



Cisco Unified CCX Historical Reports User Guide, Release 8.0(1)

Cisco Unified Contact Center Express and Cisco Unified IP IVR
Release 8.0(1)

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Americas Headquarters

Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
<http://www.cisco.com>
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 527-0883

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Preface

Overview

Cisco Unified Contact Center Express Historical Reports User Guide provides instructions and related information for installing, upgrading, and accessing the Cisco Unified Contact Center Express (Cisco Unified CCX) Historical Reports Client interface. This manual also describes each historical report in detail, explains how to generate, view, print, save, and schedule historical reports, and provides information for administrating the Historical Reports system.

Audience

This manual is intended for call center supervisors who need to prepare and understand Cisco Unified CCX historical reports.

Organization

This manual is organized as follows:

Chapter 1, “Overview”	Introduces the Cisco Unified CCX database and describes the Cisco Unified CCX Historical Reports client interface
Chapter 2, “Installation and Configuration”	Provides instructions for installing, upgrading, and giving users access to the Cisco Unified CCX Historical Reports system, describes configuration files, and explains how to change the language on the client computer
Chapter 3, “Description of Historical Reports”	Provides an overview and descriptions of each historical report
Chapter 4, “Generating Historical Reports”	Describes how to generate, view, print, and save historical reports
Chapter 5, “Scheduling Historical Reports”	Explains how to use the Scheduler to automatically generate historical reports at some time in the future
Chapter 6, “Log Files”	Describes the Cisco Unified CCX Historical Reports system log files
Appendix A, “Cisco Unified CCX Reason Codes”	Describes the events that cause an agent to go to the Logout state or Not Ready state

Glossary

For the complete list of terms used in Cisco Unified CCX and Cisco Unified IP IVR, see

http://www.cisco.com/en/US/products/sw/custcosw/ps1846/prod_technical_reference_list.html

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: <ul style="list-style-type: none">Choose Edit > Find.Click Finish.
<i>italic font</i>	<i>Italic</i> font is used to indicate the following: <ul style="list-style-type: none">To introduce a new term. Example: A <i>skill group</i> is a collection of agents who share similar skills.For emphasis. Example: <i>Do not</i> use the numerical naming convention.A syntax value that the user must replace. Example: IF (<i>condition, true-value, false-value</i>)A book title. Example: See the <i>Cisco Unified CCX Installation Guide</i>.
window font	Window font, such as Courier, is used for the following: <ul style="list-style-type: none">Text as it appears in code or that the window displays. Example: <code><html><title>Cisco Systems, Inc. </title></html></code>
< >	Angle brackets are used to indicate the following: <ul style="list-style-type: none">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.

Related Documentation

Related Cisco Unified CCX documentation is available at this URL:

http://www.cisco.com/en/US/products/sw/custcosw/ps1846/tsd_products_support_series_home.html

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

Subscribe to the *What's New in Cisco Product Documentation* as a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS version 2.0.

Overview

The Cisco Unified CCX Historical Reports system is designed to provide you with information about the call activities of your Cisco Unified Contact Center Express (Unified CCX) system. With Cisco Unified CCX Historical Reports, you can

- Easily access historical data
- View, print, and save reports
- Sort and filter reports
- Send scheduled reports to a file or to a printer
- Export reports in a variety of formats, including Portable Document Format (PDF), Microsoft Excel, Rich Text Format (RTF), Extensible Markup Language (XML), and Comma-Separated Values (CSV)
- Prepare custom reports using a variety of generally available third-party applications that are designed to create reports from databases

The following sections include these topics:

- [System Database, page 1-2](#)
- [The Cisco Unified CCX Historical Reports Client Interface, page 1-2](#)
- [Failover, page 1-7](#)

System Database

As the Cisco Unified CCX system runs, it stores call activity data in a database on the Cisco Unified CCX server. Call activity data is also stored on the standby server, if one is deployed. You use the Cisco Unified CCX Historical Reports client to create historical reports based on this data.

For more information about the Cisco Unified CCX databases, refer to *Cisco Unified CCX Administration Guide*.

The Cisco Unified CCX Historical Reports Client Interface

You perform most Cisco Unified CCX Historical Reports client activities from an easy-to-use set of menus on the client computer. [Figure 1-1](#) shows the Cisco Unified CCX Historical Reports main window.

Figure 1-1 *Cisco Unified CCX Historical Reports Main Window*



	Item	Reference
1	Open tool	Saving Report Settings, page 4-9
2	Save tool	Saving Report Settings, page 4-9
3	Login tool	Changing Login and Server Information, page 1-6

	Item	Reference
4	Scheduler tool	Viewing and Deleting Schedules, page 5-16
5	Help tool	Getting Online Help, page 1-7
6	Help button	Getting Online Help, page 1-7
7	Reset button	General Report Settings, page 4-1 Detailed Report Settings, page 4-5 General Settings for Scheduled Reports, page 5-5
8	View button ^a	The Report Viewer, page 4-13
9	Start and end date and time fields	Choosing the Date and Time Range for a Report, page 4-4
10	Check box for including charts with a report	Including Charts with a Report, page 4-3 Including Charts with a Scheduled Report, page 5-6
11	Report name	Choosing the Report to Generate, page 4-2 Choosing the Report to Schedule, page 5-6
12	Tabs for general and detailed report settings	General Report Settings, page 4-1 Detailed Report Settings, page 4-5 General Settings for Scheduled Reports, page 5-5 Detailed Settings for Scheduled Reports, page 5-10
13	Reporting tasks	General Report Settings, page 4-1 Loading Report Settings, page 4-11 Choosing the Report to Schedule, page 5-6

a. This button changes depending on the reporting task selected

Starting the Cisco Unified CCX Historical Reports Client

When you start the Cisco Unified CCX Historical Reports client, the client logs in to the Cisco Unified CCX server, giving you access to data stored in the Cisco Unified CCX database. To start the Cisco Unified CCX Historical Reports client, perform the following steps.

**Note**

If you try to start the Cisco Unified CCX Historical Reports client but you have not been given access to it, you will see the User Privileges Missing dialog box. In this case, your system administrator can click **Yes** and set up access for you. If you click **No**, you will not have access to any reports. Your system administrator can give you access later. See the [“Giving Users Access to Cisco Unified CCX Historical Reports” section on page 2-9](#) for more information.

Procedure

- Step 1** Double-click the Cisco Historical Reports icon on your Windows desktop. Or, choose **Start > Programs > Cisco Unified CCX Historical Reports > Cisco Unified CCX Historical Reports**.

**Note**

If you are launching Cisco Unified CCX Historical Reports client on Microsoft Windows Vista or Windows 7, you need to right-click **Cisco Unified CCX Historical Reports.exe**, select **Run as**. In the **Run As** dialog box, click **The following user** radio button, login with Cisco Unified CCX Application Administrator Username and Password, click **OK**, and follow the instructions in the Installshield Wizard to proceed.

The Login dialog box appears.

- Step 2** Enter your user name and your password.
- If the client does not have information about the server to log in to, the Server field appears in the Login dialog box. Enter the IP address or the host name of the Cisco Unified CCX server in the Server field.
- If the client does have information about the server to log in to but you want to specify a different server, click **Server** and enter the IP address or the host name of the server in the Server field.

- Step 3** Click **OK**.

The system displays the Cisco Unified CCX Historical Reports main window.

Related Topics

- [Changing Login and Server Information, page 1-6](#)
- [Exiting the Cisco Unified CCX Historical Reports Client, page 1-6](#)

Changing Login and Server Information

From the Cisco Unified CCX Historical Reports main window, you can change current login information or change the server that you are logged in to.

To log in as a different user or to change the server to which the Cisco Unified CCX Historical Reports client is connected, follow these steps:

Procedure

-
- Step 1** Click the **Login** tool in the Cisco Unified CCX Historical Reports main window. Or, choose **Settings > Login**.
- The Login dialog box appears.
- Step 2** If you want to log in under a different name, enter the user name and password. If you want to log in to a different server, click **Server** and enter the IP address or the host name of the server.
- You can log in as a different user and change the server at the same time.
- Step 3** Click **OK**.
-

Exiting the Cisco Unified CCX Historical Reports Client

To exit the Cisco Unified CCX Historical Reports client, choose **File > Exit** from the Cisco Unified CCX Historical Reports main window.

Getting Online Help

The Cisco Unified CCX Historical Reports client provides online help. Depending on the displayed window, you can get help by performing one of the following actions:

- Clicking the **Help** button
- Clicking the **Help** tool
- Choosing **Help > Contents** or **Help > Search for Help On** from the menu bar
- Pressing the **F1** key

Failover

Your Cisco Unified CCX deployment may include a standby server for the Cisco Unified CCX Database component. In this case, if the Database component fails over when you are logged in to the Cisco Unified CCX Historical Reports client, you will see the following message when you attempt to generate a report:

The connection to the historical database was broken. Please log back in to the Cisco Unified CCX Historical Reports Client to attempt to reestablish the connection to the database.

If you see this message, log back in to the Cisco Unified CCX Historical Reports client. The client will attempt to connect automatically to the working database server.

If the Cisco Unified CCX Server has shut down completely, you will need to specify the Standby server IP address when you log back in. For more information, see the [“Starting the Cisco Unified CCX Historical Reports Client” section on page 1-4](#).

If you try to run a report after a failover, the response differs based on the type of failover:

- Engine failover: you will not see any difference in report generation or node status.
- Database failover: If you are generating a report when a database failover occurs, the report generation process stops immediately, you will receive a disconnected message, and will not be able to proceed.

- You can re-login to the same Unified CCX node to which you were logged in prior to the failover.
- If you are unable to connect to the same node, it might be due to a shutdown scenario or due to Unified CCX Node Manager not running on that node. In this case, connect to the remaining node.
- If a database failover occurs when the Scheduler is generating a report, that report generation process also will stop immediately and that report will not be generated. Subsequent scheduled reports will be generated if the failover process completes before that time.



CHAPTER 2

Installation and Configuration

The following sections include these topics:

- [Prerequisites, page 2-1](#)
- [Installing the Cisco Unified CCX Historical Reports Client, page 2-2](#)
- [Upgrading the Cisco Unified CCX Historical Reports Client, page 2-5](#)
- [Uninstalling the Cisco Unified CCX Historical Reports Client, page 2-6](#)
- [Giving Users Access to Cisco Unified CCX Historical Reports, page 2-9](#)
- [Configuration Files, page 2-12](#)
- [Changing the Client Language, page 2-20](#)

Prerequisites

Prior to installing the Cisco Unified CCX Historical Reports client, ensure that you have met the following requirements:

- You have already installed the Cisco Unified CCX server.
- You can access the Cisco Unified CCX server from the computer on which you install the Cisco Unified CCX Historical Reports client.
- You need to be logged in to the client machine (where the Historical Reports client is to be installed) using administrator privileges.
- If you had already installed earlier version of Cisco Unified CCX 8.x Historical Reports client, then you need to:

- Uninstall the existing Cisco Unified CCX Historical Reports client 8.x versions before installing the new version.
- Uninstall existing version of IBM Informix database driver installed in your Cisco Unified CCX Historical Reports client.

**Note**

To avoid blocking of connection between Historical Report Client and Cisco Unified CCX Server, it is required to use Cisco VPN on client machines having Cisco Unified CCX Historical Reports client.

Installing the Cisco Unified CCX Historical Reports Client

**Note**

See [Software and Hardware Compatibility Guide for Cisco Unified CCX and Cisco Unified IP IVR](#) for a list of supported operating systems, software, and languages required to install the Cisco Unified CCX Historical Reports client. You can install Cisco Unified CCX Historical Reports client in any of the supported languages mentioned in the *Software and Hardware Compatibility Guide for Cisco Unified CCX and Cisco Unified IP IVR*.

The Cisco Unified CCX Historical Reports client installation procedure processes several operations on the client computer, including

- Installing the Cisco Unified CCX Historical Reports client
- Creating directories in which the computer stores required files
- Installing the Scheduler (the part of Unified CCX Historical Reports that manages and generates scheduled reports)

To install the Unified CCX Historical Reports client, perform the following steps on the client computer.

Procedure

Step 1 From the client computer, log in to the Cisco Unified CCX Administration application or log in to the Unified CCX Supervision application.

For more information, see the [Cisco Unified CCX Administration Guide](#).

Step 2 Perform one of the following actions:

- From Cisco Unified CCX Administration, choose **Tools > Plug-ins**. When the Plug-ins web page appears, click the **Cisco Unified CCX Historical Reports** hyperlink.
- From the Unified CCX Supervision Download web page, click the **Cisco Unified CCX Historical Reports** hyperlink.

The File Download dialog box appears.

Step 3 Click **Save** button in the File Download dialog box, where the client computer retains the Cisco Unified CCX Historical Reports installation file after installation. In this case, you can reinstall Cisco Unified CCX Historical Reports without having to log in to the Cisco Unified CCX server.

Step 4 The Save As dialog box appears. Perform the following steps:

- Specify the directory in which you want to save the installation program (**CiscoUnifiedCCXHistoricalReportInstall.exe**) and click **Save**.
- When the installation file completes downloading, click **Open** in the Download Complete dialog box. The computer prepares to install the application, and then it extracts the files that it needs for the installation. When this process completes, the Cisco Unified CCX Historical Reports Setup window appears.



Note

If you are installing Cisco Unified CCX Historical Reports client on Microsoft Windows Vista or Windows 7, you need to right-click **CiscoUnifiedCCXHistoricalReportInstall.exe**, select **Run as administrator**. In the **User Account Control** dialog box, choose **Yes** to proceed and follow the instructions in the Installshield Wizard.

Step 5 Click **Next** in the Cisco Unified CCX Historical Reports Setup window.

The Cisco Unified CCX Historical Reports Setup window displays the License Agreement.

- Step 6** Read the License Agreement, and then, if you agree, click **Yes**.
The Cisco Unified CCX Historical Reports Setup window prompts you to choose an installation folder.
- Step 7** To install the Historical Reports files in the Program Files directory on your computer, click **Next**.
If you want to install the files in another directory, click **Browse**, choose the directory, click **OK**, and then click **Next**.
The Cisco Unified CCX Historical Reports Setup window prompts you to select a program folder.
- Step 8** Click **Finish**.
The installation is complete. The computer restarts, if necessary.

**Note**

As the new Historical Reports client installation deploys multiple database drivers and latest Crystal Reports Redistributables, it may take approximately 10 to 20 minutes to complete the installation.

Related Topics

- [Prerequisites, page 2-1](#)
- [Upgrading the Cisco Unified CCX Historical Reports Client, page 2-5](#)
- [Uninstalling the Cisco Unified CCX Historical Reports Client, page 2-6](#)
- [Giving Users Access to Cisco Unified CCX Historical Reports, page 2-9](#)
- [Configuration Files, page 2-12](#)
- [Changing the Client Language, page 2-20](#)

Upgrading the Cisco Unified CCX Historical Reports Client

**Note**

Be sure to exit the client application and the Scheduler on the client computer before proceeding. For instructions, see the [“Exiting the Cisco Unified CCX Historical Reports Client”](#) section on page 1-6 and see [“The Scheduler”](#) section on page 5-3.

To upgrade to the new version of the Unified CCX Historical Reports client, perform the following steps on the client computer.

Procedure

- Step 1** If you are upgrading Historical Reports client from an earlier version of Cisco Unified CCX Historical Reports client 8.x, then you need to uninstall the existing Cisco Unified CCX Historical Reports client version and restart the system before installing the new version. See [Uninstalling the Cisco Unified CCX Historical Reports Client, page 2-6](#) for detailed instructions on uninstalling the Historical Reports client.

**Note**

Perform step 1 only if you are upgrading from an earlier version of Cisco Unified CCX Historical Reports client 8.x. If you are upgrading from an existing Cisco Unified CCX Release 7.x Historical Reports client, then you need not uninstall the 7.x Historical Reports client manually. The Cisco Unified CCX Release 8.x Historical Reports client installer automatically uninstalls the existing version of the Historical Reports client before installing the latest version.

- Step 2** Download the new version of Unified CCX Historical Reports client installation (**CiscoUnifiedCCXHistoricalReportInstall.exe**) program.
- Step 3** Double-click the **CiscoUnifiedCCXHistoricalReportInstall.exe** installation file that you have saved to your computer.
- A dialog box is displayed to confirm the upgrade process.
- Step 4** Click **Yes**.
- The Cisco Unified CCX Historical Reports Setup window appears.

- Step 5** To install the Historical Reports files in the Program Files directory on your computer, click **Next**.
- If you want to install the files in another directory, click **Browse**, choose the directory, click **OK**, and then click **Next**.
- The Cisco Unified CCX Historical Reports Setup window prompts you to select a program folder.
- Step 6** Click **Next** to continue with the upgrade.
- Step 7** Click **Finish**.
- The upgrade is complete. The computer restarts, if necessary.
-

Related Topics

- [Prerequisites, page 2-1](#)
- [Installing the Cisco Unified CCX Historical Reports Client, page 2-2](#)
- [Uninstalling the Cisco Unified CCX Historical Reports Client, page 2-6](#)
- [Giving Users Access to Cisco Unified CCX Historical Reports, page 2-9](#)
- [Configuration Files, page 2-12](#)
- [Changing the Client Language, page 2-20](#)

Uninstalling the Cisco Unified CCX Historical Reports Client



Note

Be sure to exit the client application and the Scheduler on the client computer before proceeding. For instructions, see the [“Exiting the Cisco Unified CCX Historical Reports Client” section on page 1-6](#) and see [“The Scheduler” section on page 5-3](#).

To uninstall Unified CCX Historical Reports client, perform the following steps on the client computer.

Procedure

- Step 1** Choose **Start > All Programs > Cisco Unified CCX Historical Reports** from the **Windows Start** menu and click **Repair or Remove Cisco Unified CCX Historical Reports**.



Note

The above-mentioned Step 1 will not work on Windows Vista or Windows 7. If you have installed Cisco Unified CCX Historical Reports client on Microsoft Windows Vista or Windows 7 and you want to repair or remove Historical Reports client, then go to **Start > All Programs > Cisco Unified CCX Historical Reports**, right-click **Repair or Remove Cisco Unified CCX Historical Reports** and select **Run as administrator**. In the **User Account Control** dialog box, choose **Yes** to proceed. Follow the instructions in the Installshield Wizard to continue with the chosen operation.

- Step 2** This will start Cisco Unified CCX Historical Reports Client installation in maintenance mode. Using the Cisco Unified CCX Historical Reports InstallShield wizard, you can choose either to repair a corrupted installation of Historical Reports client or uninstall an existing Historical Reports client.

- Step 3** See [Using the Cisco Unified CCX Historical Reports InstallShield Wizard, page 2-8](#) for detailed instructions on how to uninstall the Cisco Unified CCX Historical Reports client using the InstallShield Wizard.

Alternatively in Windows XP, you can choose to repair or remove earlier versions of Unified CCX 8.x Historical Reports client by doing the following:

- a. Choose **Start > Control Panel** and click **Add or Remove Programs**. The Add or Remove Programs window opens.
- b. Select **Cisco Unified CCX Historical Reports**.
- c. Click **Change** button. The same Cisco Unified CCX Historical Reports InstallShield Wizard is displayed. See [Using the Cisco Unified CCX Historical Reports InstallShield Wizard, page 2-8](#) subsection for detailed instructions on how to uninstall using the wizard.



Note

The above-mentioned steps a, b, and c are not applicable for Windows Vista and Windows 7.

Using the Cisco Unified CCX Historical Reports InstallShield Wizard

- a. The Cisco Unified CCX Historical Reports - Installshield Wizard displays the Welcome screen. Click **Next**.
- b. The Installshield provides you with two options - Repair or Remove the program. To repair installation errors, click the Repair radio button. To completely remove or uninstall the Historical Reports client, click the Remove radio button.
- c. To uninstall, click **Remove** radio-button and click **Next**.
- d. Click the **Remove** button. The wizard takes you through the uninstallation.
- e. Click **Finish**.

On completion of the uninstall, it will prompt you to restart the computer.



Note

If you have installed Cisco Unified CCX Historical Reports client on Microsoft Windows Vista or Windows 7, you cannot uninstall the Historical Reports client using **Start > Programs > Control Panel > Add/Remove Programs**. You need to uninstall using the **Repair or Remove Cisco Unified Historical Client** shortcut from the Windows Start menu. Ensure that you right-click on **Repair or Remove Cisco Unified Historical Client** and select **Run As administrator** for Windows Vista and Windows 7 only. In the **User Account Control** dialog box, choose Yes to proceed. Follow the instructions in the Installshield Wizard to continue with the chosen operation.

Related Topics

- [Prerequisites, page 2-1](#)
- [Installing the Cisco Unified CCX Historical Reports Client, page 2-2](#)
- [Upgrading the Cisco Unified CCX Historical Reports Client, page 2-5](#)
- [Giving Users Access to Cisco Unified CCX Historical Reports, page 2-9](#)
- [Configuration Files, page 2-12](#)
- [Changing the Client Language, page 2-20](#)

Giving Users Access to Cisco Unified CCX Historical Reports

Before a user can generate a historical report from the Unified CCX Historical Reports client, you must specify the Cisco Unified CCX application packages for which the user can generate reports.

To give a user access to historical reporting, you must first set up the user in Cisco Unified CCX Administration. See the [Cisco Unified CCX Administration Guide](#)

(http://www.cisco.com/en/US/partner/products/sw/custcosw/ps1846/products_installation_and_configuration_guides_list.html) for more information.

The following table shows the historical reports that are available for each Cisco Unified CCX application package. In this table, “Yes” means that a report is available, and “—” means that a report is not available. If you give a user access to an application, the user will be able to generate all of the reports that are available for that application.

Report Name	Unified IP IVR	Unified CCX Standard	Unified CCX Enhanced	Unified CCX Premium
Abandoned Call Detail Activity Report	—	Yes	Yes	Yes
Aborted and Rejected Call Detail Report	—	Yes	Yes	Yes
Agent Call Summary Report	—	Yes	Yes	Yes
Agent Detail Report	—	Yes	Yes	Yes
Agent Login Logout Activity Report	—	Yes	Yes	Yes
Agent Not Ready Reason Code Summary Report	—	Yes	Yes	Yes
Agent State Detail Report	—	Yes	Yes	Yes
Agent State Summary Report (by Agent)	—	Yes	Yes	Yes
Agent State Summary Report (by Interval)	—	Yes	Yes	Yes
Agent Summary Report	—	Yes	Yes	Yes
Agent Wrap-up Data Detail Report	—	Yes	Yes	Yes
Agent Wrap-up Data Summary Report	—	Yes	Yes	Yes

■ Giving Users Access to Cisco Unified CCX Historical Reports

Report Name	Unified IP IVR	Unified CCX Standard	Unified CCX Enhanced	Unified CCX Premium
Application Performance Analysis Report	Yes	Yes	Yes	Yes
Application Summary Report	—	Yes	Yes	Yes
Call Custom Variables Report	—	Yes	Yes	Yes
Called Number Summary Activity Report	—	Yes	Yes	Yes
Common Skill Contact Service Queue Activity Report (by Interval)	—	Yes	Yes	Yes
Contact Service Queue Activity Report	—	Yes	Yes	Yes
Contact Service Queue Activity Report (by CSQ)	—	Yes	Yes	Yes
Contact Service Queue Activity Report (by Interval)	—	Yes	Yes	Yes
Contact Service Queue Call Distribution Summary Report	—	Yes	Yes	Yes
Contact Service Queue Priority Summary Report	—	Yes	Yes	Yes
Contact Service Queue Service Level Priority Summary Report	—	Yes	Yes	Yes
CSQ–Agent Summary Report	—	Yes	Yes	Yes
Detailed Call by Call CCDR Report	Yes	Yes	Yes	Yes
Detailed Call, CSQ, Agent Report	—	Yes	Yes	Yes
Email Agent Activity Report	—	—	—	Yes
Email Contact Service Queue Activity Report	—	—	—	Yes
Email Contact Service Queue Agent Activity Report	—	—	—	Yes
Email Inbox Traffic Analysis Report	—	—	—	Yes
Email Response Detail Report	—	—	—	Yes
Outbound Agent Detail Performance Report	—	—	—	Yes
Outbound Campaign Summary Report	—	—	—	Yes

Report Name	Unified IP IVR	Unified CCX Standard	Unified CCX Enhanced	Unified CCX Premium
Priority Summary Activity Report	—	—	Yes	Yes
Remote Monitoring Detail Report	—	Yes	Yes	Yes
Traffic Analysis Report	Yes	Yes	Yes	Yes

To specify the historical reports that a user can generate, perform these steps:

Procedure

- Step 1** Log in to Cisco Unified CCX Administration.
For information about logging in to Cisco Unified CCX Administration, refer to *Cisco Unified CCX Administration Guide Release 8.0(1)*.
- Step 2** From the Unified CCX Administration menu bar, choose **Tools > User Management > Reporting Capability View** to access the capability view for the Historical Report Users area.
The User Configuration web page appears.
- Step 3** The capability view for the Reporting Management web page contains a pane for the user(s) identified as the Unified CCX Historical Report Users and another pane with the list of Available Users.
- Step 4** Click the user to whom you want to provide access to historical reports from the Available Users pane and move to the Historical Report Users pane. You can move users back and forth between these two panes by clicking the arrows in either direction.
- Step 5** Once you move an user to the Historical Reports pane, you can assign any one or more Historical Reporting Packages for which you want the user to generate historical reports by selecting the desired check box:
 - IVR
 - ICD
- Step 6** Click **Update** to give the user access to historical reports for the selected applications.
To configure another user, repeat [Step 4](#) through [Step 6](#).

Configuration Files

The Unified CCX Historical Reports client maintains two configuration files on each client computer. The following sections explain each file in detail. The configuration files are:

- **hrcConfig.ini**—This file is stored in the Cisco Unified CCX Historical Reports directory, which is under the directory in which you installed the Cisco Unified CCX Historical Reports client system. (By default, the system installs in the Program Files directory.) This file contains general instructions for the Cisco Unified CCX Historical Reports client system.
- **sch.ini**—This file is stored in the Cisco Unified CCX Historical Reports\Scheduler directory, which is under the directory in which you installed the Cisco Unified CCX Historical Reports client system. (By default, the system installs in the Program Files directory.) This file contains instructions regarding the Scheduler.

