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The Cherwell Software product suite includes:

- Cherwell Service Management
- Cherwell Asset Management

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# **Release Notes**

View CSM enhancements and fixes, organized by version.



**Note:** Due to changes in internal processes, development requests are tracked differently starting with CSM 9.2.0. You may see differing numbering schemes for enhancements and fixes.

## **CSM 9.4.0 Enhancements List**

- CSM-14751 Browser Client and Customer Portal: Updated the user interface design of the File Upload modal, which can be accessed from the Business Object toolbar or E-mail window in the Browser Client and the Document Repository toolbar in the Customer Portal.
- CSM-18448 Browser Client: Updated the look-and-feel of the Date/Time form buttons.
- CSM-19461 Portal: When a user enters the Site Manager in Admin and chooses to edit a site, there
  is now a Site Editor option, in the Display Tab, to utilize a custom Favicon for that site. The option is
  defaulted to off and, if left that way, will display the usual Cherwell icon. Upon selection, a preview of
  what the Favicon will look like on the browser tab will appear next to the image link. If the file is too
  large, no preview image will appear indicating the same for the edited site.
- CSM-19468 Desktop Client: There is a new option in the CSM Administrator's Related Item Picker control properties. It enables the customer to select the default filter for the assets grid when opening the CMDB Related Item Picker in the Desktop Client. If Show for related customers is selected, as long as the customer field is not empty then the grid will only show results relating to that customer when the Related Item Picker is opened. If Show for all customers is selected, then the RIP will ignore the customer field when it is opened and show results for everyone, rather than just the selected customer. Choose your preferred default option in the CSM Administrator.
- CSM-19698 Browser Client and Customer Portal: Created unique tab display names for Forms, Quick Search, Search Groups, Tools, Dashboards, Calendars, and Startup Items, which allow Users to easily identify what they are working on in each tab.
- CSM-19725 Browser Client and Customer Portal: If you have Globalization enabled when using
  multi-tab browsing support, unique tab names display in the language chosen using the Culture
  Selector. The appended Cherwell Service Management branding remains in English.
- CSM-19982 Portal and Browser Client: Implemented culture and language selection on the hamburger menu, as well as allowing multiple browser windows/tabs.
- CSM-20072 Browser Client and Customer Portal: Existing New Window Command in the Rich Client is now supported in the Browser Client and Customer Portal. When the Command is implemented, Users can navigate to CSM in additional tabs without needing to log in again or consume additional licenses.
- CSM-21732 Relationships: Added the ability to view an Entity Relationship Diagram (ERD) of Relationships associated with Major and Supporting Business Objects. View the diagram in from the Relationship Editor in CSM Administrator.
- CSM-22883 Portal: Ability to add, customize, and preview a brand image in the hamburger menu for portal sites. The max height for hamburger menu image is 25 pixels and the maximum width is 75 pixels.
- CSM-23740 Adaptive Dashboards: Users can now leverage adaptive design for Dashboards using the Adaptive Layouts feature. Adaptive Layouts design tools are available in the Dashboard Editor.
- CSM-24144 Dashboards: Added ability to use a web URL for a Dashboard Link Widget without triggering a One-Step Action. Enabled the link styling to adhere to custom properties without using hard-coded styling such as underline.
- CSM-24285 Browser Client and Customer Portal: Created a prompt so Users are warned that they
  will lose unsaved work if they close the current tab.

- CSM-24420 Grids: Removed the localized and English Fields from the Configuration Item default Grid display.
- CSM-24543 Database: Hosted customers can no longer make changes to the Database Transaction Log settings. This preserves database integrity.
- CSM-24782 Browser Client: Updated the user interface design of the Export modal and Column Selector modal.
- CSM-25075 Browser Client and Customer Portal: Created unique tab display names for Reports, HTML Pages, Document Repository, Quick View, and Go to Item functionality, which allow Users to easily identify what they are working on in each tab.
- CSM-25110 Desktop Client and Browser Client: Added the ability to export using the updated .xlsx Excel format.
- CSM-25828 CSM Administrator: Added the ability to select a system environment value (Development, Production, or Test) directly from the System Restore tool. The new field is required to restore the database.
- CSM-25829 Command-Line: Added commands to retrieve and set the current system's environment value (Development, Production, or Test) and updated the System Restore command to include a / restoreEnv parameter.
- CSM-25830 Browser Client and Customer Portal: Added the system Environment value to the Company Information drop-down in the Account Information section of the web applications.
- CSM-25843 CSM Administrator: Added three System Functions to determine the environment value of the current system: IsEnvironmentDevelopment, IsEnvironmentProduction, IsEnvironmentTest.
- CSM-26274 CSM Desktop Client and CSM Administrator: Added the system Environment value to the login windows. If an environment is not selected, the text does not display.
- CSM-26809 CSM Desktop Client: Added the ability to display system environment information in the window title through User display settings.
- CSM-27658 CSM Administrator: Added the System Environment value to the Health Check Results window, which displays after running the Health Check Tool.
- CSM-27752 Desktop Client and Administrator: Upgraded to DevExpress® 17.2.7. After the upgrade
  to CSM 9.4.0, Users may notice improvements and changes to the Report Designer and to the
  Language Pack Editor filter capabilities.
- CSM-27967 One-Step Actions: Defined best practices for using Execute a Command Actions.
   Commands may alter the user interface separately from other Actions and therefore may not work
   as expected in some cases. For example, Actions may run separately from the visible Business
   Object. For best results, use one of the following approaches: 1. Use Execute a Command Actions
   as a standalone One-Step Action. 2. Place Execute a Command Actions at the end of a One-Step
   Action.
- CSM-28057 Security: For select applications, connected two-tier database-related exceptions will be fully displayed instead of being logged with a correlation id.
- CSM-29111 Licensing: Added functionality to the Trebuchet.CommandLineConfigure.exe tool that allows the user to enter license information.

