Cisco Unified Contact Center Express Report User Guide, Release 11.6(2)

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Preface

Change History

This table lists changes made to this guide. Most recent changes appear at the top.

Change	See	Date
Initial Release of Document for Release 11.6(2)		August 2018

About This Guide

This guide describes all the fields in the Historical Reports and Live Data Reports and provides the query designs for the Historical Reports. Online help file is available for each report. It describes the fields, charts, available views, filters, and grouping.

Conventions

This manual uses the following conventions.

Convention	Description
boldface font	Boldface font is used to indicate commands, such as user entries, keys, buttons, and folder and submenu names. For example: • Choose **Edit** > **Find** • Click **Finish**.

Convention	Description
italic font	Italic font is used to indicate the following: • To introduce a new term. Example: A *skill group* is a collection of agents who share similar skills. • For emphasis. Example: *Do not* use the numerical naming convention. • An argument for which you must supply values. Example: IF (*condition, true-value, false-value*) • A book title. Example: See the *Cisco Unified Contact Center Express Installation Guide*.

`window` font	Window font, such as Courier, is used for the following:
	• Text as it appears in code or information that the system displays. Example:
	`<html><title> Cisco Systems,Inc. </title></html>`
	• File names. Example: `tserver.properties`.
	• Directory paths. Example:
	`C:\Program Files\Adobe`

string	Nonquoted sets of characters (strings) appear in regular font. Do not use quotation marks around a string or the string will include the quotation marks.
[ ]	Optional elements appear in square brackets.
{ x | y | z }	Alternative keywords are grouped in braces and separated by vertical bars.
[x | y | z]	Optional alternative keywords are grouped in brackets and separated by vertical bars.
< >	Angle brackets are used to indicate the following: • For arguments where the context does not allow italic, such as ASCII output. • A character string that the user enters but that does not appear on the window such as a password.

Convention	Description
^	The key labeled Control is represented in screen displays by the symbol ^. For example, the screen instruction to hold down the Control key while you press the D key appears as ^D.

Related Documents

Document or Resource	Link
Cisco Unified Contact Center Express Documentation Guide	https://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_documentation_roadmaps_list.html
cisco.com site for Cisco Unified CCX documentation	https://www.cisco.com/en/US/products/sw/custcosw/ps1846/tsd_products_support_series_home.html
cisco.com site for Cisco Unified Intelligence Center documentation	https://www.cisco.com/en/US/products/ps9755/tsd_products_support_series_home.html
cisco.com site for Cisco Finesse documentation	https://www.cisco.com/en/US/products/ps11324/tsd_products_support_series_home.html
cisco.com site for Cisco SocialMiner documentation	https://www.cisco.com/c/en/us/support/customer-collaboration/socialminer/tsd-products-support-series-home.html
cisco.com site for Cisco Mediasense documentation	https://www.cisco.com/c/en/us/support/customer-collaboration/mediasense/tsd-products-support-series-home.html
cisco.com site for Cisco Unified CCX Virtualization Information	https://www.cisco.com/c/dam/en/us/td/docs/voice_ip_comm/uc_system/virtualization/virtualization-cisco-unified-contact-center-express.html
cisco.com site for Cisco Unified CCX Compatibility Information	https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-express/products-device-support-tables-list.html

Documentation and Support

To download documentation, submit a service request, and find additional information, see *What's New in Cisco Product Documentation* at https://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html.

You can also subscribe to the *What's New in Cisco Product Documentation* RSS feed to deliver updates directly to an RSS reader on your desktop. The RSS feeds are a free service. Cisco currently supports RSS Version 2.0.

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CHAPTER 1

Getting Started

Overview

Unified CCX users can access reports using Cisco Unified Intelligence Center and Cisco Finesse. Unified Intelligence Center is a comprehensive, end-to-end reporting solution for Unified CCX. You can access Historical and Live Data reports.

With Unified Intelligence Center, you can complete the following tasks:

- Create and view Dashboards.
- Schedule reports to run at selected intervals.
- Import and export reports and report folders.

Common Terms

Data Source

Data source defines the sources that contain data for the report. Unified Intelligence Center supports two types of data sources: IBM Informix (Historical Reports) and Streaming (Live-Data Reports). Data sources are preconfigured for you.

Note Additional data sources are not supported.

Reports

Reports show data returned by Report Definitions. This data is extracted by database queries.

Stock Report

Report that is pre-bundled in Unified Intelligence Center.

Report Views

A report can be presented in multiple formats like a grid, chart, or a graph. Each view can have its own set of fields. A single report can have multiple views.

Report Help

You can attach a help page specifically for your report.

Authorized Users

The following user groups can access the reports:

- Agents—User can access the Live Data agent reports.
- Supervisors—User can access the Live Data agent and supervisor reports.

  Note To access Unified Intelligence Center Live Data reports, the supervisor should be assigned an agent Unified CCX extension.

- Reporting users—User can access Historical reports and Live Data reports.

Note

- Live Data reports can only be run by agents, supervisors, and reporting users.
- For more information on the maximum number of reporting users supported to run Live-Data Reports concurrently on Cisco Unified Intelligence Center, see **Live Data Reporting Considerations** in *Solution Design Guide for Cisco Unified Contact Center Express*.

Available Reports

Historical Reports

These reports access past data from the historical data source to display information for the specified period of time. The refresh rate is 30 minutes. Historical reports display 8000 rows at a time.

Note Cisco Agent Desktop-email reports are no longer available on Unified Intelligence Center. Historical data of the Cisco Agent Desktop-email reports is available in the Unified CCX database. Report templates for accessing this data are located at: https://developer.cisco.com/site/reporting/documentation/

Import these report templates to Unified CCX to run the reports.

Live Data Reports

These reports access current data from the Streaming data source to display information about the current state of the contact center. The refresh rate is 3 seconds.

License-Wise Reports

For information on reports that are available based on the Unified CCX license package, see the "Reporting" section of the Unified CCX administration related guide, located at:

https://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_implementation_design_guides_list.html.

Historical Reports

Report Categories	Available Reports
Chat reports	Chat Agent Detail Report
	Chat Agent Summary Report
	Chat CSQ Activity Report
	Chat CSQ Agent Summary Report
	Chat Traffic Analysis Report
Email reports	Email Agent Activity Report
	Email Contact Detail Report
	Email CSQ Activity Report
	Email Traffic Analysis Report

Report Categories	Available Reports
Inbound reports	Abandoned Call Detail Activity Report (For FAQ, see Abandoned Call Detail Activity Report, on page 59.)
	Aborted Rejected Call Detail Report
	Agent All Fields Report
	Agent Call Summary Report (For FAQ, see Agent Call Summary Report, on page 61.)
	Agent Detail Report (For FAQ, see Agent Detail Report, on page 61.)
	Agent Login Logout Activity Report (For FAQ, see Agent Login Logout Activity Report, on page 62.)
	Agent Not Ready Reason Code Summary Report
	Agent State Detail Report
	Agent State Summary by Agent Report
	Agent State Summary by Interval Report
	Agent Summary Report (For FAQ, see Agent Summary Report, on page 62.)
	Agent Wrap-up Data Summary Report
	Agent Wrap-up Data Detail Report
	Call Custom Variables Report (For FAQ, see Call Custom Variables Report, on page 63.)
	Called Number Summary Activity Report
	Common Skill CSQ Activity report (For FAQ, see Common Skill CSQ Activity Report, on page 64.)
	Contact Service Queue Activity by CSQ Report (For FAQ, see Contact Service Queue Activity by CSQ Report , on page 65.)
	Contact Service Queue Activity by Window Duration
	Contact Service Queue Activity Report (For FAQ, see Contact Service Queue Activity Report, on page 64.)
	Contact Service Queue Activity Report by Interval
	Contact Service Queue Activity by Window Duration
	Contact Service Queue Call Distribution Summary
	Contact Service Queue Priority Summary
	Contact Service Queue Service Level Priority Summary Report

Report Categories	Available Reports
	CSQ Agent Summary Report
	CSQ All Fields Report
	Detailed Call by Call CCDR Report (For FAQ, see Detailed Call by Call CCDR Report, on page 67.)
	Detailed Call CSQ Agent Report
	Priority Summary Activity Report
	Reason Code Report by Agent Grouping
	Reason Code Report by Reason Grouping
	Traffic Analysis Report (For FAQ, see Traffic Analysis Report, on page 67.)
Outbound reports	Agent Outbound Campaign Summary Report
	Agent Outbound CCDR Report
	Agent Outbound Half Hourly Report
	IVR Outbound Campaign Summary Report
	IVR Outbound Half Hourly Report
	IVR Outbound CCDR Report
	Outbound Agent Detail Performance Report
	Preview Outbound Agent Detail Performance Report
	Preview Outbound Campaign Summary Report
System reports	Application Performance Analysis Report (For FAQ, see Application Performance Analysis Report, on page 63.)
	Application Summary Report
	License Utilization Hourly Report (For FAQ, see License Utilization Hourly Report, on page 67.
Multichannel reports	Wrap-Up Reasons for Chat and Email
	Multichannel Agent Summary Report

Live Data Reports

Live Data reports present ACD calls, chat, outbound, and email reports. You can access Live Data reports using Unified Intelligence Center or Cisco Finesse.

Live Data Reports on Unified Intelligence Center

The following table lists the available Live Data reports:

Report Categories	Available Reports
Agent	Agent CSQ Statistics Report
	Agent State Log Report
	Agent Statistics Report
	Agent Team Summary Report
Supervisor	Agent Outbound Team Summary Report
	Chat Agent Statistics Report
	Chat CSQ Summary Report
	Email Agent Statistics Report
	Email CSQ Summary Report
	Team State Report
	Team Summary Report
	Voice CSQ Summary Report

Live Data Reports on Finesse

Agent and supervisors can access Live Data reports that are configured to be displayed in the gadgets of the desktops. The following are the reports that are displayed in the gadgets:

Users	Reports	Report View	Is the Report Available in Default Layout ?	Tab
Agent	Agent CSQ Statistics Report	Agent CSQ Statistics Report	Yes	Home
Agent	Agent State Log Report	Agent State Log Report	Yes	My Statistics
Agent	Agent Statistics Report	Agent Statistics Report	Yes	My Statistics
Agent	Agent Team Summary Report	Agent Team Summary Report	Yes	Home
Supervisor	Agent Outbound Team Summary Report	Since Midnight	No	Team Data
Supervisor	Agent Outbound Team Summary Report	Short and Long Term Average	No	Team Data

Users	Reports	Report View	Is the Report Available in Default Layout ?	Tab
Supervisor	Chat Agent Statistics Report	Chat Agent Statistics Report	No	Team Data
Supervisor	Chat CSQ Summary Report	Chat CSQ Summary Report	No	Queue Data
Supervisor	Email Agent Statistics Report	Since Midnight	No	Team Data
Supervisor	Email CSQ Summary Report	Email CSQ Summary Report	No	Queue Data
Supervisor	Team State Report	Team State Report	No	—
Supervisor	Team Summary Report	Since Midnight	Yes	Team Data
Supervisor	Team Summary Report	Short and Long Term Average	Yes	Team Data
Supervisor	Voice CSQ Summary Report	Voice CSQ Agent Detail Report	Yes	Queue Data
Supervisor	Voice CSQ Summary Report	Snapshot	Yes	Queue Data
Supervisor	Voice CSQ Summary Report	Short and Long Term Average	Yes	Queue Data
Supervisor	Voice CSQ Summary Report	Since Midnight	Yes	Queue Data

For Finesse documentation, see:

https://www.cisco.com/en/US/products/ps11324/tsd_products_support_series_home.html

Start Unified Intelligence Center

Access Unified Intelligence Center only after the administrator completes the post installation tasks for Unified CCX.

Procedure

Step 1 Open a web browser.

Step 2 Use one of these methods to access Unified Intelligence Center:

a) Enter the URL `http://<host address>` and click **Cisco Unified Contact Center Express Reporting**.
b) Enter the URL `http://<host address>:8081/cuic`.
c) Enter the URL `https://<host address>:8444/cuic`.

Note Host address is the DNS name or IP address of the Unified CCX node.

Step 3 Enter your username and password.

Step 4 Click **Log In**.

Trust Self-Signed Certificate

When you access a server for the first time, follow the below steps to trust a self-signed certificate.

Procedure

Step 1 Start Unified Intelligence Center.

Step 2 Perform the following steps to trust the self-signed certificate:

Option	Description
If you use Internet Explorer:	1. A page appears that states there is a problem with the website's security certificate. Click **Continue to this website (not recommended)**. A sign in page opes and a certificate error appears in the address bar of your browser. 2. Click **Certificate Error**, and then click **View Certificates** The **Certificate** dialog box appears. 3. On the **Certificate** dialog box, click **Install Certificate**. The **Certificate Import Wizard** appears. 4. Click **Next**. 5. Select **Place all certificates in the following store**, and then click **Browse**. 6. Select **Trusted Root Certification Authorities**, and then click **OK**. 7. Click **Next**. 8. Click **Finish**. 9. If a Security Warning dialog box appears that asks if you want to install the certificate, click **Yes**. A **Certificate Import** dialog box that states the import was successful appears. 10. Click **OK**. 11. Enter your credentials, and then click **Sign In**.
If you use Firefox:	1. A page appears that states this connection is untrusted. 2. Click **I Understand the Risks**, and then click **Add Exception**. 3. On the **Add Security Exception** dialog box, ensure the **Permanently store this exception** check box is checked. 4. Click **Confirm Security Exception**. The page that states this connection is untrusted automatically closes.