You can edit either of these configuration files and make changes, if needed. To edit a configuration file, perform these steps:

Procedure

-
- Step 1** Use any text editor to open the configuration file.
- Step 2** Make changes to parameters as desired.



Caution

If you edit the configuration files and make changes that are not recognized by the system, you may face the risk of corrupting the system.

- Step 3** Save the file and exit the text editor.

Step 4 If you edit the `hrcConfig.ini` file while the Cisco Unified CCX Historical Reports client is running, exit and restart the client program to cause your changes to take effect.

If you edit the `sch.ini` file, right-click the Scheduler icon that appears in the status area on your Windows task bar and choose **Stop Scheduler**. Then right-click the Scheduler icon again and choose **Run Scheduler** to cause your changes to take effect.

Related Topics

- [The `hrcConfig.ini` Configuration File, page 2-13](#)
- [The `sch.ini` Configuration File, page 2-17](#)

The `hrcConfig.ini` Configuration File

The `hrcConfig.ini` file contains general instructions for the Cisco Unified CCX Historical Reports client system. The following table shows the parameters in this file.

Parameter	Explanation
defaultHost	<p>IP address or host name that appears in the Server field in the Cisco Unified CCX Historical Reports Login dialog box.</p> <p>Default value: IP address or host name of the server most recently logged in to.</p>
defaultExportPath	<p>Path name of the default directory in which the Cisco Unified CCX Historical Reports system stores scheduled reports that are exported to a file.</p> <p>Default value: Cisco Unified CCX Historical Reports\reports directory, which is under the directory in which you installed the Cisco Unified CCX Historical Reports client.</p> <p>To change the defaultExportPath parameter in the hrcConfig.ini configuration file for the Cisco Unified CCX Historical Reports Client, follow these guidelines:</p> <ul style="list-style-type: none"> • Make sure that the new directory exists on the shared drive. • Enclose the new path in quotation marks. For example: <code>defaultExportPath="\\209.165.200.225\F\$\CRS_REPORTS"</code>
showUserNameOnReport	<p>Specifies whether the username of the user who is logged in when a report is generated appears on the report.</p> <p>Valid values:</p> <ul style="list-style-type: none"> • 0—Name does not appear • 1—Name appears <p>Default value: 1</p>

Parameter	Explanation
logLevel	<p>Level of detail in which the system records events in the Historical Reports Client log file.</p> <p>Valid values:</p> <ul style="list-style-type: none">• 1—Record errors only• 2—Record errors and warnings• 3—Record errors, warnings, and debugging messages <p>Default value: 1</p>
NumOfLogFiles	<p>Number of Historical Reports Client log files the system maintains. The system creates a new Historical Reports Client log file whenever the current Historical Reports Client log file reaches the size specified by MaxSizeOfLogFiles. (See the next parameter.)</p> <p>Valid values: Integers 1 or greater</p> <p>Default value: 10</p>
MaxSizeOfLogFiles	<p>Specifies that the system should create a new Historical Reports Client log file when the current log file reaches this size in KB.</p> <p>Valid values: Integers 1 or greater</p> <p>Default value: 1000</p> <p>Note 1000 KB is the recommended value for this parameter because a log file that is much larger than 1000 KB can be difficult to read, and several large log files can take up significant disk space.</p>

Parameter	Explanation
TIMEZONE	<p>Specifies the time zone that will be displayed in the Unified CCX Historical reports. This value can be preset before you login to Unified CCX Historical Reports client.</p> <p>You can also change this value from the Historical Reports client user interface.</p> <p>Valid values: 0 and 1</p> <p>Value 0 - Historical report will display the time zone of the client's machine.</p> <p>Value 1 - Historical Report will display the UTC - GMT time zone.</p> <p>Default value: 0</p>
database (under [SCH])	<p>Database file in the Cisco Unified CCX Historical Reports\Scheduler directory in which scheduling information is stored. If you change this parameter, you must also change the database parameter in the sch.ini configuration file to the same value.</p> <p>Valid value: HistoricalReportsScheduler.mdb</p>
DRIVER (under [CRS_DATABASE])	<i>Display only.</i> Name of the database driver.
SERVER (under [CRS_DATABASE])	<i>Display only.</i> IP address or host name of the server from which the Cisco Unified CCX Historical Reports client obtains historical data.
DATABASE (under [CRS_DATABASE])	<i>Display only.</i> Name of the main Cisco Unified CCX database on the server from which the Cisco Unified CCX Historical Reports client obtains historical data.
UID (under [CRS_DATABASE])	<i>Display only.</i> User identification used to log in to the Cisco Unified CCX database on the server from which the Cisco Unified CCX Historical Reports client obtains historical data.
NETWORK (under [CRS_DATABASE])	<i>Display only.</i> Network library used by the Cisco Unified CCX Historical Reports client when connecting to the Cisco Unified CCX database.

Related Topic

- [Client System Log Files, page 6-2](#)

The sch.ini Configuration File

The sch.ini file contains general instructions for the Scheduler, including the location of the Scheduler database, the level of detail in which to record log file information, and how to handle missed schedules. The following table shows the parameters in this file.

Parameter	Explanation
database	<p>Database file in the Cisco Unified CCX Historical Reports\Scheduler directory in which scheduling information is stored. If you change this parameter, you must also change the database parameter in the hrcConfig.ini configuration file to the same value.</p> <p>Valid value: HistoricalReportsScheduler.mdb</p>
NumOfMissedScheduleRuns	<p>If one scheduled report is missed because the Scheduler is not running, or if several consecutive occurrences of a report are missed because the Scheduler is not running, specifies up to how many of the missed reports should be generated if you choose to execute missed schedules.</p> <p>Valid values: Zero or greater</p> <p>Default value: 1</p>
Missed_daily	<p>For reports that are scheduled to run daily, specifies whether the reports should be generated if they are missed and you choose to execute missed schedules.</p> <p>Valid values:</p> <ul style="list-style-type: none">• 1—Generate the report• 0—Do not generate the report <p>Default value: 1</p>

Parameter	Explanation
Missed_weekly	<p>For reports that are scheduled to run weekly, specifies whether the reports should be generated if they are missed and you choose to execute missed schedules.</p> <p>Valid values:</p> <ul style="list-style-type: none">• 1—Generate the report• 0—Do not generate the report <p>Default value: 1</p>
Missed_monthly	<p>For reports that are scheduled to run monthly, specifies whether the reports should be generated if they are missed and you choose to execute missed schedules.</p> <p>Valid values:</p> <ul style="list-style-type: none">• 1 —Generate the report• 0—Do not generate the report <p>Default value: 1</p>

Parameter	Explanation
Missed_once	<p>For reports that are scheduled to run once, specifies whether the reports should be generated if they are missed and you choose to execute missed schedules.</p> <p>Valid values:</p> <ul style="list-style-type: none">• 1—Generate the report• 0—Do not generate the report <p>Default value: 1</p>
logLevel	<p>Level of detail in which the system records events in the Scheduler log files.</p> <p>Valid values:</p> <ul style="list-style-type: none">• 1—Record Scheduler errors only• 2—Record Scheduler errors and Scheduler warnings• 3—Record Scheduler errors, Scheduler warnings, and schedule information• 4—Record Scheduler errors, Scheduler warnings, and detailed schedule information <p>Default value: 3</p>

Related Topics

- [Handling Missed Schedules, page 5-18](#)
- [Scheduler Log Files, page 6-3](#)

Changing the Client Language

You can use the Windows Regional Options settings to set the language for the Cisco Unified CCX Historical Reports client. You can set any language that is mentioned as a supported language for Historical Reporting client in the *Software and Hardware Compatibility Guide for Cisco Unified CCX and Cisco Unified IP IVR*. If you set a language that is not supported by your Cisco Unified CCX system, the client system will set English as the default language.

When you set a language, the Cisco Unified CCX Historical Reports client displays the following information in that language:

- Information displayed in windows and dialog boxes, including field names and button names
- Menu names and menu options
- Field names, headings, and other static items in reports

The client language does not affect the language of the data in reports.

**Caution**

Setting the language may affect the display language of other applications that are running on the client computer.

**Note**

Refer to your Windows documentation for more information on setting languages. See the <http://www.microsoft.com/globaldev/handson/user/2kintl supp.mspix> website for further details



CHAPTER 3

Description of Historical Reports

Cisco Unified CCX Historical Reports provides a set of formatted reports that are designed to provide you with information about the operations and activities of your Cisco Unified CCX system and the agents using the system. Reports present information in a tabular form and, unless you specify otherwise, include charts that highlight important information.

If you require reports other than the system-formatted reports, you can create your own custom reports. To create custom reports, refer to *Cisco Unified CCX Historical Reports Administrator and Developer Guide*.

The following sections include these topics:

- [Overview of Reports, page 3-2](#)
- [Report Details, page 3-7](#)
- [Report Footnotes, page 3-91](#)

Overview of Reports

Cisco Unified CCX Historical Reports can generate a variety of historical reports - voice and e-mail. [Table 3-1](#) shows the following information for each report:

- Report Name and Reference—Name of the historical report and reference to section in this chapter that contains detailed information about the report.
- Application Package—Cisco Unified CCX packages for which the report is available.
- Description—Brief description of the content of the report.

Each report is described in alphabetical order in the “[Report Details](#)” section on [page 3-7](#).

Table 3-1 **Summary of Voice Historical Reports**

Report Name and Reference	Application Package	Description
Abandoned Call Detail Activity Report, page 3-9	<ul style="list-style-type: none"> • Unified CCX^a Standard • Unified CCX Enhanced • Unified CCX Premium 	Detailed information about each abandoned call
Aborted and Rejected Call Detail Report, page 3-11	<ul style="list-style-type: none"> • Unified CCX Standard • Unified CCX Enhanced • Unified CCX Premium 	Detailed information about each aborted or rejected call
Agent Call Summary Report, page 3-13	<ul style="list-style-type: none"> • Unified CCX Standard • Unified CCX Enhanced • Unified CCX Premium 	Summary information about inbound and outbound transfer, conference, and agent calls
Agent Detail Report, page 3-16	<ul style="list-style-type: none"> • Unified CCX Standard • Unified CCX Enhanced • Unified CCX Premium 	Detailed information about each call received or made by each agent
Agent Login Logout Activity Report, page 3-18	<ul style="list-style-type: none"> • Unified CCX Standard • Unified CCX Enhanced • Unified CCX Premium 	Detailed information about the login and logout activities of each agent

Table 3-1 **Summary of Voice Historical Reports (continued)**

Report Name and Reference	Application Package	Description
Agent Not Ready Reason Code Summary Report, page 3-20	<ul style="list-style-type: none"> Unified CCX Standard Unified CCX Enhanced Unified CCX Premium 	Time that each agent spent in Not Ready state, and information about reason codes agents entered when going to Not Ready state
Agent State Detail Report, page 3-23	<ul style="list-style-type: none"> Unified CCX Standard Unified CCX Enhanced Unified CCX Premium 	Information about the time each agent went to and spent in an agent state, and the reason why the agent went to Logout state or Not Ready state
Agent State Summary Report (by Agent), page 3-24	<ul style="list-style-type: none"> Unified CCX Standard Unified CCX Enhanced Unified CCX Premium 	Information about the length and percentage of time that agents spent in each agent state, grouped by agent name
Agent State Summary Report (by Interval), page 3-26	<ul style="list-style-type: none"> Unified CCX Standard Unified CCX Enhanced Unified CCX Premium 	Information about the length and percentage of time that agents spent in each agent state, grouped by 30- or 60-minute intervals within the report period
Agent Summary Report, page 3-29	<ul style="list-style-type: none"> Unified CCX Standard Unified CCX Enhanced Unified CCX Premium 	Summary statistics about the activities of each agent, including call and agent state activities
Agent Wrap-up Data Detail Report, page 3-32	<ul style="list-style-type: none"> Unified CCX Standard Unified CCX Enhanced Unified CCX Premium 	Detailed information about each wrap-up data
Agent Wrap-up Data Summary Report, page 3-34	<ul style="list-style-type: none"> Unified CCX Standard Unified CCX Enhanced Unified CCX Premium 	Summary information about details entered by the agent after the agent enters the work state associated with the wrap-up feature
Application Performance Analysis Report, page 3-36	<ul style="list-style-type: none"> Unified CCX Standard Unified CCX Enhanced Unified CCX Premium Unified IP IVR^b 	Summary information about calls received by each Unified CCX or Unified IP IVR application

Table 3-1 **Summary of Voice Historical Reports (continued)**

Report Name and Reference	Application Package	Description
Application Summary Report, page 3-37	<ul style="list-style-type: none"> Unified CCX Standard Unified CCX Enhanced Unified CCX Premium 	Summary call statistics for calls presented to, handled by, and abandoned from each application, and information about call talk time, work time, and abandon time
Call Custom Variables Report, page 3-39	<ul style="list-style-type: none"> Unified CCX Standard Unified CCX Enhanced Unified CCX Premium 	Information about custom variables, if any, that are set by the Set Session Info step in the workflow associated with a call or leg
Called Number Summary Activity Report, page 3-44	<ul style="list-style-type: none"> Unified CCX Standard Unified CCX Enhanced Unified CCX Premium 	Summary information for each number dialed by callers
Common Skill Contact Service Queue Activity Report (by Interval), page 3-45	<ul style="list-style-type: none"> Unified CCX Standard Unified CCX Enhanced Unified CCX Premium 	Summary information about calls presented, calls handled, and calls abandoned for each group of CSQs that is configured with the same skills but different competence levels
Contact Service Queue Activity Report, page 3-48	<ul style="list-style-type: none"> Unified CCX Standard Unified CCX Enhanced Unified CCX Premium 	Summary information about calls presented to, handled by, abandoned from, and dequeued from each CSQ, and information about call queue time and handle time
Contact Service Queue Activity Report (by CSQ), page 3-51	<ul style="list-style-type: none"> Unified CCX Standard Unified CCX Enhanced Unified CCX Premium 	Information about calls routed to CSQs and information about service level, grouped by CSQ
Contact Service Queue Activity Report (by Interval), page 3-54	<ul style="list-style-type: none"> Unified CCX Standard Unified CCX Enhanced Unified CCX Premium 	Information about calls routed to CSQs and information about service level, grouped by 30- or 60-minute intervals within the report period
Contact Service Queue Call Distribution Summary Report, page 3-58	<ul style="list-style-type: none"> Unified CCX Standard Unified CCX Enhanced Unified CCX Premium 	Number of calls handled and abandoned within 4 time intervals of configurable length

Table 3-1 ***Summary of Voice Historical Reports (continued)***

Report Name and Reference	Application Package	Description
Contact Service Queue Priority Summary Report, page 3-61	<ul style="list-style-type: none"> Unified CCX Standard Unified CCX Enhanced Unified CCX Premium 	Information about the total number of calls presented to each contact service, and the total and average number of calls presented for each call priority
Contact Service Queue Service Level Priority Summary Report, page 3-62	<ul style="list-style-type: none"> Unified CCX Standard Unified CCX Enhanced Unified CCX Premium 	Information about total number and percentage of calls that are handled within service level, and number and percentage of calls that are handled within service level for each call priority
CSQ–Agent Summary Report, page 3-65	<ul style="list-style-type: none"> Unified CCX Standard Unified CCX Enhanced Unified CCX Premium 	Summary information about the activities of an agent in a CSQ
Detailed Call by Call CCDR Report, page 3-67	<ul style="list-style-type: none"> Unified CCX Standard Unified CCX Enhanced Unified CCX Premium Unified IP IVR 	Information from the Contact Call Detail Record (CCDR), the contact routing detail record, and the agent connection detail record for each leg of a call
Detailed Call, CSQ, Agent Report, page 3-72	<ul style="list-style-type: none"> Unified CCX Standard Unified CCX Enhanced Unified CCX Premium 	Detailed call information about the CSQ to which the call was routed and the agent handling the call
Email Agent Activity Report, page 3-75	Unified CCX Premium	Summary information about the e-mail activity for the selected e-mail enabled agents and date interval in daily time buckets
Email Contact Service Queue Activity Report, page 3-76	Unified CCX Premium	Summary information about the e-mail activity for the selected e-mail contact service queues and date interval in daily time buckets.
Email Contact Service Queue Agent Activity Report, page 3-77	Unified CCX Premium	Summary information about the e-mail activity by agents and dates for the selected e-mail contact service queues and date interval in daily time buckets

Table 3-1 **Summary of Voice Historical Reports (continued)**

Report Name and Reference	Application Package	Description
Email Inbox Traffic Analysis Report, page 3-78	Unified CCX Premium	Detailed information about the e-mails received for the selected e-mail addresses and time period in daily time buckets
EMail Response Detail Report, page 3-79	Unified CCX Premium	Information about an e-mail response sent back to a customer
Outbound Agent Detail Performance Report, page 3-80	Unified CCX Premium with the Outbound ^c license	Detailed information about each agent and also contains Outbound campaign call details for each agent
Outbound Campaign Summary Report, page 3-82	Unified CCX Premium with the Outbound license	Summary information about the Outbound campaign statistics for a specified period
Priority Summary Activity Report, page 3-85	<ul style="list-style-type: none"> Unified CCX Enhanced Unified CCX Premium 	Summary information about the priority levels of each call received
Remote Monitoring Detail Report, page 3-87	<ul style="list-style-type: none"> Unified CCX Standard Unified CCX Enhanced Unified CCX Premium 	Detailed information about each remote monitoring session performed by a supervisor
Traffic Analysis Report, page 3-89	<ul style="list-style-type: none"> Unified CCX Standard Unified CCX Enhanced Unified CCX Premium Unified IP IVR 	Summary information about calls received by the Cisco Unified CCX system during each day in the report range

- a. Cisco Unified Contact Center Express (Unified CCX)
- b. Cisco Unified IP IVR (Unified IP IVR)
- c. Cisco Unified Outbound Preview Dialer (Outbound)

Report Details

This section provides the following information for each Cisco Unified CCX historical report:

- A description of the report.
- A table describing the information that is displayed in each chart produced with the report.
- A table describing each field in the tabular section of the report.
- A table describing each sort criterion that is available for the report. For more information about sorting a report, see the [“Detailed Report Settings” section on page 4-5](#).
- A table describing each filter parameter, if any, that is available for the report. You can use a filter parameter to limit information that appears in a report. For more information about filtering a report, see the [“Detailed Report Settings” section on page 4-5](#).



Note

When a report shows date and time information for an event or an activity and the Start and End time, that date and time is based on the TIMEZONE configuration in hrconfig.ini.

You can also change the time zone for each report. See [Changing the Time Zone to be Displayed for a Report, page 4-4](#).

The difference between the server time and the selected time zone is displayed within parentheses beside the Start and End time.

The report generated time displayed at the bottom of the report is the local time of the HR client machine.

This section describes each of the following reports:

- [Abandoned Call Detail Activity Report, page 3-9](#)
- [Aborted and Rejected Call Detail Report, page 3-11](#)
- [Agent Call Summary Report, page 3-13](#)
- [Agent Detail Report, page 3-16](#)
- [Agent Login Logout Activity Report, page 3-18](#)
- [Agent Not Ready Reason Code Summary Report, page 3-20](#)
- [Agent State Detail Report, page 3-23](#)

- [Agent State Summary Report \(by Agent\)](#), page 3-24
- [Agent State Summary Report \(by Interval\)](#), page 3-26
- [Agent Summary Report](#), page 3-29
- [Agent Wrap-up Data Detail Report](#), page 3-32
- [Agent Wrap-up Data Summary Report](#), page 3-34
- [Application Performance Analysis Report](#), page 3-36
- [Application Summary Report](#), page 3-37
- [Call Custom Variables Report](#), page 3-39
- [Called Number Summary Activity Report](#), page 3-44
- [Common Skill Contact Service Queue Activity Report \(by Interval\)](#), page 3-45
- [Contact Service Queue Activity Report](#), page 3-48
- [Contact Service Queue Activity Report \(by CSQ\)](#), page 3-51
- [Contact Service Queue Activity Report \(by Interval\)](#), page 3-54
- [Contact Service Queue Call Distribution Summary Report](#), page 3-58
- [Contact Service Queue Priority Summary Report](#), page 3-61
- [Contact Service Queue Service Level Priority Summary Report](#), page 3-62
- [CSQ–Agent Summary Report](#), page 3-65
- [Detailed Call by Call CCDR Report](#), page 3-67
- [Detailed Call, CSQ, Agent Report](#), page 3-72
- [Email Agent Activity Report](#), page 3-75
- [Email Contact Service Queue Activity Report](#), page 3-76
- [Email Contact Service Queue Agent Activity Report](#), page 3-77
- [Email Inbox Traffic Analysis Report](#), page 3-78
- [EMail Response Detail Report](#), page 3-79
- [Outbound Agent Detail Performance Report](#), page 3-80
- [Outbound Campaign Summary Report](#), page 3-82
- [Remote Monitoring Detail Report](#), page 3-87
- [Traffic Analysis Report](#), page 3-89

When you need to compare different reports, it is suggested to compare the total Inbound ACD calls of Agent call summary reports with that of total calls received in the CSQ activity reports. This gives the consistent data.

However, when you compare total calls received from the Agent call summary reports with that of CSQ Activity reports, the former generally displays more number of calls. This is because the Agent call summary reports include Non ACD calls (for example, the internal calls initiated during transfer/conferences). Such inconsistencies are more likely to occur when the Agent phones have multiple lines (Non ACD Line) and transfers/conferences are initiated to these Non ACD Lines.

Abandoned Call Detail Activity Report

The Abandoned Call Detail Activity Report provides information about calls that are abandoned. For Unified CCX calls, a call is abandoned if it is not answered by an agent and the caller hangs up or is disconnected. For Unified IP IVR calls, a call is abandoned if it does not get past the workflow step that sets the handled flag. If a call has more than one leg that is abandoned (for example, an Unified IP IVR call that is processed by different applications), each abandoned leg is displayed in this report.

The Abandoned Call Detail Activity Report can include this chart:

Chart Name	Description
Calls Abandoned Each Day by Final Call Priority	For each day in the date range, displays the total number of calls abandoned and the final priority of the calls.

The Abandoned Call Detail Activity Report includes a table that shows the following information for each abandoned call:

Field	Description
Call Start Time	Date and time that this call leg started.
Called Number	Telephone number that the caller dialed.

Report Details

Field (continued)	Description (continued)
Call ANI ^a	Telephone number of the originator of the call. If originated by an agent, the Unified CCX extension of the agent. If originated by a caller other than an agent, the telephone number of the caller.
Initial Call Priority	Priority that the Unified CCX workflow assigned to the call when the call was received, from 1 (lowest) to 10 (highest). All calls start with a default priority of 1, unless a different priority is set in the workflow.
Call Routed CSQ	Name of one of the CSQs to which the call was queued. Displays ‘...’ to indicate there are more than one CSQ to which the call was abandoned.
Agent Name (Agent_ID)	Name of the agent, if any, who was presented with the call before the call was abandoned. The string in parentheses displays the login ID of the agent.
Call Skills	Up to 3 call skills associated with the CSQ to which the call was routed. Multiple skills are separated by commas. Displays ‘...’ to indicate there are more than one call skills associated with the CSQ.
Final Call Priority	Priority of the call when it was abandoned, from 1 (lowest) to 10 (highest).
Call Abandon Time	Date and time that the call was abandoned.
Average Time to Abandon	Time to abandon is the duration from the time when the call comes to the system to the time when the call is abandoned. Average time to abandon is the average value for all calls abandoned during the report range.

a. ANI = automatic number identification

You can sort the Abandoned Call Detail Activity Report by any of these criteria:

Sort Criterion	Result
Agent Name	Displays the report in order of the name of the agent.
Call Start Time	Displays the report in order of the date and time that the call started.
Call ANI	Displays the report in order of the telephone number that the caller is calling from.
Call Abandon Time	Displays the report in order of the date and time that the call was abandoned.

Aborted and Rejected Call Detail Report

The Aborted and Rejected Call Detail Report provides detailed information about each call that is aborted or rejected by the system. A call is aborted if an exception occurs in the workflow that is processing a call. A call is rejected if system resources reach maximum capacity (for example, the maximum number of CTI ports is reached).

The Aborted and Rejected Call Detail Report can include this chart:

Chart Name	Description
Total Calls by Contact Disposition	<p>Displays the total number of aborted calls and rejected calls during the report period.</p> <p>A call is aborted when exceptions occur in executing the workflow that is processing a call (for example, exceptions such as <code>UndefinedPromptException</code>, <code>ApplicationMaxSessionsException</code>). In such scenarios, Cisco Unified CCX will setup media and play an error prompt to the caller.</p> <p>A call is rejected when certain Unified CM or Cisco Unified CCX resources are not sufficient for accepting incoming calls (for example, an insufficient number of CTI ports).</p>

The Aborted and Rejected Call Detail Report includes a table that shows the following information for each aborted and rejected call:

Field	Description
Node ID – Session ID – Sequence No.	Node ID is the unique numeric ID that the system assigned to each Unified CCX server in the cluster. It starts with number 1. (A Node ID value of 0 indicates that the data in the report is migrated from Cisco CRS 3.x.) Session ID is the unique session identification number that the system assigned to a call. Sequence No. is the session sequence number that the system assigned to each call leg. The session sequence number increases by 1 for each leg of a call.
Call Start Time, Call End Time	Date and time that the call started, and date and time that the call was disconnected, transferred, or redirected.
Contact Type	Contact type of a call (incoming, outgoing, internal, redirect, transfer-in, preview outbound).

Report Details

Field (continued)	Description (continued)
Contact Disposition	Disposition of the call (aborted or rejected).
Abort/Reject Reason	Reason that the call was aborted or rejected.
Originator DN ^a	If Originator Type is 1, this field shows the Unified CCX extension of the agent. If Originator Type is 2, this field shows the CTI ^b port number. If Originator Type is 3, this field shows the telephone number of the caller.
Destination DN	If Destination Type is 1, this field shows the Unified CCX extension of the agent. If Destination Type is 2, this field shows the CTI port number. If Destination Type is 3, this field shows the telephone number called.
Called Number	If the call was a transfer, the number that the call was transferred to. In other cases, this information is the same as the Original Called Number.
Original Called No.	Number originally dialed by the caller. Can be either a route point number or an agent extension.
Application Name	Name of the Unified CCX or Unified IP IVR application associated with the route point.
Call Routed CSQ	CSQ to which the call was routed. This field is blank if the call was aborted or rejected before being routed to any CSQ.

a. DN = directory number

b. CTI = computer telephony interface

You can sort the Aborted and Rejected Call Detail Report by any of these criteria:

Sort Criterion	Result
Node ID – Session ID – Sequence No.	Displays the report in the order sorted by node ID, session ID, and sequence number.
Call Start Time	Displays the report in order of call start times.
Abort – Reject Reason	Displays the report in alphabetical order by abort/reject reason.
Called Number	Displays the report in order of the number that the caller dials.