- CSM-29554 Browser Client: Updated the user interface design of the E-mail window and associated modals (Address Book, File Upload, Upload Image, Insert Hyperlink, and Recipient Attachment Options). Updates affect fonts colors, buttons, and message wording.
- CSM-30351 Dashboards: Enabled keyboard tab order for Dashboard Widgets. Added the ability to focus on the Dashboard view for the Desktop and Web Clients.
- CSM-30525 Browser Client: The editable text area of the E-mail modal now increases in size as the modal increases in size.
- CSM-30695 OOTB Task Management: OOTB Task has been transitioned to a Group Business Object. It is the Group Leader, with two Group Members: Approval Task and Work Item.
- CSM-30990 One-Step Actions/Bomgar Platform Integration: Removed Chat commands from One-Step Actions. These commands were used primarily for the Bomgar platform integration, which was retired in January 2018. Bomgar remote support sessions are now supported through the Bomgar Integration mApp Solution, which is available on the Cherwell mApp Exchange. You can also use a Call a Web Service One-Step Action to create a custom integration between CSM and Bomgar.



**Note:** System using the legacy Chat commands to integrate with Bomgar must be migrated to the Bomgar Integration mApp Solution or a custom integration using a Call a Web Service One-Step Action before the upgrade to CSM 9.4.0.

- CSM-31677 System Performance: Implemented various performance improvements to increase the initial load of a Business Object Form and reduce memory usage.
- CSM-31753 REST API: Added nine Named Object operations with simplified URL paths to provide
  user-friendly, programmatic access to basic CSM functions. You may want to use the Named Object
  operations if you are new to the Cherwell REST API or you do not have extensive programming
  experience. Also, added a Canonical REST API to provide fixed Business Object schemas for outof-the-box Business Objects. You can leverage the Canonical schemas to design third-party
  integrations with customized CSM systems by mapping the customized Business Object schemas to
  the Canonical schemas.
- CSM-32073 Blueprints: There is now a warning when the number of lifecycle states are not equal across different cultures of Business Object.
- DR 13572 Teams and Workgroups: Added a search box to the Add Team Member dialog to allow admins to search for their users.
- DR 13598 External Connections: CSM administrators are now able to map a Business Object to
  multiple external connections with the Map to External Object wizard. Multiple external connections
  and their mapped Business Object fields can be managed or edited in the Business Object
  Properties page. As a result, data can be imported into CSM from various external data sources.
  Data imports can also be controlled, managed, and automated via the Scheduler.
- DR 42785 One-Step Actions: One-Step Actions configured to run for a specific Search Group now work correctly on the CSM Browser Client and Portal.
- DR 43644 One-Step Actions: You can now run a One-Step Action from a deep link.
- DR 43829 Licensing: Changed the CI Users Tab relationship to SoftwareLicenceAssignToUser. This
  will link the Customer with the Software License. This is a manual update done by the user.From
  Software License a CI User can be linked in the TAB and from Customer Employee a Software
  License can be linked in the TAB.

- QWIK-45 Blueprints: Added the ability to filter objects in the Blueprint Manage Objects screen, making it easier to find specific Business Objects to work on.
- QWIK-103 Web Clients: Added zoom functionality to Rich Text Fields and multi-line Plain Text
  Fields. The enhancement allows for zoom buttons and links to be added to Web Client Forms, as
  well as allowing the appropriate editor to be used alongside the zoom functionality.
- QWIK-123 Application Server: The default protocol for new installations and any newly created connection will be set to HTTP on port 80.

## CSM 9.4.0 Fixes List

- CSM-11714 One-Step Actions: Fixed an issue with Show a Popup Actions that caused an empty warning dialog to appear when Users imported a One-Step Action that had no association to a specific Business Object association.
- CSM-13468 One-Step Actions: Fixed an issue where Popup Command Buttons that were configured to prompt Users to select the button value were not displaying the Prompt before showing the list of buttons.
- CSM-13470 One-Step Actions: Fixed an issue that prevented One-Step Actions that were set up to execute multiple times from executing only twice. This problem only occurred in the CSM Browser Client or Portal.
- CSM-13526 One-Step Actions: Fixed an issue where Prompts inside of the conditional Expressions for One-Step Actions would not appear in the Browser Client.
- CSM-14402 E-mail: Fixed an issue where the Send button in the E-mail window had to be selected twice to send the e-mail.
- CSM-14608 Blueprints: Fixed an incorrect error message that occurred during a Blueprint scan when the number of Fields in a Group Map did not equal the number of Field values.
- CSM-14625 OOTB Content: Fixed an issue where a child Task form could be edited after being closed.
- CSM-15858 Globalization: Portal Site names and descriptions are now correctly added to Language Packs and can be translated.
- CSM-17672 Browser Client: Fixed an issue where card view was not sorting correctly and causing errors. The default Sort By field was set to None instead of the correct Sort By field setting.
- CSM-17733 Grids: Fixed an issue that caused an error when publishing a Blueprint after changing or adding a Grid while using a three-tier connection.
- CSM-19233 Adaptive Layouts: Fixed an issue that caused relative tab order not to be preserved for
  groups of controls that were copied and pasted between Adaptive Layouts or Forms. With the fix,
  when a group of controls is pasted onto a layout or Form, the relative tab order for the group of
  controls is preserved and appended to the end of the Form's existing tab order.
- CSM-19369 One-Step Actions: Fixed an issue that displayed incorrect titles in Pop-ups in the CSM Desktop Client.
- CSM-19370 One-Step Actions: Fixed an issue that caused a Prompt that contained radio buttons to open an empty message if Users clicked OK without selecting a radio button.
- CSM-19401 Globalization: Fixed an issue that caused the CSM Desktop Client, Report Runner, the Dashboard Viewer from opening in the same languages as the installed operating system and Cherwell installation package.
- CSM-19921 Globalization: Fixed issues with truncated and overlapping text in the Theme Manager for non-English languages.
- CSM-20064 Site Editor: All custom help-related errors have been turned off in the Site Editor if the Show Help checkbox is not checked.

