

CSM 9.6.0 Release Notes: You can view known issues and possible workarounds in the Cherwell Knowledge Center.

To view the list of known issues, visit this page: [CSM 9.6.0 Known Issues](#).

# System Requirements


CSM 9.6.0 Release Notes: learn about system requirements for CSM clients, servers, and third-party applications.

## Minimum System Requirements (Client)

System Processor	Dual Core CPU or equivalent (1)
System Memory	3 GB (4 GB or more recommended)
Operating System	Windows 10, Windows 8.1 x86 or x64 Pro or Enterprise editions, or Microsoft Windows 7 Service Pack 1 (SP1), x86 or x64 editions
Free Disk Space	Minimum: 1.5 GB (2 GB recommended)
Networking	Internet access required for online documentation feature
Desktop Browser (5)	CSM works with the current versions of the following desktop browsers: <ul style="list-style-type: none"> <li>• Google™ Chrome™</li> <li>• Microsoft Edge</li> <li>• Internet Explorer 11+</li> <li>• Mac only: Safari</li> </ul>
Mobile Browser (5)	CSM works with the current versions of the following mobile browsers: <ul style="list-style-type: none"> <li>• Safari on the latest version of iOS (version 12)</li> <li>• Chrome on the last two major versions of Android: Pie (version 9.x) and Oreo (version 8.x)</li> </ul>
Other	Microsoft .NET 4.7.2 (required); latest version recommended. Transport Layer Security (TLS) 1.2

## Minimum System Requirements (Server)

System Processor	Dual Core CPU or equivalent (1)
System Memory	4 GB (6 GB or more recommended). Note that if you have SQL Server® installed on the same server, more RAM is recommended.

Operating System	Windows Server 2016, Windows Server 2012 R2, Windows Server 2012, or Microsoft Windows Server 2008 R2 SP1
Free Disk Space	Minimum: 5 GB Recommended: 10 GB
Networking	Internet access required for online documentation feature
Database	<p>Microsoft SQL Server 2017, Microsoft SQL Server 2016, Microsoft SQL Server 2014, or Microsoft SQL Server 2012</p> <p>We recommend using SQL Server on a separate server.</p> <p> <b>Note:</b> Full-text indexing must be enabled. Requires SQL Standard Edition (minimum), either a Processor License or a Server License with sufficient number of Client Access licenses.</p>
Other	<p>Microsoft .NET 4.7.2 (required); latest version recommended.</p> <p>Erlang 21.0 (installed automatically with CSM)</p> <p>Internet Information Services (IIS) 7.5+ (required for Web Applications and when hosting the Cherwell Application Server in IIS) (2)</p> <p>Transport Layer Security (TLS) 1.2</p>

## Other Requirements

BeyondTrust (former Bomgar) mApp	Refer to <a href="#">BeyondTrust Remote Support mApp</a> .
Email	Server running SMTP and POP or IMAP, Microsoft® Exchange 2016, Microsoft® Exchange 2013, or Microsoft® Exchange 2010
LDAP	Microsoft Active Directory® 2003+, Novell® eDirectory™. Other LDAP servers might allow some/all functionality.
Trusted Agent Server (3)	Dual Core CPU or equivalent (1); 4 GB (6 GB or more recommended); 1 GB free disk space; Microsoft 2008 Server R2 SP1, Server 2012, Server 2012 R2, Server 2016

Load Balancing (3) (4)	Redis® Server 3.0.504 or Redis® Labs Enterprise Cluster (RLEC), any version.
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## Notes

1. Recent model required.
2. If you host the Cherwell Application Server in IIS, Windows Communication Foundation (HTTP and Non-HTTP Activation) components are also required.
3. Optional. The Trusted Agent Server, Redis® Server, and Redis® Labs Enterprise Cluster are installed separately from the CSM server.
4. Testing was performed against open source Redis 3.0.504. No known compatibility issues exist with later Redis versions, however.
5. CSM may work with other browsers, but certain features may not be available or may not work as expected.

# Revision History

A list of CSM revisions by date and changes.

Revision	Date	Changes
9.6.3	September 2019	Software fixes. For a list of fixes, see <a href="#">CSM 9.6.3 Fixes List</a> .
9.6.2	September 2019	Software fixes. For a list of fixes, see <a href="#">CSM 9.6.2 Fixes List</a> .
9.6.1	July 2019	Software fixes. For a list of fixes, see <a href="#">CSM 9.6.1 Fixes List</a> .
9.6.0	June 2019	<p><b>Platform changes:</b></p> <ul style="list-style-type: none"> <li>• Activity Pane</li> <li>• Third-party reporting</li> <li>• Search relevance</li> <li>• Log Viewer in CSM Administrator</li> <li>• Queuing for CSM Services</li> </ul> <p><b>OOTB content changes:</b></p> <ul style="list-style-type: none"> <li>• Updated Forms and Dashboards for the OOTB content</li> </ul> <p>For additional features, see <a href="#">What's New in CSM 9.6.0</a>.</p>
9.5.3	April 2019	Software fixes. For a list of fixes, see <a href="#">CSM 9.5.3 Fixes List</a> .
9.5.2	February 2019	Software fixes. For a list of fixes, see <a href="#">CSM 9.5.2 Fixes List</a> .