Option	Description
	5. Enter your credentials, and then click **Sign In**.

View Cisco Unified Intelligence Center Help

In Cisco Unified Intelligence Center, two types of help are available:

- **Application-specific help**: This help content explains how to use Unified Intelligence Center in general.
- **Report-specific help/Template help**: This help content explains how to use the report. The help can describe the fields or provide details of the relationship between the fields, or it can explain how to interpret the data in the report. This help is available only if it has been created for the report.

  For more information on how to add the template help to report, see *Add Template Help* section.

Get Help on Cisco Unified Intelligence Center

-
- Click the **Online Help** button on the home page to access the help window for Cisco Unified Intelligence Center.

Get Help on a Report

To get help on a report, perform the following steps

Procedure

Step 1 From the **Reports** page, click the required report to open the report in the run mode.

Step 2 Click the **Online Help** icon in the report toolbar.
The report template help appears in a new browser window.

You can configure template help for the report from the **Reports** page > **Add Help**. For more information, see *Add Template Help* section.

CHAPTER 2

Dashboards

Overview

In Cisco Unified Intelligence Center, Dashboard is an interface that allows you to add reports, web pages (URLs), web widgets, and notes in a consolidated view.

All actions on the Dashboards interface are based on your role and on the user permissions for Dashboards and for Folders.

Access Dashboards

From the left navigation pane, click **Dashboards** to access the list of all the available Dashboards. This list includes the dashboards that you have created and the dashboards created by other users on which you have EXECUTE permissions.

Note

- You must be assigned with the **Dashboard Designer** role to create Dashboards.
- To view Dashboards created by other users, you must have **EXECUTE** permissions for the dashboard and its parent folder.
- Cisco Unified Intelligence Center does not provide a default Dashboard.

Run Dashboards

To run a Dashboard, click the Dashboard name. When the Dashboard is in the run mode, use the toolbar to:

- Edit the Dashboard.
- Refresh the Dashboard data.
- Maximize the Dashboard view.

Press **Esc** to restore the original view.

Before You Upgrade

Cisco Unified Intelligence Center 11.6 supports a maximum of ten widgets per Dashboard. Hence, for Dashboards with more than ten widgets in versions before 11.6, ensure to split those Dashboards with a maximum of ten widgets each before upgrade.

Consider a Dashboard with 15 widgets in Unified Intelligence Center versions before 11.6. Before upgrading to version 11.6, use the **Save As** feature to clone the Dashboard and manage the widgets up to ten per Dashboard.

Unsupported Widgets

The Cisco Unified Intelligence Center 11.6 interface for Dashboards does not support the following widgets:

- Schedule Report widgets
- URL widgets containing Dashboard permalinks (Nested Dashboards)

Migration Limitations

The following widgets if added to the Dashboard before Cisco Unified Intelligence Center 11.6 are not migrated.

- Schedule Report widgets.
- URL widgets containing Dashboard permalinks (Nested Dashboards).
- Widgets that were placed beyond the new Dashboard canvas size.

  Note Post upgrade to Cisco Unified Intelligence Center 11.6, the positions of the widgets placed in the legacy dashboard interface are retained. However, in few cases the position and size of the widgets are modified to fit inside the new dashboard interface.

- Inaccurate widgets (inaccurate database records)

  Example: Report widgets with missing Report Views.

Note For the Schedule Report widgets and Nested Dashboard widgets that are not migrated, the Cisco Unified Intelligence Center server logs do not capture the logs.

For all other widgets, Cisco Unified Intelligence Center server logs captures the log information with the corresponding Dashboard and widget name.

Dashboard Actions

The following table lists various actions that you can perform from the Dashboard.

Note You can open a maximum of ten tabs at a time.

Table 1: Dashboard Actions

Action	Description
Dashboard-level actions	
New	
Dashboard	Creates a new Dashboard. The **New Dashboard** wizard allows you to: • Provide Dashboard properties; Name and Description. • Add widgets to the Dashboard. For more information, see *Add Widgets to Dashboard*.
Folder	Creates a new Folder. Use this feature to categorize Dashboards. **Note** When you move or save the folders to a different location, the drop-down lists all the folders. You can only navigate into the folders on which you have the **WRITE** permission.
Toolbar actions	
Refresh	Refreshes the Dashboards page.
Favorites	To easily access your Dashboards, you can tag Dashboards as Favorites. Click the star icon beside the Dashboard name to add to Favorites.
Search	Searches for a particular Dashboard.
Ellipsis (…) actions	
Edit	Edits the Dashboard details. In the edit mode, you can: • Add, remove, and modify widgets. • Click the icon next to the Dashboard name to edit the Dashboard properties; name and description. After editing the Dashboard, click **Save**.

Action	Description
Save As	Saves a copy of the Dashboard.
Rename	Renames a Dashboard or a Folder.
Move	Moves Dashboard or Folder from one folder to another. **Note** You can move a Dashboard or a Folder only if you have **Edit** permission on the parent folder of the Dashboard or Folder being moved.
Delete	Deletes a Dashboard or a Folder. **Note** You can delete a Dashboard or a Folder only if you have **Edit** permission on the parent folder of the Dashboard or Folder being deleted.
Share	Assigns appropriate permissions to access and manage the Dashboard. **Share**—Grants **View** and **Edit** permissions for the Dashboard within your group.
Permalinks	Displays the Dashboard permalink. **Note** You can access permanent hyperlink only from a web browser. You cannot access it from an application such as Microsoft Excel to pull data or display a Dashboard. For more information, see *Permalink for a Dashboard*.

Add Widgets to Dashboard

You can add Reports, Web pages, Notes, and Custom Widgets to a Dashboard. In addition, you can resize and reposition the widgets to suit your needs. The default widget size depends on the available space on the Dashboard canvas.

Note You can add a maximum of ten widgets per Dashboard.

To add widgets to the Dashboard, perform the following steps:

Procedure

Step 1 From the left navigation pane, click **Dashboards**.

Step 2 In the **Dashboards** tab,

- To add widgets to a new Dashboard, click **New** > **Dashboard**.

- To add widgets to an existing Dashboard, click the ellipsis icon beside the required Dashboard and click **Edit**.

Step 3 On the Dashboard canvas, click on the plus icon.

Step 4 In the **Add Widgets** dialog box, add the required widgets:

Widget Type	Steps
Report View	Displays an existing report on the Dashboard. 1. Click the **Report View** icon. 2. In the **Add Report View** dialog box, select the **Report** and the **Views** from the corresponding drop-down list. 3. Click **Done**. **Note** • For a Report widget, you can click the icons on the widget header to view the existing filter information, manage filters, and play or pause the report execution. • The Manage filters and the View filter information icons appear only when you hover on the report widget. • For Grid view reports, you can increase or decrease the font size of the report data. The default font size is set to 10. Post upgrade to Cisco Unified Intelligence Center 11.6, this setting overrides the font size set during the grid view creation. • In the edit mode, from the Report widget header, use the ellipsis icon to access Filter and modify the filter criteria. • Drilldown reports are not supported.
Note	Adds notes to the Dashboard. 1. Click the **Note** icon. 2. In the **Add a Note** dialog box, enter **Note Title** and **Note Body**. 3. Click **Done**.

<table>
<tr><th>Widget Type</th><th>Steps</th></tr>
<tr><td>Web page</td><td>Displays a web page on the Dashboard.
1. Click the Web page icon.
2. In the Add a Web page dialog box, enter Web URL, the address of the web page that you want to display on the Dashboard.
3. Click Done.
Limitations for web page widget:
• The websites enabled with "X-Frame-Options", will not be displayed on the Dashboard.
• The web URLs provided without prefixing a protocol (HTTP or HTTPS) will by default use the protocol of the Cisco Unified Intelligence Center application.
• When Cisco Unified Intelligence Center is in HTTPS mode, you cannot configure HTTP based widget URLs in Dashboard.
• You cannot add Dashboard permalink as web page widget.

For information on viewing report permalinks in Dashboards as web page widgets, see View Report Permalinks in Dashboards.</td></tr>
<tr><td>Custom Widget</td><td>Adds custom widgets to the Dashboard.
1. Click the Custom Widget icon.
2. In the Add Custom Widget dialog box, enter Widget Title and Code Snippet.
Note In the Code Snippet box, you can enter any markup/code snippet of the widget that you want to show on the Dashboard. For example, HTML, XML RSS feed, JavaScript, and so on.
Maximum Limit: 1000 characters.
3. Click Done. The embedded code appears on the Dashboard.</td></tr>
</table>

Step 5 Click **Save**.

Run a Report from the Dashboard

Running a report from the Dashboard depends on the **Don't show filter when executing report** check box during the report filter selection:

- If this check box is checked for a report, the system bypasses the filter and runs that report using the default filter.

- If this check box is unchecked for a report, for the first access, the system prompts you to choose a **Filter** to run that report.

Note

- The **Don't show filter when executing report** check box is not checked for any of the stock reports. If you do not want a Dashboard report to require filter selection upon first use, you must create a new report, set the default filter, and check the **Don't show filter when executing report** check box.
- The **Filter** prompt displays the corresponding icon to denote the type of report view, such as, Grid, Chart, Pie, and so on.
- In both these scenarios, from the ellipsis icon on the Report widget header you can access **Filter** to edit the filter criteria.

Click the **Filter** button to display the filter criteria in the **Filter Data** dialog box based on the following validations:

- Displays the filter criteria screens based on the selected report query type.
- Populates with the default filter criteria if the default filter is set for that report.

Edit Filter Data

You can edit the report filter data from the Dashboard in the following two ways:

- **Run mode**—Click the filter icon on the report widget header.
- **Edit mode**—Click the ellipsis icon and select **Filter** from the available menu options.

Modify the required filter criteria and click **Run**. The report refreshes reflecting the modified filter criteria.

Note

When you edit the report filter for a Dashboard during Create, Edit, or Run mode, the filter settings are stored in the browser cache and is specific to the individual user. Hence, the next time you sign in and run the Dashboard, the report widget uses the filter information stored in the browser cache and generates the report (without prompting you to update the filter criteria). The browser cache is retained up to 30 days.

Every time you run the report, the filter data in the browser cache is validated for permissions. If there is a permission mismatch, an error message appears that the filter you selected before is no longer valid and select the filters again.

Also, if any other user sign-in to the same browser, that user cannot view your filter settings.

The filter settings stored in your browser cache are cleared only:

- If you have not used the Dashboard for the last 30 days.
- If you manually clear the cache.

For more information on Report Filters, see *Report Filters*.

CHAPTER 3

Manage and Run Reports

Report Actions

The following table lists various actions that you can perform from the Reports.

Note You can open a maximum of ten tabs at a time.

Table 2: Report Actions

Action	Description
Report-level actions	
New	
Report	Creates a new report in the selected folder. **Note** You cannot create reports inside the Stock folder. You can only import reports into the Stock folder. To edit or customize reports, clone the report and edit the cloned version.
Folder	Creates a new Folder. Use this feature to categorize reports. **Note** When you move or save the folders to a different location, the drop-down lists all the folders including the disabled folders. You can navigate to subfolders with **WRITE** permissions. **Note** You cannot create folders inside the Stock folder.

Action	Description
Import	Imports a report. To import a report, you need the REPORT DESIGNER role and **WRITE** permission on the target folder where you want to import these reports. For more information, see *Import Reports*. **Note** Applies to all folder levels (root, subcategory, and report).
Toolbar actions	
Refresh	Refreshes the Reports page. Applies to all folder levels (root, sub folder, and report).
Favorites	To easily access your reports, you can tag Reports as your Favorites. Click the star icon beside the Report name to add to Favorites.
Search	Searches for a particular the Report.
Ellipsis(…) actions	
Edit	Edits the Report details. In the edit mode, you can add, modify, and delete report details, views and thresholds, and filters. After editing the Report, click **Finish**. **Note** You cannot edit a Stock report.
Save As	Saves a copy of the report with a different name. **Note** • By default, the reporting users do not have permission to create a subfolder in the Reports root folder. To get permissions, contact your administrator. • You cannot perform the **Save As** action to move contents (reports or folders) into the Stock folder and its subfolders. **Note** The report description does not support the following special characters: • Parentheses (( )) • Angle brackets (<,>) • Forward slash (/) • Question mark (?) • Quotes (") • Any executable scripts; JavaScript

Action	Description
Rename	Renames a folder or a report. **Note** You cannot rename a Stock folder or a Stock report. **Note** Applies to the root-level folder.
Move	Moves Report or Folder from one folder to another. **Note** • You can move a Report or a Folder only if you have **Edit** permission on the parent folder of the Report or Folder being moved. • You cannot move custom folders or reports from within the Stock folder (and its subfolders) to other locations and the other way.
Add Help	Hosts the help page for Report Templates. For more information, see *Add Template Help*.
Delete	Deletes a report or a folder. **Note** • You can delete a Report or a Folder only if you have **Edit** permission on the parent folder of the Report or Folder being deleted. • You cannot delete a Stock folder or a Stock report.
Share	Assigns appropriate permissions to access and manage the Report. **Share**—Grants **View** and **Edit** permissions for the Report within your group.
Permalinks	Displays the Report permalink. For more information, see *Permalink for a Report*. **Note** You can access permanent hyperlink only from a web browser. You cannot access it from an application such as Microsoft Excel to pull data or display a report.