You can filter the Aborted and Rejected Call Detail Report by this parameter:

Filter Parameter	Result
Contact Disposition	If you select Aborted , the report will show only aborted calls. If you select Rejected , the report will show only rejected calls. If you select both options, the report will show both types of calls.

Agent Call Summary Report

The Agent Call Summary Report shows, for each agent specified, summary information about each call that was received (an *inbound call*) and each call that was made (an *outbound call*) by the agent. For inbound Unified CCX calls, this report shows the average time that the agent spent in Talk state, Work state, and on hold. For non-Unified CCX calls, this report shows the average and maximum talk time for the agent. For outbound calls, this report shows the average and maximum call time for the agent. This report also shows the number of calls transferred to the agent and transferred out (to another route point or another agent) by the agent, and the number of conference calls in which the agent participated.

Only calls with a non zero talk time are considered for the Agent Call Summary Report.

The Agent Call Summary Report can include these charts:

Chart Name	Description
Total Inbound, Outbound Calls by Agent	Total number of calls received and calls made by agents.
Average Talk, Hold, Work Time for Inbound ACD	For Unified CCX calls received by agents, average time each agent spent in Talk state, on hold, and in Work state.
Average, Maximum Call Time for Outbound Calls	For calls made by agents, average and maximum time each agent spent on the call. (The time on a call includes time spent dialing, waiting for an answer, and talking).

Report Details

The Agent Call Summary Report includes a table that shows the following information for each agent:

Field	Description
Agent Name (Agent_ID)	First and last name of the agent. The string in parentheses displays the login ID of the agent.
Extension IPCC / Non-IPCC	The last active IPCC extension that the Unified CM assigned to the agent during the report period. The last active Non-IPCC extension that the Unified CM assigned to the agent during the report period. If number of calls to/from Non-IPCC extension is zero, then this field will be blank.
Total Inbound	Total number of calls received by the agent. (Equal to inbound ACD calls + inbound non-ACD calls.)
Inbound ACD— Total	Total number of Unified CCX calls received by the agent.
Inbound ACD—Avg Talk / Hold / Work	For Unified CCX calls received, the average time that the agent spent in Talk state, on hold, and in Work state.
Inbound Non-ACD on IPCC—Total	Total number of non-Unified CCX calls received by the agent on IPCC extension. This number includes calls made by other agents and by outside parties.
Inbound Non-ACD on IPCC— Avg / Max Talk Time	For non-Unified CCX calls received on IPCC extension, the average time that the agent spent talking, and the longest time that the agent spent talking for any one call.
Inbound Non-ACD on non-IPCC—Total	Total number of non-Unified CCX calls received by the agent on non-IPCC extension. This number includes calls made by other agents and by outside parties.
Inbound Non-ACD on non-IPCC— Avg / Max Talk Time	For non-Unified CCX calls received on non-IPCC extension, the average time that the agent spent talking, and the longest time that the agent spent talking for any one call.
Outbound on IPCC—Total	Total number of calls made by the agent on IPCC extension. This number includes calls attempted and calls connected.
Outbound on IPCC—Avg / Max Call Time	For outbound calls on IPCC extension, the average call time and the longest call time. Call time starts when an agent goes off-hook for a call and ends when the call terminates.

Field (continued)	Description (continued)
Outbound on non-IPCC—Total	Total number of calls made by the agent on non-IPCC extension. This number includes calls attempted and calls connected.
Outbound on non-IPCC—Avg / Max Call Time	For outbound calls on non-IPCC extension, the average call time and the longest call time. Call time starts when an agent goes off-hook for a call and ends when the call terminates.
ACD Transfer-In	Total number of Unified CCX calls transferred to the agent.
ACD Transfer-Out	Total number of Unified CCX calls transferred out by the agent.
ACD Conference	Total number of inbound Unified CCX conference calls in which the agent participated.

You can sort the Agent Call Summary Report by any of these criteria:

Sort Criterion	Result
Agent Name	Displays the report in alphabetical order by the names of agents.
Total Inbound Calls	Displays the report in order of the total number of calls received by agents.
Total Outbound Calls	Displays the report in order of the total number of calls made by agents.

You can filter the Agent Call Summary Report by any of these parameters:

Filter Parameter	Result
Resource Group Names	Displays information for agents that belong to the specified resource groups.
Agent Names	Displays information for the specified agents.
Skill Names	Displays information for agents who possess the specified skills.
Team Names	Displays information for agents who belong to the selected teams.

Agent Detail Report

The Agent Detail Report contains detailed information about each ACD call that was handled by an agent and each call that was made by an agent. It also includes information about non-ACD calls. ACD calls are defined as handled when an agent picks up the call. ACD calls are calls dialed to an ICD route point number. A non-ACD call is any call that is not dialed to an ICD route point number, for example, an internal call between agents or an outbound call.

The Agent Detail Report can include this chart:

Chart Name	Description
Total Talk Time, Hold Time, Work Time by Agent	For each agent, displays the total talk time, the total hold time, and the total work time spent on all calls during the report period.

The Agent Detail Report includes a table that shows the following information for every call received or made by each agent:

Field	Description
Agent Name (Agent_ID)	First and last name of the agent. The string in parentheses displays the login ID of the agent.
Extension	IPCC extension that the Unified CM assigned to the agent.
Call Start Time, Call End Time	Call start time is the date and time that the call leg rang at the agent extension. Call end time is the date and time call leg was disconnected or transferred.
Duration	Elapsed time between call start time and call end time.
Called Number	Telephone number that the caller dialed.
Call ANI	Telephone number of the originator of the call. If originated by an agent, the Unified CCX extension of the agent. If originated by a caller other than an agent, the telephone number of the caller.
Call Routed CSQ	CSQ that handled the call. A call is handled if a caller is connected to an agent while queued for this CSQ.
Other CSQs	Name of one of the CSQs to which the call was queued. Displays ‘...’ to indicate there are more than one CSQ to which the call was queued.

Field (continued)	Description (continued)
Call Skills	Up to 3 call skills associated with the CSQ that handled the call. A call is handled if a caller is connected to an agent.
Talk Time	For Unified CCX calls, elapsed time between the time an agent connected to the call and the time the call was disconnected or transferred, not including hold time. For non-Unified CCX calls, the duration of the entire call, if the call was answered.
Hold Time	Total time that the call was on hold. Not applicable to non-Unified CCX calls.
Work Time	Amount of time that an agent spent in Work state after the call. Not applicable to non-Unified CCX calls.
Call Type	<ul style="list-style-type: none"> • Inbound ACD—Unified CCX call handled by an agent. • Inbound non-ACD on IPCC—Non-Unified CCX call that an agent received on IPCC extension. • Inbound non-ACD on non-IPCC—Non-Unified CCX call that an agent received on non-IPCC extension. • Outbound on IPCC—Call made by an agent on IPCC extension (Unified CCX or non-Unified CCX). • Outbound on non-IPCC—Call made by an agent on non-IPCC extension (Unified CCX or non-Unified CCX). • Transfer-In—Call transferred to an agent. • Transfer-Out—Call transferred out by an agent. • Conference—Conference call.

You can sort the Agent Detail Report by any of these criteria:

Sort Criterion	Result
Agent Name	Displays the report in alphabetical order by the names of agents.
Call Start Time	Displays the report in order of call start times.
Call ANI	Displays the report in order of the telephone number that the caller was calling from.

You can filter the Agent Detail Report by any of these parameters:

Report Details

Filter Parameter	Result
Resource Group Names	Displays information for agents that belong to the specified resource group or groups.
Agent Names	Displays information for the specified agents.
Skill Names	Displays information for agents that possess the specified skills. This filter parameter is independent of or not the same as the Call Skills field.
Team Names	Displays information for agents who belong to the specified teams.
Call Type	Displays information for the specified call type (Inbound ACD, Inbound non-ACD on IPCC, Inbound non-ACD on non-IPCC, Outbound on IPCC, Outbound on non-IPCC, Transfer-In, Transfer-Out, Conference)

Agent Login Logout Activity Report

The Agent Login Logout Activity Report contains detailed information about the login and logout activities of agents. For each agent, it shows the login date and time and the logout date and time for each login session during the report period, and the reason code that an agent entered when logging out. This report also shows the duration of each login session, and the total login time for all login sessions.

The Agent Login Logout Activity Report can include this chart:

Chart Name	Description
Total Logged-In Time for Each Agent	For each agent, displays the total time logged in to the Unified CCX system.

The Agent Login Logout Activity Report includes a table that shows the following information for each agent:

Field	Description
Agent Name (Agent_ID)	First and last name of the agent. The string in parantheses displays the login ID of the agent.
Extension	The last active Unified CCX extension that the Unified CM assigned to the agent during the report period.
Login Time	Date and time that the agent logged in to the Unified CCX system. If this information is preceded by a less-than sign (<), the agent logged in before the start time of the data in the report.
Logout Time	Date and time that the agent logged out of the Unified CCX system. If this information is preceded by a greater-than sign (>), the agent was still logged in at the end time of the data in the report.
Logout Reason Code	Numeric reason code that the agent enters when the agent logs out from the Cisco Agent Desktop. A value of 0 indicates that no logout reason code is configured or that the agent was unable to enter a reason code.
Logged-In Duration	Elapsed time between the Login Time and the Logout Time.
Total	Total log-in time for each agent.
Grand Total	Total logged-in duration for all agents during the report period.

You can sort the Agent Login Logout Activity Report by any of these criteria:

Sort Criterion	Result
Agent Name	Displays the report in alphabetical order by the names of agents.
Login Time	Displays the report in order of the time that agents logged in to the system.
Logged-in Duration	Displays the report in order of the length of time that agents were logged in to the system.

You can filter the Agent Login Logout Activity Report by any of these parameters:

Filter Parameter	Result
Resource Group Names	Displays information for agents that belong to the specified resource group or groups.
Agent Names	Displays information for the specified agents.
Skill Names	Displays information for agents that possess the specified skills.
Team Names	Displays information for agents who belong to the specified teams.

Agent Not Ready Reason Code Summary Report

The Agent Not Ready Reason Code Summary Report provides information about the length of time each agent spent in Not Ready state during the report period. For each agent, it shows the total log in time and the total time spent in Not Ready state.

This report also shows the length of time that agents spent in Not Ready state for the reasons indicated by the reason codes that agents entered when going to Not Ready state. The report shows detailed information for each of up to eight reason codes, and displays consolidated information for other reason codes. By default, the report shows information for eight predefined reason codes. However, you can specify the reason codes for which the report shows detailed information (see [Appendix A, “Cisco Unified CCX Reason Codes”](#)).

This report can show information for each 30-minute or 60-minute interval within the report period.

The Agent Not Ready Reason Code Summary Report can include this chart:

Chart Name	Description
Total Not Ready Time by Agent and Reason Code	For each agent, displays the time that the agent spent in each not ready reason code during the report period. Up to 8 reason codes are displayed in detail. Additional reason code appear as a total under “Other Reason Codes”.

The Agent Not Ready Reason Code Summary Report includes a table that shows the following information for each agent that remains in Not Ready state:

Field	Description
Agent Name (Agent_ID)	First name and last name of the agent. The string in parentheses displays the login ID of the agent.
Extension	The last active Unified CCX extension that the Unified CM assigned to the agent during the report period.
Interval Start Time, Interval End Time	Beginning date and time and ending date and time of each 30- or 60-minute interval within the report period, if you specify an interval with the Interval Length filter parameter. Otherwise, the beginning date and time and ending date and time of the report range.
Total Logged-in	Total time that the agent was logged in to the Unified CCX system during the interval.
Total Not Ready	Total time that an agent spent in Not Ready state during the interval.
Time in RC <i>n1</i>	Total time that an agent spent in Not Ready state for the reason indicated by reason code <i>n1</i> , where <i>n1</i> is a system-defined reason code.
Time in RC <i>n2</i>	Total time that an agent spent in Not Ready state for the reason indicated by reason code <i>n2</i> , where <i>n2</i> is a system-defined reason code.
Time in RC <i>n3</i>	Total time that an agent spent in Not Ready state for the reason indicated by reason code <i>n3</i> , where <i>n3</i> is a system-defined reason code.
Time in RC <i>n4</i>	Total time that an agent spent in Not Ready state for the reason indicated by reason code <i>n4</i> , where <i>n4</i> is a system-defined reason code.
Time in RC <i>n5</i>	Total time that an agent spent in Not Ready state for the reason indicated by reason code <i>n5</i> , where <i>n5</i> is a system-defined reason code.
Time in RC <i>n6</i>	Total time that an agent spent in Not Ready state for the reason indicated by reason code <i>n6</i> , where <i>n6</i> is a system-defined reason code.
Time in RC <i>n7</i>	Total time that an agent spent in Not Ready state for the reason indicated by reason code <i>n7</i> , where <i>n7</i> is a system-defined reason code.
Time in RC <i>n8</i>	Total time that an agent spent in Not Ready state for the reason indicated by reason code <i>n8</i> , where <i>n8</i> is a system-defined reason code.
Time in Other RCs	Total time that an agent spent in Not Ready state for the reasons indicated by reason codes that are not shown in the previous 8 columns.

Report Details

You can sort the Agent Not Ready Reason Code Summary Report by this criterion:

Sort Criterion	Result
Agent Name	Displays the report in alphabetical order by the names of agents.

You can filter the Agent Not Ready Reason Code Summary Report by any of these parameters:

Filter Parameter	Result
Interval Length	<p>Entire report range—Displays information from the report start time through the report end time, but does not display information for specific intervals within the report period.</p> <p>Thirty (30) minute intervals—Displays information for 30-minute intervals within the report period. The first interval begins at the report start time, the next interval begins 30 minutes after the report start time, and so on.</p> <p>Sixty (60) minute intervals—Displays information for 60-minute intervals within the report period. The first interval begins at the report start time, the next interval begins 60 minutes after the report start time, and so on.</p>
Resource Group Names	Displays information for agents who belong to the specified resource group or groups.
Agent Names	Displays information for the specified agents.
Skill Names	Displays information for agents who possess the specified skills.
Team Names	Displays information for agents who belong to the selected teams.
Reason Code	Displays information for the selected reason codes. Up to 16 reason codes are displayed in detail. Additional reason codes appear as a total under Time in Other RCs.

Agent State Detail Report

The Agent State Detail Report shows detailed information about when the agent changed from one state to another. For each agent specified, this report shows the date and time of each state change, the name of the state changed to, the reason code, if any, for the change to Logout state or Not Ready state, and the length of time spent in each state.

The Agent State Detail Report can include this chart:

Chart Name	Description
Agent State Duration by Agent	For each agent, displays the length of time spent in each agent state.

The Agent State Detail Report includes a table that shows the following information for each agent:

Field	Description
Agent Name (Agent_ID)	First name and last name of the agent. The string in parantheses displays the login ID of the agent.
Extension	The last active Unified CCX extension that the Unified CM assigned to the agent during the report period.
State Transition Time	Date and time that the agent went to the state shown in the corresponding Agent State field.
Agent State	The state of the agent (Login, Logout, Not Ready, Ready, Reserved, Talk, or Work).
Reason Code	The reason code indicating why the agent went to Logout state or Not Ready state. 0 (zero) for other states.
Duration	Length of time that the agent spent in the state shown in the corresponding Agent State field.

You can sort the Agent State Detail Report by this criterion:

Sort Criterion	Result
Agent Name	Displays the report in alphabetical order by the names of agents then by the date and time that an agent went to another state.

You can filter the Agent State Detail Report by any of these parameters:

Filter Parameter	Result
Resource Group Names	Displays information for agents who belong to the specified resource groups.
Agent Names	Displays information for the specified agents.
Skill Names	Displays information for agents who possess the specified skills.
Team Names	Displays information for agents who belong to the selected teams.

Agent State Summary Report (by Agent)

The Agent State Summary Report (by Agent) shows, for each agent specified, the length and percentage of time that the agent spent in each of the following agent states: Not Ready, Ready, Reserved, Talk, and Work. This report also shows the total length of time that each agent was logged in. The Agent State Summary Report (by Agent) can show information for each 30-minute or 60-minute interval within the report period. In this case, the report will include a summary line for each agent that shows the length and percentage of time that the agent spent in each of the agent states during the report period.

The information in the Agent State Summary Report (by Agent) is grouped by agent. The Agent State Summary Report (by Interval) displays the same information grouped by interval. For more information, see the [“Agent State Summary Report \(by Interval\)” section on page 3-26](#).

The Agent State Summary Report (by Agent) can include this chart:

Chart Name	Description
Time Spent in Agent State by Agent	For each agent, displays the length of time spent in each agent state.

The Agent State Summary Report (by Agent) includes a table that shows the following information for each agent:

Field	Description
Agent Name (Agent_ID)	First name and last name of the agent. The string in parentheses displays the login ID of the agent.
Extension	The last active Unified CCX extension that the Unified CM assigned to the agent during the report period.
Interval Start Time, Interval End Time	Beginning date and time and ending date and time of each 30- or 60-minute interval within the report period, if you specify an interval with the Interval Length filter parameter. Otherwise, the beginning date and time and ending date and time of the report range.
Total Logged-in Time	Total time that the agent was logged in to the Unified CCX system during the interval.
Not Ready Time	Length and percentage of time that an agent spent in Not Ready state during the interval.
Ready Time	Length and percentage of time that an agent spent in Ready state during the interval.
Reserved Time	Length and percentage of time that an agent spent in Reserved state during the interval.
Talk Time	Length and percentage of time that an agent spent in Talk state during the interval.
Work Time	Length and percentage of time that an agent spent in Work state during the interval.
Summary	For each agent in the report range, total logged-in time, total and percentage not ready time, total and percentage ready time, total and percentage reserved time, total and percentage talk time, and total and percentage work time.
Grand Total	Total information for all agents during the report period. Includes total logged-in time, total and percentage not ready time, total and percentage ready time, total and percentage reserved time, total and percentage talk time, and total and percentage work time.

You can sort the Agent State Summary Report (by Agent) by this criterion:

Sort Criterion	Result
Agent Name	Displays the report in alphabetical order by the names of agents.

You can filter the Agent State Summary Report (by Agent) by any of these parameters:

Filter Parameter	Result
Interval Length	<p>Entire report range—Displays information from the report start time through the report end time, but does not display information for specific intervals within the report period.</p> <p>Thirty (30) minute intervals—Displays information for 30-minute intervals within the report period. The first interval begins at the report start time, the next interval begins 30 minutes after the report start time, and so on.</p> <p>Sixty (60) minute intervals—Displays information for 60-minute intervals within the report period. The first interval begins at the report start time, the next interval begins 60 minutes after the report start time, and so on.</p>
Resource Group Names	Displays information for agents who belong to the specified resource group or groups.
Agent Names	Displays information for the specified agents.
Skill Names	Displays information for agents who possess the specified skills.
Team Names	Displays information for agents who belong to the selected teams.

Agent State Summary Report (by Interval)

The Agent State Summary Report (by Interval) shows, for each agent specified, the length and percentage of time that the agent spent in each of the following agent states: Not Ready, Ready, Reserved, Talk, and Work. This report also shows the total length of time that each agent was logged in. The Agent State Summary Report (by Interval) can show information for each 30-minute or 60-minute interval within the report period. In this case, the report will include a summary line for each interval that shows the length and percentage of time that all agents spent in each of the agent states during the interval.

The information in the Agent State Summary Report (by Interval) is grouped by 30- or 60-minute intervals within the report period. The Agent State Summary Report (by Agent) displays the same information grouped by agent. For more information, see the [“Agent State Summary Report \(by Agent\)” section on page 3-24](#).

The Agent State Summary Report (by Interval) can include this chart:

Chart Name	Description
Time Spent in Agent State by Interval	For each time interval, displays the length of time spent in each agent state by all agents.

The Agent State Summary Report (by Interval) includes a table that shows the following information for each agent:

Field	Description
Interval Start Time, Interval End Time	Beginning date and time and ending date and time of each 30- or 60-minute interval within the report period, if you specify an interval with the Interval Length filter parameter. Otherwise, the beginning date and time and ending date and time of the report range
Agent Name	First name and last name of the agent.
Extension	The last active Unified CCX extension that the Unified CM assigned to the agent during the report period.
Total Logged-in Time	Total time that the agent was logged in to the Unified CCX system during the interval.
Not Ready Time	Length and percentage of time that an agent spent in Not Ready state.
Ready Time	Length and percentage of time that an agent spent in Ready state.
Reserved Time	Length and percentage of time that an agent spent in Reserved state.
Talk Time	Length and percentage of time that an agent spent in Talk state.
Work Time	Length and percentage of time that an agent spent in Work state.

Report Details

Field (continued)	Description (continued)
Summary	For all agents in each interval in the report range, total logged-in time, total and percentage not ready time, total and percentage ready time, total and percentage reserved time, total and percentage talk time, and total and percentage work time.
Grand Total	Total information for all agents and all intervals during the report period. Includes total logged-in time, total and percentage not ready time, total and percentage ready time, total and percentage reserved time, total and percentage talk time, and total and percentage work time.

You can sort the Agent State Summary (by Interval) by this criterion:

Sort Criterion	Result
Interval Start Time	Displays the report in order of the start times of the 30- or 60-minute intervals, if you specify an interval with the Interval Length filter parameter.

You can filter the Agent State Summary Report (by Interval) by any of these parameters:

Filter Parameter	Result
Interval Length	<p>Entire report range—Displays information from the report start time through the report end time, but does not display information for specific intervals within the report period.</p> <p>Thirty (30) minute intervals—Displays information for 30-minute intervals within the report period. The first interval begins at the report start time, the next interval begins 30 minutes after the report start time, and so on.</p> <p>Sixty (60) minute intervals—Displays information for 60-minute intervals within the report period. The first interval begins at the report start time, the next interval begins 60 minutes after the report start time, and so on.</p>
Resource Group Names	Displays information for agents that belong to the specified resource group or groups.
Agent Names	Displays information for the specified agents.

Filter Parameter	Result (continued)
Skill Names	Displays information for agents who possess the specified skills.
Team Names	Displays information for agents who belong to the selected teams.

Agent Summary Report

The Agent Summary Report contains a summary of the activities of agents, including call and agent state activities.



Note Average / max talk time, hold time etc. pertain only to Inbound ACD calls that are received by the agent.

The Agent Summary Report can include these charts:

Chart Name	Description
Call Handle Ratio by Agent	For each agent, displays the number of calls handled by the agent divided by the number of calls presented to that agent.
Total Calls Handled by Agent	For each agent, displays the total number of calls handled.
Average Talk Time, Hold Time, Work Time by Agent	For each agent, displays the average time spent in Talk state, on hold, and in Work state.

The Agent Summary Report includes a table that shows the following information for each agent:

Field	Description
Agent Name (Agent_ID)	First name and last name of the agent. The string in parentheses displays the login ID of the agent.
Extension	The last active Unified CCX extension that the Unified CM assigned to the agent during the report period.

Report Details

Field (continued)	Description (continued)
Average Logged-In Time	Total logged in time of the agent divided by the number of logged in sessions of the agent.
Calls Handled	<p>Number of calls connected to the agent.</p> <p>If the agent establishes a conference with another agent, this value increases by 1 for the conferenced agent.</p> <p>If the agent transfers a call and later receives the call back as a transfer, this value increases by 2.</p>
Calls Presented	<p>Number of calls sent to the agent, whether or not the agent picked up the call.</p> <p>If a call was 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).</p>
Handle Ratio	Number of calls that the agent handled divided by the number of calls presented to the agent.
Handle Time—Avg	Average handle time for all calls that the agent handled. Handle time is talk time + hold time + work time.
Handle Time—Max	Longest handle time of any one call that the agent handled. Handle time is talk time + hold time + work time.
Talk Time—Avg	Average talk time for all calls that the agent handled. Talk time is the elapsed time between the time that an agent connects to a call and when the call is disconnected or transferred, not including hold time.
Talk Time—Max	Longest talk time of any one call that the agent handled. Talk time is the elapsed time between the time that an agent connects to a call and when the call is disconnected or transferred, not including hold time.
Hold Time—Avg	Average total hold time for all calls that the agent handled.
Hold Time—Max	Longest total hold time of any one call that the agent handled.
Work Time—Avg	Average amount of time that an agent spent in Work state after calls.
Work Time—Max	Longest amount of time that an agent spent in Work state after any 1 call.
Idle Time—Avg	Average amount of time that an agent spent in Not Ready state.
Idle Time—Max	Longest single amount of time that an agent spent in Not Ready state.

You can sort the Agent Summary Report by any of these criteria:

Sort Criterion	Result
Agent Name	Displays the report in alphabetical order by the names of agents.
Avg Logged-In Time	Displays the report in order of the average time that agents were logged in to the system.
Total Calls Presented	Displays the report in order of the number of calls presented to agents.
Total Calls Handled	Displays the report in order of the number of calls handled by agents.

You can filter the Agent Summary Report by any of the following parameters. For the Top N and the Bottom N parameters, you specify the number (N) of agents that you want the report to show. For example, if you specify 3 for the Top N Calls Handled/Presented Ratio parameter, the report will show the three agents with the largest ratios. If more than n agents, where n is the number that you specify, have identical largest or smallest values, the report shows the first n agents in alphabetical order.

Filter Parameter	Result
Resource Group Names	Displays information for agents that belong to the specified resource group or groups.
Agent Names	Displays information for the specified agents.
Skill Names	Displays information for agents who possess the specified skills.
Team Names	Displays information for agents who belong to the selected teams.
Top N Calls Handled/Presented Ratio	Displays information for the n agents with the largest ratios of calls handled to calls presented.
Bottom N Calls Handled/Presented Ratio	Displays information for the n agents with the smallest ratios of calls handled to calls presented.
Top N Avg Hold Time	Displays information for the n agents with the longest average hold times.
Bottom N Avg Hold Time	Displays information for the n agents with the shortest average hold times.