- CSM-20195 Adaptive Layouts: Fixed an issue that caused the initial Adaptive Layout on a Form
  created with the Form Wizard to display incorrect width and height values in the Edit an Adaptive
  Layout dialog.
- CSM-20262 Adaptive Layouts: Fixed an issue that caused changes made to Adaptive Layouts on Forms within the Definition Reviewer not to save properly or notify the User that changes were made.
- CSM-20406 Browser Client and Customer Portal: Fixed an issue where when a User opened two tabs (using Multi-Tab Browsing Support) and then logged out of the second tab, the first tab did not visually show a fully logged out state, even though the User was logged out.
- CSM-20538 E-mail: Fixed an issue where E-mail modal buttons were misaligned.
- CSM-21532 Browser Client: Fixed an issue where if a user searched for a phone number with a period in the format, the search yielded no results.
- CSM-22025 Logging: Fixed a rare issue which caused an "Exception while cleaning up old session entries" error in the logs.
- CSM-22079 Grids: Cardview titles that are links now display an underline when users hover over the title.
- CSM-22116 Globalization: Enabled localization support for the Connection Wizard dialog.
- CSM-22118 Browser Client: Fixed an issue where a text box flashed in the window when saving a record.
- CSM-22119 Browser Client: Fixed an issue with the Related Item Picker where the filter item styling was incorrect.
- CSM-22272 Adaptive Layouts: Fixed issue where line controls were not properly removed from forms when they were outside of the bounds of an Adaptive Layout.
- CSM-22874 Browser Client: Fixed an issue where the Home button on the toolbar did not display the correct contrast color when the mouse hovered over it.
- CSM-23038 Browser Client and Customer Portal: Fixed an issue where the Go To Calendar deep link command displayed an incorrect error message if the user was not logged in and also displayed the incorrect page (Home page instead of Calendar).
- CSM-23271 CSM Desktop Client: Fixed an issue that caused an error message if Users closed the CSM Desktop Client immediately after launch.
- CSM-23283 Browser Client and Customer Portal: Fixed an issue where the Dashboard time range drop-down menus did not display the correct language.
- CSM-23290 Browser Client: Fixed an intermittent issue where calendars could encounter an error condition and lock up the page, requiring a browser refresh.
- CSM-24144 Dashboards: Fixed an issue that removed hard-coded underline from links.
- CSM-24292 One-Step Actions: Added the ability to access One-Step Actions, Searches, etc. from other Teams, Roles, and Users in the Browser Client for Users with appropriate security rights.
- CSM-24526 Blueprints: Fixed button alignment issues on the No Error Scan Warning dialog box.
- · CSM-24749 Widgets: Fixed an issue where clearing a link action caused an exception error.

- CSM-24789 Business Objects: Removed obsolete mappings to Configuration Item Business Objects.
- CSM-24840 Globalization: Added support for mapping the Field general attribute
   CustomListPopupResult to an item's display name. This solved an issue that cause incorrect
   cultures to display if the attribute was mapped to an item's name or ID. To fix problems with Fields in
   an upgraded system (example: the Maintenance Calendar Field in any Configuration Item object),
   edit the Field, select the Advanced page, and then expand the General Attributes option. Change
   the Attribute value to DisplayName. You may also need to select the expected Field value again
   after the Attributes are changed.
- CSM-24854 CMDB: Fixed an issue with text formatting in Visualization Legend string values that
  caused top/bottom truncation issues. The fix enabled the name auto-sizing to function correctly and
  display the entire field value.
- CSM-25024 Portal and Browser Client: Fixed an issue that could prevent Browser Client/Portal initialization errors from being logged properly.
- CSM-25425 Automation Processes: Fixed an issue that prevented conditions from evaluating correctly when Load Keys Only was set for a Relationship referenced in the Automation Process.
- CSM-25713 Dashboards: Fixed an issue in Managers where copying and pasting items within the same Scope could move the item instead of copying.
- CSM-26632 mApp Solutions: Fixed an issue that caused an object reference error when Users applied a mApp that contained a Business Object that did not include Actions.
- CSM-26667 One-Step Actions: Improved error handling for the Call a Web Service Action by adding
  error text to the result variable if the result value is empty. This behavior only occurs when the Don't
  Stop One-Step on Error check box is selected for the Call a Web Service Action.
- CSM-27297 Databases: System Upgrade now uses a much larger timeout value for all database operations to minimize any timeouts during the upgrade process.
- CSM-27537 Automation Processes: Fixed an issue where you could not delete Automation Processes which were created by copying another, and copying an Automation Process could overwrite the original.
- CSM-28336 CSM Connection Wizard: Fixed localization issues for the Connection Wizard used through the system restore process.
- CSM-28621 Globalization: Fixed an issue that caused the name of an Automation Process status to revert from a non-English culture to English after the process was enabled or disabled.
- CSM-29257 Browser Client: Fixed an issue where the button focus in the Rich Text Editor did not adjust correctly after the user navigated to the Upload Image window.
- CSM-29292 Globalization: Fixed an issue that caused date/time stamps for modified strings to show
  in UTC rather than the local machine time. The strings correctly showed the local machine time until
  the Language Pack was reopened in the Language Pack Editor. They then showed in UTC.
- CSM-29512 Customer Portal: Fixed an issue where an error displayed when a user attempted to open a record using Grid view.
- CSM-29618 Reports: Added a web.config setting to enable or disable running scripts included in Reports in the Browser Client. Users may receive an error if they run Reports that contain scripts if scripts are disabled.