Add Template Help

You can configure individual help files to each Cisco Unified Intelligence Center report. You can either host the help page separately and point the report to it or create and upload the help page along with the report.

This help content is specific to the report and can contain explanation on:

- How to use the report
- Field description
- Details of the relationship between the fields
- How to interpret the report data or

- Any other report related information

You can upload only files in ZIP formats. ZIP files can contain multiple HTML files. The HTML page contents support rich text including images.

Note Help files does not support videos and other interactive content.

To configure the help page for a report, perform the following steps:

Procedure

Step 1 From the left navigation pane, click **Reports**.

Step 2 Click the Ellipsis icon (…) next to the report row for which you want to create the help page and click **Add Help**.

Step 3 In the **Add Help** dialog box,

- If you want to set an external help page as the report help, select the **URL** option and enter the external URL location.
- If you want to upload the help file, select the **Choose file** option and click **Browse** to upload a ZIP file (with HTML files).

Step 4 After uploading the file, click **Save**.

Note When you run the report, click the "?" icon (Template Help) on the Reports toolbar to view the configured help file.

Run Reports

Procedure

Step 1 In the left pane of the Unified Intelligence Center application, click **Reports**.
Reports open in a separate tab.

Step 2 In the **Reports** tab, access one of these reports as required:

a) For Historical reports, click **Stock** > **Unified CCX Historical**.
b) For Live Data reports, click **Stock** > **Unified CCX Live Data**.

Step 3 Click a report category under **Unified CCX Historical** or **Unified CCX Live Data** as required.

Step 4 Click the report that you want to generate.
The report opens in a separate tab.

Step 5 Set any filters that you want.

Step 6 Click **Run**.

Tip Scroll up to see **Run**.

Step 7 (Optional) If you are generating Live Data reports for the first time an error message appears after approximately 30 seconds, follow the below steps.

a) Trust the self-signed certificate. See Trust Self-Signed Certificate for Live Data Reports, on page 23.

b) Follow **Steps 1 to 6** to generate the report again.

The report is displayed in the Report Viewer.

Trust Self-Signed Certificate for Live Data Reports

When you generate Live Data reports for the first time, an error message appears after approximately 30 seconds.

Procedure

Perform the following steps to trust the self-signed certificate:

Option	Description
If you use Internet Explorer:	1. When you click **Run** the following message appears: `Internet Explorer blocked this website from displaying content with security certificate errors.` 2. Click **Show content**.
If you use Firefox:	1. When you click **Run** the following message appears: `Cannot connect to the notification service. Click OK to be redirected to a page where you can add a security exception for the certificates issued by the CUIC server, after which the current page will be reloaded. If the condition persists, contact your administrator.` 2. Click **OK**. A page appears that states this connection is untrusted. 3. Click **I Understand the Risks**, and then click **Add Exception**. The **Add Security Exception** dialog box appears. 4. On the **Add Security Exception** dialog box, ensure the **Permanently store this exception** check box is checked. 5. Click **Confirm Security Exception**. The page that states this connection is untrusted automatically closes.

Save an Existing Stock Report

Note Contact administrator to assign permissions to the saved report.

Procedure

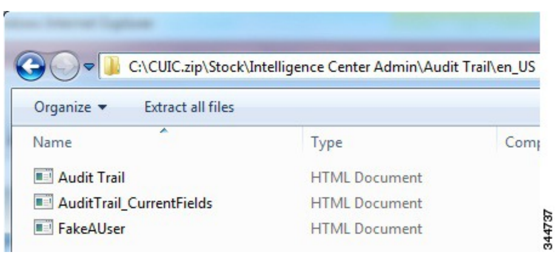
Step 1 From the **Actions** column, click the **Ellipsis (...)** icon and select **Save As**.
Step 2 In the **Save As** window, enter a name for the report in the **Name** field.
Step 3 Enter a brief description of the report in the **Description** field.
Step 4 Drill down and select a report category in the **Report Category** field.
Step 5 Assign permissions in the **Permissions** section.
Step 6 Click **OK**.
Step 7 You can customize the report as required and click **Save**.

Import Reports

You can import a report (XML) and the associated template help file (ZIP format) into Cisco Unified Intelligence Center.

The following directory structure illustrates an imported report sample for storing the report and help content.

Figure 1: Directory Structure of the Report ZIP File



Each report help folder has a size limit of 3MB. If the folder size exceeds this limit, the system does not load the help content.

You can import the following:

- Report
- Report Definition
- Value Lists
- Views

- Report Editor values
- Thresholds
- Drilldowns
- Permissions
- Template Help

Note You cannot import the Report Filters and Collections.

To import a report, perform the following steps:

Procedure

Step 1 From the left navigation pane, click **Reports**.

Step 2 On the Reports toolbar, click **New** > **Import**.
You will be redirected to the legacy interface.

Step 3 Navigate to the folder where you want to import the report.

Note If you are importing a stock report bundle from Cisco.com, it must be placed at the Reports folder level.

Step 4 Click **Import Report**.

Step 5 In the **File Name (XML or ZIP file)** field, click **Choose File**.

Step 6 Browse to and select the XML or the compressed report file, and click **Open**.

Step 7 From the **Data source for ReportDefinition** drop-down list, select a data source used by the report definition.

Note This field appears only if the Report Definition for the report being imported is not currently defined in Unified Intelligence Center.

Step 8 From the **Data Source for ValueList** drop-down list, select the data source used by the value lists defined in the report definition.

Note You have to select a data source for the value list only if it does not use the same data source as the Report Definition. For Report Definitions of Real Time Streaming, it is mandatory to select a data source for the Value Lists.

Step 9 In the **Save To** field, browse to the folder where you want to place the imported report. Use the arrow keys to expand the folders.

Step 10 Click **Import**.

Note Importing a report to a different version of Unified Intelligence Center is not supported. However, when you upgrade Unified Intelligence Center, report templates continue to work in the upgraded version.

Export Reports, Report Definitions, and Folders

You can export any custom report, report definition, or report folders from legacy interface. Reports and report folders are exported in a ZIP format and report definitions are exported as an individual XML file.

When you export a folder, the reports in the folder are grouped together as ZIP files. The grouping is based on the data source used by the report definition as well as the value lists.

Note

- For customized reports, you must update the version numbers of the value list and report definition before you export the report. Else, the export will not overwrite the existing default reports.
- When you export a report to an Excel file format, to read the exported report, the client system's locale must match with the browser's locale (where you had exported the report).
- While exporting report definitions or folders, ensure that all the Value Lists in the report defnitions or folders point to the same data source respectively.

Caution

Do not modify the exported report (XML file) for customization purposes. However, if required, you can modify only the EntityVersion of the Report, Report Definition, and ValueList.

When you export a report, the following data associated with the report are exported:

- Report
- Report Definition
- Value Lists
- Views
- Preferences defined in the Report Editor
- Thresholds
- Permissions
- Online Help (if not bundled, an empty folder is created in the zip file)

Note

Report Filters and Collections are not exported along with the report.

To export a report/report definition/folder, perform the following steps:

Note

For illustration, exporting a report is documented in the following steps. Perform the same steps to export report definition and folder.

Procedure

Step 1 From the left navigation panel, click **Report Definitions**.
You will be redirected to the legacy interface.

Step 2 Click the Reports drawer and browse to the report that you want to export.

Step 3 Right-click the report and select **Export**.

Note If required, you can rename the report. Do not change the file extension (Reports: zip and Report Definitions: XML).

Step 4 Click **OK**.
The exported file is downloaded into your Downloads folder.

CHAPTER 4

Report Filters

Filter Types

Report filters in Unified Intelligence Center are used to present selective data. You can define the filter to filter the data that you want to display in the report. There are two ways to view the Filter page.

- Before the report is generated: You can set and refine the default filter values using the **Actions** > **Set Default Filter** option.
- After the report is generated: You can refine the filter values using the filter icon.

Note You cannot view filters if the Report Designer has selected the **Don't show filter when executing report** check box during the report filter selection.

Cisco Unified Intelligence Center supports the following types of report filters:

- Date & Time
- Key Criteria
- Field Filters
- Parameters

Filter parameters are displayed based on the selected query type in the Report Definition for that report.

Table 3: Filter tabs

Report Definition Query Type	Applicable Filter Tabs
Database Query	Date & Time, Key Criteria, Field Filters
Live Data or Real Time Streaming	Key Criteria, Field Filters

Report Definition Query Type	Applicable Filter Tabs
Anonymous Block	Parameters
Stored Procedure	Parameters

Date & Time

Note

- You can choose the Date and Time filter for a new a Report and also when you run an existing report. The Date & Time filter is not applicable for Real-Time and Live Data reports.
- Cisco Unified Intelligence Center uses the browser locale to display the Date & Time format in the filter page. If Cisco Unified Intelligence Center does not support the browser locale language, then the locale selected in the Cisco Unified Intelligence Center application is used.

To configure Date and Time filters for a report, perform the following steps:

Procedure

Step 1 After creating Views and Thresholds, click **Next** to view the **Choose Filter** dialog box.

Step 2 In the **Date & Time** filter wizard, select the **Date Range** and **Time Range** options.

- The options available in the **Date Range** and **Time Range** filter are predefined.
- Selection of the **Custom** option allows you to customize the **Date Range** and **Time Range** details.

  You can select the days of the week (Days > Custom) only if the time interval spans more than a day.

  For reports that are based on the query type Anonymous Block, you cannot select days of the week. For more information, see *Cisco Unified Intelligence Center Report Customization Guide* at https://www.cisco.com/c/en/us/support/customer-collaboration/unified-intelligence-center/products-user-guide-list.html.

Step 3 Check the **Save the chosen filter as default** check box if you want to retain the filter settings as default filter.

Step 4 Click **Next**.

Key Criteria

Use the **Key Criteria** tab in the filter to select value lists or collections. A collection is a pre-configured group of values.

Note Key Criteria fields are predefined filters and are displayed in the filter screen if they are defined in the Report Definition.

To configure Key Criteria filters, perform the following steps:

Procedure

Step 1 After creating Views and Thresholds, click **Next** to view the **Choose Filter** dialog box.
Step 2 In the **Date & Time** filter wizard, select the **Date Range** and **Time Range** options and click **Next**.
Step 3 In the **Key Criteria** filter wizard, select the collections or values from the **Available** selection box.
Step 4 Use the arrows to move the selected collections or values to the **Selected** selection box.
Step 5 You can also select multiple collections or values.
Step 6 Click **Next**.

Field Filters

Use the **Field Filters** tab to filter any field in the report. Based on the selected field type (date, numeric/decimal, boolean, or string), different operators are available. For example, you can filter calls in queue for greater than two minutes or on all agents in the hold state to filter out the less important information.

Note You can configure Field Filters in reports:

- Only for SQL Query based reports.
- To filter a text, date, boolean, or a decimal field.

To configure Field Filters, perform the following steps:

Procedure

Step 1 After creating Views and Thresholds, click **Next** to view the **Choose Filter** dialog box.
Step 2 In the **Date & Time** filter wizard, select the **Date Range** and **Time Range** options and click **Next**.
Step 3 In the **Key Criteria** filter wizard, select the collections or values from the **Available** selection box and click **Next**.
Step 4 In the **Field Filters** wizard, select the filter according to the following criteria.

Filter criteria/operators depend on the selected field type (date, numeric/decimal, boolean, or string).

- For **Date**, the options available in Date Range filter are predefined. Using the Date Range drop-down list, select from Custom, Today, Yesterday, This Week, Last Week, This Month, Last Month, Year to Date, or Last Year.

  Only Custom will allow the user to customize the Calendar, Time Range and Days certain days of the week.

- For **Decimal**, select an Operator from Equal To, Not Equal To, Less Than, Less Than or Equal To, or Greater Than and then enter a value; for example, Operator = Greater Than and Value = 16.5.

- For **String**, select an Operator from Equal To, Not Equal To, or Matches and then enter a value for the string; for example, Operator = Matches and Value = Team Green.
    - If you select Matches as the Operator, you must specify an SQL pattern to match the string field. The system appends the wild card character % automatically to the beginning and end of the string. You can also use any SQL wild card pattern in between the string.
    - If the filter field is associated with a **Value List**, then specify any value or move one, all, or some items in the list to the Selected column to filter.
- For **Boolean**, select True or False from the Operator list.

Step 5 Using the **Operator** drop-down list, select the criteria.

Note If you select **Matches** operator, you can use any Microsoft SQL wildcard pattern to filter the data. The wildcard character **%** is added to the beginning and end of every string that is used to filter the data.

Step 6 In the **Value** field, enter a value against which the data in the field will be filtered.

Step 7 Click **Run**.