Report Details

Filter Parameter	Result (continued)
Top N Avg Talk Time	Displays information for the n agents with the longest average talk times.
Bottom N Avg Talk Time	Displays information for the n agents with the shortest average talk times.
Top N Avg Work Time	Displays information for the n agents with the longest average work times.
Bottom N Avg Work Time	Displays information for the n agents with the shortest average work times.
Top N Avg Handle Time	Displays information for the n agents with the longest average handle times.
Bottom N Avg Handle Time	Displays information for the n agents with the shortest average handle times.

Agent Wrap-up Data Detail Report

The Agent Wrap-up Data Detail Report displays the details entered by an agent when entering the work state after attending an Automatic Contact Distribution (ACD) call. With the wrap-up data feature, an agent can choose to enter the work state to update data associated with that call. These reports provide information about both incoming ACD calls and preview outbound calls.

The Agent Wrap-up Data Detail Report can include these charts:

Chart Name	Description
Total Calls by Agent and Wrap-up data	Displays total number of called handled by each agent (account enquiry, new customer information, and VIP customer information) for each wrap-up data

The Agent Wrap-up Data Detail Report includes a table that shows the following information:

Field	Description
Agent Name (Agent_ID)	The name of the agent who handled the ACD call. The string in parantheses displays the login ID of the agent.
Extension	The ACD extension of the agent who handled the call.
NodeID-SessionID-SessionSeqNum	Node ID of the Unified CCX engine which processed the call. Session ID and session sequence number assigned to the call. Together, these three values uniquely identify an ACD call processed by the system.
Call Start Time	The time when the call is connected with the agent.
Call End Time	The time when the call is disconnected from the agent.
Call ANI	The phone number of the calling party.
Called Number	The number dialed by the calling party.
Call Routed CSQ (Skills)	The CSQ to which the call is routed and handled. A call can be queued to multiple CSQs. This particular CSQ also handled the call.
Talk Time	The time the agent spent in talking to the caller.
Hold Time	The time the agent spent in putting the caller on hold.
Work Time	The time the agent spent in after-call work state.
Wrap-Up Data	Textual description of the wrap-up data, as entered by the agent in work state.

You can sort the Agent Wrap-up Data Detail Report by this criterion:

Sort Criterion	Result
Agent Name	Displays the report in alphabetical order of agent names. Within the same agent, report data is sorted by call start time.

You can filter the Agent Wrap-up Data Detail Report by these parameters:

Filter Parameter	Result
Agent Name	Displays the selected agent(s) to be displayed in the report.
Resource Group Name	Displays agents who belong to the selected resource group(s).

Filter Parameter	Result
Skill Name	Displays agents with the selected skill(s). This filter parameter is independent of or not the same as the Call Routed CSQ (Skills) field.
Team Name	Displays agents who belong to the selected team(s).

Agent Wrap-up Data Summary Report

The Agent Wrap-up Data Summary Report shows detailed information of each wrap-up data. This report is available with the agent wrap-up feature.

The Agent Wrap-up Data Summary Report can include these charts:

Chart Name	Description
Total ACD Calls by Wrap-up Data	Displays the total number of calls handled by the agent for each wrap-up data.
Average Handle, Talk, Work Time by Wrap-up data	Displays the amount of time spent (handling the ACD call, talk time, and work time) by the agent for each wrap-up data.

The Agent Wrap-up Data Summary Report includes a table that shows the following information:

Field	Description
Wrap-Up Data	Textual description of the wrap-up data, as entered by the agent in work state.
Total ACD Calls	Total number of ACD calls to which this wrap-up data is associated.
Total Handle Time	Total handle time of the ACD calls to which this wrap-up data is associated. Handle time refers to the combined total of the talk, hold, and work times.
Average Handle Time	Total handle time divided by total ACD calls for this wrap-up data.
Max Handle Time	Maximum handle time of the ACD calls to which this wrap-up data is associated.
Total Talk Time	Total time that the agent spends talking to the caller.
Average Talk Time	Total talk time divided by total ACD calls for this wrap-up data.

Field (continued)	Description (continued)
Max Talk Time	Maximum time that the agent spends talking to the caller.
Total Talk Time as % of Total Handle Time	Total talk time divided by total handle time, for this wrap-up data. Converted to percentage format.
Total Work Time	Total time spent by agents in the work state for all the ACD calls to which this wrap-up data is associated.
Average Work Time	Total work time divided by total ACD calls for this wrap-up data.
Max Work Time	Maximum time spent by agents in the work state for all the ACD calls to which this wrap-up data is associated.
Total Work Time as % of Total Handle Time	Total work time divided by total handle time, for this wrap-up data. This total is then converted to percentage format.

You can sort the Agent Wrap-up Data Summary Report by this criterion:

Sort Criterion	Result
Wrap-Up Data	Displays the report in alphabetical order by wrap-up data text.
Total ACD Calls	Displays the report in ascending order of total number of ACD calls.
Total Handle Time	Displays the report in ascending order of total call handle time.
Average Handle Time	Displays the report in ascending order of average call handle time.
Total Talk Time	Displays the report in ascending order of total talk time.
Average Talk Time	Displays the report in ascending order of average talk time.
Total Work Time	Displays the report in ascending order of total work time.
Average Work Time	Displays the report in ascending order of average work time.

You can filter the Agent Wrap Data Summary Report by this parameter:

Filter Parameter	Result
Wrap-Up Data	Displays statistics of the selected wrap-up data.

Application Performance Analysis Report

The Application Performance Analysis Report shows information about calls presented to, handled by, and abandoned from each Unified CCX or Unified IP IVR application.

The Application Performance Analysis Report can include these charts:

Chart Name	Description
Calls Presented by Application	Displays the total number of calls that each application received.
Calls Handled vs. Calls Abandoned by Application	Displays the total number of calls handled by each application and total number of calls abandoned while in each application.
Average Call Duration by Application	Displays the average length of calls that each application received.

The Application Performance Analysis Report includes a table that shows the following information for each Unified CCX or Unified IP IVR application:

Field	Description
Application ID	Identification number that the Cisco Unified CCX system assigned to the application.
Application Name	Name of the Unified CCX or Unified IP IVR application.
Calls Presented ^a	Number of calls received by the application. This number is equal to the number of calls handled by the application + the number of calls abandoned while in the application.
Calls Handled ^a	Number of calls handled by the application. A call is handled when it reaches the workflow step that defines the call as handled, or when it is handled by an agent.
Calls Abandoned	Number of calls abandoned, aborted, or rejected while in the application. A call is abandoned if it does not reach the workflow step that defines the call as handled, or if the caller hangs up before the call is connected to an agent.

Field (continued)	Description (continued)
Abandon Rate (per hour)	Average number of calls abandoned in each hour while in the application.
Avg Call Duration	Average time that elapsed from the time that the call entered this workflow until the call exited this workflow by hanging up or entering another workflow.

- a. Calls Presented and Calls Handled include internal calls.

You can sort the Application Analysis Performance Report by any of these criteria:

Sort Criterion	Result
Application ID	Displays the report in order of the identification number that the system assigned to each application.
Calls Presented	Displays the report in order of the number of calls received by each application.
Call Abandon Rate	Displays the report in order of average number of calls abandoned per hour while in each application.

Application Summary Report

The Application Summary Report contains summary call statistics for each Unified CCX or Unified IP IVR application. It includes information for presented, handled, abandoned, flow-in, and flow-out calls. It also includes information about call talk time, work time, and abandon time.

The Application Summary Report can include this chart:

Chart Name	Description
Calls Presented by Application	Displays the number of calls received by each Unified CCX or Unified IP IVR application.

The Application Summary Report includes a table that shows the following information for each Unified CCX or Unified IP IVR application:

Field	Description
Application Name	Name of the Unified CCX or Unified IP IVR application.
Called Number	The telephone number dialed by the caller if the call was placed from a Cisco Unified Communications phone. The Unified CM directory number to which the VoIP gateway routed the call if the call was placed from outside the VoIP network (for example, from the PSTN or a TDM PBX).
Calls Presented ^a	Number of calls received by the application. This number is equal to the number of calls handled by the application + the number of calls abandoned while in the application.
Flow-In	Number of calls redirected to this application from another application via a workflow. Does not include calls that come from another agent or an external system such as a voice messaging system.
Flow-Out	Number of calls that this application sent to another application or external destination without being handled by an agent.
Calls Handled ^a	Number of calls handled by the application or by an agent. A call is handled by the application when it reaches the workflow step that defines the call as handled. A call is handled by an agent when the call is connected to and answered by an agent.
Avg Speed Answer	Calculated as queue time divided by number of calls. Calls that do not connect to an agent are not included in this calculation.
Avg Talk Time	Average talk time for all calls handled by an agent. Talk time is the elapsed time between the time that an agent connects to a call and when the call is disconnected or transferred, not including hold time. This value is calculated as total talk time divided by number of calls handled by the agent. Calls that do not connect to an agent are not included in this calculation.
Avg Work Time	For calls handled by an agent, the average amount of time that an agent spent in Work state after completing the calls. This value is calculated as total work time divided by number of calls handled by the agent. Calls that do not connect to an agent are not included in this calculation.

Field (continued)	Description (continued)
Calls Abandoned	Number of calls abandoned for this application. A call is abandoned if it does not reach the workflow step that defines the call as handled or if the caller terminates the call before an agent answers it. This value includes calls aborted or rejected by the system.
Avg Abandon Time	Average duration of calls before they were abandoned.

a. Calls Presented and Calls Handled include internal calls.

**Note**

Calls Presented and Calls Handled include internal calls.

You can sort the Application Summary Report by this criterion:

Sort Criterion	Result
Application Name	Displays the report in alphabetical order by the names of the applications.

You can filter the Application Summary Report by this parameter:

Filter Parameter	Result
Application Names	Displays information for the selected applications.

Call Custom Variables Report

The Call Custom Variables Report shows information about any custom variables set by the Set Session Info step in the workflow that the Unified CCX or Unified IP IVR application associated with this call.

The Call Custom Variables Report includes the following information:

Report Details

Field	Description
Node ID – Session ID – Sequence No.	Node ID is the unique numeric ID assigned by the system to each Unified CCX server in the cluster. It starts with number 1. Session ID is the unique session identification number assigned by the system to each call. Sequence No. is the session sequence number assigned by the system to each call leg. The session sequence number increases by 1 for each leg of a call.
Note A Node ID value of 0 indicates that the data in the report is migrated from Cisco CRS 3.x.	
Start Time, End Time	Date and time that the call started, and date and time that the call was disconnected, transferred, or redirected.
Contact Disposition	Disposition of a call (abandoned, handled, aborted, or rejected). For an Unified CCX call, a call is abandoned if the call disconnects before connecting to an agent. The call is handled when the call is connected to an agent. For an Unified IP IVR call, a call is abandoned if it does not reach the workflow step that defines the call as handled. The call is handled when it reaches this step. A call is aborted when problems occur in executing the workflow script (for example, the workflow script throws exceptions). A call is rejected when certain Unified CM or Cisco Unified CCX resources are not sufficient for accepting incoming calls (for example, an insufficient number of CTI ports).
Agent Name (Agent_ID)	For an Unified CCX call, the name of the agent who handled this call. The string in parantheses displays the login ID of the agent.
Application Name	Name of the Unified CCX or Unified IP IVR application associated with the route point.
Custom Variable 1	The contents of the variable _ccdrVar1, if this variable is set by the Set Session Info step in the workflow that the Unified CCX or Unified IP IVR application associated with this call or this leg invoked.
Custom Variable 2	The contents of the variable _ccdrVar2, if this variable is set by the Set Session Info step in the workflow that the Unified CCX or Unified IP IVR application associated with this call or this leg invoked.
Custom Variable 3	The contents of the variable _ccdrVar3, if this variable is set by the Set Session Info step in the workflow that the Unified CCX or Unified IP IVR application associated with this call or this leg invoked.

Field (continued)	Description (continued)
Custom Variable 4	The contents of the variable _ccdrVar4, if this variable is set by the Set Session Info step in the workflow that the Unified CCX or Unified IP IVR application associated with this call or this leg invoked.
Custom Variable 5	The contents of the variable _ccdrVar5, if this variable is set by the Set Session Info step in the workflow that the Unified CCX or Unified IP IVR application associated with this call or this leg invoked.
Custom Variable 6	The contents of the variable _ccdrVar6, if this variable is set by the Set Session Info step in the workflow that the Unified CCX or Unified IP IVR application associated with this call or this leg invoked.
Custom Variable 7	The contents of the variable _ccdrVar7, if this variable is set by the Set Session Info step in the workflow that the Unified CCX or Unified IP IVR application associated with this call or this leg invoked.
Custom Variable 8	The contents of the variable _ccdrVar8, if this variable is set by the Set Session Info step in the workflow that the Unified CCX or Unified IP IVR application associated with this call or this leg invoked.
Custom Variable 9	The contents of the variable _ccdrVar9, if this variable is set by the Set Session Info step in the workflow that the Unified CCX or Unified IP IVR application associated with this call or this leg invoked.
Custom Variable 10	The contents of the variable _ccdrVar10, if this variable is set by the Set Session Info step in the workflow that the Unified CCX or Unified IP IVR application associated with this call or this leg invoked.

You can sort the Call Custom Variables Report by either of these criteria:

Sort Criterion	Result
Node ID – Session ID – Sequence No.	Displays report in the order of Node ID, Session ID, and Sequence Number of the call.
Call Start Time	Displays the report in order of call start times.

Report Details

You can filter the Call Custom Variables Report by these parameters:

Filter Parameter	Result
Original Called Number	Displays information for the specified original called number or numbers
Called Number	Displays information for the specified called number or numbers.
Calling Number	Displays information for the specified calling number or numbers. Calling number is the same as Originator DN.
Application Name	Displays information for the specified application or applications.
Contact Type	Displays information for the specified contact type or types (incoming, outgoing, internal, redirect, transfer-in, or outbound preview).
Originator Type	Displays information for the specified originator type or types (agent, device, or unknown).
Destination Type	Displays information for the specified destination type or types (agent, device, or unknown).
Duration Greater Than or Equal to T seconds	Displays calls with duration greater than or equal to the number of seconds specified by T.
Duration Less Than or Equal to T seconds	Displays calls with duration less than or equal to the number of seconds specified by T.
Custom Variable 1	Enter a whole string or a substring for which to search. Separate multiple strings with commas. When this filter parameter is specified, the report displays calls for which Custom Variable 1 contains the string or any of the substrings entered.
Custom Variable 2	Enter a whole string or a substring for which to search. Separate multiple strings with commas. When this filter parameter is specified, the report displays calls for which Custom Variable 2 contains the string or any of the substrings entered.
Custom Variable 3	Enter a whole string or a substring for which to search. Separate multiple strings with commas. When this filter parameter is specified, the report displays calls for which Custom Variable 3 contains the string or any of the substrings entered.
Custom Variable 4	Enter a whole string or a substring for which to search. Separate multiple strings with commas. When this filter parameter is specified, the report displays calls for which Custom Variable 4 contains the string or any of the substrings entered.

Filter Parameter	Result (continued)
Custom Variable 5	Enter a whole string or a substring for which to search. Separate multiple strings with commas. When this filter parameter is specified, the report displays calls for which Custom Variable 5 contains the string or any of the substrings entered.
Custom Variable 6	Enter a whole string or a substring for which to search. Separate multiple strings with commas. When this filter parameter is specified, the report displays calls for which Custom Variable 6 contains the string or any of the substrings entered.
Custom Variable 7	Enter a whole string or a substring for which to search. Separate multiple strings with commas. When this filter parameter is specified, the report displays calls for which Custom Variable 7 contains the string or any of the substrings entered.
Custom Variable 8	Enter a whole string or a substring for which to search. Separate multiple strings with commas. When this filter parameter is specified, the report displays calls for which Custom Variable 8 contains the string or any of the substrings entered.
Custom Variable 9	Enter a whole string or a substring for which to search. Separate multiple strings with commas. When this filter parameter is specified, the report displays calls for which Custom Variable 9 contains the string or any of the substrings entered.
Custom Variable 10	Enter a whole string or a substring for which to search. Separate multiple strings with commas. When this filter parameter is specified, the report displays calls for which Custom Variable 10 contains the string or any of the substrings entered.
Any Custom Variable	Enter a whole string or a substring for which to search. Separate multiple strings with commas. When this filter parameter is specified, the report displays calls with any of the 10 custom variables containing the string or any of the substrings entered.

Called Number Summary Activity Report

The Called Number Summary Activity Report shows information about each number dialed by an inside or outside caller. This report includes information for calls to Unified CCX and Unified IP IVR applications and for calls to agents.

The Called Number Summary Activity Report can include these charts:

Chart Name	Description
Total Calls by Called Number	Displays the total number of calls to each number, including calls to applications and calls to agents.
Average Call Duration by Called Number	Displays the average time that each call lasted for each number dialed.

The Called Number Summary Activity Report includes a table that shows the following information for each number called:

Field	Description
Called Number	For a call to a Unified CCX or Unified IP IVR application, the route point number associated with the application. For a call to an agent, the extension of the destination agent.
Call Type	Call to an application or call to an agent.
Total Calls	Total number of calls to each number.
Avg Calls (per day)	Average number of calls per day.
Avg Call Duration	Average duration of calls to each number.

You can sort the Called Number Summary Activity Report by any of these criteria:

Sort Criterion	Result
Called Number	Displays the report in order of the number called. For calls to an application, this number is the route point number. For calls to an agent, this number is the extension of the agent.
Total Calls	Displays the report in order of the total number of calls that were originally dialed to each number.
Avg Call Duration	Displays the report in order of the average duration of calls to each number.

Common Skill Contact Service Queue Activity Report (by Interval)

The Common Skill Contact Service Queue Activity Report (by Interval) shows summary information about calls presented, calls handled, and calls abandoned for each group of CSQs. (Such a group consists of CSQs that are configured with the same skill or skills and with difference competence levels.)

This report is designed for customers who have logical CSQs configured. A logical CSQ is a group of CSQs configured with the same skill but with different competence levels. When a call comes in to a script that uses the “logical CSQ” approach, it first goes to the CSQ with the lowest skill level. If the wait time exceeds the predefined threshold, the call goes to the next higher skill level. So, the same incoming call can flow within the same group of CSQs.

The summary line in the report displays the summarized statistics for the logical CSQ which is the group of CSQs configured with common skills. The value on the Calls Presented summary line shows the maximum number of calls presented to all CSQs within the same group (logical CSQ) rather than the total number of calls presented to all CSQs within within the same group. Calculating the sum could result in counting the same call multiple times because the call could be presented to different CSQs within the same logical group. In normal scenario, maximum calls will be presented to the CSQ with the lowest skill level because the calls will be presented to other CSQs only if the CSQ with lowest skill does not handle the calls within the predefined wait time threshold. For Calls Handled, this report shows the total number of calls because one call can only be handled by one CSQ. For Calls Abandoned, this report shows the maximum number of all calls abandoned from all CSQs within the same group.

Report Details

This report can show information for each 30-minute or 60-minute interval within the report period. It is particularly useful for logical CSQs. If you do not have logical CSQs configured, consider using other CSQ reports (Contact Service Queue Activity Report, Contact Service Queue Activity Report by Interval/CSQ).

The Common Skill Contact Service Queue Activity Report (by Interval) can include this chart:

Chart Name	Description
Calls Handled and Calls Abandoned by Interval	Number of calls handled and abandoned during each interval during the report period.

The Common Skill Contact Service Queue Activity Report (by Interval) includes a table that shows the following information for calls presented, handled, and abandoned for each group of CSQs:

Field	Description
Interval Start Time, Interval End Time	Beginning date and time and ending date and time of each 30- or 60-minute interval within the report period, if you specify an interval with the Interval Length filter parameter. Otherwise, the beginning date and time and ending date and time of the report range.
CSQ Name [Skills (Competence Level)]	Name of the CSQ, the skill or skills configured for this CSQ, and the competence level of each skill.
Calls Presented—Total	Number of calls offered to each individual CSQ within the group, whether or not an agent answered the call.
Calls Presented—Queue Time Avg	Average queue time for all calls routed to the CSQ.
Calls Presented—Queue Time Max	Longest queue of all calls routed to the CSQ (abandoned, handled, aborted, or rejected).
Calls Handled—Total	Number of calls handled by this CSQ. A call is handled if a caller is connected to an agent while queued for this CSQ.
Calls Handled—Handle Time Avg	Average handle time for all calls that the CSQ handled. Handle time is talk time + hold time + work time.

Field (continued)	Description (continued)
Calls Handled— Handle Time Max	Longest handle time for any one call that the CSQ handled. Handle time is talk time + hold time + work time.
Calls Abandoned— Total	Number of calls routed to the CSQ but were not answered by an agent because the caller hung up or was disconnected.
Calls Abandoned— Queue Time Avg	Average time calls spent in queue before being abandoned.
Calls Abandoned— Queue Time Max	Maximum time any one call spent in queue before being abandoned.
Service Level— Percentage SL Met	Calculated as follows: (calls handled within service level / by calls presented) * 100%.
Summary for Skills	For each group of CSQs and each interval, total calls presented, calls handled, and calls abandoned.

You can sort the Common Skill Contact Service Queue Activity Report (by Interval) by this criterion:

Sort Criterion	Result
Interval Start Time	Displays the report in order of the start times of the 30- or 60-minute intervals, if you specify an interval with the Interval Length filter parameter.

Report Details

You can filter the Common Skill Contact Service Queue Activity Report (by Interval) by this parameter:

Filter Parameter	Result
Interval Length	<p>Entire report range—Displays information from the report start time through the report end time, but does not display information for specific intervals within the report period.</p> <p>Thirty (30) minute intervals—Displays information for 30-minute intervals within the report period. The first interval begins at the report start time, the next interval begins 30 minutes after the report start time, and so on.</p> <p>Sixty (60) minute intervals—Displays information for 60-minute intervals within the report period. The first interval begins at the report start time, the next interval begins 60 minutes after the report start time, and so on.</p>
CSQ Names	Displays information for the specified CSQs.

Contact Service Queue Activity Report

The Contact Service Queue Activity Report shows a summary of calls presented to, handled by, abandoned from, and dequeued from each CSQ. It also shows calls handled by workflows in other CSQs, and average and maximum time information for calls handled, calls abandoned, and calls dequeued.

The Contact Service Queue Activity Report can include these charts:

Chart Name	Description
Max Queue Time for Calls Presented by CSQ	For each CSQ, the call with the longest queue time.
Average Speed of Answer by CSQ	For each CSQ, the average speed of answer for calls handled.
Average Handle Time by CSQ	For each CSQ, the average handle time for calls handled.

Chart Name	Description (continued)
Average Time to Abandon by CSQ	For each CSQ, average time calls spent in queue before being abandoned.
Average Time to Dequeue by CSQ	For each CSQ, average time calls spent in queue before being dequeued.

The Contact Service Queue Activity Report includes a table that shows the following information for each CSQ:

Field	Description
CSQ Name (Call Skills)	Name of the CSQ and call skills associated with the CSQ, if the CSQ is configured based on resource skills. Multiple skills are separated by commas.
Calls Presented	Number of calls routed to the CSQ, whether or not an agent picked up the call.
Avg/Max Queue Time	Average queue time for all calls routed to the CSQ, and longest queue time of any one call that was routed to the CSQ.
Calls Handled	Number of calls handled by this CSQ. A call is handled if a caller is connected to an agent while queued for this CSQ.
Avg Speed of Answer	Calculated as follows: $\text{total queue time} / \text{calls handled}$
Avg /Max Handle Time	Average handle time for all calls that the CSQ handled, and longest handle time of any one call that the CSQ handled. Handle time is talk time + hold time + work time.
Calls Abandoned	Number of calls routed to the CSQ but were not answered by an agent because the caller hung up or was disconnected.
Avg/Max Time to Abandon	Average time calls spent in queue before being abandoned, and longest time any one call spent in queue before being abandoned.
Avg/Max Abandon Per Day	Average is the total number of calls abandoned divided by the number of days in the report period. Maximum is the largest number of calls abandoned on a single day in the report period.
Calls Dequeued	Number of calls queued for a CSQ and then dequeued by the Dequeue step in a workflow.

Report Details

Field (continued)	Description (continued)
Avg/ Max Time to Dequeue	Average time calls spent in queue before being dequeued, and longest time any one call spent in queue before being dequeued.
Calls Handled by Other	Total of the following calls: <ul style="list-style-type: none"> • Calls queued for the CSQ, then dequeued by the Dequeue step in a workflow, then marked as handled by the Set Contact Info step in the workflow. • Calls queued for more than 1 CSQ and then handled by another CSQ.

You can sort the Contact Service Queue Activity Report by any of these criteria:

Sort Criterion	Result
Contact Service Queue	Displays the report in order of the name of the CSQ.
Total Calls Presented	Displays the report in order of the number of calls routed to the CSQ, whether or not an agent picked up the call.
Total Calls Handled	Displays the report in order of the number of calls handled by the CSQ.
Total Calls Abandoned	Displays the report in order of the number of calls routed to the CSQ but were not answered because the caller hung up or was disconnected.

You can filter the Contact Service Queue Activity Report by this parameter:

Filter Parameter	Result
CSQ Names	Displays information for the specified CSQs.
CSQ Types	Includes these options: <ul style="list-style-type: none"> • Resource Group—Displays information for CSQs that are configured with the Resource Pool Selection Model set to Resource Group in Unified EIM Administration. • Skill Group—Displays information for CSQs that are configured with the Resource Pool Selection Model set to Resource Skills in Cisco Unified CCX Administration.

Contact Service Queue Activity Report (by CSQ)

The Contact Service Queue Activity Report (by CSQ) shows information about service levels, and about the number and percentage of calls presented, handled, abandoned, and dequeued. This report can show information for each 30-minute or 60-minute interval within the report period. In this case, the report will include a summary of information for each CSQ.

The information in the Contact Service Queue Activity Report (by CSQ) is grouped by CSQ. The Contact Service Queue Activity Report (by Interval) displays the same information grouped by interval. For more information, see the [“Contact Service Queue Activity Report \(by Interval\)” section on page 3-54](#).