- CSM-29668 Customer Portal: Fixed an issue where Team and Workgroup data did not display in the Address Book rows.
- CSM-29977 Portal: Fixed an issue where second-level Service Catalog links were broken.
- CSM-30248 Globalization: Fixed an issue that caused display issues on Forms if Users changed their Windows regional settings. This problem occurred only in the CSM Desktop Client.
- CSM-31581 Customer Portal and Browser Client: Fixed an issue where adding /CherwellLogin/ to a
  deep link URL prevented the remaining deep link operation from executing.
- CSM-32165 Browser Client: Fixed an issue where the Form Arrangement displayed reference errors when placed at the top of the main pane.
- DR 12266 One-Step Actions: Fixed an issue that an error message prompting Users to save data
  on a view-only Form for an existing record when a new record was created using a One-Step
  Action. This problem only occurred when the One-Step Action was added to the menu in the Portal.
- DR 12597/DR 43094 One-Step Actions: Fixed an issue that prevented selections made from the Show Legal Values button in the CSM Browser Client and Portal.
- DR 12674 Dashboards: Fixed an issue where selecting a Metric on a numeric column for a Matrix Widget did not persist.
- DR 15198/DR 35525/DR 37893 One-Step Actions: Fixed an issue that caused a Report run from a
  One-Step to return all records from the Search Group associated with the Report when only the
  current record only was expected. This problem occurred only on the CSM Browser Client and
  Portal.
- DR 15494 One-Step Actions: Fixed an issue where ""Show Legal Values"" option would not work in the Browser Client, especially when the One-Step Action was run from a child Business Object.
- DR 15506/DR 44044 Prompts: Improved the user experience in the Browser Client and Portal for the Owned by Team Prompt, which no longer incorrectly shows ellipses and instead shows correct values in a drop-down.
- DR 15578 One-Step Actions: Fixed an issue that cause Pop-ups set as Automatic Save Actions from working as expected in the Browser Client.
- DR 16069 E-mail: Fixed an issue where using parentheses in a Team name within the To line of an e-mail template caused an error.
- DR 16764 Prompts: Fixed an issue that caused Prompts to return an incorrect value when related data was ambiguous. For example, the RecID from the CustomerInternal.LastName did not work as expected if there were multiple customers with the same last name.
- DR 25499 E-mail: Fixed an issue where attachments did not appear to be displayed on the e-mail window or Journal - Mail History record, even though the recipient received the attachment.
- DR 26822 One-Step Actions: Fixed an issue that prevented a Business Object from correctly refreshing in the Browser Client after an Update Business Object was run.
- DR 28515 One-Step Actions: Increased the width of Association drop-downs on the One-Step Manager in the Browser Client to remove horizontal scroll bars.
- DR 28547 One-Step Actions: Fixed an issue that prevented running a One-Step Action from another One-Step Action where the child Action is found by scope and Field and the selected scope is User, Role, or Team.

- DR 28861 One-Step Actions: Fixed an issue that prevented the Cancel button from a Show a Popup Action from cancelling the Action in certain scenarios.
- DR 29701 CSM Security: Fixed an issue that caused Field visibility rights to be ignored in One-Step Actions after the rights were changed.
- DR 29824 One-Step Actions: Fixed the sort order on the Select a Team Grid. This problem occurred in the CSM Browser Client when constraints are applied to the Prompt.
- DR 29951 One-Step Actions: Fixed an issue that caused an error when Users selected one of multiple Link/Unlink Business Object Actions when they edited a One-Step Action.
- DR 30706 E-mail: Fixed an issue that prevented the appearance of e-mail attachment options from changing after being set.
- DR 31018 Prompts: Fixed an issue that prevented Prompts from launching from a case Expression in Browser Client.
- DR 31401 One-Step Actions: Fixed an issue that caused errors to occur when a One-Step Action
  that creates an Incident was run from a link label inside a Supporting Business Object form in the
  Portal.
- DR 32009 One-Step Actions: Fixed an issue that incorrectly directed Users to a login message in the Browser Client after they ran a One-Step Action that contained a Log Out Command Action. The problem occurred after Users logged in to the Browser Client after running the One-Step Action.
- DR 32299 Browser Client: Fixed an issue where the E-mail window did not display attachments.
- DR 32337 One-Step Actions: Fixed an issue that prevented Launch a URL Actions from running correctly in the Browser Client.
- DR 32448 Browser Client: Fixed an issue where selecting an e-mail from the Address Book using the To or CC buttons did not populate the field with the selected e-mail address.
- DR 32496 One-Step Actions: Fixed an issue that caused Prompts to return the wrong value when a constraint was applied.
- DR 32878 One-Step Actions: Fixed an issue that caused an error when the Create Child Business Object Action was used while stepping through a Group.
- DR 33017 One-Step Actions: Fixed an issue that incorrectly caused variable names to be shown as Expressions in the Comparison Clauses within an Expression.
- DR 33055 One-Step Actions: Fixed an issue that caused the Save Business Object After Action check box to be ignored in the CSM Portal when the check box was cleared.
- DR 33259 One-Step Actions: Fixed an issue where relationship conditions were evaluated incorrectly when the same Business Object was used in the relationship.
- CSM-33282 Searching: Fixed an issue in the CSM Desktop Client whereby search result counts did
  not show or incorrectly showed a default initial value above the main grid/card view list.
- DR 33573 Prompts: Fixed an issue in the Browser Client that prevented results from a prompted search from being returned when the Prompt was run from the Search Results List View.
- DR 33824 E-mail Editor: Fixed an issue that cause highlighted text to be deleted when Users manually set a font size for the text.
- DR 33878 One-Step Actions: Fixed an issue that caused text to be removed after a carriage return for One-Step Actions that added data to a Text Field.