9.5.1	December 2018	Software fixes. For a list of fixes, see <a href="#">CSM 9.5.1 Fixes List</a> .
9.5.0	November 2018	<p><b>Platform changes:</b></p> <ul style="list-style-type: none"> <li>• Trusted Agents for One-Step™ Actions</li> <li>• Translatable platform strings</li> <li>• Multi-byte support for Language Packs</li> <li>• Camera and location services added to the Browser Client</li> <li>• Print Action support for Web Applications</li> </ul> <p><b>OOTB content changes:</b></p> <ul style="list-style-type: none"> <li>• Site and Building management</li> </ul> <p>For additional features, see <a href="#">What's New in CSM 9.5.0</a>.</p>
9.4.0	July 2018	<p><b>Platform changes:</b></p> <ul style="list-style-type: none"> <li>• Adaptive Layouts functionality for Dashboards</li> <li>• Common One-Step™ Action execution engine</li> <li>• Enhanced Prompts and Prompts Manager</li> <li>• Cherwell Rest API Named Object Operations</li> <li>• Enhanced Cherwell documentation portal: <a href="#">Product Documentation</a></li> </ul> <p><b>OOTB content changes:</b></p> <ul style="list-style-type: none"> <li>• Task as a Group Business Object</li> </ul> <p>For additional features, see <a href="#">What's New in CSM 9.4.0</a>.</p>
9.3.2	April 2018	Software fixes. For a list of fixes, see <a href="#">CSM 9.3.2 Fixes List</a> .
9.3.1	February 2018	Software fixes. For a list of fixes, see <a href="#">CSM 9.3.1 Fixes List</a> .

9.3.0	December 2017	<p><b>Platform changes:</b></p> <ul style="list-style-type: none"> <li>• Adaptive Layouts for Forms</li> <li>• Support for Trusted Agents for e-mail</li> <li>• Multi-tab browsing support</li> <li>• Modal design update</li> <li>• E-mail attachments handling improvements</li> </ul> <p><b>OOTB content changes:</b></p> <ul style="list-style-type: none"> <li>• Globalization enabled by default</li> <li>• Customer Portal Dashboard design</li> <li>• Customer Portal Form design</li> <li>• Adaptive Layouts for Portal Forms</li> </ul> <p>For additional features, see <a href="#">What's New in CSM 9.3.0</a>.</p>
9.2.1	September 2017	Software fixes.
9.2.0	August 2017	<p><b>Platform changes:</b></p> <ul style="list-style-type: none"> <li>• New Globalization support management tool</li> <li>• Foreign key support for validated and auto-populated Fields</li> <li>• Definition Reviewer</li> <li>• Enhancements to Browser Client and Customer Portal User Interface</li> <li>• New Download a Blueprint Button</li> </ul> <p><b>OOTB content changes:</b></p> <ul style="list-style-type: none"> <li>• Service Catalog and search improvements</li> <li>• Localized OOTB content</li> </ul> <p>For additional features, see <a href="#">What's New in CSM 9.2.0</a>.</p>
9.1.0	March 2017	<p><b>Platform changes:</b></p> <ul style="list-style-type: none"> <li>• Concurrent development for Blueprints</li> <li>• Accessibility improvements for CSM Web applications</li> <li>• New Team Operations for the Cherwell REST API</li> <li>• New Modifiers</li> </ul>



9.0.1	February 2017	<p><b>Platform changes:</b></p> <ul style="list-style-type: none"> <li>• One-Step™ Action Annotations</li> <li>• Guidance for CSM system design using concurrent development</li> <li>• Trusted Agents for bulk data imports</li> <li>• Trusted Agents for request routing and fault tolerance</li> <li>• Trusted Agents Hub scale-out using Redis</li> </ul> <p>For additional features, see <a href="#">What's New in CSM 9.0.1</a>.</p>
8.3.1	November 2016	<p><b>Platform changes:</b></p> <ul style="list-style-type: none"> <li>• Continual Service Improvements</li> <li>• Context-sensitive help for Windows clients</li> </ul> <p><b>OOTB content changes:</b></p> <ul style="list-style-type: none"> <li>• Service Catalog Template functionality enhancement</li> </ul>
8.2.1	July 2016	<p><b>Platform changes:</b></p> <ul style="list-style-type: none"> <li>• New One-Step™ Action branching</li> <li>• Service Health Monitor</li> <li>• Grid exporting enhancement</li> <li>• Auto-Deploy enhancement</li> <li>• Platform support</li> </ul> <p><b>OOTB content changes:</b></p> <ul style="list-style-type: none"> <li>• Incident functionality enhancement</li> <li>• New company logo</li> <li>• Internal customer security upgrade</li> </ul> <p>For additional features, see <a href="#">What's New in CSM 8.2.1</a>.</p>