The Contact Service Queue Activity Report (by CSQ) can include these charts:

Chart Name	Description
Calls Handled, Abandoned, and Dequeued by CSQ	<p>For each CSQ, displays the number of calls handled, abandoned, and dequeued. A call is considered to be handled when an agent picks up the call. A call is considered to be abandoned if the call disconnects before connecting to an agent. A call is considered to be dequeued from a particular CSQ in the following cases:</p> <ul style="list-style-type: none">• 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 1 CSQ and is handled by an agent in another CSQ.
Total Calls that Met Service Level by CSQ	<p>For each CSQ, displays the total number of calls handled and the number of calls handled within the time entered in the Service Level field when the CSQ was set up in Cisco Unified CCX Administration.</p>

Report Details

The Contact Service Queue Activity Report (by CSQ) includes a table that shows the following information for each CSQ:

Field	Description
CSQ Name (ID) (Call Skills)	Name of the CSQ with a unique identification number in parentheses, and call skills associated with the CSQ, if the CSQ is configured based on resource skills. Multiple skills are separated by commas.
Interval Start Time, Interval End Time	Beginning date and time and ending date and time of each 30- or 60-minute interval within the report period, if you specify an interval with the Interval Length filter parameter. Otherwise, the beginning date and time and ending date and time of the report range.
Service Level (sec)	Value entered in the Service Level field when the CSQ was set up in Cisco Unified CCX Administration. If the service level changed during the report period, the report shows the old and new service level values.
Calls Hand < SL	Number of calls handled within the time shown in the Service Level field. A call is considered to be handled when an agent picks up the call.
Calls Aband < SL	Number of calls abandoned within the time shown in the Service Level field. A call is considered to be abandoned if the call disconnects before connecting to an agent.
Percentage of Service Level Met— Only Handled	Percentage of handled calls handled within the time shown in the Service Level field. A call is considered to be handled when an agent picks up the call. This value is calculated as follows: $(\text{Number of calls handled within service level} / \text{Number of calls handled}) * 100\%$
Percentage of Service Level Met— Without Abandon	Percentage of presented calls, not counting abandoned calls, handled within the time shown in the Service Level field. This value is calculated as follows: $(\text{Number of calls handled within service level} / (\text{Number of calls presented} - \text{Number of calls abandoned within service level})) * 100\%$
Percentage of Service Level Met— Positive Abandon	Percentage of presented calls handled or abandoned within the time shown in the Service Level field. For this value, calls abandoned within the time shown in the Service Level field are considered to have met that service level. This value is calculated as follows: $((\text{Number of calls handled within service level} + \text{Number of calls abandoned within service level}) / \text{Number of calls presented}) * 100\%$

Field (continued)	Description (continued)
Percentage of Service Level Met—Negative Abandon	<p>Percentage of presented calls handled within the time shown in the Service Level field. For this value, calls abandoned within the time shown in the Service Level field are considered to have not met that service level. This value is calculated as follows:</p> $(\text{Number of calls handled within service level} / \text{Number of calls presented}) * 100\%$
Calls Presented	Number of calls routed to the CSQ, whether or not an agent picked up the call.
Calls Handled	<p>Number and percentage of calls handled by the CSQ. A call is considered to be handled when an agent picks up the call. The percentage is calculated as follows:</p> $(\text{number of calls handled}) / (\text{number of calls presented}) * 100\%$
Calls Abandoned	<p>Number and percentage of calls routed to the CSQ but were not answered by an agent because the caller hung up or was disconnected. The percentage is calculated as follows:</p> $(\text{Number of calls abandoned} / \text{Number of calls presented}) * 100\%$
Calls Dequeued	<p>Number and percentage of calls dequeued. A call is considered to be dequeued from a particular CSQ in the following cases:</p> <ul style="list-style-type: none"> • 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 1 CSQ and is handled by an agent in another CSQ. <p>The percentage is calculated as follows:</p> $(\text{Number of calls dequeued} / \text{Number of calls presented}) * 100\%$

You can sort the Contact Service Queue Activity Report (by CSQ) by this criterion:

Sort Criterion	Result
CSQ Name	Displays the report in alphabetical order by the names of CSQs.

You can filter the Contact Service Queue Activity Report (by CSQ) by any of these parameters:

Filter Parameter	Result
Interval Length	<p>Entire report range—Displays information from the report start time through the report end time, but does not display information for specific intervals within the report period.</p> <p>Thirty (30) minute intervals—Displays information for 30-minute intervals within the report period. The first interval begins at the report start time, the next interval begins 30 minutes after the report start time, and so on.</p> <p>Sixty (60) minute intervals—Displays information for 60-minute intervals within the report period. The first interval begins at the report start time, the next interval begins 60 minutes after the report start time, and so on.</p>
CSQ Names	Displays information for the CSQs selected.

Contact Service Queue Activity Report (by Interval)

The Contact Service Queue Activity Report (by Interval) shows information about service levels, and about the number and percentage of calls presented, handled, abandoned, and dequeued. This report can show information for each 30-minute or 60-minute interval within the report period. In this case, the report will include a summary of information for each interval.

The information in the Contact Service Queue Activity Report (by Interval) is grouped by interval. The Contact Service Queue Activity Report (by CSQ) displays the same information grouped by CSQ. For more information, see the [“Contact Service Queue Activity Report \(by CSQ\)” section on page 3-51](#).

The Contact Service Queue Activity Report (by Interval) can include these charts:

Chart Name	Description
Calls Handled, Abandoned, and Dequeued by Interval	<p>For each time interval, displays the number of calls handled, abandoned, and dequeued. A call is considered to be handled when an agent picks up the call. A call is considered to be abandoned if the call disconnects before connecting to an agent. A call is considered to be dequeued from a particular CSQ in the following cases:</p> <ul style="list-style-type: none">• 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 1 CSQ and is handled by an agent in another CSQ.
Total Calls that Met Service Level by Interval	<p>For each time interval, displays the total number of calls handled and the number of calls handled within the time entered in the Service Level field when the CSQ was set up in Cisco Unified CCX Administration.</p>

The Contact Service Queue Activity Report (by Interval) includes a table that shows the following information for each CSQ:

Field	Description
Interval Start Time, Interval End Time	<p>Beginning date and time and ending date and time of each 30- or 60-minute interval within the report period, if you specify an interval with the Interval Length filter parameter. Otherwise, the beginning date and time and ending date and time of the report range.</p>
CSQ Name (ID) (Call Skills)	<p>Name of the CSQ with a unique identification number in parentheses, and call skills associated with the CSQ, if the CSQ is configured based on resource skills. Multiple skills are separated by commas.</p>
Service Level (sec)	<p>Value entered in the Service Level field when the CSQ was set up in Cisco Unified CCX Administration. If the service level changed during the report period, the report shows the old and new service level values.</p>
Calls Hand < SL	<p>Number of calls handled within the time shown in the Service Level field. A call is considered to be handled when an agent picks up the call.</p>

Report Details

Field (continued)	Description (continued)
Calls Aband < SL	Number of calls abandoned within the time shown in the Service Level field. A call is considered to be abandoned if the call disconnects before connecting to an agent.
Percentage of Service Level Met—Only Handled	Percentage of handled calls handled within the time shown in the Service Level field. A call is considered to be handled when an agent picks up the call. This value is calculated as follows: $(\text{Number of calls handled within service level} / \text{Number of calls handled}) * 100\%$
Percentage of Service Level Met—Without Abandon	Percentage of presented calls, not counting abandoned calls, handled within the time shown in the Service Level field. This value is calculated as follows: $(\text{Number of calls handled within service level} / (\text{Number of calls presented} - \text{Number of calls abandoned within service level})) * 100\%$
Percentage of Service Level Met—Positive Abandon	Percentage of presented calls handled or abandoned within the time shown in the Service Level field. For this value, calls abandoned within the time shown in the Service Level field are considered to have met that service level. This value is calculated as follows: $((\text{Number of calls handled within service level} + \text{Number of calls abandoned within service level}) / \text{Number of calls presented}) * 100\%$
Percentage of Service Level Met—Negative Abandon	Percentage of presented calls handled within the time shown in the Service Level field. For this value, calls abandoned within the time shown in the Service Level field are considered to have not met that service level. This value is calculated as follows: $(\text{Number of calls handled within service level} / \text{Number of calls presented}) * 100\%$
Calls Presented	Number of calls routed to the CSQ, whether or not an agent picked up the call.
Calls Handled	Number and percentage of calls handled by the CSQ. A call is considered to be handled when an agent picks up the call. The percentage is calculated as follows: $(\text{number of calls handled}) / (\text{number of calls presented}) * 100\%$

Field (continued)	Description (continued)
Calls Abandoned	Number and percentage of calls routed to the CSQ but were not answered by an agent because the caller hung up or was disconnected. The percentage is calculated as follows: $(\text{Number of calls abandoned} / \text{Number of calls presented}) * 100\%$
Calls Dequeued	Number and percentage of calls dequeued. A call is considered to be dequeued from a particular CSQ the following cases: <ul style="list-style-type: none">• 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 1 CSQ and is handled by an agent in another CSQ. The percentage is calculated as follows: $(\text{Number of calls dequeued} / \text{Number of calls presented}) * 100\%$

You can sort the Contact Service Queue Activity Report (by Interval) by this criterion:

Sort Criterion	Result
Interval Start Time	Displays the report in order of the start times of the 30- or 60-minute intervals, if you specify an interval with the Interval Length filter parameter.

Report Details

You can filter the Contact Service Queue Activity Report (by Interval) by any of these parameters:

Filter Parameter	Result
Interval Length	<p>Entire report range—Displays information from the report start time through the report end time, but does not display information for specific intervals within the report period.</p> <p>Thirty (30) minute intervals—Displays information for 30-minute intervals within the report period. The first interval begins at the report start time, the next interval begins 30 minutes after the report start time, and so on.</p> <p>Sixty (60) minute intervals—Displays information for 60-minute intervals within the report period. The first interval begins at the report start time, the next interval begins 60 minutes after the report start time, and so on.</p>
CSQ Names	Displays information for the CSQs selected.

Contact Service Queue Call Distribution Summary Report

The Contact Service Queue Call Distribution Summary Report shows the number and percentage of calls handled and dequeued in four different time intervals. The time interval lengths can be configured by users.

The Contact Service Queue Call Distribution Summary Report can include these charts:

Chart Name	Description
Total Calls Handled by Time Interval and CSQ	For each CSQ, displays the total number of calls handled in each time interval.
Total Calls Abandoned by Time Interval and CSQ	For each CSQ, displays the total number of calls abandoned in each time interval.

The Contact Service Queue Call Distribution Summary Report includes a table that shows the following information for each CSQ:

Field	Description
CSQ Name (ID) (Call Skills)	Name of the CSQ with a unique identification number in parentheses, and the call skills associated with the CSQ, if the CSQ is configured based on resource skills. Multiple skills are separated by commas.
Calls Handled	Number of calls handled by the CSQ. A call is considered to be handled when an agent picks up the call.
Total / Percentage Calls Handled With Queue Time 0– T sec	Time interval showing the number and percentage of handled calls with a queue time that is less than or equal to T seconds. You can specify the value for T in the Filter Parameter field in the Report Detail area. The default value for T is 15 seconds, and in this case, this field shows as 0–15 seconds.
Total / Percentage Calls Handled With Queue Time 0– $2T$ sec	Time interval showing the number and percentage of handled calls with a queue time that is less than or equal to $2T$ seconds. You can specify the value for T in the Filter Parameter field in the Report Detail area. The default value for T is 15 seconds, and in this case, this field shows as 0 – 30 seconds.
Total / Percentage Calls Handled With Queue Time 0– $3T$ sec	Time interval showing the number and percentage of handled calls with a queue time that is less than or equal to $3T$ seconds. You can specify the value for T in the Filter Parameter field in the Report Detail area. The default value for T is 15 seconds, and in this case, this field shows as 0 – 45 seconds.
Total / Percentage Calls Handled With Queue Time 0– $4T$ sec	Time interval showing the number and percentage of handled calls with a queue time that is less than or equal to $4T$ seconds. You can specify the value for T in the Filter Parameter field in the Report Detail area. The default value for T is 15 seconds, and in this case, this field shows as 0 – 60 seconds.
Calls Abandoned	Number of calls abandoned from the CSQ. A call is considered to be abandoned if it was routed to the CSQ but was not answered by an agent because the caller hung up or was disconnected.
Total / Percentage Calls Abandoned With Queue Time 0– T	Time interval showing the number and percentage of abandoned calls with a queue time that is less than or equal to T seconds. You can specify the value for T in the Filter Parameter field in the Report Detail area. The default value for T is 15 seconds, and in this case, this field shows as 0–15 seconds.
Total / Percentage Calls Abandoned With Queue Time 0– $2T$ sec	Time interval showing the number and percentage of abandoned calls with a queue time that is less than or equal to $2T$ seconds. You can specify the value for T in the Filter Parameter field in the Report Detail area. The default value for T is 15 seconds, and in this case, this field shows as 0 – 30 seconds.

Report Details

Field (continued)	Description (continued)
Total / Percentage Calls Abandoned With Queue Time 0– $3T$ sec	Time interval showing the number and percentage of abandoned calls with a queue time that is less than or equal to $3T$ seconds. You can specify the value for T in the Filter Parameter field in the Report Detail area. The default value for T is 15 seconds, and in this case, this field shows as 0 – 45 seconds.
Total / Percentage Calls Abandoned With Queue Time 0– $4T$ sec	Time interval showing the number and percentage of abandoned calls with a queue time that is less than or equal to $4T$ seconds. You can specify the value for T in the Filter Parameter field in the Report Detail area. The default value for T is 15 seconds, and in this case, this field shows as 0 – 60 seconds.

You can sort the Contact Service Queue Call Distribution Summary Report by this criterion:

Sort Criterion	Result
Contact Service Queue	Displays the report in order of the names of CSQs.

You can filter the Contact Service Queue Call Distribution Summary Report by either of these parameters:

Filter Parameter	Result
Contact Service Queue Names	Displays information for the specified CSQs.
Time Interval (sec) T	Lets you specify the number of seconds, T , that the report uses for the 4 time interval fields. The default value for T is 15 (seconds).

Contact Service Queue Priority Summary Report

The Contact Service Queue Priority Summary Report shows the total number of calls presented to each CSQ selected. It also shows the total number of calls by priority and the average number of calls per day, by priority, that were presented to each CSQ.

The Contact Service Queue Priority Summary Report can include this chart:

Chart Name	Description
Total Calls Presented by CSQ and Call Priority	For each CSQ, displays the number of calls of each call priority presented to the CSQ.

The Contact Service Queue Priority Summary Report includes a table that shows the following information for each CSQ:

Field	Description
CSQ Name (ID) (Call Skills)	Name of the CSQ with a unique identification number in parentheses, and the call skills associated with the CSQ, if the CSQ is configured based on resource skills. Multiple skills are separated by commas.
Total Calls Presented	Total number of calls presented to the CSQ, whether or not an agent picked up the call.
Total and Average Number of Calls by Priority (Priority 1 through Priority 10)	Total number of calls, by priority, presented to each CSQ, and the average number of calls per day, by priority, presented to each CSQ. Call priorities range from 1 (lowest) to 10 (highest). All calls start with a default priority of 1, unless a different priority is set in the workflow.

You can sort the Contact Service Queue Priority Summary Report by this criterion:

Sort Criterion	Result
Contact Service Queue Name	Displays the report in order of the name of the CSQs.

Report Details

You can filter the Contact Service Queue Priority Summary Report by this parameter:

Filter Parameter	Result
Contact Service Queue Name	Displays information for the specified CSQs.

Contact Service Queue Service Level Priority Summary Report

The Contact Service Queue Service Level Priority Summary Report contains information about the total number and percentage of calls that are handled within service level, and the number and percentage of calls that are handled within service level for each call priority. Call priorities range from 1 (lowest) to 10 (highest).

The Contact Service Queue Service Level Priority Summary Report can include these charts:

Chart Name	Description
Total Calls that Met Service Level	For each CSQ, displays the total number of calls that are handled within service level.
Percentage of Calls that Met Service Level	For each CSQ, displays the percentage of calls that are handled within service level.

The Contact Service Queue Service Level Priority Summary Report includes a table that shows the following information:

Field	Description
CSQ Name (ID) (Call Skills)	Name of the CSQ with a unique identification number in parentheses, and the call skills associated with the CSQ, if the CSQ is configured based on resource skills. Multiple skills are separated by commas.
Service Level (sec)	Value entered in the Service Level field when the CSQ was set up in Cisco Unified CCX Administration. If the service level changed during the report period, the report shows the old and new service level values.
Calls Presented	Number of calls routed to the CSQ, whether or not an agent picked up the call.
Total Service Level Met	Number and percentage of handled calls answered within the time shown in the Service Level field in Cisco Unified CCX Administration. The percentage is calculated as follows: (calls handled within service level / calls presented) *100%
Number and Percentage of Calls that Met Service Level for Each Call Priority (Priority 1 through Priority 10)	Number and percentage of handled calls in each call priority answered within the time shown in the Service Level field in Cisco Unified CCX Administration. Call priorities range from 1 (lowest) to 10 (highest). All calls start with a default priority of 1, unless a different priority is set in the workflow.

You can sort the Contact Service Queue Service Level Priority Summary Report by this criterion:

Sort Criterion	Result
Contact Service Queue Name	Displays the report in order of the name of the contact service queues.

You can filter the Contact Service Queue Service Level Priority Summary Report by this parameter:

Report Details

Filter Parameter	Result
Contact Service Queue Name	Displays information for the specified CSQs.

CSQ–Agent Summary Report

An agent can handle calls for multiple CSQs. The CSQ–Agent Summary Report shows, for each agent, information about calls handled in each CSQ. For each agent, the report includes the average and total talk time for handled calls, average and total work time after calls, total ring time of calls presented, number of calls put on hold, average and total hold time for calls put on hold, and number of unanswered calls.

The CSQ–Agent Summary Report can include this chart:

Chart Name	Description
Calls Handled by CSQ and Agent	For each CSQ, displays the number of calls handled by each agent.

The CSQ–Agent Summary Report includes a table that shows the following information:

Field	Description
CSQ Name (ID)	Name of the CSQ with a unique identification number in parentheses.
Agent Name (Agent_ID)	First name and last name of the agent who handled calls for this CSQ during the report period. The string in parentheses displays the login ID of the agent.
Extension	Unified CCX extension that Unified CM assigned to the agent.
Calls Handled	Number of calls that were queued for this CSQ and answered by this agent during the report period.
Talk Time Avg	Average talk time for all calls that this agent handled for this CSQ. Talk time is the elapsed time between the time that an agent answers a call and when the call is disconnected or transferred, not including hold time. The average is calculated as total talk time divided by the number of calls handled.
Talk Time Total	Total talk time for all calls that this agent handled for this CSQ. Talk time is the elapsed time between the time that an agent answers a call and when the call is disconnected or transferred, not including hold time.
Work Time Avg	Average amount of time that an agent spent in Work state after calls. The average is calculated as total work time divided by the number of calls handled.
Work Time Total	Total amount of time that an agent spent in Work state after calls.

Report Details

Field (continued)	Description (continued)
Total Ring Time	Time that elapsed between the time that a call rang at the Cisco Agent Desktop and the time that the call was answered by an agent, presented to another agent (if the first agent did not answer the call or let it go ring-no-answer), or disconnected. This field is blank if the call was not presented to any agent.
Calls On Hold	Number of calls that the agent puts on hold.
Hold Time Avg	Average hold time for all calls that the agent put on hold. The average is calculated as total hold time divided by number of calls on hold. Not applicable to non-Unified CCX calls.
Hold Time Total	Total time that the call was on hold. Not applicable to non-Unified CCX calls. This field is blank if there are no calls on hold for the combination of CSQ and Agent.
RNA	Ring-no-answer—number of calls that were connected to the agent but that the agent does not answer.

You can sort the CSQ–Agent Summary Report by either of these criteria:

Sort Criterion	Result
CSQ Name	Displays the report in alphabetical order of the name of CSQs.
Agent Name	Displays the report in alphabetical order by the names of agents.

You can filter the CSQ–Agent Summary Report by this parameter:

Filter Parameter	Result
CSQ Names	Displays information for the specified CSQs.

Detailed Call by Call CCDR Report

The Detailed Call by Call CCDR Report shows most of the information that is contained in the contact call detail record (CCDR), which is stored in the Cisco Unified CCX database. This report also includes information from the contact routing detail record and the agent connection detail record. The information in this report is for each leg of a call. (A call transfer or redirect initiates a new leg.)

The Detailed Call by Call CCDR Report can include these charts:

Chart Name	Description
Number of Calls by Contact Disposition	Displays the percentage of calls that were handled, abandoned, aborted, and rejected, and percentage of calls that were abandoned, aborted, and rejected.
Number of Calls by Originator Type	Displays the percentage of calls that were originated by an agent, percentage of calls that were originated by a device (for example, a test call), and percentage of calls with an unknown origin (for example, calls received through a gateway).

The Detailed Call by Call CCDR Report includes a table that shows the following information:

Field	Description
Node ID – Session ID – Sequence No.	Node ID is the unique numeric ID that the system assigned to each Unified CCX server in the cluster. It starts with number 1. (A Node ID value of 0 indicates that the data in the report is migrated from Cisco CRS 3.x.) Session ID is the unique session identification number that the system assigned to a call. Sequence No. is the session sequence number that the system assigned to each call leg. The session sequence number increases by 1 for each leg of a call.
Start Time, End Time	Date and time that a call started, and date and time that the call was disconnected or transferred.

Field (continued)	Description (continued)
Contact Type	<p>Type of call:</p> <p>1—Incoming. Outside call received by the Unified CCX Edition system.</p> <p>2—Outgoing. Call originated by the Cisco Unified CCX system, other than a call made within the system.</p> <p>3—Internal. Call transferred or conferenced between agents, or a call made within the system.</p> <p>4—Redirect. A previous leg redirected the call to this leg.</p> <p>5—Transfer-in. A previous leg transferred the call to this leg.</p> <p>6—Outbound Preview.</p>
Contact Disposition	<p>Disposition of a call (abandoned, handled, aborted, or rejected).</p> <p>For an Unified CCX call, a call is abandoned if the call disconnects before connecting to an agent. The call is handled when the call is connected to an agent.</p> <p>For an Unified IP IVR call, a call is abandoned if it does not reach the workflow step that defines the call as handled. The call is handled when it reaches this step.</p> <p>A call is aborted when problems occur in executing the workflow script (for example, the workflow script throws exceptions).</p> <p>A call is rejected when certain Unified CM or Cisco Unified CCX resources are not sufficient for accepting incoming calls (for example, an insufficient number of CTI ports).</p>
Originator Type	<p>Originator of the call:</p> <p>1—Agent. Call originated by an agent.</p> <p>2—Device. Call originated by a simulated caller (Used for testing) and an agent phone where the agent is not currently logged in.</p> <p>3—Unknown. Call originated by an outside caller through a gateway or by an unmonitored device.</p>
Originator ID	Login identification of the agent who originated the call. Used only if Originator Type is 1.

Field (continued)	Description (continued)
Contact Type	<p>Type of call:</p> <p>1—Incoming. Outside call received by the Unified CCX Edition system.</p> <p>2—Outgoing. Call originated by the Cisco Unified CCX system, other than a call made within the system.</p> <p>3—Internal. Call transferred or conferenced between agents, or a call made within the system.</p> <p>4—Redirect. A previous leg redirected the call to this leg.</p> <p>5—Transfer-in. A previous leg transferred the call to this leg.</p> <p>6—Outbound Preview.</p>
Contact Disposition	<p>Disposition of a call (abandoned, handled, aborted, or rejected).</p> <p>For an Unified CCX call, a call is abandoned if the call disconnects before connecting to an agent. The call is handled when the call is connected to an agent.</p> <p>For an Unified IP IVR call, a call is abandoned if it does not reach the workflow step that defines the call as handled. The call is handled when it reaches this step.</p> <p>A call is aborted when problems occur in executing the workflow script (for example, the workflow script throws exceptions).</p> <p>A call is rejected when certain Unified CM or Cisco Unified CCX resources are not sufficient for accepting incoming calls (for example, an insufficient number of CTI ports).</p>
Originator Type	<p>Originator of the call:</p> <p>1—Agent. Call originated by an agent.</p> <p>2—Device. Call originated by a simulated caller (Used for testing) and an agent phone where the agent is not currently logged in.</p> <p>3—Unknown. Call originated by an outside caller through a gateway or by an unmonitored device.</p>
Originator ID	Login identification of the agent who originated the call. Used only if Originator Type is 1.

Report Details

Field (continued)	Description (continued)
Originator DN ^a	If Originator Type is 1, this field shows the Unified CCX extension of the agent. If Originator Type is 2, this field shows the CTI ^b port number. If Originator Type is 3, this field shows the telephone number of the caller.
Destination Type	Destination of the call: 1—Agent. Call presented to an agent. 2—Device. Call presented to a route point. 3—Unknown. Call presented to an outside destination through a gateway or to an unmonitored device.
Destination ID	Login identification of the agent who received the call. Used only if Destination Type is 1.
Destination DN	If Destination Type is 1, this field shows the Unified CCX extension of the agent or the non-IPCC extension of the agent (if the call was received by the non-IPCC extension). If Destination Type is 2, this field shows the CTI port number. If Destination Type is 3, this field shows the telephone number called.
Called Number	If the call was a transfer, the number that the call was transferred to. In other cases, this information is the same as the Original Called Number.
Original Called No.	Number originally dialed by the caller. Can be either a route point number or an agent extension.
Application Name	Name of the Unified CCX or Unified IP IVR application associated with the route point.
Queue Time	For calls that were queued for the CSQ, time that elapsed between the time a call entered the CSQ and the time the call was answered by an agent or disconnected. 0 for other calls.
Talk Time	For calls that were connected to agents, elapsed time between the time that an agent answered the call and when the call was disconnected or transferred, not including hold time. 0 for other calls.
Hold Time	For calls that were connected to agents, elapsed time between the time that an agent first put the call on hold and when the agent last took the call off of hold, not including talk time. Blank for other calls.
Work Time	For calls that were connected to agents, amount of time that an agent spent in Work state after the call. Blank for other calls.

a. DN = directory number

b. CTI = computer telephony interface

You can sort the Detailed Call by Call CCDR Report by any of these criteria:

Sort Criterion	Result
Node ID – Session ID – Sequence No.	Displays the report in the order sorted by node ID, session ID, and sequence number.
Call Start Time	Displays the report in order of the date and time that the call started.
Called Number	Displays the report with ordering grouped by original called number.