- DR 34068 One-Step Actions: Fixed an issue that caused Prompt dialogs to return an empty list
  when Users first clicked OK without selected a preconfigured list value. This problem only occurred
  in the CSM Browser Client and Portal.
- DR 34519 Prompts: Fixed layout issues with the Define Prompts dialog box when screen resolution was set to 125 percent.
- DR 34526 Prompts: Fixed an issue that caused negative values to be ignored for Number Prompts.
- DR 34547 One-Step Actions: Fixed an issue that caused changes to individual Actions to be saved when Users cancelled changes made to the main One-Step Action.
- DR 34905 One-Step Actions: Fixed an issue that caused an error when an e-mail message was sent to a Team with a colon in the Team name.
- DR 34908 Browser Client: Fixed an issue where line breaks did not display correctly in an e-mail when taken from a form field.
- DR 35262 One-Step Actions: Fixed an issue where the Show Legal Values command would not work in the Browser Client if called from a One-Step.
- DR 35274 One-Step Actions: Fixed an issue with the Run A Program Action that caused the ""Run with No Window"" option to open a window when the One-Step Action was run.
- DR 35440/DR 38852 Prompts: Fixed an issue that prevented Prompts from displaying values in a Grid format when constraints were applied. This problem occurred in the CSM Browser Client and Portal.
- DR 35810 E-mail: Fixed an issue where when Forward or Reply was selected from the Journal Mail History record, the new e-mail displayed the date only, instead of displaying the date and time.
- DR 36453 CSM Desktop Client: Fixed an issue where you could not switch from Rich Text to plain text in the e-mail window.
- DR 36485 E-mail: Fixed an issue where Journal records were created for messages that did not send due to error.
- DR 36491 Modifiers: Changed the Custom Format control on the Modify/Format Value dialog so that it is visibly disabled when appropriate.
- DR 36516 Active Directory Mapping: Fixed an issue where creating an Active Directory Mapping to a Business Object before also mapping the Business Object to external data was causing the original Active Directory mapping to be deleted.
- DR 36541 E-mail: Fixed an issue where an error displayed about the inability to find an existing attachment; the error still displayed when the attachment was removed.
- DR 36932 E-mail: Fixed an issue where the Send button at the bottom of the E-mail window did not send consistently; this was resolved by removing the Send button, so Send functionality is now located solely in the toolbar.
- DR 37035 Searching: Fixed an issue in Search Manager where moving a search between scopes would orphan the search object, preventing it from appearing in either scope folder.
- DR 37278 One-Step Actions: Increased the size of the Print Options dialog used in the Run a Report Action.
- DR 37333/DR 43300/DR 43404 Prompts: Fixed an issue that caused an Object reference error when a User was selected from a Prompt in a Grid. This problem occurred when the Prompt value

was constrained by a Team and when Users selected the ellipses icon rather than the drop-down on the Prompt window.

- DR 37625 One-Step Actions: Fixed a System.NullReferenceException error that intermittently occurred when the Token Selector was opened repeatedly from the General page for a One-Step Action.
- DR 38001 Prompts: Fixed an issue that caused data in Prompts created from XML to be editable.
- DR 38004 Prompts: Fixed an issue to correctly handle JSON objects that are a simple JSON array and are not contained inside another JSON object.
- DR 38793/DR 39349 Prompts: Fixed an issue that prevented values to be saved on Grid Prompts when Users selected values from the Ellipses icon.
- DR 38854 One-Step Actions: Fixed an issue that prevented constraints from correctly restraining values for Step Through Children Actions.
- DR 39121 One-Step Actions: Fixed an issue that caused some line breaks in text from a Field in a child Business Object to be removed when a One-Step Action was used to send an e-mail from the parent Business Object.
- DR 39164 Browser Client: Fixed an issue where the High Importance flag did not work when sending an e-mail after switching from Rich Text to plain text functionality.
- DR 39290 One-Step Actions: Fixed an issue that was preventing CIs from being unlinked when running a Link/Unlink Business Object Action from a parent object where the Relationship was set to Load Keys Only.
- DR 39514 One-Step Actions: Fixed an issue that prevented default tooltips from displaying for Actions added to the Designer Board.
- DR 40337 Portal: Redirect on logout function now works when SAML login is selected for Portal users.
- DR 40875 One-Step Actions: Fixed an issue that prevented One-Step Action for a Business Object from completing when the Make New Record Current check box was selected. The problem occurred with the trigger condition for the One-Step Actions was an Automatic Action based on a state change.
- DR 41060 Browser Client: Fixed an issue where the To and CC fields are empty in the Related Item Picker, but display in the E-mail window.
- DR 41840/DR 42824 One-Step Actions: Fixed an issue that caused plain text e-mail messages sent from One-Step Actions to convert to HTML.
- DR 42081 E-mail: Fixed an issue where text was pasted as an image into an e-mail when copied from Microsoft OneNote.
- DR 42202 One-Step Actions: Fixed an issue that caused embedded images to be sized incorrectly in e-mail messages sent using One-Step Actions from the CSM Browser Client.
- DR 42287 Connections: Fixed an issue that caused errors when modifying external connection strings and switching servers.
- DR 42294 E-mail: Parentheses are now allowed in e-mail To and From fields.
- DR 42318 One-Step Actions: Fixed an issue that caused a Prompt window to persist in the Browser Client when a record was abandoned and the User returned to the home page.