CHAPTER 5

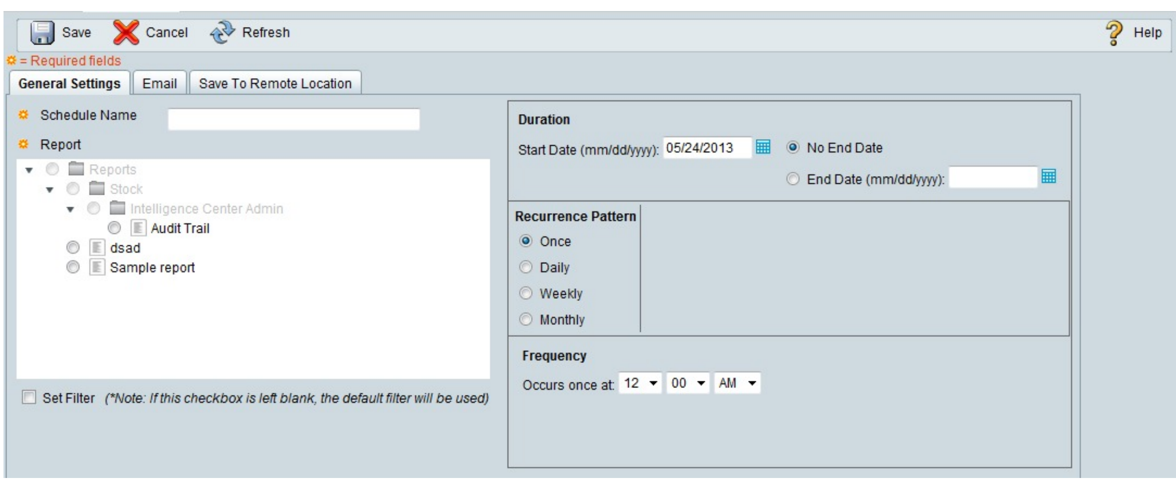
Schedule Reports

Overview

You can automate the generation of reports on a regular and recurring basis by setting up a schedule. The Scheduler lets you run large dataset reports once to be sent to, and viewed by, many users.

Only users with Report Designer and System Configuration Administrator roles can access the Scheduler drawer. System Configuration Administrators can perform all scheduler functions on any reports. They can read, edit, and run any scheduled report and can create a schedule for any report. Report designers can create a schedule only for those reports that they created or for which they have Execute permissions.

Figure 2: The Report Scheduler



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You can schedule reports in any of the following ways:

- Run at predetermined times
- Automatically email reports

- Save reports to remote location

Create a Schedule for a Report

You can schedule reports to run automatically within a dashboard. For example, an interval report can be run every 30 minutes to capture a day's activity up to the prior interval.

Note Live Data does not support scheduling.

Procedure

Step 1 In the Scheduler, click **Create**.

Step 2 In the **General Settings** tab, enter a **Schedule Name** for the scheduled report.

Step 3 In the **Report** area, select **Reports** and then select a report.

Step 4 Check the **Set Filter** check box to configure the filters. To use the default filter, do not check the check box.

You cannot schedule a report that does not have a filter.

Step 5 Click the **Set filtering criteria** link to go to the filter configuration page.

Step 6 In the **Duration** section, click the calendar icon to select the **Start Date** and check **No End Date**, or use the calendar icon to **End Date**.

Step 7 In the **Recurrence Pattern** section, specify the frequency of the scheduled report. Choose from one of the following options:

- **Once**—Specify the time of day for the single occurrence.
- **Daily**—Specify a number for recurrence of days; for example, every four days.
- **Weekly**—Specify the number of weeks and the days of the week that you want the scheduled report to be run.
- **Monthly**—Select a day of the month and specify the number of months that you want the scheduled report to run.

  Note Use **Last** to specify the last day of the month.

In the **Frequency** section, specify the number of times the report should run on the scheduled days.

Note The maximum frequency with which you can schedule a report is once every five minutes.

Step 8 Click **Save**.

Configure a Scheduled Report to Be Sent by Email

In the Scheduler, click the **Email** tab to set up a schedule to email a scheduled report.

Procedure

Step 1 In the **Email Distribution** field, click **Add**, and enter the recipient email address.

Tip Repeat Step 1 to add multiple recipients.

Note Email page validation occurs when the email ID is entered in the Email Distribution field. No validation is performed if there is no email ID entered in the Email Distribution field.

Step 2 In the **Email View** drop-down menu, select the view of the report that you want to email.

Note Only grid views can be scheduled.

Step 3 In the **Email Subject** field, enter text for the subject line.

Step 4 In the **File Type** drop-down menu, select the type of file. Choose one of the following:

- **INLINE HTML**—Sends the report in HTML format.
  - The historical report has an upper limit of 8000 rows.
  - The real-time report has an upper limit of 3000 rows.
- **XLS**—Sends the report as a Microsoft Excel file attachment.
  - The historical report has an upper limit of 8000 rows.
  - The real-time report has an upper limit of 3000 rows.
- **PDF**—Sends the report as a PDF file attachment.

  PDF attachments have the following limitations:
  - The generated PDF has either landscape or portrait orientation. Landscape orientation is the default setting.
  - The generated PDF uses standard font sizes: 10 pixels for landscape orientation and 8 pixels for portrait orientation. The PDF bypasses the font size set in grid view editor to keep the font output printer-friendly.

    Note PDF supports images only in the HTTP format.
  - The generated PDF retains rows that fit within the page for the selected orientation. Columns that do not fit within the page are truncated.
  - Only 1000 rows are supported for a PDF file attachment. An email message is sent if the scheduled report exceeds 1000 rows.
  - The generated PDF does not support word-wrap for columns. In case of larger text, you can customize the column width in the grid editor to avoid overlaps. However, this customization might reduce the number of columns shown in the PDF.
  - The generated PDF does not support multibyte characters. Also, characters with diacritical marks like é, ô, ü are not supported.

Step 5 Click **Save**.

Note Every time you edit a scheduled report and click **Save**, scheduler runs and sends the scheduled report by email to all the recipients that are configured in the **Email Distribution** field.

Configure a Report to Be Posted to a Remote Location

In the scheduler, click the **Save to Remote Location** tab to post a report.

Procedure

Step 1 In the **Protocol** drop-down list, select **SFTP** to establish secure connection to the remote location.

Step 2 In the **Report View** drop-down list, select the view of the report to be posted.

Step 3 In the **Host** field, enter the IP address of the remote location.

Step 4 Enter a **Port** number for the SFTP.

Note The default port number is 22.

Step 5 Enter a **User name** for the host.

Step 6 Enter a **Password** for the host.

Step 7 In the **Directory Path** field, enter the location on the host to save your **.csv** file to.

Step 8 Click **Save**.

Note

- Date Time format in a scheduled report of type CSV is: Day_of_week Month Date_of_Month HH:MM:SS SERVER_TIMEZONE YYYY. For Example, Fri Oct 24 01:00:00 EDT 2014.
- The time field in a scheduled report of type CSV is displayed in seconds only.

CHAPTER 6

Permalinks

Overview

Permalinks in Cisco Unified Intelligence Center are permanent hyperlinks.

Unified Intelligence Center supports the following types of permalinks for reports:

- **Excel Link:** This permalink is generated only for grid view.
- **HTML Link:** This permalink is generated for grid view, gauge view, and chart view.
- **XML Link:** This permalink is generated only for the grid view. It is used where the data is required in XML format.

Note For Live Data reports, you will only have the HTML permalink. HTML permalink for Live Data reports always require authentication.

Note Due to security reasons, permalinks from one Unified Intelligence Center cannot be displayed in the dashboard of another Unified Intelligence Center instance.

Permalink for a Dashboard

Dashboard permalinks help you to share your Dashboards with other users and view Dashboards of other users.

Note

- You can access the Dashboard permalink only from a web browser.
- Authenticated Dashboard permalinks are not supported in Cisco Finesse.
- When an unauthenticated Dashboard permalink is accessed in an authenticated browser session, access to the permalink is controlled by the logged in user's permissions.

To view the Dashboard permalink, perform the following steps:

Procedure

Step 1 From the left navigation pane, click **Dashboards**.

Step 2 Click the ellipsis icon beside the required Dashboard and click **Permalinks**.

Step 3 In the **Permalinks** dialog box, click **HTML** to display the Dashboard permalink in the **Link** text box.

Note

- By default, all Dashboards are authentication enabled. When the **Authenticate Permalink** check box is enabled, users accessing the permalink are prompted to enter their credentials to view the Dashboard.
- When you uncheck the **Authenticate Permalink** check box for a Dashboard, users can view that Dashboard using the permalink, without authentication.

  Sharing an unauthenticated permalink of your Dashboard shares even the authenticated report permalinks added into the Dashboard.
- For Dashboards that contain Live Data report, ensure to select the **Authenticate Permalink** check box.

Step 4 Copy and paste the permalink in any browser to view the Dashboard.

Step 5 Click **Save**.

Permalink for a Report

Report permalinks help you to share your report with other users and view reports of other users.

Note

- Authenticated report permalinks are not supported in Cisco Finesse.
- When an unauthenticated Report permalink is accessed in an authenticated browser session, access to the permalink is controlled by the logged in user's permissions.
- You cannot drill down to another report from a report permalink.

To view the Report permalink, perform the following steps:

Procedure

Step 1 From the left navigation pane, click **Reports**.

Step 2 Click the ellipsis icon beside the required Report and click **Permalinks**.

Step 3 In the **Permalinks** dialog box, select from the available Link formats; HTML, Excel, XML to display the corresponding Report permalink in the **Link** text box.

Note
- You can uncheck the **Authenticate Permalink** check boxes if you want the permalink (Variable and Default) to be accessible without authentication.
- For Live Data reports, by default, the **Authenticate** check box is checked and disabled.

Step 4 To view the report,

- HTML and XML—Copy and paste the permalink (HTML and XML) in any browser
- Excel—

  The browser prompts you to download and save the file (Excel format) to the local drive.

Step 5 Click **Save**.

For information on viewing report permalinks in Dashboards as web page widgets, see *View Report Permalinks in Dashboards*.

For more information on permalinks, see *Cisco Unified Intelligence Center Report Customization Guide* at https://www.cisco.com/c/en/us/support/customer-collaboration/unified-intelligence-center/products-user-guide-list.html.

View Report Permalinks in Dashboards

Viewing report permalinks in Dashboards as web page widgets depends on the authentication status of both reports and the dashboards. The following matrix provides different scenarios that supports viewing report permalinks in Dashboards.

	Auth Report Permalink Same Node	Auth Report Permalink Different Node	Auth Report Permalink Different Cluster	Un-Auth Report Permalink Same Node	Un-Auth Report Permalink Different Node	Un-Auth Report Permalink Different Cluster
Un-Auth Dashboard	Not Supported	Not Supported	Not Supported	Supported	Supported	Supported
Auth Dashboard	Supported	Not Supported	Not Supported	Supported	Supported	Supported
Dashboard Viewer	Supported	Not Supported	Not Supported	Supported	Supported	Supported

CHAPTER 7

Visual Customizations

Overview

Stock reports are the reports that are pre-bundled and supported by Cisco. The stock reports can be copied and these copied versions can be edited to visually customize them. Save a copy of the report with a different name.

Note Reporting users do not have permission by default to create a subcategory under Reports. An Administrator should create a subcategory and grant access, so you can create a subcategory within the new subcategory.

Create a Grid View

Grids are tabular presentations of the data in rows and columns. By default, all Cisco stock reports have a grid view. For custom reports, a default grid is created from the SQL query in the Report Definition.

Note Grouping and font size is not supported in Live Data reports.

You can create a Grid View while creating or editing a report.

To create a Grid View, perform the following steps:

Procedure

Step 1 Create or edit a report.

Step 2 Enter the report details in the **Basic Information** screen and click **Next**.
The **Manage Views and Thresholds** screen appears with a default grid view.

Note You can access Report permalinks only after completing the report creation. Report permalinks allow you to share your report with other users and view reports of other users. For more information, see *Permalink for a Report*.

Step 3 You can edit the default view (**Actions** column > **Edit View**) or click **Create New** > **Grid view** to create a new grid view.

The **Edit Grid View** or the **New Grid View** screen appears depending on your selection for edit or create.

Step 4 Enter the **Name** and **Description** in the respective fields.

Note Maximum length allowed for the grid view **Name**: 50 characters.

Step 5 From the **Font** selection box, you can select the font size from the list to display the grid data.

Step 6 Use the arrow buttons to select fields from the **Available** value list box to move to the **Selected** field list.

Step 7 You can use the following features to improve grid view display:

- **Header**—Use this feature to add (+) or delete (-) a header for the selected fields. This helps in categorizing the field set.

  Note You cannot save the view with empty headers.

  Post upgrade to Cisco Unified Intelligence Center 11.6, any empty headers that exist in the report views in prior releases are not migrated.

- **Edit** icon—In the Selected value list box, click the **Edit** icon (hover on the field value) if you want to edit the **Display Name** and **Column Width** for the selected field and click **Done**.

  Note For Header fields, you can only edit the Display Name.

- **Sort Grid by Field**—Select the **Sort Grid by Field** check box to sort the selected report columns in either **Ascending** or **Descending** order. Selecting this check box enables the drop-down list to be populated with the values from the **Selected** value list box. You can select only one value for sorting.

Step 8 Click **Save**.
The **Report Views** screen appears.

Step 9 Click **Finish**.

Create a Chart View

Cisco Unified Intelligence Center supports the following chart types:

- **Bar**—Bar charts display discontinuous events and show the differences between events rather than trends. Bar charts are oriented vertically and can be stacked horizontally or clustered one below the other.
- **Pie/Donut**—Pie charts display quantities as proportions of a whole. The circle (pie) represents 100% of the data, with each quantity represented as a wedge of the appropriate size. Pie charts take decimal or

numeric fields only. A pie chart cannot have more than 50 wedges. An error occurs if your data set and chart editor selections generate a pie chart with more than 50 wedges.