You can filter the Detailed Call by Call CCDR Report by any of these parameters:

Filter Parameter	Result
Original Called Number	Displays information for the specified original called number or numbers.
Called Number	Displays information for the specified called number or numbers.
Calling Number	Displays information for the specified calling number or numbers. Calling number is the same as Originator DN.
Application Name	Displays information for the specified application or applications.
Contact Type	Displays information for the specified contact type or types (incoming, outgoing, internal, redirect, transfer-in, or outbound preview).
Originator Type	Displays information for the specified originator type or types (agent, device, or unknown).
Destination Type	Displays information for the specified destination type or types (agent, device, or unknown).
Duration Greater Than or Equal to T seconds	Displays calls with duration greater than or equal to the number of seconds specified by T.
Duration Less Than or Equal to T seconds	Displays calls with duration less than or equal to the number of seconds specified by T.

Detailed Call, CSQ, Agent Report

The Detailed Call, CSQ, Agent Report shows detailed call information about the CSQ that a call was routed to and the agent that handled the call.

The Detailed Call, CSQ, Agent Report can include this chart:

Chart Name	Description
Total Calls by Called Number	Displays the total number of calls to each called number.

The Detailed Call, CSQ, Agent Report includes a table that shows the following information:

Field	Description
Node ID – Session ID – Sequence No.	Node ID is the unique numeric ID that the system assigned to each Unified CCX server in the cluster. It starts with number 1. (A Node ID value of 0 indicates that the data in the report is migrated from Cisco CRS 3.x.) Session ID is the unique session identification number that the system assigned to a call. Sequence No. is the session sequence number that the system assigned to each call leg. The session sequence number increases by one for each leg of a call.
Call Start Time Call End Time	Date and time that the call started, and date and time that the call was disconnected or transferred.
Contact Disposition	Numeral indicating the disposition of a call as follows: 1—Abandoned. An IVR call is abandoned if it does not reach the workflow step that defines the call as handled. 2—Handled. An Unified CCX call is handled when it is connected to an agent. An Unified IP IVR call is handled if it reaches the workflow step that defines the call as handled. 4—Aborted. An exception occurs in the workflow that processed the call. 5 and higher—Rejected. System resources reached maximum capacity (for example, the maximum number of CTI ports was reached).

Field (continued)	Description (continued)
Originator DN (Calling Number)	Originator directory number. This number is the same as the calling number. If originator type is agent, this field shows the Unified CCX extension of the agent. If the call was attended at the non-IPCC extension, then the non-IPCC extension is displayed. If the call was made from a non-IPCC extension, then the non-IPCC extension is displayed. If originator type is device, this field shows the CTI port number. If originator type is unknown (through a gateway or an unmonitored device), this field shows the telephone number of the caller.
Destination DN	Destination directory number. If destination type is agent, this field shows the Unified CCX extension of the agent. If destination type is device, this field shows the CTI port number. If destination type is unknown (through a gateway or an unmonitored device), this field shows the telephone number called.
Called Number	If the call was transferred, this field shows the number that the call was transferred to. Otherwise, this field shows the number originally dialed by the caller. This number can be either a route point number or an agent extension.
(App. Name)	Name of the Unified CCX or Unified IP IVR application associated with the route point.
CSQ Name	Name or names of the CSQ or queues for which the call was queued. This field displays a maximum of five CSQs separated by commas. The CSQ that handled the call is marked with an asterisk (*) and appears at the beginning of the list. This field is blank if the call did not queue for any CSQ.
Queue Time	Time that elapsed between the time a call entered the CSQ and the time the call was answered by any agent belonging to the CSQ.
Agent Name	Name of the agent who handled the call, name of the agent who participated in the conference call, or name of the supervisor who barged the call. This field is blank if the call was not presented to any agent.
Ring Time	Time that elapsed between the time that a call rang at the Cisco Agent Desktop and the time that the call was answered by an agent, presented to another agent (if the first agent did not answer the call or let it go ring-no-answer), or disconnected. This field is blank if the call was not presented to any agent.
Talk Time	Time that elapsed between the time that an agent answered the call and when the call was disconnected or transferred, not including hold time.
Work Time	Amount of time that an agent spent in Work state after the call. This field is blank if the call was not handled by any agent.

Report Details

You can sort the Detailed Call, CSQ, Agent Report by any of these criteria:

Sort Criterion	Result
Node ID – Session ID – Sequence No.	Displays the report in the order sorted by node ID, session ID, and sequence number.
Call Start Time	Displays the report in order of the date and time that the call started.
Called Number	Displays the report in order of the number called.

You can filter the Detailed Call, CSQ, Agent Report by any of these parameters:

Filter Parameter	Result
Called Number	Displays information for the specified called number or numbers.
Calling Number	Displays information for the specified calling number or numbers. Calling number is the same as Originator DN.
Application Name	Displays information for the specified application name or names.
Contact Type	Displays information for the specified contact type or types: incoming, outgoing, internal, redirect, transfer-in, or outbound preview.
Originator Type	Displays information for the specified originator type or types: agent, device, or unknown.
Destination Type	Displays information for the specified destination type or types: agent, device, or unknown.
Agent Name	Displays Unified CCX calls handled by the specified agent or agents, conference calls in which the specified agent or agents participated, and calls barged by the specified supervisor(s).
CSQ Name	Displays calls that queued for any of the specified CSQs.
Duration Greater Than or Equal to T seconds	Displays calls with duration greater than or equal to the number of seconds specified by T.
Duration Less Than or Equal to T seconds	Displays calls with duration less than or equal to the number of seconds specified by T.

Email Agent Activity Report

The Email Agent Activity Report shows summary statistics for e-mail activity for the selected e-mail enabled agents and date interval in daily time buckets.

The Email Agent Activity Report includes a table that shows the following information for each date in the report range:

Field	Description
Agent Name	The name of the agent to which the e-mails were routed. Please note that this name only appears once for each agent at the first date in the interval.
Date	Date of each day in the interval.
Login Time	Time agent was logged in during the interval.
E-Mail Not Ready Time	Time agent spent in the E-Mail Not Ready state during the interval.
E-Mail Ready Time	Time agent spent in the E-Mail Ready state during the interval.
E-Mail Processing Time	Time agent spent in the E-Mail Processing state during the interval.
Retrieved	Number of e-mails that the agent retrieved during the period. The route date time determines whether the e-mail falls within the interval.
Requeued	Number of e-mails that the agent requeued during the period. The requeue date and time determines whether the e-mail falls within the interval.
Transfer Out	Number of e-mails routed to the agent and transferred by the agent. The transfer date time determines whether the e-mail falls within the interval.
Sent	Number of e-mails routed to the agent and then sent by the agent. The send date time determines whether the e-mail falls within the interval.
Deleted	Number of e-mails routed to the agent and then deleted by the agent. The delete date time determines whether the e-mail falls within the interval.
Total In Process Time Sent	The sum of the In Process time over all e-mails included in the “Sent” column. The In Process time is counted regardless of the interval in which it occurred.

Field (continued)	Description (continued)
Average In Process Time Sent	(Total In Process Time Sent / Sent) rounded to an integer
Average On Desk Time Sent	((Sum of (Get e-mail time - Sent time) over all e-mails in the “Sent” column) / Sent) rounded to an integer. The on desk time is counted regardless of the interval in which it occurred.

Email Contact Service Queue Activity Report

The Email Contact Service Queue Activity Report shows summary statistics for e-mail activity for the selected e-mail contact service queues and date interval in daily time buckets.

The Email Contact Service Queue Activity Report includes a table that shows the following information in the report range for each contact service queue:

Field	Description
CSQ Name	The name of the CSQ through which the e-mails were routed. Please note that this name only appears once for each contact service queue on the first date in the interval.
Date	Date of each day in the interval.
Routed In	Number of e-mails routed into the contact service queue during the period. The route date time determines whether the e-mail falls within the interval.
Transfer In	Number of e-mails transferred into the contact service queue during the period. The transfer date time determines whether the e-mail falls within the interval.
Requeued	Number of e-mails requeued during the period for the contact service queue. The requeue date and time determines whether the e-mail falls within the interval.
Transfer Out	Number of e-mails routed to the agent through the contact service queue and transferred by the agent to another contact service queue. The transfer date time determines whether the e-mail falls within the interval.
Sent	Number of e-mails routed to the agent through the contact service queue and then sent by the agent. The send date time determines whether the e-mail falls within the interval.

Field (continued)	Description (continued)
Deleted	Number of e-mails routed to the agent through the contact service queue and then deleted by the agent. The delete date time determines whether the e-mail falls within the interval.
Total In Process Time Sent	The sum of the In Process time over all e-mails included in the “Sent” column. The In Process time is counted regardless of the interval in which it occurred.
Average In Process Time Sent	(Total In Process Time Sent / Sent) rounded to an integer.
Average On Desk Time Sent	((Sum of (Get e-mail time - Sent time) over all e-mails in the “Sent” column) / Sent) rounded to an integer. The on desk time is counted regardless of the interval in which it occurred.
Average Response time Sent	((Sum of (Routed time - Sent time) over all e-mails in the “Sent” column) / Sent) rounded to an integer. The response time is counted regardless of the interval in which it occurred.

Email Contact Service Queue Agent Activity Report

The Email Contact Service Queue Agent Activity Report shows summary statistics for e-mail activity by agents and dates for the selected e-mail contact service queues and date interval in daily time buckets.

The Email Contact Service Queue Agent Activity Report includes a table that shows the following information for each date in the report range:

Field	Description
CSQ Name	The name of the CSQ through which the e-mails were routed. Please note that this name only appears once for each contact service queue at the first agent and date in the interval.
Agent Name	The name of the agent to which the e-mails were routed.
Date	Date of each day in the interval.
Retrieved	Number of e-mails routed through the contact service queue that the agent retrieved during the period. The route date time determines whether the e-mail falls within the interval.

Report Details

Field (continued)	Description (continued)
Requeued	Number of e-mails routed through the contact service queue to the agent that the agent requeued during the period. The requeue date and time determines whether the e-mail falls within the interval.
Transfer Out	Number of e-mails routed through the contact service queue to the agent and transferred by the agent. The transfer date time determines whether the e-mail falls within the interval.
Sent	Number of e-mails routed through the contact service queue to the agent and then sent by the agent. The send date time determines whether the e-mail falls within the interval.
Deleted	Number of e-mails routed through the contact service queue to the agent and then deleted by the agent. The delete date time determines whether the e-mail falls within the interval.
Total In Process Time Sent	The sum of the In Process time over all e-mails included in the “Sent” column. The In Process time is counted regardless of the interval in which it occurred.
Average In Process Time Sent	(Total In Process Time Sent / Sent) rounded to an integer.
Average On Desk Time Sent	((Sum of (Get e-mail time - Sent time) over all e-mails in the “Sent” column) / Sent) rounded to an integer. The on desk time is counted regardless of the interval in which it occurred.

Email Inbox Traffic Analysis Report

The Email Inbox Traffic Analysis Report shows the number of e-mails received for the selected e-mail addresses and time period in daily time buckets.

The Email Inbox Traffic Analysis Report includes a table that shows the following information for each date in the report range:

Field	Description
E-Mail Address	The e-mail address where the e-mails were sent to. Please note that the e-mail address appears only once for each e-mail address on the first date in the interval.

Field (continued)	Description (continued)
Date	Date of each day in the interval.
Number of E-Mails	Number of e-mails sent to the address on the date.

EMail Response Detail Report

The EMail Response Detail Report shows information about an e-mail response sent back to a customer.

The EMail Response Detail Report includes a table that shows the following information for each date in the report range:

Field	Description
CSQ Name	The name of the CSQ through which the e-mail was routed to the agent which sent the response
Time Sent	The date and time the agent sent the response.
Time received	Date and time the contact center received the e-mail
Time retrieved	Date and time the agent retrieved the e-mail
Agent Name	Name of the agent who sent the response.
From	E-Mail address of party who sent the e-mail
To	E-Mail address to which the party sent the e-mail to reach the contact center
Subject	Subject line of the original e-mail

Outbound Agent Detail Performance Report

The Outbound Agent Detail Performance Report shows detailed statistics for each agent by campaign. The report also contains the total call details and campaign call details are displayed for each agent besides a summary row of the call details for each agent for all campaigns combined. This report is available with the Outbound feature.

The Outbound Agent Detail Performance Report can include these charts:

Chart Name	Description
Calls accepted by campaign and agent	Displays the total number of calls that are accepted by each agent for each campaign.

The Outbound Agent Detail Performance Report includes a table that shows the following information:

Field	Description
Agent Name (Agent_ID)	The last and first name of the agent. The string in parantheses displays the login ID of the agent.
Campaign Name	The name of the campaign.
Offered	Total number of outbound calls offered to this agent for this campaign. A contact that is offered to an agent multiple times (possibly because that agent skipped the call and was eventually looped back to the same agent) is counted once for each time the contact is presented. Offered refers to the total number of Accepted, Rejected, and Closed calls.
Accepted	Total number of outbound calls accepted by this agent for this campaign. A call is considered Accepted if an agent has clicked Accept when presented the call.
Rejected	The number of outbound calls that were skipped or rejected by this agent for this campaign. This means that the agent selected Reject , Skip , or Cancel Reservation . These contacts are dialed again.
Closed	The number of Outbound contacts that were closed by this agent for this campaign. This means that the agent selected Skip-Close or Reject-Close . These contacts are not dialed again.
RNA	Ring-no-answer (RNA). The number of outbound calls that the agent ignores.

Field (continued)	Description (continued)
Transfer	The number of outbound calls that are transferred to this agent from another agent. This agent does not dial an outbound call, instead, the other agent dials the outbound call and transfers it to this agent.
Average Talk Time	The average time in HH:MM:SS (hours, minutes, seconds) this agent spends talking on outbound calls for this campaign. The durations consider all calls that were Agent Accepted and classified as Voice .
Maximum Talk Time	The longest time in HH:MM:SS (hours, minutes, seconds) this agent has spent talking on an outbound call for this campaign. The durations consider all calls that were Agent Accepted and classified as Voice .

You can sort the Outbound Agent Detail Performance Report by this criterion:

Sort Criterion	Result
Agent Name	Displays the report in alphabetical order of agent names. Within the same agent name, sort the report in alphabetical order campaign name.
Offered	Displays the report in alphabetical order of agent names. Within the same agent name, sort the report in ascending order of calls offered.
Accepted	Displays the report in alphabetical order of agent names. Within the same agent name, sort the report in ascending order of calls accepted.
Rejected	Displays the report in alphabetical order of agent names. Within the same agent name, sort the report in ascending order of calls rejected.
Closed	Displays the report in alphabetical order of agent names. Within the same agent name, sort the report in ascending order of calls closed.
RNA	Displays the report in alphabetical order of agent names. Within the same agent name, sort the report in ascending order of RNA.
Transfer	Displays the report in alphabetical order of agent names. Within the same agent name, sort the report in ascending order of Transfer.
Average Talk Time	Displays the report in alphabetical order of agent names. Within the same agent name, sort the report in ascending order of average talk time.
Maximum Talk Time	Displays the report in alphabetical order of agent names. Within the same agent name, sort the report in ascending order of maximum talk time.

Report Details

You can filter the Outbound Agent Detail Performance Report by these parameters:

Filter Parameter	Result
Campaign Name	Displays selected campaigns.
Agent Name	Displays selected agent(s).
Resource Group Name	Displays agents who belong to the selected resource group(s).
Skill Name	Displays agents who have the selected skill(s).
Team Name	Displays agents who belong to the selected team(s).

Outbound Campaign Summary Report

The Outbound Campaign Summary Report shows information about summary statistics for each campaign over a specified time period. This report is available with the Cisco Unified Outbound Preview Dialer (Outbound) feature.

The Outbound Campaign Summary Report can include these charts:

Chart Name	Description
Calls Accepted, Rejected, Closed by Campaign	Displays the total number of calls that are accepted, rejected, or closed for each campaign.

The Outbound Campaign Summary Report includes a table that shows the following information:

Field	Description
Campaign Name	The name of the campaign.
Total Records	The total number of contact records for this campaign.
Available	The total number of contacts available (to be dialed). This number includes callbacks and contacts that are retried (because of previous unsuccessful dial attempts (for example, due to answering machine response or busy status).

Field (continued)	Description (continued)
Attempted	Total number of outbound contact records attempted. 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 (at some point) clicked on Accept for this contact. A contact that is presented to and accepted by an agent is considered Attempted by the system. If that contact is marked for Callback and therefore later called by the same or another agent, this call record is still considered Attempted only once, and not twice. Similarly if a contact was retried because the original attempt was unsuccessful (reached answering machine, busy signal, customer not home, etc.), the contact is counted only once.
Attempted %	The percentage of outbound calls attempted. $\text{Attempted \%} = (\text{Attempted} / \text{Total Records}) * 100$
Accepted	Total number of outbound calls accepted. A call is considered accepted if an agent has clicked Accept when presented the call. A call that is presented to an agent, skipped/rejected by that agent, presented to another agent, and then accepted by that other agent is counted once towards the number of calls.
Rejected	The number of outbound calls that were skipped or rejected by an agent as part of this campaign. This means that the agent selected Reject , Skip , or Cancel Reservation . These contacts are dialed again. If a contact is rejected by multiple agents, this field is incremented each time the contact is rejected.
Closed	The number of outbound contacts that were closed by agents as part of this campaign. This means that the agent selected Skip-Close or Reject-Close . These contacts are not dialed again.
Voice	The number of outbound calls for the day that ended successfully. This means that an agent accepted the call (by clicking Accept) and selected a classification of Voice for this contact. The calls marked with this classification are a subset of the calls accepted.
Answering Machine	The number of outbound calls for the day with a classification of Answering Machine. This means that an agent accepted the call (by clicking Accept) and selected a classification of Answering Machine for this contact.
Fax/Modem	The number of outbound calls for the day with a classification of Fax/Modem. This means that an agent accepted the call (by clicking Accept) and selected a classification of Fax/Modem for this contact.

Report Details

Field (continued)	Description (continued)
Invalid	The number of outbound calls for the day with a classification of Invalid. This means that an agent accepted the call (by clicking Accept) and selected a classification of Invalid for this contact.
Requested Callback	The number of calls marked for callback. A call that is accepted by an agent, marked for callback, later presented to and accepted by another agent (at the callback time), and marked for callback again is counted twice towards the number of callback calls.
Customer Not Home	The number of outbound contacts where the party answering the phone was not the customer.
Wrong Number	The number of outbound contacts where the party answering the phone indicated the customer didn't live there.
Do Not Call	The number of outbound contacts where the party answering indicated that they did not want to be called.
Busy	The number of outbound calls where the response was a busy signal.
Average Talk Time	The average time in HH:MM:SS (hours, minutes, seconds) that agents spend talking on outbound calls. The durations consider all calls that were Agent Accepted and classified as Voice .
Maximum Talk Time	The longest time in HH:MM:SS (hours, minutes, seconds) that an agent has spent talking on an outbound call. The durations consider all calls that were Agent Accepted and classified as Voice .

You can sort the Outbound Campaign Summary Report by this criterion:

Sort Criterion	Result
Campaign	Displays the report in alphabetical order of campaign name.
Total Records	Displays the report in ascending order of total records.
Available	Displays the report in ascending order of calls available.
Attempted	Displays the report in ascending order of calls attempted.
Accepted	Displays the report in ascending order of calls accepted.
Agent Rejected	Displays the report in ascending order of calls rejected by agent.
Voice	Displays the report in ascending order of calls that ended successfully.

Sort Criterion	Result
Answering Machine	Displays the report in ascending order of answering machine calls.
Fax/Modem	Displays the report in ascending order of fax/modem calls.
Invalid	Displays the report in ascending order of invalid calls.
Requested Callback	Displays the report in ascending order of calls marked for callback.
Agent Closed	Displays the report in ascending order of calls closed by agent.
Customer Not Home	Displays the report in ascending order of calls for which customer was not home.
Wrong Number	Displays the report in ascending order of calls that reached wrong numbers.
Do Not Call	Displays the report in ascending order of calls marked as do not call.
Busy	Displays the report in ascending order of busy calls.
Average Talk Time	Displays the report in ascending order of average talk time.
Max Talk Time	Displays the report in ascending order of max talk time.

You can filter the Outbound Campaign Summary Report by this parameter:

Filter Parameter	Result
Campaign	Displays statistics of selected campaigns.

Priority Summary Activity Report

The Priority Summary Activity Report shows call information for each call priority.

The Priority Summary Activity Report can include this chart:

Chart Name	Description
Total Calls by Call Priority	For each priority level that was assigned, displays the percentage of calls that received that priority.

Report Details

The Priority Summary Activity Report includes a table that shows the following information:

Field	Description
Call Priority	Final priority that the Unified CCX workflow assigned to the call when the call was received, from 1 (lowest) to 10 (highest). All calls start with a default priority of 1, unless a different priority is set in the workflow.
Total Calls	Number of calls assigned a particular priority level as their final priority level.
Avg Calls	For each day in the report period, the average number of calls that received a particular priority level as their final priority level.
Total Number of Calls with Different Original and Final Priorities	Number of calls that ended with a priority level other than the priority that was assigned when the call was received.
Average Number of Calls (Per Day) with Different Original and Final Priorities	Average number of calls per day that ended with a priority level other than the priority that was assigned when the call was received.
Maximum Difference Between Original and Final Priorities Experienced by All Calls	Largest difference between a priority level assigned to any one call when it was received and the priority level the call had when it ended.
Average Difference (Per Call) Between Original and Final Priorities Experienced by All Calls	Average difference between a priority level assigned to a call when it was received and the priority level the call had when it ended.

You can sort the Priority Summary Activity Report by either of these criteria:

Sort Criterion	Result
Call Priority	Displays the report in order of the final priority level assigned to each call.
Total Calls	Displays the report in order of the number of calls assigned a particular priority level as their final priority level.

You can filter the Priority Summary Activity Report by this parameter:

Filter Parameter	Result
Call Priority Levels	Displays information for the calls assigned the specified priority level as their final priority level. Priority levels range from 1 (lowest) to 10 (highest).

Remote Monitoring Detail Report

The Remote Monitoring Detail Report shows information about the agent monitoring activities of supervisors.

The Remote Monitoring Detail Report can include these charts:

Chart Name	Description
Total Duration by User ID	For each supervisor, displays the total time duration that the supervisor spent in all monitoring sessions during the report period.
Average Wait Time by User ID	For each supervisor, displays the average time that the supervisor waits in the monitoring session before the actual monitoring starts. (Monitoring starts when the agent being monitored makes or receives a call.) This average is calculated for the entire report period.

Report Details

The Remote Monitoring Detail Report includes a table that shows the following information for monitoring session:

Field	Description
User ID	Name of the supervisor who monitored the call. A value of –1 indicates that no valid user ID is configured in the workflow.
Start Time	Time that this monitoring session started.
Original Monitored Party	Name of the CSQ or the Unified CCX extension of the agent that the supervisor originally chose to monitor.
Monitored Extension(s)	The extensions of one or more agents monitored in this session. If the supervisor originally chose to monitor a CSQ, this field contains the extensions of the agents who belong to that CSQ and who are monitored in this session. If the supervisor chose to monitor an agent, this field contains the extension of the agent that is monitored. Multiple agent extensions in the field indicate that a conference call or a transfer call was monitored, which involved multiple agents.
Duration	Elapsed time between the start time and end time of the monitoring session.
Wait Time	Time duration from when a supervisor chooses to monitor an agent or a CSQ to when the monitoring starts.
Status	<p>The status of this monitoring session:</p> <p>Normal – Monitored—Monitoring completed successfully.</p> <p>Normal – Agent RNA—Agent let the call go ring-no-answer.</p> <p>Error – Unable to Stop Monitoring—Supervisor pressed the * key to terminate the monitoring session but it fails to terminate.</p> <p>Error – Unable to Monitor New Call—Supervisor chose to monitor a new call but the system fails to respond.</p> <p>Error – Agent Logged Off—The agent that the supervisor intended to monitor has logged off.</p> <p>Error – Network Problem—Monitoring session is not successful due to network problems.</p> <p>Error – VoIP Server Unable to Communicate—Monitoring session is not successful as a server with that Cisco Unified CCX Monitoring component fails to communicate.</p>

Field (continued)	Description (continued)
Status (continued)	Error – Monitoring Not Allowed—Supervisor attempted to monitor an agent or a CSQs that are not on the allowed list for the supervisor.
	Error – Agent Not Logged In—Agent that the supervisor intended to monitor is not logged in.
	Error – Invalid Input—Supervisor entered input that is not recognized by the system.
	Error – Other—Errors not defined by any of the preceding messages.

You can sort the Remote Monitoring Detail Report by any of these criteria:

Sort Criterion	Result
Start Time	Displays the report in order of the time that the monitoring session starts.
User ID	Displays the report in order of the name of the supervisor.
Duration	Displays the report in order of the time duration of the monitoring session.

Traffic Analysis Report

The Traffic Analysis Report shows information about incoming calls to the Cisco Unified CCX system. The information is provided for each day in the report range and includes information about the peak hour(s) of each day.

The Traffic Analysis Report can include these charts:

Chart Name	Description
Total Incoming Calls by Date	Displays the total number of calls received by the Cisco Unified CCX system for each day in the report range.
Peak Calls by Date	For each date, displays the number of calls received in the hour(s) with the most calls.
Average Call Duration by Date	Displays the average length of calls for each day in the report range.

Report Details

The Traffic Analysis Report includes a table that shows the following information for each date in the report range:

Field	Description
Date	Date for which information is provided.
Total Incoming Calls	Total number of calls received by the Cisco Unified CCX system for the day.
Avg Calls (per hour)	Average number of calls received during each hour for the day.
Peak Calls (per hour)	Number of calls received during the peak hour(s). (See the next field.)
Peak Hour Start, Peak Hour End	Start and end time of the hour(s) in a day during which the largest number of calls were received. This hour(s) is defined as the peak hour(s).
Call Duration Avg	Average call length for the day.
Call Duration Min	Length of the shortest call for the day.
Call Duration Max	Length of the longest call for the day.

You can sort the Traffic Analysis Report by this criterion:

Sort Criterion	Result
Date	Displays the report in order of the date for which information is provided.