- DR 42339 One-Step Actions: Step Through Children Actions that create new Business Objects now
  correctly result in the with the existing record shown when the Make New Record current is cleared.
- DR 42345 Prompts: For the Browser Client, fixed Prompts that are configured to show valid values for a Field so that the results Grid now shows values in the Lookup Table associated with the Field. In previous releases, all values for the primary object were shown.
- DR 42401 E-mail: Fixed an issue where the time stamp did not display in the Journal tab of the associated record.
- DR 42562 Calendars: Fixed an issue where the navigation pane was too narrow when calendars initially loaded, cutting off the navigation buttons.
- DR 42588 Modifiers: Fixed an exception error that occurred when a JSON Modifier was used to extract a path value from a JSON string.
- DR 42603 One-Step Actions: Restored the "Record to select after run option" for Step Through Children Actions.
- DR 42621 One-Step: Fixed an issue where an attachment was not included in an unedited e-mail when a One-Step Action was executed.
- DR 42632 Prompts: Fixed an issue that prevented results from being returned when a Search query contained a condition that compared two dates. This problem only occurred in the CSM Browser Client.
- DR 42715 Reports: Improved performance when opening a Report in the Report Designer.
- DR 42758 One-Step Actions: Fixed an issue that caused formatting to be lost for e-mail templates that contained URLs.
- DR 42796 One-Step Actions: Fixed an issue that incorrectly caused an error when a Goto Action
  was run against multiple records. The error stated "the step Goto Action was executed too many
  times. It is only allowed to run 2 times."
- DR 42858 One-Step Actions: Fixed an issue where the font size used in e-mails sent from CSM decreased upon receipt.
- DR 42895 Browser Client: Fixed an issue where line breaks were not preserved in the E-mail window when copying and pasting text between windows or applications using Rich Text.
- DR 42972 Prompts: Fixed an issue that caused Prompts used with Search queries to open twice. This problem only occurred when the Business Object being searched was set as cacheable.
- DR 42982 Prompts: Fixed an issue that prevented Date Prompts from closing when Users selected
  the X icon or OK button. This problem occurred on Chrome browsers when an invalid date was
  selected for the Prompt.
- DR 43041 Reports: Fixed an issue with HTML fields not appearing in the Report designer.
- DR 43058 One-Step Actions: Fixed an issue that prevented configured text to display with Pop-up Actions in the Browser Client and Portal.
- DR 43092 One-Step Actions: Fixed an issue where opening a link to a new page from a Dashboard caused other links on the Dashboard to fail in the Portal.
- DR 43093 Prompts: Fixed an issue that caused the CTRL+A keyboard commands to be ignored in text Prompts.
- DR 43118 Scheduled Tasks: Fixed an issue where some scheduled tasks could not be renamed

- DR 43187 Browser Client: Fixed an issue where an error message would appear when a User with an apostrophe in their name was selected from the Address Book.
- DR 43210 One-Step Actions: Fixed an issue that prevented Automatic Actions from correctly evaluating an Expression in a decision node step.
- DR 43244 Portal and Browser Client: Fixed an issue that would prevent the Portal and Browser Client from running on a port other than 80 (HTTP) or 443 (HTTPS).
- DR 43263 Browser Client: Fixed an issue where when a To or CC field is pre-populated from a One-Step Action and then the User deletes a value from one of the fields and clicks the To or CC button to open the Address Book, the pre-populated values display, again.
- DR 43321 Prompts: Fixed an issues that enabled Users to add non-numbers to Number Prompts in the CSM Browser Client and Portal.
- DR 43322 E-mail and Event Monitor: Fixed an issue that caused the E-mail and Event Monitor to skip processing of e-mail messages where the To and From addresses were similar.
- DR 43345 One-Step Actions: Error in exporting schemas containing One-Steps. Adjusted to improve speed and decrease file size.
- DR 43359 One-Step Actions: Fixed an issue that prevented the "User can only choose values from the list" check box from being honored for a Prompt.
- DR 43365 One-Step Actions: Fixed an issue that caused results from an Excel Merge Action to carry over to another Excel Merge Action when multiple separate Excel Merge Actions were run.
- DR 43374 Databases: Fixed an issue where searches did not return values when a Business Object linked to itself in a relationship.
- DR 43417 Blueprints: Fixed an exception error that occurred in the Blueprint Conflict Resolution window when Users selected to use a Blueprint definition for a missing object.
- DR 43473 E-mail: Fixed an issue where Journal -Mail History records with heavy use of rich text, formatting, and images caused errors.
- DR 43537 Portal: Fixed an issue that caused an error when using Specific Search as the default view.
- DR 43618 Browser Client: Fixed an issue where formatting was not preserved when switching from Rich Text to plain text.
- DR 43638 Globalization: Fixed an issue that caused the Business Object Manager to incorrectly show Business Object names from cultures other than the culture selected for CSM Administrator.
- DR 43690 Globalization: Added a message providing guidance to Users who work with Business Hours in the Business Hours Manager in non-English languages.
- DR 43708 One-Step Actions: Fixed an issue that prevented referenced Fields from parent Records from being available in child sub-actions for Step Through Children.
- DR 43719 SLA Form: Field lengths were increased for the Status and Service Fields in the SLA Form to accommodate localized values.
- DR 43743 Browser Client: Fixed an issue where accessing a record from a Dashboard Widget could result in this error message: "A column named 'RecID' already belongs to this DataTable."
- DR 43776 Globalization: Fixed an issue that caused definition names and descriptions to change cultures when the definition was set to not be localized.