8.1.0	March 2016	<p><b>Platform changes:</b></p> <ul style="list-style-type: none"> <li>• Field-level encryption and view auditing</li> <li>• Card view display</li> <li>• Cherwell Mobile for iOS enhancement</li> <li>• New documentation platform</li> </ul> <p><b>OOTB content changes:</b></p> <ul style="list-style-type: none"> <li>• New license usage functionality</li> <li>• New view of Pending Status details</li> <li>• Incident Resolution from Problem improvements</li> <li>• Business Object Grids updates</li> <li>• Portal enhancements</li> </ul> <p>For additional features, see <a href="#">What's New in CSM 8.1.0</a>.</p>
8.00	December 2015	<p><b>Platform changes:</b></p> <ul style="list-style-type: none"> <li>• Desktop Client and Administrator improvements</li> <li>• Browser Client improvements</li> <li>• HTTP-based RESTful API</li> <li>• JSON support for One-Step™ Actions</li> </ul> <p><b>OOTB content changes:</b></p> <ul style="list-style-type: none"> <li>• Portal improvements</li> <li>• New Dashboards</li> <li>• Specifics Forms</li> </ul> <p>For additional features, see <a href="#">What's New in CSM 8.00</a>.</p>
7.00 Rev1	October 2015	Software fixes.

7.00	September 2015	<p><b>Platform changes:</b></p> <ul style="list-style-type: none"> <li>• Performance Health Check tool</li> <li>• Trusted Agent Server Integration feature</li> <li>• Enhanced SAML integration</li> <li>• Blueprint scan alerts</li> </ul> <p><b>OOTB content changes:</b></p> <ul style="list-style-type: none"> <li>• IT Management Dashboards</li> <li>• Change Management Dashboards</li> <li>• Automatic Incident escalation</li> </ul> <p>For additional features, see <a href="#">What's New in CSM 7.00</a>.</p>
6.00 Rev1	August 2015	Software fixes.
6.00	July 2015	<p><b>Platform changes:</b></p> <ul style="list-style-type: none"> <li>• One-Step improvements</li> <li>• New Dashboard Chart Widget types</li> <li>• Theme improvements and Portal support</li> <li>• Browser and Portal updates</li> <li>• Browser usability</li> </ul> <p>For additional features, see <a href="#">What's New in CSM 6.00</a>.</p>
5.00 Rev2	October 2014	Software fixes.
5.00	July 2014	<p><b>Platform changes:</b></p> <ul style="list-style-type: none"> <li>• mApp Solutions</li> <li>• mApp Solutions and Integration page</li> <li>• Business Intelligence enhancements</li> <li>• One-Step enhancements</li> <li>• Advanced record locking</li> </ul> <p>For additional features, see <a href="#">What's New in CSM 5.00</a>.</p>
4.60b	November 2013	Software fixes.

4.60	June 2013	<p><b>Platform changes:</b></p> <ul style="list-style-type: none"> <li>• Rich Text support</li> <li>• Bomgar platform integration</li> <li>• Ease-of-Use/Look-and-Feel enhancements</li> <li>• Embedded Forms</li> <li>• Grid enhancements</li> </ul> <p>For additional features, see <a href="#">What's New in CSM 4.60</a>.</p>
4.31	February 2013	<p><b>Platform changes:</b></p> <ul style="list-style-type: none"> <li>• iCherwell enhancements</li> <li>• Widget enhancements</li> <li>• New Dashboards</li> <li>• Portal and Browser enhancements</li> </ul>
4.30	November 2012	<p><b>Platform changes:</b></p> <ul style="list-style-type: none"> <li>• SAML Support</li> <li>• Grid enhancements</li> <li>• Portal and Browser Client enhancements</li> <li>• CSM Manager enhancements</li> <li>• Form Editor enhancements</li> </ul> <p>For additional features, see <a href="#">What's New in CSM 4.3</a>.</p>
4.0 Rev2	August 2012	Software fixes.
4.0-1	July 2012	Software fixes.
4.0	April 2012	<p><b>Platform changes:</b></p> <ul style="list-style-type: none"> <li>• Cherwell Portal</li> <li>• Cherwell Browser Client</li> <li>• Searching</li> <li>• Action Catalogs</li> <li>• Security enhancements</li> </ul>

# CSM Documentation Archive

The Product Documentation portal provides a single point of entry for Cherwell products starting with CSM 9.3.0. Older versions of product documentation are available, however.

Documentation for previous versions of Cherwell products can be found at these locations:

- [CSM 9.2.0](#)
- [CSM 9.1.0](#)
- [CSM 9.0.1](#)
- [CSM 8.3.2](#)
- [CSM 8.2.1](#)
- [CSM 8.1.0](#)
- [CSM 8.00](#)
- [CSM 7.00](#)