A doughnut chart is another display representation of a pie chart.

- **Column**—Column charts display discontinuous events and show the differences between events rather than trends. Column charts are oriented horizontally and can be stacked vertically or clustered side by side.
- **Dial Gauge/Numeric**—A gauge chart displays the dial representation of the report results as per the defined threshold.

  The Numeric chart displays the report results in a number format highlighted as per the defined threshold.
- **Line charts**—Line charts display continuous quantities over time against a common scale. Use the Line charts to show trends.

Note

- Live Data reports do not support chart view.
- In the vertically oriented charts, for Cyrillic characters, the data labels in the Horizontal Axis field may be hidden or garbled. This is a known limitation. Hence, for Cyrillic characters, use the horizontally oriented charts.

To create a Chart View, perform the following steps:

Procedure

Step 1 Create or edit a report.

Step 2 Enter the report details in the **Basic Information** screen and click **Next**.
The **Manage Views and Thresholds** screen appears with a default grid view.

Note You can access Report permalinks only after completing the report creation. Report permalinks allow you to share your report with other users and view reports of other users. For more information, see *Permalink for a Report*.

Step 3 Click **Create New** > **Chart view**.

Step 4 In the **Create New Chart View** screen, click the required chart type. For more information, see *Chart Types*.

Step 5 Enter the Chart Information; **Name**, **Description** and click **Next**.

Note Maximum length allowed for the chart view **Name**: 50 characters.

For Cartesian type charts (Bar, Column, and Line), select the **Group Data** check box to group data:

- **By a field**—Select this option to create a chart view where the vertical axis shows fields with footer formula configured for line or column chart and horizontal axis with footer formula for bar chart.
- **By label field**—Select this option to create a chart view where the vertical axis shows fields of decimal data type for Line or Column chart. In Bar chart, the horizontal axis shows fields of decimal type.

Note For Pie charts, you can only **Group Data by Label Field**.

Step 6 In the **Add Data Fields** screen, select the **Label Field** from the drop-down list and **Data Fields** from the list box and click **Next**.

Step 7 In the **Preview and Format** screen, enter or select appropriate information based on the selected chart type.

For more information, see *Chart Types*.

Note For the following Data Fields, the Column Type (Stacked and Grouped) feature is unavailable.

- Date and Time
- Boolean

Step 8 Click **Save**.

Chart Types

Chart Type	Chart Information	Add Data Fields	Preview and Format
Bar	Yes	Yes	Yes
Column	Yes	Yes	Yes
Line	Yes	Yes	Yes
Gauge/Numeric	No	Yes **Note** To configure a Gauge chart, Report Definition must have at least one decimal field with footer configured.	Yes You can select **Dial Gauge** or **Numeric** view for this report. To set the chart view for Dial Gauge/Numeric, perform the following steps: **1.** Enter the Range (min and max). Default: 0-100 **2.** Define the zones. When the chart value is within any of the defined thresholds, • The gauge pointer points to the corresponding color set in the threshold. • The Numeric text is displayed in the corresponding color set in the threshold. **3.** Click **Save**.

Chart Type	Chart Information	Add Data Fields	Preview and Format
Pie	Yes	Yes **Note** To configure a Pie chart, Report Definition must have at least one decimal field configured.	Yes You can select **Pie** or **Donut** as the display type for this report.

Group By

For an executed report, use the **Group By** option to add/remove/update grouping configurations for the current view. Cisco Unified Intelligence Center grid reports support up to three levels of grouping.

If you are grouping the column with Date or Date Time data type, you can group records on a Daily/Weekly/Monthly basis.

Note Live data reports do not support grouping.

To group the report data, perform the following steps:

Procedure

Step 1 From an executed report, click the **Report options** icon and select the **Group By** option.

Step 2 In the **Group By** dialog box, specify the **Number of Levels** you want to group the report.
Depending on the number of levels selected, the Level, Grouped By, Sub Group, and Show Expanded columns are activated.

Cisco Unified Intelligence Center grid reports support up to three levels of grouping.

Step 3 To group the report data by values in a particular column, select the required column name from the **Grouped By** list.
If you select a date or date and time value from the list, you can select any one of the following from the **Sub Group** column:

- None—The report data is grouped by the absolute date or date time values.
- Daily—The report data is grouped by day.
- Weekly—The report data is grouped by week.
- Monthly—The report data is grouped by month.

By default, the **Show Expanded** option is selected and you can uncheck the option if necessary. The **Show Expanded** column allows you to view the executed reports with the group expanded.

Enable the **Show Summary Only** toggle button to display only the summary row in the report.

For example, if you group by Agent Team and enable the **Show Summary Only** toggle button, only the summary data row for each team is displayed.

Note If any of the fields have a footer formula defined in the report definition, then a group level summary is also displayed for such fields using that formula.

Step 4 Click **Save**.

Note
- For the grouped view, the **Only Thresholds** check box is disabled.
- You cannot perform a drill-down from a report with grouped fields.

Report Thresholds

You can set a threshold indicator for a field to display if the field value meets the threshold condition. There are nine colors instead of the color palette for the threshold color selection in this release. Threshold indicators can be set only for view type **Grid** and **Chart** > **Gauge**.

For setting field threshold indicators for a **Chart** > **Gauge** view, see *Create a Chart View*.

For setting field threshold indicators for a **Grid** view, perform the following steps:

Procedure

Step 1 From the **Manage Views and Thresholds** wizard, after adding the report views, click **Next**.
The **Thresholds** screen appears.

Step 2 Select a view to which you want to set the threshold and select the field name from the **Create new threshold** list.
The screen refreshes with a new panel for the selected field name.

Step 3 Select a field operator and set a condition from the Operator list.

Operator	Description
Matches	The **Matches** operator accepts Regular Expressions. Note that the Regular Expressions does not support: • Flags (i, g, m, n, y), OR/AND any combinations of these flags. • Leading and trailing forward slash (/). Example: • Valid Pattern → \w+\s • Invalid Pattern → /\w+\s/g

Operator	Description
	(As it contains leading and trailing forward slash (/) and a "g" flag.)
String fields; Always, Equal, Not Equal Decimal fields; Always, Equal, Not Equal, Greater Than, Less Than, Greater Than Equal To, Less Than or Equal To, Between	In Report Definition, if the %format is defined for any field, then while setting the thresholds for that field, ensure to enter the decimal format of the percentage to render the condition in the report. For example: In Report Definition, if %format is defined for the field "SL" (Service Level) and you want to apply thresholds to this field to indicate "Red" if SL is less than 60%, set the following: **1.** Define the threshold for the SL field. **2.** Set the **Operator** to Less Than. **3.** Enter the percentage value as `0.60`. **4.** Select “Red” in the **No Fill** drop-down. **5.** Click **Done**.

Step 4 Choose the options from **No Fill** and edit the threshold fields.

Note You can set conditions on the same or different fields:

- condition on same field: threshold and condition on the same field.
- condition on different field: threshold for a field, based on the condition on the different field.
- multi conditions on same field: apply threshold for a field based on the condition on different fields.

Caution When you upgrade to Unified Intelligence Center version 11.6 or later, all the threshold colors are retained for reports that are created in the earlier versions. But, when you modify the threshold, all the old threshold color selection are lost within the report. Hence, you must reconfigure the threshold color selection for that report.

For existing reports, perform the above mentioned steps to add more thresholds.

Note Threshold configuration supports upto 30 thresholds for a field.

To edit an existing threshold from an executed report, click **Report options** and select **Manage Thresholds.**

Step 5 Format the text in the field to appear when it matches the threshold condition. Use the following options:

- **Text Bold**—Select this check box to highlight the report field in bold.
- **Text/Background Color**—Select a color from the drop-down for the text/background color in the field.
- **Text Substitute**—Enter a new string if you want the text in the field to be replaced with it when it matches the threshold condition.
  - Syntax to add an html hyperlink as text substitute: *cisco*

- Syntax to add an empty space as text substitute: * *

- **Image Location**—Enter the URL path of the image if you want the text to be replaced with an image.

Step 6 Click **Done**.

Step 7 Click **Finish**.

CHAPTER 8

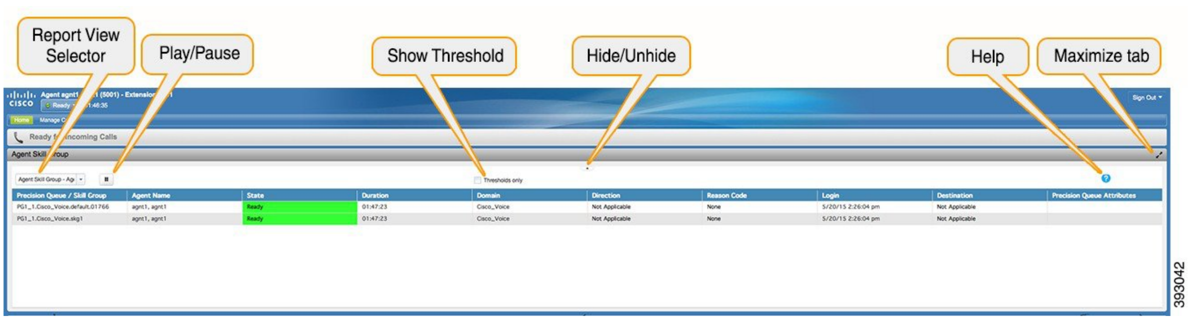
Gadget Toolbar

Gadget Toolbar Improvements

Cisco Unified Intelligence Center provides you with a toolbar on Live Data reporting gadget on the Cisco Finesse Desktop.

The following figure shows an example of a gadget toolbar:

Figure 3: Gadget Toolbar



Reports View Selector

As a reporting gadget user, you can select and view multiple reports from the Reports View Selector on the toolbar.

The Reports View Selector is a drop-down list that displays the list of reports in the **Report name - View name** format. The Report View Selector list allows you to view the five report views.

Note

- For Historical Gadgets, only one view is supported.
- To add a new report to the Reports View Selector, contact the Cisco Finesse Administrator.

Toolbar Hide or Unhide

The gadget toolbar displays an arrow tab in the center to hide and unhide the toolbar.

Click the arrow tab to hide the toolbar on the reporting gadget to get a clear view of the report.

When you click the arrow tab again, the toolbar becomes visible on the gadget. When you hover over the arrow tab, the hide and unhide message is displayed.

Pause and Play

You can pause and resume event updates in Live Data gadgets using the pause or play icons respectively. As a reporting user, the pause or play button works as follows:

- Pause - The updates are stopped.
- Play - The updates resume and are displayed on the gadget.

Note When the button is paused and updates are available on the gadget, a notification appears over the pause or play button.

Show Threshold Only

When you check the **Show Thresholds Only** box, only rows with matching threshold values are displayed in the report. By default, this check box is unchecked for every report.

Gadget Help

The gadget toolbar displays a Help icon. When you click the help icon, a window appears, displaying the report template help for the relevant reporting gadgets.

CHAPTER 9

FAQs

Overview

This chapter presents reporting-related Frequently Asked Questions (FAQs).

The following abbreviations are used for database records:

- ACDR—AgentConnectionDetail record in the AgentConnectionDetail table
- ASDR—AgentStateDetail record in the AgentStateDetail table
- CCDR—ContactCallDetail record in the ContactCallDetail table
- CQDR—ContactQueueDetail record in the ContactQueueDetail table
- CRDR—ContactRoutingDetail record in the ContactRoutingDetail table

General

Q. How is the number of days calculated in Historical reports?

A. The number of days is calculated by an SQL function that counts the number of calendar days. Fractions of a day are counted as an entire day. This table provides an example.

Time Range	Number of Days
10 a.m. (1000) on 5/15 to 10 a.m. (1000) on 5/16	Two days
12:00:00 a.m. (0000) on 5/15 to 11:59:59 p.m. (1159:59) on 5/15	One day
12:00:00 a.m. (0000) on 5/15 to 12:00:00 a.m. (0000) on 5/16	Two days

Q. Which reason codes are supported for reports?

A. When reason codes are configured, agents enter the reason codes when explicitly transitioning to Logout state or to Not Ready state. These reason codes are stored in the ASDR.

The following reports provide the details:

- **Agent Login Logout Activity Report**—Presents the logout reason code in detail.
- **Agent Not Ready Reason Code Summary Report**—Presents summary information for the Not Ready reason code.
- **Agent State Detail Report**—Presents Logout reason code and Not Ready reason code in detail.

Note Not Ready codes are systemwide and cannot be configured to be hidden from certain agents.

In the following cases, reason codes are not stored. In these cases, the reasonCode field in the ASDR contains a value of –1.

Case	Agent State in ASDR
Browser crashes	Logout
Agent logs out when logged in to another computer or phone	Logout
Normal agent login	Not Ready
Agent receives an IVR call on the ICD extension, fails to answer, and that results in RNA	Not Ready
Agent goes off-hook on ICD extension to place a call	Not Ready
Agent fails to answer an ACD call within the specified timeout period	Not Ready

Case	Agent State in ASDR
Agent does not answer an ICD call	Not Ready
Agent’s phone goes down	Not Ready or Logout
Supervisor changes the agent’s state from the Cisco Finesse Supervisor Desktop	Not Ready or Logout

Q. Which database is used for Unified CCX?

A. Unified CCX uses IBM Informix Dynamic Server (IDS) database.

Q. Why is the **Contact Service Queue Service Level Report**, which is available in previous versions of Unified CCX, no longer available in the current version?