- DR 43794 Database: Updated BlueprintOptionsDef to match current settings in the database which might have been changed directly through SQL Server.
- DR 43795 E-mail: Fixed an issue where copying an e-mail account did not properly increment the number and unique name for the newly copied e-mail account.
- DR 43799 One-Step Actions: Fixed an issue that cause errors in the Browser Client when executing One-Step Actions in a Supporting Business Object that had an association of that Supporting Business Object and not a related Major Business Object.
- DR 43851 Reports: Fixed an issue where using the Save As option when saving a report could overwrite an existing report.
- DR 43884 Image Manager: Fixed an issue where an image imported with the same name as a
  deleted image would display the cached deleted image.
- DR 43886 Security: Fixed an issue where Business Objects were caching table data despite having limiting criteria in the rights for a Security Group.
- DR 43909 Globalization: Fixed behavioral issues in the SLA Target Time Embedded Form in non-English views.
- DR 43915 Portal: Resolved an issue where Users could not log into the Portal using SAML if there
  was an HTML widget using JavaScript.
- DR 43963 Scheduler: Fixed an issue with the Scheduler that prevented long-running items from
  finishing. If the item was a recurring item, the error also failed to reschedule the next occurrence.
  There is now a setting to specify how long a scheduled item is allowed to delay the execution of the
  following item. The default is 20 minutes. When you upgrade to CSM 9.4.0, your existing scheduled
  items will be assigned the default value.
- DR 44015 Globalization: Fixed an issue that caused performance issues when querying for a large number of records when the server and client did not have the same primary culture.
- QWIK-62 Visualizations: Desktop Client Visualization exports have been significantly simplified to display relevant information in order to create a more usable diagram. This functionality is for .vsdx exports.
- QWIK-73 Visualizations: .vsd files were occasionally not opening due to discrepencies in what
  formats our third party tool supports. To address this, a solution was added to allow for Visio XML
  Drawing (.vdx) exports instead. Now, users can open the .vdx file in Visio 2010 and older, and files
  can be saved as .vsd if desired.

# **System Requirements**

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 8/8.1 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 Internet Explorer 11+ and the current versions of the following browsers:  • Google™ Chrome™  • Firefox  • Microsoft Edge  • Mac only: Safari                                             |
| Mobile Browser (5):                                                                                                                                                                    | <ul> <li>CSM works with:</li> <li>Safari on the latest version of iOS (version 11)</li> <li>Chrome on the last two major versions of Android:<br/>Nougat (version 7.x) and Oreo (version 8.x)</li> </ul> |
| Cherwell Mobile Devices:  Note: The Cherwell Mobile applications for iOS and Android were deprecated in March 2019 and are no longer available in their respective application stores. | Cherwell Mobile 2.0 for iOS: iPhone®/iPad®/iPod Touch® (iOS 8.0+)  Cherwell Mobile for Android: Android® 4.4+                                                                                            |
| Other:                                                                                                                                                                                 | Microsoft .NET 4.6.2+                                                                                                                                                                                    |

**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                                                                                                                                                                                                                                         |
| Free Disk Space:                                                                                        | Minimum: 5 GB  Recommended: 10 GB                                                                                                                                                                                                                                                                                                             |
| Networking:  Dual Core CPU or equivalent (1)  Internet access required for online documentation feature |                                                                                                                                                                                                                                                                                                                                               |
| Database:                                                                                               | Microsoft SQL Server 2016, Microsoft SQL Server 2014, Microsoft SQL Server 2012, or Microsoft SQL Server 2008 R2.  Database can be on a separate server.  Note: 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. |
| Other:                                                                                                  | Microsoft .NET 4.6.2+ Internet Information Services (IIS) 7.5+ (required for Web Applications and when hosting the Cherwell Application Server in IIS) (2)                                                                                                                                                                                    |

#### Other Requirements

| Bomgar (Platform integration): | Versions 16.1.3, 15.2.1, or 15.1.4                                                                                   |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------|
| Bomgar mApp:                   | Refer to Bomgar Integration mApp documentation on the Cherwell mApp Exchange.                                        |
| E-mail:                        | 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, Server 2012, or Server 2012 R2 |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Load Balancing (3) (4):   | Redis® Server 2.8.x or Redis® Labs Enterprise Cluster (RLEC), any version.                                                                       |

- 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 2.8. 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                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9.4.0    | July 2018     | <ul> <li>Platform changes:</li> <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: Product Documentation</li> <li>OOTB content changes:</li> <li>Task as a Group Business Object</li> <li>For additional features, see What's New in CSM 9.4.0.</li> </ul> |
| 9.3.2    | April 2018    | Software fixes.  For a list of fixes, see CSM 9.3.2 Fixes List.                                                                                                                                                                                                                                                                                                                                                                                               |
| 9.3.1    | February 2018 | Software fixes.  For a list of fixes, see CSM 9.3.1 Fixes List.                                                                                                                                                                                                                                                                                                                                                                                               |