Report Footnotes

In some cases, the last page of a report may contain one of the footnotes shown in the following table:

Report Footnote	Explanation
This report might not include complete data for calls received after <i>date time</i> .	<p>The report period ends after <i>date</i> and <i>time</i>, but your Cisco Unified CCX deployment includes two servers on which the Database component is installed and the data on these servers has not yet been synchronized past <i>date</i> and <i>time</i>.</p> <p>If you see this footnote, you can take one of these actions:</p> <ul style="list-style-type: none">• Wait a few minutes then generate the report again• If a failover has occurred, wait until the standby server falls back• Generate the report again, but specify a period end time that is before <i>date</i> and <i>time</i>
This report is truncated as it exceeds the maximum number of records. The report does not include data after <truncated end time>".	When the report size exceeds the maximum limit of 10 kilobytes, the report is truncated and data after the 'truncated end time' is not displayed.



CHAPTER 4

Generating Historical Reports

When you generate a report with the Cisco Unified CCX Historical Reports client, you perform the following general steps:

1. Choose general report settings, including the name of the report, whether to include charts, and the date and time range for which you want information.
2. Choose detailed report settings, if you want, including a sort method and a filter parameter.
3. Use the Report Viewer to view, print, or save (export) the report.

The following sections explain these steps in detail, and include these topics:

- [General Report Settings, page 4-1](#)
- [Detailed Report Settings, page 4-5](#)
- [Saving and Loading Report Settings, page 4-9](#)
- [The Report Viewer, page 4-13](#)

General Report Settings

General report settings include:

- Name of the report to generate
- Whether to include charts with the report
- Date and time range of the information contained in the report

You can return report settings to their default values at any time by clicking **Reset** in the Unified CCX Historical Reports main window. This action resets both general report settings and detailed report settings.

If a Report Settings file is loaded, clicking **Reset** returns both general report settings and detailed report settings to the values specified in that file.

You choose general report settings in the General Report Settings area, shown in the Historical Reports main window in [Figure 1-1](#).

Related Topics

- [Choosing the Report to Generate, page 4-2](#)
- [Including Charts with a Report, page 4-3](#)
- [Choosing the Date and Time Range for a Report, page 4-4](#)
- [Changing the Time Zone to be Displayed for a Report, page 4-4](#)
- [Saving and Loading Report Settings, page 4-9](#)

Choosing the Report to Generate

To choose the report that you want to generate, follow these steps:

Procedure

-
- Step 1** In the Reporting Task area of the Cisco Unified CCX Historical Reports main window, click the **Generate and View Historical Reports** radio button.
- The window displays tabs for general and detailed report settings.
- Step 2** Click the **General** tab if it is not selected already.
- The General Report Settings area appears.

- Step 3** Click the Report Type drop-down arrow to view a list of available reports, and choose the report that you want to generate.

If you have already generated this report in this Cisco Unified CCX Historical Reports session, any information that you previously entered in the general or detailed fields for this report appears in these fields again.

Now you can choose additional general report settings and choose detailed report settings. You also must specify a date and time range for the report before you can view it.

Related Topics

- [Including Charts with a Report, page 4-3](#)
- [Choosing the Date and Time Range for a Report, page 4-4](#)
- [Detailed Report Settings, page 4-5](#)
- [Viewing Reports, page 4-15](#)

Including Charts with a Report

By default, each historical report contains one or more charts that display specific information in the report. You can choose whether to include or omit charts.

If you want to include charts with the report that you have chosen as explained in the [“Choosing the Report to Generate” section on page 4-2](#), check the Include Charts in Report check box in the General Report Settings area. If you do not want to include charts, uncheck this check box.

After choosing this setting, you must choose a date and time range for the report before you can view it. You also can choose detailed report settings.

Related Topics

- [Choosing the Report to Generate, page 4-2](#)
- [Choosing the Date and Time Range for a Report, page 4-4](#)
- [Detailed Report Settings, page 4-5](#)
- [Viewing Reports, page 4-15](#)

Choosing the Date and Time Range for a Report

You must choose the date and time range for the data in the report that you have chosen as explained in the [“Choosing the Report to Generate” section on page 4-2](#). In the Date and Time fields next to Report Start Date and Report End Date in the General Report Settings area, enter the beginning and ending dates and times of the time range for which you want to generate information.

You can now choose additional general report settings, choose detailed report settings, or click **View** to view the report.

Changing the Time Zone to be Displayed for a Report

The time zone displayed in the report is either UTC or local time zone, based on the TIMEZONE settings in hrconfig.ini. You can also change the time zone for each report as shown in the procedure.

**Note**

When a report shows date and time information for an event or an activity in the report data, that date and time is based on the TIMEZONE configuration in hrconfig.ini.

The Start and End time is also based on the TIMEZONE configuration in hrconfig.ini.

The difference between the server time and the selected time zone is displayed within parentheses beside the Start and End time.

The report generated time displayed at the bottom of the report is the local time of the HR client machine.

To change the time zone for a particular report, follow these steps:

Procedure

- Step 1** In the Unified CCX Historical Reports main window, choose the report settings that you want.
- Step 2** Choose the **Settings** menu.

**Note**

You notice the check mark beside the **Use UTC Time Zone for Reports** menu option. This depends on the configuration in `hrconfig.ini`. If UTC time zone (value 1) is configured, the check mark is displayed. If local time zone (value 0 - Default) is configured, the check mark is not displayed. For more details, refer [The `hrcConfig.ini` Configuration File, page 2-13](#).

Step 3 Click **Use UTC Time Zone for Reports** to select or unselect the option manually.

Related Topics

- [Choosing the Report to Generate, page 4-2](#)
- [Including Charts with a Report, page 4-3](#)
- [Detailed Report Settings, page 4-5](#)
- [Viewing Reports, page 4-15](#)

Detailed Report Settings

Detailed report settings allow you to cause reports to present information in a particular order and to include only specific information. Detailed report settings include:

- Sorting method—Order in which information in a report appears
- Filter parameter—Specific information that a report includes

You choose detailed report settings in the Detailed Report Settings area of the Cisco Unified CCX Historical Reports main window, shown in [Figure 4-1](#).

Figure 4-1 **Detailed Report Settings Area**



Choosing detailed report settings is optional. If you do not choose one or more settings, the report will contain all relevant information presented in the default order. This default order appears in the Sort Report By field.

You can return report settings to their default values at any time by clicking **Reset** in the Unified CCX Historical Reports main window. This action resets both detailed report settings and general report settings.

If a Report Settings file is loaded, clicking **Reset** returns both detailed report settings and general report settings to the values specified in that file.

Related Topics

- [Specifying a Sorting Method, page 4-7](#)
- [Specifying a Filter Parameter, page 4-7](#)
- [Saving and Loading Report Settings, page 4-9](#)

Specifying a Sorting Method

You can specify a sorting method to display the information in reports in a particular order. For detailed information about the sorting methods available for a particular report, see the description of that report in the [“Report Details” section on page 3-7](#).

To specify a sorting method for the report that you have chosen as explained in the [“Choosing the Report to Generate” section on page 4-2](#), follow these steps:

Procedure

-
- | | |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Step 1 | In the Reporting Task area of the Cisco Unified CCX Historical Reports main window, click the Generate and View Historical Reports radio button.

The window displays tabs for general and detailed report settings. |
| Step 2 | Click the Detailed tab.

The Detailed Report Settings area appears. |
| Step 3 | Click the Sort Report By drop-down arrow to view a list of available sort methods, and then choose the sort method that you want to use.

After specifying a sorting method, you can choose additional detailed report settings, or click View to view the report. |
-

Related Topics

- [Specifying a Filter Parameter, page 4-7](#)
- [Viewing Reports, page 4-15](#)

Specifying a Filter Parameter

A filter parameter lets you limit the information that a report includes by selecting only the information that you want. For example, if you are generating an Agent Summary Report, you can use a filter parameter to include information for specific agents only.

For detailed information about the filter parameters available for a particular report, see the description of the report in the [“Report Details” section on page 3-7](#).

If no filter parameter is available for the report that you are generating, the Parameter Setting area displays No Parameter Detailed Settings Available.

To specify a filter parameter for the report that you have chosen as explained in the [“Choosing the Report to Generate” section on page 4-2](#), follow these steps:

Procedure

-
- Step 1** In the Reporting Task area of the Cisco Unified CCX Historical Reports main window, click the **Generate and View Historical Reports** radio button.
- The window displays tabs for general and detailed report settings.
- Step 2** Click the **Detailed** tab.
- The Detailed Report Settings area appears.
- Step 3** Click the Filter Parameter drop-down arrow to view a list of available filter parameters, and then choose the filter parameter that you want to use.
- Depending on the filter parameter you choose, the Available pane of the Parameter Setting area displays either a list of available parameter settings or the Enter Parameter Value field. If you have previously chosen parameter settings for this report and this parameter during this session, the settings you chose before appear in the Selected pane.
- Step 4** If a list of available parameter settings appears, choose the parameter setting or settings that you want to use as follows:
- To choose specific settings that appear in the Available pane, click the settings and then click >. The settings move to the Selected pane. To select all of the settings, click >> without choosing any settings.
 - To unselect specific settings that appears in the Selected pane, choose that setting, and then click <. To unselect all settings, click << without choosing any settings.
- If the Enter Parameter Value field appears, enter the value that you want to use as *n* in the filter parameter.
-

Related Topics

- [Specifying a Sorting Method, page 4-7](#)
- [Viewing Reports, page 4-15](#)

Saving and Loading Report Settings

If you often generate particular reports, you may find that it is convenient to save the general and detailed report settings that you choose for these reports. You can recall these settings and make adjustments to them each time that you generate the report. You can also recall these settings and use them as a basis for a scheduled report.

You save report settings in a file called a Report Settings file. When you load a Report Settings file, the report settings saved in that file appear in the Cisco Unified CCX Historical Reports main window.

Related Topics

- [Saving Report Settings, page 4-9](#)
- [Loading Report Settings, page 4-11](#)
- [Changing and Saving Report Settings, page 4-12](#)

Saving Report Settings

By default, the Cisco Unified CCX Historical Reports client saves Report Settings files on your computer in the Cisco Unified CCX Historical Reports\Reports directory, which is under the directory in which you installed the Cisco Unified CCX Historical Reports system. (By default, the system installs in the Program Files directory.) The client gives a Report Settings file the name *report.chc*, where *report* is the name of the report for which you are saving settings. You can change the default directory and the base file name for a Report Settings file. The file name must have the extension *.chc*.

To save report settings in a new Report Settings file, follow these steps:

Procedure

-
- Step 1** In the Unified CCX Historical Reports main window, choose the general report settings and detailed report settings that you want to save.
- Step 2** Choose **File > Save**, or choose **File > Save As**, or click the **Save** tool.
The Save As dialog box appears.
- Step 3** If you want, make changes in the Save As dialog box as follows:
- To save Report Settings files in a directory other than the default directory, use the Save In drop-down arrow, the Folder Name pane, or the Save In tools to specify the directory.
 - To change the file name that appears in the File Name field, enter the file name that you want. To choose a file that already exists, you can use the File Name drop-down arrow to display a list of file names, and then choose the file name that you want. A message appears asking if you want to replace the existing file. Click **Yes** to continue.



Note A report settings file name must have the extension .chc. The system adds this extension to the name in the File Name field automatically.

- Step 4** Click **Save**.

The Cisco Unified CCX Historical Reports client saves the Report Settings file. You can load this file whenever you need it.

Related Topics

- [General Report Settings, page 4-1](#)
- [Detailed Report Settings, page 4-5](#)
- [Loading Report Settings, page 4-11](#)
- [Changing and Saving Report Settings, page 4-12](#)

Loading Report Settings

When you load report settings, you specify the name of the Report Settings file in which the settings that you want are saved. When the report loads, these settings appear in the various fields in the Unified CCX Historical Reports main window.

To load report settings from the Cisco Unified CCX Historical Reports client main window, perform the following steps. If the client software is stopped, you can start the client software and load a Report Settings file in one step by choosing the Report Settings file in the directory in which it is stored.

**Note**

You cannot load a report settings file that contains settings for a report for which you do not have access. You also cannot load a report settings file if the file was created when the client language was different than the current language.

Procedure

- Step 1** In the Reporting Task area of the Unified CCX Historical Reports main window, click **Load Existing Report Setting**.

You may also click the **Open** tool or choose **File > Open**.

The Open dialog box appears, showing the File List pane.

- Step 2** If the Report Settings file that you want appears in the File List pane, double-click the name of the file, or click the name of the file and then click **Open**.

If the Report Settings file does not appear, use the Look In drop-down arrow, the Folder Name pane, or the Save In tools to specify the directory. Then double-click the name of the file, or click the name of the file and then click **Open**.

The Cisco Unified CCX Historical Reports main window appears. The General and Detailed report settings fields contain settings from the Report Settings file.

Related Topic

- [Saving and Loading Report Settings, page 4-9](#)

Changing and Saving Report Settings

You can load a Report Settings file, make changes to any or all of the settings, and save the changes in the original Report Settings file or in a new file.

To change report settings, follow these steps:

Procedure

-
- Step 1** Load a Report Settings file as described in the “[Loading Report Settings](#)” section on page 4-11.
 - Step 2** Make changes to the report settings as needed.
 - Step 3** If you want to save the changes in the Report Settings file that is currently loaded, choose **File > Save**.

If you want to save the changes in a new Report Settings file, choose **File > Save As**. Enter the new file name in the Save As dialog box, and then click **Save**.



Note

If you load and make changes to a Report Settings file without saving the file, and you then try to choose a new report type or exit Cisco Unified CCX Historical Reports, the computer displays a dialog box asking if you first want to save the changes that you made to the Report Settings file. Click **Yes** to save the changes in the original Report Settings file or click **No** to continue without saving the changes.

Sample Historical Reports

Some sample historical reports are located with the product documentation, under the Design Guides section in the following web site:

http://www.cisco.com/en/US/partner/products/sw/custcosw/ps1846/products_user_guide_list.html

The Report Viewer

The Report Viewer window appears automatically when you click **View** in the Unified CCX Historical Reports main window to generate a report. The Report Viewer window contains the report you have generated. It also contains a toolbar, shown in [Figure 4-2](#), which provides tools for moving through the report, printing the report, exporting the report, finding text in the report, and viewing information about groups.

Figure 4-2 **Report Viewer Toolbar**



	Item	Reference
1	Close Current View tool	Displaying Group Information Using the Group Tree, page 4-20
2	Print Report tool	Printing Reports, page 4-21
3	Export Report tool	Exporting Reports, page 4-22
4	Toggle Group Tree tool	Displaying Group Information Using the Group Tree, page 4-20
5	Display Size field	Changing the Display Size, page 4-16
6	Go to First Page tool	Moving Through the Report, page 4-16
7	Go to Previous Page tool	Moving Through the Report, page 4-16
8	Page Number field	Moving Through the Report, page 4-16
9	Page count display	Moving Through the Report, page 4-16
10	Go to Next Page tool	Moving Through the Report, page 4-16
11	Go to Last Page tool	Moving Through the Report, page 4-16

12	Stop Loading tool	Moving Through the Report, page 4-16
13	Search Text tool	Finding and Moving to Specific Text, page 4-17
14	Help tool	Getting Online Help, page 1-7

Related Topics

- [Viewing Reports, page 4-15](#)
- [Changing the Display Size, page 4-16](#)
- [Moving Through the Report, page 4-16](#)
- [Finding and Moving to Specific Text, page 4-17](#)
- [Displaying Information About Groups, page 4-18](#)
- [Printing Reports, page 4-21](#)
- [Exporting Reports, page 4-22](#)

Viewing Reports

To view a report, follow these steps:

Procedure

- Step 1** In the Unified CCX Historical Reports main window, choose the report settings that you want.
- Step 2** Click **View**.

The report generates and appears in the Report Viewer window.

Some reports can take a few minutes to generate and another few minutes to load into the Report Viewer window. To cancel a report while it is generating, click **Cancel** in the Unified CCX Historical Reports main window or click the **Stop Loading** tool in the Report Viewer window.

When a report appears in the Report Viewer window, you can:

- Change the size of the display
- Move to different parts of the report
- Find specific text in the report
- Display information about particular groups

To exit the Report Viewer window, click the **Close** button on the title bar.

Related Topics

- [Changing the Display Size, page 4-16](#)
- [Moving Through the Report, page 4-16](#)
- [Finding and Moving to Specific Text, page 4-17](#)
- [Displaying Information About Groups, page 4-18](#)

Changing the Display Size

To change the size of the report display, click the Display Size drop-down arrow and choose the value that you want.

You can also select the value that appears in this field, enter a value between 25% and 400%, and press the **Enter** key.

Moving Through the Report

To make the most efficient use of system resources, the Cisco Unified CCX Historical Reports client loads pages on demand as you move through the report. The Page Number field in the Report Viewer window shows the number of the currently displayed page. To its right, the Page Count field shows how many pages the report contains.

The Page Count field does not show the total number of pages until all pages of a report have been loaded. Instead, it shows the number of the currently displayed page followed by a plus sign (+) to indicate that the report contains additional pages.

You can move through a report one page at a time or jump to any specific page. The following table shows how to move through a report:

To Make This Move When Viewing a Report	Perform This Action in the Report Viewer Window
Move forward one page	Click the Go To Next Page tool.
Move backward one page	Click the Go To Previous Page tool.
Move to the last page	Click the Go To Last Page tool.
Move to the first page	Click the Go To First Page tool.
Move to a specific page	Select the number that appears in the Page Number field, enter the page number that you want, and then press the Enter key.

**Note**

Moving directly to the first page or last page in a long report can take a few minutes. To stop these move actions, click the **Stop Loading** tool in the Report Viewer window.

Related Topic

- [Finding and Moving to Specific Text, page 4-17](#)

Finding and Moving to Specific Text

To find and move to specific text in a report that appears in the Report Viewer window, follow these steps:

Procedure

- Step 1** On the Report Viewer toolbar, click the **Search Text** tool.
The Search dialog box appears.
- Step 2** In the Find What field, enter the text that you want to find, and then click **Find Next**.

**Caution**

Wild card searches are not allowed in this field.

The display moves to the next occurrence of the text that you entered.

You can continue to click **Find Next** to display subsequent occurrences of the same text.

- Step 3** Click **Cancel** to close the Search dialog box.

Displaying Information About Groups

Most historical reports have a specific set of information that has been designated as a *group*. For example, a group may contain the names of agents, or a group may contain dates. A report displays information arranged by its group.

The following table shows the name of the group for each report.

Report Name	Group
Abandoned Call Detail Activity Report	Call Start Date
Aborted and Rejected Call Detail Report	—
Agent Call Summary Report	Agent Name and Agent ID
Agent Detail Report	Agent Name and Agent ID
Agent Login Logout Activity Report	Agent Name and Agent ID
Agent Not Ready Reason Code Summary Report	Agent Name and Agent ID
Agent State Detail Report	Agent Name and Agent ID
Agent State Summary Report (by Agent)	Agent Name and Agent ID
Agent State Summary Report (by Interval)	Interval Start Time
Agent Summary Report	Agent Name and Agent ID
Agent Wrap-Up Data Detail Report	Agent Name and Agent ID
Agent Wrap-Up Data Summary Report	Wrap-Up Data
Application Performance Analysis Report	Application ID
Application Summary Report	—
Call Custom Variables Report	—
Called Number Summary Activity Report	Called Number

Report Name	Group
Common Skill Contact Service Queue Activity Report (by Interval)	Call skills
Contact Service Queue Activity Report	Contact Service Queue Name and ID
Contact Service Queue Activity Report (by CSQ)	Contact Service Queue Name and ID
Contact Service Queue Activity Report (by Interval)	Interval Start Time
Contact Service Queue Call Distribution Summary Report	Contact Service Queue Name and ID
Contact Service Queue Priority Summary Report	—
Contact Service Queue Service Level Priority Summary Report	Contact Service Queue Name and ID
CSQ–Agent Summary Report	—
Detailed Call by Call CCCR ^a Report	—
Detailed Call, CSQ, Agent Report	—
Email Agent Activity	Agent name and contact service queue date
Email Contact Service Queue Activity	Contact service queue name
Email Inbox Traffic Analysis	Email address
Email Response Detail	Contact service queue name and time sent
Email Contact Service Queue Agent Activity	Contact service queue name and contact service queue date
Outbound Campaign Summary Report	Campaign Name
Outbound Agent Detail Performance Report	Agent Name
Priority Summary Activity Report	Call Priority
Remote Monitoring Detail Report	User ID
Traffic Analysis Report	Date

a. CCCR = Contact Call Detail Record

When you view a report, you can display information for any particular item in its group. For example, in the Agent Detail Report, you can display information for any single agent.

You display group information using the Group Tree. For many reports, you can also display group information directly from the charts that appear with the reports.

Related Topics

- [Displaying Group Information Using the Group Tree, page 4-20](#)
- [Displaying Group Information from a Report Chart, page 4-21](#)

Displaying Group Information Using the Group Tree

A Group Tree is a list of all group names available for a particular report. Most reports have a Group Tree.

To display the group tree for a report, follow these steps:

Procedure

-
- Step 1** Click the **Toggle Group Tree** tool on the Report Viewer toolbar.
- The Preview pane appears, displaying a list of groups.
- Step 2** To display information for a group in the Preview pane, click the name of the group.
- The group information appears in a new pane called a Group Information pane. This pane has a tab that shows the name of the group.
- If several Group Pane tabs appear, you can display the information that you want by clicking its tab.
- To display the Group Tree when you are viewing information in a Group Information Pane, click the **Preview** tab.
- Step 3** To close the Preview pane any time it is displayed, click the **Toggle Group Tree** tool.
- To close a Group Information pane when it is displayed, click the **Close Current View** tool.
-

Displaying Group Information from a Report Chart

In many reports, moving the mouse pointer over information displayed in the charts generated with the reports causes the pointer to change to a magnifying glass. The magnifying glass indicates that you can display group information from that chart.

To display group information from a chart, follow these steps:

Procedure

- Step 1** Make sure that the mouse pointer has changed to a magnifying glass, and then double-click the group name or its associated data.
- The Group Information pane appears, displaying information for the group.
- Step 2** To return to the chart, click the **Preview** tab.
- Step 3** To close a Group Information pane when it is displayed, click the **Close Current View** tool.
-

Printing Reports

You can print a report while viewing any part of the report. If you are viewing information in a Group Information Pane, only that information prints. The report prints on the default printer that has been designated for your computer.

To print a report, follow these steps:

Procedure

- Step 1** In the Unified CCX Historical Reports main window, choose the report settings that you want, and then click **View**.
- The report appears in the Report Viewer window.
- Step 2** Click the **Print** tool.
- The Print dialog box appears.
- Step 3** In the Print dialog box, choose the settings that you want.

Step 4 Click **OK**.

The Printing Records dialog box appears while the file is being printed and shows the progress of printing.

Exporting Reports

Exporting a report means saving the report in a file. You can specify the name and location of the file and the format in which the report is saved. After a report is exported to a file, you can view, print, and manipulate the data in the file with another program.

When you export a report, you can save it in any of the formats shown in the following table. If you export reports to Microsoft Excel, make sure that the Extended version of Excel 7.0 is installed on the computer on which you perform the export procedure.

Format	Extension that the System Adds to the File Name	Description
Acrobat Format (PDF)	.pdf	Portable Document Format file that can be read with Adobe Acrobat Reader
Comma-separated values (CSV)	.csv	Comma-separated text file
Excel (XLS)	.xls	Microsoft Excel file
Rich Text (Exact) Format	.rtf	RTF file that can be opened with Microsoft Word
XML	.xml	Extensible Markup Language file

To export a report, follow these steps:

Procedure

Step 1 In the Unified CCX Historical Reports main window, choose the report settings that you want, and then click **View**.

The report appears in the Report Viewer window.

Step 2 Click the **Export Report** tool.

The Export dialog box appears.

Step 3 Click the Format drop-down arrow, and then choose the format in which you want to save the report.



Note Exporting 'Excel 97-2000 (Data Only)' does not preserve the header format, exporting in just 'Excel 97-2000' format will preserve the formatting as well.

A series of dialog boxes appear. The specific dialog boxes depend on the format that you chose.

Step 4 Set the desired exporting options and specify the name and location for the export file by enter information in the dialog boxes that appear.

When you are finished, the system exports the report and displays the Exporting Records dialog box, which shows the progress of the export operation.

To cancel the export operation at any time, click **Cancel Exporting**.



CHAPTER 5

Scheduling Historical Reports

Scheduling a historical report means instructing the Cisco Unified CCX Historical Reports client to automatically generate the report at some time in the future. Although you can schedule a report to generate once, the report scheduling function is particularly useful for preparing reports that you require regularly. For example, you can schedule an Agent Detail Report to generate every Monday at midnight and an Agent Summary Report to generate on the first Sunday of every month at noon.

When you schedule a report, you perform these general steps:

1. Choose general settings for the report, including the name of the report, whether to include charts, and whether to save (export) or print the report.
2. Choose detailed settings for the report, if necessary, including a sort method and a filter parameter.
3. Choose the time zone for the report data, if the Scheduler is running in English locale.
4. Choose scheduling settings, including how often and when the report is generated.
5. Save the scheduling information.

The following sections include these topics:

- [Information in Scheduled Reports, page 5-2](#)
- [Recommendations for Scheduling, page 5-3](#)
- [The Scheduler, page 5-3](#)
- [General Settings for Scheduled Reports, page 5-5](#)

- [Detailed Settings for Scheduled Reports, page 5-10](#)
- [Changing the Time Zone to be Used for Scheduled Report, page 5-11](#)
- [Choosing Schedule Settings, page 5-12](#)
- [Saving a Schedule, page 5-15](#)
- [Viewing and Deleting Schedules, page 5-16](#)
- [Handling Missed Schedules, page 5-18](#)

Information in Scheduled Reports

The following table shows the types of schedules that you can specify for historical reports and the information that is contained in each type of report.