A. The information that was in this report is distributed among the *Contact Service Queue Service Level Priority Summary Report*, the *Contact Service Queue Activity Report*, and the *Contact Service Queue Call Distribution Summary Report*.

Q. Why is the **Skill Routing Activity Report**, which is available in previous versions of Unified CCX, no longer available in the current version?

A. The information that was in this report is available in the *Contact Service Queue Activity Report* or in the *Contact Service Queue Activity Report* when filtered to show Skill Groups only.

Q. What can cause more than one record to have the same node ID, session ID, and sequence number?

A. In the following scenarios, more than one record can have the same node ID, session ID, and sequence number:

- A call is conferenced to a CTI route point.
- A call rings at an agent's phone, but the agent does not pick up. The call is categorized as Ring No Answer (RNA) to the agent.

Q. Why are some of the selected filter parameters not included in the generated report?

A. The length of each parameter to the report must not exceed 800 characters. If the selected parameters exceed this value, then the database server truncates the parameter to the first 800 characters.

The stored procedure receives only the first 800 characters of the chosen parameters; the rest are not included in the generated report.

Q. How can I export historical data to my own data warehouse?

A. Use third-party database administration tools such as SQuirreL SQL Client or AGS Server Studio to export Unified CCX historical data to your own data warehouse. Use **`uccxhruser`** as the username to connect to db_cra database.

Q. Can I connect the embedded Unified Intelligence Center to 3rd party databases or a different Unified CCX / Unified IP-IVR deployment for reporting purpose?

A. No, it is not supported with embedded Unified Intelligence Center but is supported with standalone Unified Intelligence Center.

Q. Can I use 3rd party software to access Unified CCX IBM Informix Dynamic Server (IDS) database for reporting purpose?

A. Yes, but it should be used with discretion keeping in mind the impact on the system.

Availability of Reporting Data

Q. Which report shows calls per hour per CSQ? For example: **`7:00 a.m. to 8:00 a.m., 25 calls; 8:00 a.m. to 9:00 a.m., 35 calls; and 9:00 a.m. to 10:00 a.m., 34 calls.`**

A. The **Contact Service Queue Activity Report by Interval** shows this information. To generate this report for one-hour intervals, set its Interval Length filter parameter to sixty (60) minute intervals.

Q. How can I determine telephone numbers of calling parties?

A. The Call ANI fields on the **Abandoned Call Detail Activity Report** and the **Agent Detail Report** show this information.

Q. How is the following scenario reported? A call is in queue and it is routed to an available agent who does not answer the call, so the call is redirected to another agent.

A. The scenario appears in the following reports:

- The **Agent Detail Report** shows two lines:
    - For the agent who did not answer the call—Ring time is greater than 0; talk time, hold time, and work time are each zero.
    - For the agent who answered the call—Talk time is greater than 0.
- The **Agent Summary Report** shows the following:
    - The call was presented to the agent who did not answer the call, but was not handled by that agent.
    - The call was presented to and handled by the agent who answered the call.
- The **CSQ Agent Summary Report** shows the call as Ring No Answer (RNA) for the first agent.

Q. How can I determine the start time and the end time for a call with multiple legs?

A. The following fields identify the various legs of a call:

- The sessionID fields in the Unified CCX database tables contain the same value for a particular call. These fields identify all the database records that relate to a call.
- The sessionSeqNum fields in the Unified CCX database tables start at 0 and increment by 1 for each leg of a call.
- The startDateTime field of the CCDR stores the start time of a call. The sessionSeqNum is equal to 0, and the sessionID value identifies the call.
- The endDateTime field of the CCDR with the highest sessionSeqNum and the same sessionID value stores the end time of a call.

Note The way in which sessionID and sessionSeqNum values are written to the database depend on the call scenario. For more information and examples, see the "Interpret Database Records" section of *Cisco Unified Contact Center Express Report Developer Guide*, located at: https://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_installation_and_configuration_guides_list.html.

Q. Which report displays information on menu choices?

A. You can create a custom report to show menu choices. Use the **Set Session Info** step in a workflow to store the custom variables entered by the callers. The contents of such custom variables are stored in the customVariable fields in the CCDR. Use the information in the CCDR customVariable fields when you create custom reports.

The following is an example of how to prepare a report to show information for a menu with three choices (1, 2, and 3):

1. For a workflow, define a variable of type **`session`** and name it **`this_session`**.
2. Place a **Get Contact Info** step at the beginning of the workflow.
3. Set the **Session** attribute to variable **`this_session`**.
4. Define a **Menu** step that has three branches and place a **Set Enterprise Call Info** step in each branch.
5. In the **General** tab of the **Set Enterprise Call Info** step, click **Add**.
6. In the branch for caller-choice 1, enter **`1`** in the **Value** field, and choose **`Call.PeripheralVariable1`** from the **Name** drop-down list.
7. In the branch for caller-choice 2, enter **`2`** in the **Value** field, and choose **`Call.PeripheralVariable2`** from the **Name** drop-down list.
8. In the branch for caller-choice 3, enter **`3`** in the **Value** field, and choose **`Call.PeripheralVariable3`** from the **Name** drop-down list.
9. Create a custom report that will show the values of the customVariable1, customVariable2, and customVariable3 fields in the CCDR.

If calls are to be transferred between workflows and multiple menu choices can be made for a single session, take care to preserve previously entered menu choices. For example, place a **Get Session Info** step at the beginning of the workflow. If the _ccdrVar1 variable is null, there were no previous entries.

If it is not null, when you add a new choice, determine a format for associating a menu choice to a sequence number. In this way, you will be able to prepare accurate reports.

Q. If a Unified CCX system does not include a license for Historical reports, is data still written to the Unified CCX databases?

A. Yes.

Q. Which report has information on agent Service Level Agreements (SLAs), such as queue time threshold (caution, warning) and agent talk time SLA (caution, warning)?

A. There are no reports available, but the Unified CCX databases store this data. You can create a custom report to show this information.

Q. Which report has information about calls that were transferred by agents to another Contact Service Queue?

A. The **Detailed Call CSQ Agent Report** has information about transferred calls. The session ID remains the same for a transferred call, but the session sequence number increments by 1. This report also shows the agent who handled each call, and the CSQ to which the call was routed.

Q. A record that contains data is stored in memory and is ready to be written to the Unified CCX database, when is it written to the database?

A.
- Call records (CCDR, CRDR, CQDR) are written after each call is completed.

  Note CCDRs are written after the agent leaves Work state, when applicable. Otherwise, they are written after the call ends.

- Agent state records (ASDR) are written after agents change state.
- Agent connection records (ACDR) are written when an agent leaves Work state or after the call completes if the agent does not go to Work state.

Q. Are there summary tables for daily data that contain the data for a specific day? Are these tables used to create weekly data tables? Are weekly data tables used to create monthly data tables?

A. The system stores detailed data. It does not summarize detailed tables to create daily, weekly, or monthly tables.

Q. Which monthly report shows statistics for service levels?

A. The **Contact Service Queue Activity by CSQ** or **Contact Service Queue Activity by Interval** shows information about service levels provided to handled calls. Schedule the **Contact Service Queue Activity by CSQ** or **Contact Service Queue Activity by Interval** to run monthly.

Q. Can I create custom Historical reports?

A. Yes. For more information about creating custom reports, see the "Create Custom Reports" section of *Cisco Unified Contact Center Express Report Developer Guide*, located at:

https://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_installation_and_configuration_guides_list.html.

Data Reconciliation Among Reports

Q. Why does the **Detailed Call by Call CCDR Report** show more handled calls than the CSQ reports?

A. The CSQ reports show calls that are handled by agents after the calls are queued for a CSQ. The **Detailed Call by Call CCDR Report** shows these calls and also the calls that are marked as handled by a workflow script before they are queued for a CSQ.

Q. Why does the **Application Performance Analysis Report** show more presented, handled, and abandoned calls than the CSQ Reports?

A. The following are the two reasons:

- An incoming call can invoke multiple applications because each leg of the call invokes a different application. The call is counted once for each application.
- Calls that are hung up before being queued for any CSQ are marked as handled or abandoned depending on the workflow, and also depending on when they are hung up. Such calls do not have CRDRs or ACDRs and will not be counted for CSQ reports or agent reports. These calls will be counted for the **Application Performance Analysis Report** because the calls entered an application.

Q. Why does the **Agent Summary Report** show more handled calls than the CSQ reports?

A. Conference calls to agents result in one CRDR that has multiple ACDRs. The **Agent Summary Report** counts the number of ACDRs, but the CSQ reports count the number of CRDRs.

Q. How can I identify conference calls?

A. To identify conference calls, search for ACDRs with the same session ID and sequence number, with different agent IDs, and with talk time greater than 0.

Q. How to identify calls that were presented to an agent, but were not answered?

A. To identify calls that were not answered by an agent, search for ACDRs with talk time equal to zero. The **CSQ Agent Summary Report** shows the total number of Ring No Answer (RNA) calls for each agent and for each CSQ. In the **Agent Summary Report**, the number of Ring No Answer calls = Calls Presented – Calls Handled.

Q. Why is the total number of calls in the Calls Handled field in the **Contact Service Queue Activity Report** lower than the number in the Calls Handled Field in the **Agent Summary Report**?

A. The CSQ reports, including the **Contact Service Queue Activity Report** show activity at the CSQ level. The agent reports, including the **Agent Summary Report**, show activity at the agent level.

For handled calls, the **Agent Summary Report** counts the ACDRs with non-zero talk time (to exclude unanswered calls), and the **Contact Service Queue Activity Report** counts CQDRs with disposition equal to 2 (handled).

The number of such ACDRs may be larger than the number of such CQDRs for any of the following reasons:

- If you choose all the agents for the **Agent Summary Report**, but choose only one CSQ for the **Contact Service Queue Activity Report**, the **Agent Summary Report** will show more handled calls.

- There may be conference calls that involve multiple agents. In such cases, one CQDR has multiple associated ACDRs. An associated ACDR has the same sessionID and sessionSeqNum as the CQDR.
- Agent-to-Agent transfers will result in more ACDRs than CQDRs. If Agent1 picks up a call from CSQ1, one CQDR and one ACDR are created. When Agent1 transfers the call to Agent2, another ACDR is created, but no CQDR is created.

Q. Why do the **Agent Summary Report**, **Contact Service Queue Activity Report**, and **Application Performance Analysis Report** show different values for Calls Presented field?

A. The **Application Performance Analysis Report** shows the highest number of presented calls for the following reasons:

- An incoming call can invoke multiple applications, because each leg of the call can invoke a different application. The same call is counted once for each application.
- Some calls are terminated before they are queued. Such calls do not have CRDRs (because they are not queued) and are not counted for the **Contact Service Queue Activity Report**. These calls do not have ACDRs as well and are not counted on the **Agent Summary Report**.

The **Agent Summary Report** shows more presented calls than the **Contact Service Queue Activity Report** for either of the following reasons:

- The same call is queued to a certain CSQ, but is presented to multiple agents within the CSQ (because an agent did not answer). Such calls are counted once for the **Contact Service Queue Activity Report**, but counted once for each agent involved for the **Agent Summary Report**.
- There are conference calls that involved multiple agents.

Q. Why is the number of abandoned calls in the **Abandoned Call Detail Activity Report** higher than the number of abandoned calls in the **Contact Service Queue Activity Report**?

A. Some calls shown in the **Abandoned Call Detail Activity Report** are abandoned before they are routed to a CSQ (these calls have a blank Call Routed CSQ field), so they are not counted for any CSQ. The **Contact Service Queue Activity Report** shows calls that are abandoned while they are queued for a CSQ.

Q. Why is there a difference in maximum handle time between the **Contact Service Queue Activity Report** and the **Agent Summary Report**? For example, if Agent1 belongs only to CSQ1 and CSQ1 does not include any other agent. Why is the Max Handle Time field for Agent1 on the **Contact Service Queue Activity Report** different than the Handle Time—Max field for Agent1 on the **Agent Summary Report**?

A. Consider this example: An agent from another CSQ handled the call, in conference with Agent1, and then dropped out. In addition, Agent1 continued the call for longer than the longest talk time of the any call that the agent handled for CSQ1. In this case, the maximum Handle Time appears for Agent1 on the **Agent Summary Report**. It does not appear for CSQ1 on the **Contact Service Queue Activity Report** because Agent1 was conferenced in to the call, but the call was initially handled by another CSQ.

Q. If a call is queued in CSQ1 and CSQ2, and handled by an agent-based routing agent, the CSQ Unified CCX Stats real-time report shows a value of 1 for Contacts Dequeued for both CSQ1 and CSQ2, but the **Contact Service Queue Activity Report** shows a value of 0 for Calls dequeued for both CSQ1 and CSQ2, why is this so?

A. In this scenario, there are three CQDRs:

1. CQDR for CSQ1—With a disposition of Handled_by_other (5) (or of 4 if there is a dequeue step).
2. CQDR for CSQ2—With a disposition of Handled_by_other (5) (or of 4 if there is a dequeue step).

3. CQDR for agent—Who handled call through agent-based routing, with a disposition of Handled (2).

The **Contact Service Queue Activity Report** shows dispositions 4 and 5 as Calls Handled by Other, so it shows one call as handled by other for both CSQ1 and CSQ2. Calls Dequeued is 0 for both the CSQs (disposition 3 is reported as dequeued on the report).