|       |             | Platform changes:                                                 |
|-------|-------------|-------------------------------------------------------------------|
|       |             | Adaptive Layouts for Forms                                        |
|       |             | Support for Trusted Agents for e-mail                             |
|       |             | Multi-tab browsing support                                        |
|       |             | Modal design update                                               |
|       | December    | E-mail attachments handling improvements                          |
| 9.3.0 | 2017        | OOTB content changes:                                             |
|       |             | Globalization enabled by default                                  |
|       |             | Customer Portal Dashboard design                                  |
|       |             | Customer Portal Form design                                       |
|       |             | Adaptive Layouts for Portal Forms                                 |
|       |             | For additional features, see What's New in CSM 9.3.0.             |
|       | August 2017 | Platform changes:                                                 |
|       |             | New Globalization support management tool                         |
|       |             | Foreign key support for validated and auto-populated Fields       |
|       |             | Definition Reviewer                                               |
|       |             | Enhancements to Browser Client and Customer Portal User Interface |
| 9.2.0 |             | New Download a Blueprint Button                                   |
|       |             | OOTB content changes:                                             |
|       |             | Service Catalog and search improvements                           |
|       |             | Localized OOTB content                                            |
|       |             | For additional features, see What's New in CSM 9.2.0.             |
|       | March 2017  | Platform changes:                                                 |
|       |             | Platform changes:                                                 |
| 0.4.0 |             | Concurrent development for Blueprints                             |
| 9.1.0 |             | Accessibility improvements for CSM Web applications               |
|       |             | New Team Operations for the Cherwell REST API                     |
|       |             | New Modifiers                                                     |

| 9.0.1 | February 2017    | Platform changes:  One-Step Action Annotations Guidance for CSM system design using concurrent development Trusted Agents for bulk data imports Trusted Agents for request routing and fault tolerance Trusted Agents Hub scale-out using Redis For additional features, see What's New in CSM 9.0.1.                             |
|-------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8.3.1 | November<br>2016 | Platform changes:                                                                                                                                                                                                                                                                                                                 |
| 8.2.1 | July 2016        | Platform changes:  • New One-step Action branching • Service Health Monitor • Grid exporting enhancement • Auto-Deploy enhancement • Platform support  OOTB content changes:  • Incident functionality enhancement • New company logo • Internal customer security upgrade  For additional features, see What's New in CSM 8.2.1. |

| 8.1.0     | March 2016       | Platform changes:  • Field-level encryption and view auditing  • Card view display  • Cherwell Mobile for iOS enhancement  • New documentation platform  OOTB content changes:  • New license usage functionality  • New view of Pending Status details  • Incident Resolution from Problem improvements  • Business Object Grids updates  • Portal enhancements  For additional features, see What's New in CSM 8.1.0. |
|-----------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8.00      | December<br>2015 | Platform changes:  Desktop Client and Administrator improvements Browser Client improvements HTTP-based RESTful API JSON support for One-Step Actions  OOTB content changes: Portal improvements New Dashboards Specifics Forms  For additional features, see What's New in CSM 8.00.                                                                                                                                   |
| 7.00 Rev1 | October 2015     | Software fixes.                                                                                                                                                                                                                                                                                                                                                                                                         |

| 7.00      | September<br>2015 | Platform changes:  Performance Health Check tool Trusted Agent Server Integration feature Enhanced SAML integration Blueprint scan alerts  OOTB content changes: IT Management Dashboards Change Management Dashboards Automatic Incident escalation  For additional features, see What's New in CSM 7.00. |
|-----------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6.00 Rev1 | August 2015       | Software fixes.                                                                                                                                                                                                                                                                                            |
| 6.00      | July 2015         | Platform changes:      One-Step improvements     New Dashboard Chart Widget types     Theme improvements and Portal support     Browser and Portal updates     Browser usability  For additional features, see What's New in CSM 6.00.                                                                     |
| 5.00 Rev2 | October 2014      | Software fixes.                                                                                                                                                                                                                                                                                            |
| 5.00      | July 2014         | Platform changes:  • mApp Solutions  • mApp Solutions and Integration page  • Business Intelligence enhancements  • One-Step enhancements  • Advanced record locking  For additional features, see What's New in CSM 5.00.                                                                                 |
| 4.60b     | November<br>2013  | Software fixes.                                                                                                                                                                                                                                                                                            |

|          |                  | Platform changes:                                    |
|----------|------------------|------------------------------------------------------|
|          |                  | Rich Text support                                    |
|          |                  | Bomgar platform integration                          |
| 4.60     | June 2013        | Ease-of-Use/Look-and-Feel enhancements               |
| 4.00     | Julie 2015       | Embedded Forms                                       |
|          |                  | Grid enhancements                                    |
|          |                  | For additional features, see What's New in CSM 4.60. |
|          |                  | Platform changes:                                    |
|          |                  | iCherwell enhancements                               |
| 4.31     | February 2013    | Widget enhancements                                  |
|          |                  | New Dashboards                                       |
|          |                  | Portal and Browser enhancements                      |
|          |                  | Platform changes:                                    |
|          | November<br>2012 | SAML Support                                         |
|          |                  | Grid enhancements                                    |
| 4.30     |                  | Portal and Browser Client enhancements               |
| 1.00     |                  | CSM Manager enhancements                             |
|          |                  | Form Editor enhancements                             |
|          |                  | For additional features, see What's New in CSM 4.3.  |
| 4.0 Rev2 | August 2012      | Software fixes.                                      |
| 4.0-1    | July 2012        | Software fixes.                                      |
|          | April 2012       | Platform changes:                                    |
|          |                  | Cherwell Portal                                      |
|          |                  | Cherwell Browser Client                              |
| 4.0      |                  | Searching                                            |
|          |                  | Action Catalogs                                      |
|          |                  | Security enhancements                                |

## **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