The CSQ Unified CCX Stats real-time report counts calls marked as Handled_by_other as dequeued calls. In this report, Contacts Dequeued includes calls that were dequeued and handled by another CSQ, by an agent, or by a script.

Q. Why are the Calls Dequeued field values different in the **Contact Service Queue Activity Report by Interval** or **Contact Service Queue Activity by CSQ Report** and the **Contact Service Queue Activity Report**?

A.
- In the **Contact Service Queue Activity Report by Interval** and **Contact Service Queue Activity by CSQ Report** :

  Calls Dequeued = Calls dequeued via the dequeue step + calls handled by workflow script + calls handled by another CSQ.

- In the **Contact Service Queue Activity Report**:
  - Calls Dequeued = Calls dequeued via dequeue step
  - Calls handled by other = calls handled by workflow script + calls handled by another CSQ

Q. Why does the Talk Time field in the **Agent Summary Report** show 0, but the Talk Time field in the **Agent Detail Report** shows another value?

A. The **Agent Summary Report** shows ACD calls only, but the **Agent Detail Report** shows Unified CCX and Cisco Unified IP IVR calls. The calls in question are IVR calls, so they do not appear on **Agent Summary Report**.

Q. If an agent uses a unique reason code when going to Not Ready state to make outbound calls, why does the **Agent Not Ready Reason Code Summary Report** show a different duration for that reason code compared with the **Agent Detail Report** that shows the duration of outbound calls for the agent?

A. If the agent does not spend the entire duration of time in Not Ready state with the unique reason code making outbound calls, then the sum of the duration of outbound calls will be less than the duration that is spent in Not Ready state with the unique reason code.

Abandoned Call Detail Activity Report

Q. How can I correlate multiple abandoned call legs that belong to the same call?

A. Match the call start time in the **Abandoned Call Detail Activity Report** with the call start time in the **Detailed Call by Call CCDR Report**, and look up the session ID and session sequence number in the

Detailed Call by Call CCDR Report. Different call legs that belong to the same call have the same session ID, but different session sequence numbers.

Q. Why do the Initial Call Priority field or the Final Call Priority field show n/a for a call?
A. The call was abandoned before it was assigned a priority.

Q. What does it mean when the Agent Name field is blank?
A. The call was abandoned before it was routed to an agent.

Q. What does it mean when the Agent Name field contains a value?
A. The call was routed to an agent, the agent did not answer, and the caller hung up.

Q. Why is there a mismatch between the number of abandoned calls that are shown on the **Abandoned Call Detail Activity Report** and the number of calls that are shown on the **Contact Service Queue Activity Report**?
A. The values can differ because the **Contact Service Queue Activity Report** may mark a call as dequeued, while a Contact Call Detail record marks the call as abandoned. For example, consider the following workflow:

```
StartAccept
Prompt
Select Resource
-Connect
-Queue
--Play Prompt (Prompt2)
--Dequeue
--Play Prompt (Prompt3)
End
```

Scenario	Contact Service Queue Activity Report	Abandoned Call Detail Activity Report
Call is abandoned during Prompt2 or Prompt3	The Contact Queue Detail record marks the call as dequeued, but not as abandoned from any queue. So, the **Contact Service Queue Activity Report** shows the call as dequeued from all CSQs to which the call was routed.	The Contact Call Detail record marks the call as abandoned. So, the **Abandoned Call Detail Activity Report** shows the call as abandoned from all CSQs to which the call was routed.
Call gets aborted after being in the queue	Call is marked as aborted in the Contact Call Detail record. So, the CSQ reports display more abandoned calls than the **Abandoned Call Detail Activity Report**.	Call is marked as dequeued (if the call was dequeued before aborting) or abandoned in Contact Queue Detail record.

Q. When an agent transfers a call to another agent and the caller abandons the call, why is the call not displayed in the **Abandoned Call Detail Activity Report**?
A. When an agent transfers a call to another agent, and the caller abandons the call before the call is answered by the second agent, then the first phase of the call is marked as handled. The abandonment of the second

phase is not displayed in the **Abandoned Detail Call Activity Report**. This information cannot be seen in any other report.

Agent Call Summary Report

Q. Are the ACD—Transfer In and ACD—Transfer Out calls included for calculating Inbound ACD—Total field?

A. Yes, these calls are included for calculating the Inbound ACD—Total field.

Q. Why is the total number of inbound calls different than the number of calls handled on the **Contact Service Queue Activity by CSQ**?

A. The number of calls can differ for the following reasons:

- The Agent Call Summary Report shows calls that are presented to the agents, and the **Contact Service Queue Activity by CSQ** shows calls that are presented to the CSQs. If there are agents included in the Agent Call Summary Report who do not belong to the CSQs in the **Contact Service Queue Activity by CSQ**, then the **Agent Call Summary Report** shows more calls.
- If agent-based routing is configured, calls can go to agents directly, without going through a CSQ. In this case, the **Agent Call Summary Report** shows more calls.
- The **Agent Call Summary Report** can include transferred ACD calls. For example, if a call is queued for CSQ1, handled by Agent1, and transferred by Agent1 to Agent2 (without going through a CSQ), then one call is shown as handled on the **Contact Service Queue Activity Report** (through CSQ1 by Agent1). The same is shown twice on the **Agent Call Summary Report**—one as handled by Agent1 (through CSQ1), another as handled by Agent2 (not through a CSQ but as a direct transfer from Agent2).

Agent Detail Report

Q. Why are the Hold Time and the Work Time fields blank for a call?

A. The call was not an ACD call. (IVR calls include Agent-to-Agent calls and external calls made by an agent.) The Unified CCX database does not record hold time and work time for IVR calls.

Q. Why is Duration not equal to Talk Time + Hold Time + Work Time?

A. The value in the duration field is calculated as follows:

call end time – call start time

The call start time is when the call rings at the agent extension. The call end time is when the agent leaves Work state. Therefore, the call duration is equal to ring time + talk time + hold time + work time.

Q. How can I identify IVR calls?
A. The Hold Time and the Work Time fields are blank in the **Agent Detail Report** for IVR calls.

Agent Login Logout Activity Report

Q. Why does a less-than sign (<) precede the value in the Login Time field or a greater-than sign (>) precede the value in the Logout Time field?
A. A less-than sign (<) indicates that the agent logged in before the report start time. A greater-than sign (>) indicates that the agent logged out after the report end time.

For example, if the report start time is 8:00 a.m. (0800) and the report end time is 6:00 p.m. (1800):

- The agent logged in at 7:45 a.m. (0745), the Login Time field will show < 8am (or < 0800).
- If the agent logged out at 6:30 p.m. (1830), the Logout Time field will show > 6pm (or > 1800).

Agent State Summary by Agent Report

Q. Why do I see two rows for the agent with the same values?
A. The report template defines the view of the report. There are two kinds of summary rows (darker background) that are defined in the template. The summary row that follows after each agent summarizes details of the agent. The summary row that appears at the end of the report summarizes details of all the agents.

If there is a single row for the agent, then the summary row of the agent will have the same details as the above row.

Agent Summary Report

Q. How is the Average Logged In Time field calculated?
A. This value is calculated as the total logged-in time divided by the number of login sessions.

For example, if an agent logs in at 8:00 a.m. (0800) and logs out at 8:30 a.m. (0830), logs in again at 9:15 a.m. (0915) and logs out at 10:00 a.m. (1000), then there are two login sessions. The first session lasts 30 minutes and the second session lasts 45 minutes. The average logged-in time is (30+45)/2 = 37.5 minutes.

Q. How is the Handle Time field calculated?
A. Handle time = Talk time + Hold time + Work time.

Q. How is the Idle Time—Avg field calculated?
A. This value is calculated as the total idle time divided by the number of idle sessions.

For example, if an agent goes to Not Ready state at 10:00 a.m. (1000) and goes to Ready state at 10:15 a.m. (1015), goes to Not Ready state at 11:00 a.m. (1100) and goes to Ready state at 11:05 a.m (1105), then there are two idle sessions. The first session lasts 15 minutes and the second session lasts 5 minutes. The average idle time is (15+5)/2 = 10 minutes.

Q. Why do not the values of Talk Time—Avg and Talk Time—Max fields in the **Agent Summary Report** match the values of Talk Time field in the **Agent State Summary by Agent Report** or the **Agent State Summary by Interval Report**?

A. The talk time information in the **Agent Summary Report** comes from the talkTime field in the AgentConnectionDetail table. This value is the time that an agent spent on an incoming ACD call. The talk time information in the **Agent State Summary by Agent Report** or the **Agent State Summary by Interval Report** comes from AgentStateDetail table. These values show the time that an agent spent in the Talk state. These values will be different if the agent placed ACD calls on hold during the reporting period.

Q. Does the **Agent Summary Report** show information for IVR calls?

A. The **Agent Summary Report** shows information for ACD calls only. The **Agent Detail Report** shows information for Unified CCX and Cisco Unified IP IVR calls.

Application Performance Analysis Report

Q. What does it mean when the Application ID field shows the value –1 and the Application Name field is empty?

A. The Application ID field is –1, and the Application Name field is empty for Agent-to-Agent calls, IVR calls, Agent-to-Agent transfer/conference consult legs, or any other call that is not placed to a Unified CCX Route Point or associated with an application.

Q. Why is the value in the Calls Presented field lower than the total number of calls on the **Detailed Call by Call CCDR Report** for the same report period?

A. The **Application Performance Analysis Report** counts only incoming calls. The **Detailed Call by Call CCDR Report** counts incoming calls, outgoing calls (for example, outbound calls made by agents), and internal calls (for example, Agent-to-Agent consult calls).

Q. Why does the **Application Performance Analysis Report** show more abandoned calls than the **Contact Service Queue Activity Report** for the same report period?

A. The **Contact Service Queue Activity Report** includes only abandoned ACD calls. This report counts an ACD call as abandoned if the caller hangs up while queued for a CSQ or CSQs.

The **Application Performance Analysis Report** includes abandoned ACD calls and abandoned IVR calls. This report counts a call as abandoned if the call ends before it is answered by an agent or before it is marked as handled by a workflow.

Call Custom Variables Report

Q. What are the values from Custom Variable 1 through Custom Variable 10 fields?

A. These fields show the values of the custom variables that are specified in a workflow.

For example, a workflow may designate variable1 as the menu option that the caller chooses, and designate variable2 as the account number that the caller enters. In this case, Custom Variable 1 would show the option value (such as 2) that the caller entered, and Custom Variable 2 would show the account number that was entered.

Common Skill CSQ Activity Report

Q. **Common Skill CSQ Activity Report** is similar to other CSQ reports—how is it useful?

A. This report provides additional information for multiple CSQs that are configured with the same call skill, but with different competence levels. An incoming call may be queued for the CSQ with the lowest-competence level. If no agent is available for a certain period, the call is queued for the next higher-competence level.

The summary line in the report displays the summarized statistics for the group of CSQs configured with common skills. A group of CSQs that is configured in this manner is called a logical CSQ.

Contact Service Queue Activity Report

Q. How are average queue time and maximum queue time calculated?

A. The average queue time for a CSQ is calculated as the sum of the queue times for all the calls presented divided by the number of calls presented. The maximum queue time for a CSQ is the longest queue time for a single call among the calls presented.

The individual queue time for each CSQ is stored in the CQDR table. For example, assume that an incoming call is queued for CSQ1 for 5 minutes, queued for CSQ2 for 10 minutes, and then it is handled by CSQ1. The queue time recorded for CSQ1 in the CQDR table is 5 minutes, and for CSQ2 is 10 minutes.

Q. How are average calls abandoned (Avg Abandon Per Day field) and maximum calls abandoned (Max Abandon Per Day field) calculated?

A. Average calls abandoned for a CSQ is an average value per day. It is calculated as the total number of calls abandoned for the CSQ divided by the number of days in the report period.

Maximum calls abandoned for a CSQ is calculated by determining the number of calls abandoned for each day in the report period and selecting the largest of these values.

Q. The system receives a call, queues it, and plays a prompt giving the caller the option to press 1 to leave a message. The caller presses 1 and leaves a message. In this scenario, is the call counted as abandoned or as handled?

A. By default, the call is counted as abandoned instead of handled, because it did not connect to an agent. However, if the workflow is designed to mark a call as handled after a caller leaves a message, the call will be counted as handled.

Q. If a workflow gives callers the option to transfer to a voice messaging system, is there a way to track the number of callers that make this transfer and leave a message?

A. You can design a workflow to store a caller's key input in one of the custom variables in the ContactCallDetail table. You can either generate the **Call Custom Variables Report** and manually count the rows that contain the desired information or you can create a custom report to provide this information.

Q. Will calls presented always equal calls handled + calls abandoned?

A. No. Calls presented = calls handled + calls abandoned + calls dequeued + calls handled by others.

"Calls handled" are the calls that were connected to an agent in a particular CSQ. "Calls handled by others" are the calls that were handled by some workflow in a script, and the calls that were queued for multiple CSQs and then handled by one of the other CSQs.

Q. Can the **Contact Service Queue Activity Report** show hourly data? And can hourly reports be generated automatically for each hour of each day?

A. To show hourly data for each day, schedule daily reports either for **Contact Service Queue Activity by CSQ Report** or for **Contact Service Queue Activity Report by Interval**. Set the Interval Length to 60 minutes. This setting will provide one report each day, divided into one-hour intervals.

Separate hourly reports are not available, but with the interval length set to 60 minutes, a daily report will display 24 intervals, one for each hour of the day.

Contact Service Queue Activity by CSQ Report

Q. Why does the same CSQ appear twice in the **Contact Service Queue Activity by CSQ Report** (and other CSQ reports)?

A. A CSQ has many attributes, including CSQ name, service level, resource selection criterion, and auto work. Some attributes, such as CSQ name and service level, are displayed in the report. Other attributes are not displayed in the report. However, changing any attribute of the CSQ causes a new line to show in the report. For example:

- If the service level is changed from 10 to 25, two lines of the same CSQ will show in the report. One line will show the old service level value and another line will show the new service level value.
- If Auto Work is changed from 1 to 0, two lines of the same CSQ will be shown in the report. As the Auto Work setting does not appear in the report, the same CSQ will appear twice.

Q. How do these four fields differ—Percentage of Service Level Met—Only Handled, Percentage of Service Level Met—With No Abandoned Calls, Percentage of Service Level Met—With Abandoned Calls Counted Positively, and Percentage of Service Level Met—With Abandoned Calls Counted Negatively?

A. A call is categorized as handled if it is either answered by an agent or marked as handled by a workflow. Handled calls can be divided into the following categories:

- Handled within service level
- Handled after service level

A call is categorized as abandoned if the call disconnects before an agent answers. Abandoned calls can be divided into the following categories:

- Abandoned within service level
- Abandoned after service level

Field	Description	Calculation
Percentage of Service Level Met—Only Handled	This field shows only handled calls. It does not include abandoned calls. This field shows the percentage of handled calls that were handled within the service level. The remaining fields differ in how they account for abandoned calls: not counted, meeting service level, or not meeting service level.	(Number of calls handled within service level / Number of calls handled) * 100%
Percentage of Service Level Met—With No Abandoned Calls	This field shows the percentage of presented calls (calls routed to a CSQ), not counting abandoned calls, that were handled within the service level. It does not include calls that were abandoned within the service level. This value is always less than or equal to the value in the Percentage of Service Level Met—Only Handled field	(Number of calls handled within service level / (Number of calls presented – Number of calls abandoned within service level)) * 100%
Percentage of Service Level Met—With Abandoned Calls Counted Positively	The field shows the calls that are abandoned within the service level as meeting the service level. It shows the percentage of presented calls that were handled or abandoned within the service level.	((Number of calls handled within service level + Number of calls abandoned within service level) / Number of calls presented) * 100%
Percentage of Service Level Met—With Abandoned Calls Counted Negatively	The field shows the calls that are abandoned within the service level as not meeting the service level. It shows the percentage of presented calls that were handled within the service level. This value is less than or equal to the Percentage of Service Level Met—With Abandoned Calls Counted Positively field.	(Number of calls handled within service level / Number of calls presented) * 100%

Q. How is an abandoned call counted if it is queued for multiple CSQs?

A. If a call is queued for multiple CSQs and is abandoned, it is counted as abandoned from all the CSQs for which it is queued.

For example, if a call is queued for CSQ1 and CSQ2 and the caller hangs up before being routed to an agent, then an abandoned call is counted for CSQ1 and for CSQ2.

Q. How is a dequeued call counted if it is queued for multiple CSQs?

A. If a call is queued for multiple CSQs and is handled by one of them, then the call is counted as dequeued from each of the other CSQs.

For example, if an incoming call is queued for CSQ1, CSQ2, and CSQ3 and is handled by an agent from CSQ2, then a dequeued call is counted for CSQ1 and for CSQ3.

Q. After the service level for a CSQ changes, why does the CSQ appear in the report twice—once with the old service level and again with the new service level?

A. The Unified CCX database maintains records of old and new service levels. When a new service level is configured, the old record is marked as inactive. The dateInactive field in the ContactServiceQueue table shows the date and time that the new service level was configured. If the value in the dateInactive field is in the report period, the report shows the active (new) and inactive (old) CSQs.

Detailed Call by Call CCDR Report

Q. What are a session ID and a session sequence number?

A. A session ID is a unique identification number that the system assigns to a call. This number remains the same for the entire call. The system also assigns a sequence number to each leg of a call. Sequence numbers start at 0 and increment by 1 each time the call is transferred or redirected.

Q. Can a call be marked as handled if it is never queued for a CSQ?

A. Yes. You can design a workflow to mark such a call as handled.

Q. Why are the Hold Time and the Work Time fields blank?

A. The call was an IVR call. (IVR calls include Agent-to-Agent calls and external calls that are made by an agent.) The Unified CCX database does not record hold time and work time for IVR calls.

Q. Why does the report show duplicate calls?

A. The calls in the CCDR Report are not duplicates. They are conference calls, which have the same SessionID and Session Sequence Number, but different talk time because different agents participated in the same call. (The **Detailed Call by Call CCDR Report** shows the names of agents who participated in a conference call.)

Q. What does it mean when the Contact—Disposition is 3?

A. When the system removes stuck calls, which may have remained in the system because of missing events, the system writes a CCDR with the contact disposition dont_care (value = 3).

License Utilization Hourly Report

Q. What is the sampling frequency for the report?

A. Data is sampled per minute. The report aggregates the data over an hour (maximum of all samples within the hour).

Q. How are calls that are less than a minute treated?

A. If a call duration is less than a minute and its start and end times fall between two sampling points, then this call will not be considered for the statistics.

Traffic Analysis Report

Q. Why is there a difference between the Total Incoming Calls field in the **Traffic Analysis Report** and the Total Incoming Calls field in the **Application Performance Analysis Report**?

A. An incoming call can have multiple call legs. The **Traffic Analysis Report** counts a call with multiple legs as a single call. However, each call leg may invoke a different application, so the **Application Performance Analysis Report** counts each call leg as a call.

For example, if a call comes into an Auto Attendant and the caller selects a menu option for Musician Demonstration, then the call will have two call legs:

- Session ID = 1, sequence number = 0, application = “auto attendant”
- Session ID = 1, sequence number = 1, application = “musician demonstration”

This call is counted once for the **Traffic Analysis Report**. It is counted twice for the **Application Performance Analysis Report**—once for the “auto attendant” application and once for the “musician demonstration” application.

APPENDIX **A**

Glossary

A

Abandoned call

- For an agent-based call (Unified CCX call), a call is considered abandoned if it is not answered by an agent or the caller hangs up or the call is disconnected.
- For Unified IP IVR call, a call is considered abandoned if it does not reach the workflow step that sets the Handled flag.
- If a call has more than one leg that is abandoned, for example, a Unified IP IVR call that is processed by different applications, each abandoned leg is counted as an abandoned call.

Abandoned chat

An abandoned chat is a chat that is routed to the CSQ but not accepted by an agent, because the chat submitter ended the chat before an agent accepted.

Abandoned IVR call

The system abandons a call when a customer answers the phone if an IVR port is not available to play the prompts to the customer. So, Unified CCX fails to transfer the call to the IVR port.

Aborted call

A call is aborted if an exception occurs in the workflow that is processing a call, for example, UndefinedPromptException or ApplicationMaxSessionsException. In such cases, Unified CCX sets up media and plays the error message to the caller.

Accepted outbound call

A call is considered accepted if the agent clicks Accept when presented with the call. A call that is routed to an agent, skipped or rejected by that agent, routed to another agent, and then accepted by that agent is counted once.

ACD or ICD call

Automatic Call Distribution (ACD) or Incoming Call Distribution (ICD) calls are calls that are processed through a workflow and queued to the agent. Calls are dialed to an ICD route point number.

Agent-initiated reason codes

Agent enters reason codes when moving to Logout or Not Ready state. For more information, see the *Cisco Finesse Administration Guide*, located at:

https://www.cisco.com/c/en/us/support/customer-collaboration/finesse/products-user-guide-list.html.

Attempted IVR contact

A contact is considered attempted if the contact is dialed out by the IVR dialer. If the same contact is retried, the attempt does not fall under the Attempted category. Even though a contact is retried multiple times, the attempted contact is counted only once.

Attempted outbound call

- A contact is considered attempted when an outbound call is placed to the customer, regardless of the outcome. A call record is considered attempted if an agent clicks Accept for this contact.
- A contact that is routed to and accepted by an agent is considered attempted by the system. If the contact is marked for callback and later called by the same or another agent, this call record is still attempted once.

C

Closed outbound call

A call is considered closed if the agent clicks either Skip-Close or Reject-Close. These contacts are not dialed again.

D

Dequeued call

A call is dequeued from a particular CSQ for the following reasons:

- The call is dequeued by a Dequeue step in a workflow.
- The call is marked as handled by a workflow.
- The call is queued for more than one CSQ and is handled by an agent in another CSQ.

F

Failed IVR call

- Dialer asks the gateway to cancel a call that is not yet placed.
- Gateway declined the call.
- Gateway is down or Gateway timed out while the call is being placed.
- Gateway failure or configuration issues at the Gateway.

H

Handled call

A call is considered handled:

- When the call state is one of these—Voice, Answering Machine, Invalid Number, or Fax/Modem.
- Call reaches the workflow step that defines the call as handled.
- Call is handled by an agent.

Glossary

Handled chat

A chat is considered handled if an agent accepts the chat that is presented by the chat submitter while the chat submitter is queued for this CSQ.

I

IP Phone Agent (IPPA)

IP Phone Agent is an agent who has access to only a phone and not Cisco Finesse Agent Desktop.

N

Non-ACD or non-ICD call

A call that is not dialed to an ICD route point number. For example, an internal call between agents or an outbound call.

Non-Unified CCX call

A call that is dialed to the agent's non-Unified CCX extension.

O

Offered call

Outbound calls that are offered to the agent, including accepted, rejected, and closed calls.

A contact that is offered to an agent multiple times, possibly because the agent skipped the call and the call is looped back to the same agent, is counted once for each time the contact is presented.

P

Presented call

Calls sent to the agent irrespective of whether the agent answers the call. If a call is connected to an agent, transferred to another agent, and then transferred back to the original agent, the value for the original agent increases by two (once for each time the call was presented)

R

Rejected call

A call is considered as rejected when Unified Communications Manager or Unified CCX resources are not sufficient for accepting incoming calls as system resources reach their maximum capacity, for example, insufficient number of CTI ports.

Rejected outbound call

A call is considered rejected if the agent clicks either Reject or Skip or Cancel Reservation. These contacts are dialed again. If a contact is rejected by multiple agents, then the field is incremented each time the contact is rejected.

S

Service Level Agreement (SLA)

The percentage of calls answered within the amount of time that is specified in the service level threshold for a CSQ.

Glossary

Successful outbound call

The agent accepts the call, and selects a classification of Voice for this contact. The calls that are marked with this classification are a subset of accepted calls.

System-generated reason codes

Built-in reason codes are generated when the Unified CCX server moves an agent to Logout state or Not Ready state. The Agent State Detail table includes a valid reason code for these two states. Reason code for other states is zero.

T

Talk time

Talk time is the elapsed time between the time that an agent connects to a call and the time the call is disconnected or transferred, not including hold time.

U

Unified CCX call

A call that is dialed to the agent's Unified CCX extension.

W

Wait time

Wait time is the time that elapsed between the time a call entered the queue and the time the call was answered by an agent or was disconnected.

APPENDIX B

Data Reconciliation between Reports

This appendix explains the differences between reports in Unified CCX. These differences are not limitations of the product but are inherent in the way these reports are designed and are intended to work.

Calls Reported

Each report type includes different types of calls in its calculations. The following table lists the report types and the calls that they include:

Report Type	Report Name	Reported Call Types			
		ACD Calls	ACD + Non-ACD Calls	Inbound	Outbound[1]
Historical reports	Contact Service Queue Activity Report	Y	N	Y	N
	CSQ Agent Summary Report	Y	N	Y	N
	Agent Detail Report	N	Y	Y	Y
	Agent Call Summary Report	N	Y	Y	Y
	Agent Summary Report	Y	N	Y	N
	Detailed Call by Call CCDR Report	N	Y	Y	Y
	Detailed Call CSQ Agent Report	N	Y	Y	Y

1 Does not include outbound preview calls.

Consult Transfer

Consult transfer is reported in different ways in different reports. Consider the following call flow.

Call Flow Example

Data Reconciliation between Reports

A caller calls into a Call Center Route Point, which queues the call in CSQ and routes it to agent1. Agent1 talks to the caller, initiates a consult transfer to agent2, talks to agent2, and completes the transfer. Agent2 talks to the caller and then drops the call.

This scenario will be reported as follows:

Report	Data Presented
Detailed Call by Call CCDR Report (System perspective)	**1.** One call record with type = 1 (incoming) for the call between the caller and agent1. **2.** One call record with type = 3 (internal) for the consult call between the two agents. **3.** One call record with type = 5 (transferred-in) for the call between the caller and agent2.

Agent Detail Report (Agent perspective)	**1.** For agent1:
	    1. One call record for call with the caller (Inbound + transfer-out) to indicate that this call was transferred out to another agent.
	    2. One call record for the consult call with agent2 (outbound).
	2. For agent2:
	    1. One call record for the consult call with agent1 (Inbound Non-ACD). Consult calls are always Non-ACD in Historical reports.
	    2. One call record for the call with the caller (Inbound + transfer-in) to indicate that a transferred call was received.