Schedule Type	Recurrence Options	Information Contained in the Report
Daily	<ul style="list-style-type: none"> • Every day (Sunday through Saturday) • Every weekday (Monday through Friday) • Every <i>n</i> days (for example, every 3 days) <p>Note A report that is scheduled to recur every weekday will run every Tuesday through Saturday so that it can include information for Monday through Friday.</p>	A daily report always contains data from 12:00 midnight (0000) to 11:59:59 p.m. (1159:59) for the day <i>before</i> the report runs. For example, a daily report that runs on Tuesday will contain data for the preceding Monday.
Weekly	<ul style="list-style-type: none"> • Every week on a certain day (for example, every Monday) • Every <i>n</i> weeks on a specific day (for example, every two weeks on Friday) 	A weekly report always contains data from Sunday at 12:00 midnight (0000) to Saturday at 11:59:59 p.m. (1159:59) for the week before the report runs, regardless of the day of the week on which the report runs. For example, a weekly report that runs on Monday, on Wednesday, or on Friday will contain data for Sunday through Saturday of the previous week.

Schedule Type	Recurrence Options	Information Contained in the Report
Monthly	<ul style="list-style-type: none">• Every month on a specific date (for example, the 15th of every month)• Every month on a certain day (for example, the first Friday of every month) <p>Note If a monthly report is scheduled to run on a date that does not occur in some months, for example the 30th or 31st, the report will run on the last day of a month that does not contain the date.</p>	A monthly report always contains data from the first day of the previous month at 12:00 midnight (0000) to the last day of the previous month at 11:59:59 p.m. (1159:59). For example, a monthly report that runs on any day in February will contain data for all of January.
Once	Any single date and time that you specify	A report that runs once contains data for the date and time range that you specify.

Recommendations for Scheduling

When a scheduled report generates, it can use significant resources on the Cisco Unified CCX server. To help keep the server running most efficiently, schedule reports to generate at times when the Cisco Unified CCX server is least busy, for example, late at night or early in the morning.

The Scheduler

The Unified CCX Historical Reports client includes a program called the Scheduler. A Scheduler resides on each client computer and performs these functions:

- Maintains information about each schedule, including when each schedule should execute and what information the scheduled report should contain
- Executes schedules at their scheduled times, based on the time and date of the Unified CCX Historical Reports client computer

The Scheduler runs automatically and unattended in the background on the Cisco Unified CCX Historical Reports client computer. It will not affect other activities that you perform on the client computer. The Scheduler should always be left running, even when you exit the Unified CCX Historical Reports main window. If the Scheduler is not running when a schedule should execute, the schedule will not execute.

If a schedule does not execute because the Scheduler is not running, the Missed Report dialog box appears when the Scheduler restarts. For more information, see the [“Handling Missed Schedules” section on page 5-18](#).

You can control the Scheduler using the Scheduler icon, shown in [Figure 5-1](#). This icon appears in the status area on your Windows taskbar.

Figure 5-1 Scheduler Icon



To verify that the Scheduler is running, right-click the Scheduler icon and look at the Run Scheduler option in the Scheduler menu. If Run Scheduler is dimmed (that is, unavailable), the Scheduler is running.



Note

The Scheduler icon does not appear in the Windows status bar under a terminal service session. If you need to access features from the Schedule icon, you must do so from the computer on which the Scheduler is installed.

To start the Scheduler, right-click the Scheduler icon and choose **Run Scheduler**. Or, choose **Start > Programs > Cisco Unified CCX Historical Reports > Cisco Unified CCX Historical Reports Scheduler**.

To stop the Scheduler, right-click the Scheduler icon and choose **Stop Scheduler**. The Scheduler remains loaded, but it will not execute schedules.

To exit the Scheduler, right-click the Scheduler icon and choose **Exit**. The scheduler unloads and will not execute schedules.



Note

If you change the system time on the Cisco Unified CCX Historical Reports client computer, stop and then restart the Scheduler that is running on that computer.

General Settings for Scheduled Reports

General settings for scheduled reports include:

- Name of the report to schedule
- Whether to include charts with the report
- Whether to print the report or export it to a file

You can return the report settings you choose for a scheduled report to their default values at any time by clicking **Reset** in the Unified CCX Historical Reports main window.

If you have saved report settings in a Report Settings file, you can load the Report Settings file and use it as a basis for a scheduled report. See the [“Saving and Loading Report Settings” section on page 4-9](#) for information about saving and loading a Report Settings file.

If you have already made settings for a report in this Cisco Unified CCX Historical Reports session, any information that you entered in the general or detailed fields for that report appears in those areas when you schedule reports. In addition, if the report is set to occur once, date and time information that you entered when you set up the report appears in the Cisco Unified CCX Historical Reports Schedule menu. You can use the information that appears in the general and detailed fields and in the Schedule menu as a basis for your scheduled report, or you can click **Reset** to return the report settings to their default values.

Related Topics

- [Choosing the Report to Schedule, page 5-6](#)
- [Including Charts with a Scheduled Report, page 5-6](#)
- [Choosing Whether to Print or Export a Scheduled Report, page 5-7](#)

Choosing the Report to Schedule

To choose the report that you want to schedule, follow these steps:

Procedure

- Step 1** In the Cisco Unified CCX Historical Reports main window, click the **Schedule Future Reports, Including Repeat Reports** radio button.
- Step 2** Click the **General** tab, if it is not selected already.
- Step 3** Click the Report Type drop-down arrow to view a list of available reports, and then choose the report that you want to generate.

Now you can specify whether to include charts with the report, choose whether to print or export the report, and choose detailed report settings. You also must choose schedule settings before the schedule will execute.

Related Topics

- [Including Charts with a Scheduled Report, page 5-6](#)
- [Choosing Whether to Print or Export a Scheduled Report, page 5-7](#)
- [Detailed Settings for Scheduled Reports, page 5-10](#)
- [Choosing Schedule Settings, page 5-12](#)

Including Charts with a Scheduled Report

Each historical report can contain one or more charts that summarize information in the report. If you want to include charts with a scheduled report, follow these steps:

Procedure

- Step 1** In the Unified CCX Historical Reports main window, click the **Schedule Future Reports, Including Repeat Reports** radio button.
- Step 2** Click the **General** tab, if it is not selected already.

Step 3 Check the **Include Charts in Report** check box.

If you do not want to include charts, uncheck this check box.

Now you can choose whether to print or export the report, and choose detailed report settings. You also must choose schedule settings before the schedule will execute.

Related Topics

- [Choosing the Report to Schedule, page 5-6](#)
- [Choosing Whether to Print or Export a Scheduled Report, page 5-7](#)
- [Detailed Settings for Scheduled Reports, page 5-10](#)
- [Choosing Schedule Settings, page 5-12](#)

Choosing Whether to Print or Export a Scheduled Report

When a schedule executes, the Cisco Unified CCX Historical Reports client either prints the report or exports it (saves it in a file). After choosing this setting, you can choose detailed report settings. You also must choose schedule settings before the schedule will execute.

Related Topics

- [Printing a Scheduled Report, page 5-7](#)
- [Exporting a Scheduled Report, page 5-8](#)
- [Detailed Settings for Scheduled Reports, page 5-10](#)
- [Choosing Schedule Settings, page 5-12](#)

Printing a Scheduled Report

Scheduled reports print on the default printer that has been designated for your computer. To print a scheduled report when it generates, click the Export Type drop-down arrow in the Unified CCX Historical Reports main window and choose Export to Printer.

Now you can choose detailed report settings. You also must choose schedule settings before the schedule will execute.

Related Topics

- [Exporting a Scheduled Report, page 5-8](#)
- [Detailed Settings for Scheduled Reports, page 5-10](#)
- [Choosing Schedule Settings, page 5-12](#)

Exporting a Scheduled Report

The Cisco Unified CCX Historical Reports client saves scheduled reports in files. You can view, print, and manipulate the data in these files with other programs. Unless you have changed the defaultExportPath parameter in the hrcConfig.ini file, the Cisco Unified CCX Historical Reports client stores these files on the client computer in the Cisco Unified CCX Historical Reports\Reports directory, which is under the directory in which you installed the Cisco Unified CCX Historical Reports system. (By default, the system installs in the Program Files directory.) By default, the client saves scheduled reports in a PDF file. Also by default, the client gives saved reports a descriptive file name that indicates the name of the report, its language, its date and time of creation, the login identification of the user who scheduled it, its scheduled recurrence, its date range, and the format of the file. If desired, you can specify another format, location, and file name. (If you change the file name, the client automatically adds descriptive information to the new file name when it creates the file.)

When you specify that a generated report is to be saved, you can designate any of the formats shown in the following table.

Format	Extension that the System Adds to the File Name	Description
Acrobat Format (PDF)	.pdf	Portable Document Format file that can be read with Adobe Acrobat Reader
Comma-separated values (CSV)	.csv	Comma-separated text file
Excel (XLS)	.xls	Microsoft Excel file
Rich Text (Exact) Format	.rtf	RTF file that can be opened with Microsoft Word
XML	.xml	Extensible Markup Language file

To save a scheduled report in a file when the report runs, follow these steps:

Procedure

Step 1 Make sure that Export to File appears in the Export Type field in the Cisco Unified CCX Historical Reports main window. If Export to File does not appear, click the Export Type drop-down arrow, and then choose Export to File from the list that appears.

Step 2 If you want to change the default format, location, or file name for exported files, click **Export Location**.

(The **Export Location** button appears as “...” in the window.)

The Save As dialog box appears. The Cisco Unified CCX Historical Reports client will add information to the default file name shown in the File Name field when the report is generated.

Step 3 If you want, make changes in the Save As dialog box as follows:

- To change the location, use the Save In drop-down arrow, the Folder Name pane, or the Save In tools to specify the directory in which to save the exported report.
- To change the file name, enter the new name in the File Name field, or click the drop-down arrow and then choose it from the list of existing names. If you specify a file name that includes an extension shown in the Save as type drop-down list, the system will create a file in that format, regardless of the format that you select in the Save As field.
- To change the format, click the Save As Type drop-down arrow, and then choose the format in which you want to save the report.

Step 4 Click **Save**.

Now you can choose detailed report settings. You also must choose schedule settings before the schedule will execute.

Related Topics

- [Printing a Scheduled Report, page 5-7](#)
- [Detailed Settings for Scheduled Reports, page 5-10](#)
- [Choosing Schedule Settings, page 5-12](#)

Detailed Settings for Scheduled Reports

When you use detailed report settings, you can cause scheduled reports to include only specific information or to display information in a particular order. Detailed report settings include a sorting method and a filter parameter.

Detailed settings are optional. If you do not choose a detailed setting, the report will contain all relevant information presented in a default order.

To specify a sorting method and a filter parameter for a scheduled report, follow these steps:

Procedure

- Step 1** In the Cisco Unified CCX Historical Reports main window, click the **Generate and View Historical Reports** radio button.
- Step 2** Click the **Detailed** tab.
- Step 3** Choose detailed settings just as you do when you generate a report. See the [“Detailed Report Settings” section on page 4-5](#) for complete instructions.

After choosing these settings, you must choose schedule settings before the schedule will execute.

Related Topics

- [Detailed Report Settings, page 4-5](#)
- [Specifying a Sorting Method, page 4-7](#)
- [Specifying a Filter Parameter, page 4-7](#)
- [Choosing Schedule Settings, page 5-12](#)

Changing the Time Zone to be Used for Scheduled Report

The time zone used in the English scheduled report is either UTC or local time zone, based on the TIMEZONE settings in hrconfig.ini. You can also change the time zone for each report as shown in the procedure.

**Note**

To get the multiple time zone feature, 8.0(2) SU4 patch is applied to Cisco Unified CCX 8.0(1) and manual upgrade of Historical Reports Client is required.

The time and date for data in non-English scheduled reports is in the UTC time zone.

When a report shows date and time information for an event or an activity in the report data, that date and time is based on the TIMEZONE configuration in hrconfig.ini.

The Start and End time is also based on the TIMEZONE configuration in hrconfig.ini.

The difference between the server time and the selected time zone is displayed within parentheses beside the Start and End time.

The report generated time displayed at the bottom of the report is the local time of the HR client machine.

To change the time zone for a particular report, follow these steps:

Step 1

In the Unified CCX Historical Reports main window, click **Settings** menu.

**Note**

You notice the check mark beside the **Use UTC Time Zone for Reports** menu option. This depends on the configuration in hrconfig.ini.

If UTC time zone (value 1) is configured, the check mark is displayed. If local time zone (value 0 - Default) is configured, the check mark is not displayed. For more details, refer [The hrconfig.ini Configuration File, page 2-13](#).

Step 2

Click **Use UTC Time Zone for Reports** to select or unselect the option manually.

Choosing Schedule Settings

After you choose general, detailed and time zone settings for a report, you are ready to choose schedule setting. You can make changes to any of the report settings later if you want.

When you choose schedule settings, you specify:

- How often the schedule executes
- Date and time range of schedule recurrences (if the schedule is to execute more than once)

To choose schedule settings, follow these steps:

Procedure

-
- Step 1** In the Cisco Unified CCX Historical Reports main window, click the **Schedule Future Reports, Including Repeat Reports** radio button.
- Step 2** Click the **General** tab, if it is not selected already.
- Step 3** Click **Change**.

The Cisco Unified CCX Historical Reports Schedule window appears, as shown in [Figure 5-2](#).

Figure 5-2 Cisco Unified CCX Historical Reports Schedule Window

1	Occurrence options
2	Occurrence frequency
3	Range of recurrence options

Step 4 In the Occurs area, choose how often the schedule executes, as explained in the following table.

If You Want the Schedule to Execute This Often	Click This Radio Button	Then Perform These Actions
Every day	Daily	Click the Every radio button, and then enter 1 in the Every <i>n</i> Day(s) field.
Every specific number of days (for example, every 3 days)	Daily	Click the Every radio button, and then enter the number of days in the Every <i>n</i> Day(s) field.

Choosing Schedule Settings

If You Want the Schedule to Execute This Often	Click This Radio Button	Then Perform These Actions
Every weekday (Monday through Friday) Note This report will run every Tuesday through Saturday so that it can include information for Monday through Friday.	Daily	Click the Every weekday radio button.
Every week on a certain day (for example, every week on Friday)	Weekly	Enter 1 in the Every <i>n</i> Week(s) On field, and then click the radio button for the desired day.
Every specific number of weeks on a certain day (for example, every 2 weeks on Monday)	Weekly	Enter the number of weeks in the Every <i>n</i> Weeks(s) On field, and then click the radio button for the desired day.
Every month on a specific date, (for example, the 15th of every month)	Monthly	Click the Day <i>n</i> of calendar month radio button. Then enter the date in this field, or you can click the drop-down arrow and click the scroll arrow to display the date that you want and then click the date. (If you enter a date that does not occur in some months, for example 30 or 31, the system will use the last day of the month for months that do not contain the date.)
Every month on a certain day (for example, the second Friday of every month, or the last Sunday of every month)	Monthly	Click the The number day of calendar month radio button. Click the drop-down arrow in the first field and choose the number of the day. Then click the drop-down arrow in the second field and choose the name of the day.
One time	Once	In the Report Start Date and Report End Date fields, specify the dates and times of the first and last data that you want to include in the report.

Step 5 Set Range of Recurrence options as follows:

For a schedule that is set to occur once, choose these settings in the Range of Recurrence area:

- In the Start Date field, specify the date that you want the schedule to execute.

- In the Start Time field, specify the time that you want the schedule to execute.

For a schedule that is set to occur daily, weekly, or monthly, make these settings in the Range of Recurrence area:

- In the Start Date field, specify the first date on or after which you want the schedule to generate.
- In the Start Time field, specify the time at which you want to execute the schedule when the schedule occurs.
- Specify how often you want the schedule to recur:
 - If you want the schedule to recur indefinitely, click the **No end date** radio button.
 - If you want the schedule to recur a specific number of times, click the **End after** radio button and enter the number of occurrences in the End After field.
 - If you want to specify the last date of a range during which you want the schedule to execute, click the **End by** radio button and enter the date in the End By field.

Step 6 Click **OK** to save your schedule settings.

Related Topics

- [Information in Scheduled Reports, page 5-2](#)
- [General Settings for Scheduled Reports, page 5-5](#)
- [Detailed Settings for Scheduled Reports, page 5-10](#)
- [Saving a Schedule, page 5-15](#)

Saving a Schedule

After choosing general, detailed, and schedule settings, you are ready to save the scheduling information. When you save scheduling information, the system stores the information you have specified as a schedule in the Scheduler database.

To save a schedule, follow these steps:

Procedure

-
- Step 1** In the Cisco Unified CCX Historical Reports main window, click **Schedule**.
The Report Scheduled Successfully dialog box appears.
- Step 2** Click **OK**.
-

Related Topics

- [Information in Scheduled Reports, page 5-2](#)
- [General Settings for Scheduled Reports, page 5-5](#)
- [Detailed Settings for Scheduled Reports, page 5-10](#)
- [Choosing Schedule Settings, page 5-12](#)
- [Viewing and Deleting Schedules, page 5-16](#)

Viewing and Deleting Schedules

To see a list of schedules that you created and that are stored in the Scheduler, choose **Settings > Scheduler** from the Cisco Unified CCX Historical Reports main window, or click the **Scheduler** tool. The Scheduled Reports window appears.

To exit the Scheduled Reports window, click **Close**.

The Scheduled Reports window lists each stored schedule that you created when you were logged into the Cisco Unified CCX Historical Reports system using the current login information. This window displays each schedule on a row and arranges information about each schedule in the columns shown in the following table.

Column	Description
Report Name	Name of the scheduled report
Date Created	Date and time that the schedule was created
Recurrence Type	How often the schedule executes
Export Type	Printer, or format of the export file

Column	Description
Apps Server	IP address or host name of the Cisco Unified CCX server
Schedule Description	Detailed description of the schedule

To expand a column if you cannot see its entire contents, drag the left or right border next to its title.

Related Topics

- [Arranging the Order of Display, page 5-17](#)
- [Deleting Schedules, page 5-17](#)

Arranging the Order of Display

When you open the Scheduled Reports window, the window displays schedules in alphabetical order by Report Name. You can change the display order by arranging the schedules in ascending or descending order by the information displayed in any column.

To change the order of displayed schedules, click the desired column name. The schedule appears in ascending alphabetical or numerical order by the information in that column. Click the same column name again to display the information in descending order.

For example, to display the list of schedules in the order that each schedule was created, click the Date Created column title. Similarly, to display schedules by recurrence type, click the Recurrence Type column title.

Deleting Schedules

When you delete a schedule, the schedule is permanently removed from the Scheduler and will no longer be run.

To delete a schedule, follow these steps:

Procedure

-
- Step 1** From the Scheduled Reports window, click anywhere in the row that contains the schedule you want to delete.
- An arrow appears to the left of the name of the report, indicating that the schedule has been selected.
- Step 2** Click **Delete**.
- The Confirmation dialog box appears.
- Step 3** Click **OK** to permanently delete the schedule.
- If you decide not to delete the schedule, click **Cancel** instead.
-

Handling Missed Schedules

In order for a schedule to execute:

- The Cisco Unified CCX server, (or its standby server, if deployed) must be running.
- At least one server on which the Database component is installed must be running.
- The Scheduler must be running on the Cisco Unified CCX Historical Reports client computer.

If schedules do not execute because a server is not running, you can generate the reports manually when the server is running again.

If schedules do not execute because the Scheduler is not running, the Scheduler will identify missed schedules. When the Scheduler restarts, the client computer will display a dialog box that shows the number of missed schedules and asks if you want to execute missed schedules. Click **Yes** to execute missed schedules, or click **NO** to continue without executing the schedules. If you click **Yes**, the reports that generate will depend on the parameters specified in the sch.ini configuration file and the scheduling options for the reports.

For example, assume that you have set up a schedule to run daily, and that the schedule has no end date. In addition, assume that five of these schedules were missed, and that the sch.ini file instructs the system to execute up to three missed daily schedules. When you execute missed schedules, the system will generate the three most recent daily reports.

As another example, assume that you have set up a schedule to run weekly and to end after four occurrences. In addition, assume that all of these schedules were missed, and that the sch.ini file instructs the system to execute up to three missed weekly schedules. When you execute missed schedules, the system will generate three of the missed weekly reports. The first report will be the one that was scheduled to be the final report. The other reports will be the two previous reports.

Related Topic

- [The sch.ini Configuration File, page 2-17.](#)



CHAPTER 6

Log Files

The Cisco Unified CCX Historical Reports system uses log files to record information about its activities. You can refer to the appropriate log file to help determine the cause of and solution for an error that occurs when

- You are generating, viewing, printing, or exporting a report
- The Scheduler is running a scheduled report

The following sections include these topics:

- [Overview of Log Files, page 6-1](#)
- [Client System Log Files, page 6-2](#)
- [Server Log File, page 6-6](#)

Overview of Log Files

Some Cisco Unified CCX Historical Reports system log files reside on the client system, and some log files reside on the Cisco Unified CCX server. In addition, some log files can be generated on a standby server, if deployed. The following table shows general information about the log files.

Log File	Contents	System Location	Reference
Historical Reports Client Log Files	Information related to generating, viewing, printing, and exporting reports	Client system	See the “ Historical Reports Client Log Files ” section on page 6-3
Scheduler Log Files	Information related to Scheduler activities	Client system	See the “ Scheduler Log Files ” section on page 6-3
Servlets Log File	Information about users who log in or attempt to log in to the Cisco Unified CCX Historical Reports system	Cisco Unified CCX server	See the “ Servlet Log File ” section on page 6-6

Related Topics

- [Client System Log Files, page 6-2](#)
- [Server Log File, page 6-6](#)

Client System Log Files

The Cisco Unified CCX Historical Reports client maintains a series of Historical Reports Client log files and two Scheduler log files. These log files reside on the Cisco Unified CCX Historical Reports client system. The log files are:

- *System-name@session-no_CiscoAppReportsN.log*—Contains information related to generating, viewing, printing, and exporting reports
- *CiscoSch.log*—Contains information related to activities of the Scheduler other than printing and exporting
- *CiscoSchPrintExport.log*—Contains information about printing and exporting activities of the Scheduler

Related Topics

- [Historical Reports Client Log Files, page 6-3](#)
- [Scheduler Log Files, page 6-3](#)
- [Opening Log Files on the Client System, page 6-4](#)

- [Interpreting Log Files on the Client System, page 6-5](#)

Historical Reports Client Log Files

The Historical Reports Client log files are named *System-name@session-no_CiscoAppReportsN.log*. These files are stored in the Cisco Unified CCX Historical Reports\logs directory, which is under the directory in which you installed the Cisco Unified CCX Historical Reports client system. (By default, the system installs in the Program Files directory.)

If you are not running the Cisco Unified CCX Historical Reports client under a Terminal Services session, *System-name* is the name of the system on which the client is installed, and *@session-no* is not included. If you are running the Cisco Unified CCX Historical Reports client under a Terminal Services session, *System-name* is the name of the system from which you invoked Terminal Services, and *@session-no* is the session number assigned to the system under the Terminal Service session.

The system writes information related to generating, viewing, printing, and exporting reports to the current Historical Reports log file. When the system creates the first Historical Reports Client log file, the system replaces *N* in the file name with 0. When this file reaches the size specified in the *hrcConfig.ini* configuration file, the system creates a new Historical Reports Client log file. The system increases *N* in the new Historical Reports Client log file by 1. This process continues until the system creates as many log files as specified in the *hrcConfig.ini* configuration file. Then, the system begins overwriting the existing Historical Reports Client log files, starting with the oldest log file.

Related Topics

- [The *hrcConfig.ini* Configuration File, page 2-13](#)
- [Opening Log Files on the Client System, page 6-4](#)
- [Interpreting Log Files on the Client System, page 6-5](#)

Scheduler Log Files

The Cisco Unified CCX Historical Reports Scheduler maintains two Scheduler log files:

- CiscoSch.log—Maintains information related to all Scheduler activities except printing and exporting
- CiscoSchPrintExport.log—Maintains information related to printing and exporting performed by the Scheduler

The Scheduler log files are stored in the Cisco Unified CCX Historical Reports\Scheduler directory, which is under the directory in which you installed the Cisco Unified CCX Historical Reports system. (By default, the system installs in the Program Files directory.)

Each Scheduler log file has a maximum size of 4 MB. When a Scheduler log file reaches this size, the system copies it to a backup file. The backup file has the same base name as the original file with the extension .bak. The system maintains one such backup file for each Scheduler log file. Each time a Scheduler log file reaches 4 MB in size, the system moves that information to the existing backup file, overwriting the information in the existing backup file.

Related Topics

- [Opening Log Files on the Client System, page 6-4](#)
- [Interpreting Log Files on the Client System, page 6-5](#)

Opening Log Files on the Client System

You open a Cisco Unified CCX Historical Reports log file on the client system on which the log file is stored.

You can open log files from the Cisco Unified CCX Historical Reports main window or by using a text editor. You can also open Scheduler log files from the Scheduler.

When you open a log file from the Cisco Unified CCX Historical Reports main window or from the Scheduler, log information appears in a Notepad window. You can use the Notepad tools to move through the information in this window, to print the file, or to save it under another name. To exit a Notepad window, click the **Close** button on the Notepad menu bar.

To open a log file using another text editor, start the editor, then open the file. You can use the editor tools to move through the information in this window, to print the file, or to save it under another name.

To open any log file from the Cisco Unified CCX Historical Reports main window, follow these steps:

Procedure

- Step 1** Click **Help > Application Logs**.
- Step 2** Navigate to the directory containing the log file that you want to open, if necessary, and double-click the file name that you want.
- The file appears in a Notepad window.
-

To open a Scheduler log file from the Scheduler, follow these steps:

Procedure

- Step 1** Right-click the Scheduler icon that appears in the status area on your Windows taskbar.
- The Scheduler pop-up menu appears.
- Step 2** Choose **View CiscoSch.log** or **View CiscoPrintExport.log**.
- The file you choose appears in a Notepad window.
-

Interpreting Log Files on the Client System

Each log file on the Cisco Unified CCX client system contains a series of entries. The entries describe each activity that occurs in the part of the system for which the file is maintaining information. Each entry includes the date and time at which the activity occurred and a description of the activity. This information is arranged in order of occurrence, with the most recent activity shown at the end of the file. The system numbers each line of information sequentially. A new line numbered 1 is created each time the Cisco Unified CCX Historical Reports client is started.

Level of detail in log files depends on values you specify in configuration files. The level of detail of the entries in the Historical Reports client log files depends on the LogLevel value specified in the hrcConfig.ini configuration file. The level of detail of the entries in the Scheduler log files depends on the LogLevel value specified in the sch.ini configuration file.

The information contained in the log files is designed to help you locate a problem, if one occurs. If the Cisco Unified CCX Historical Reports client experiences an error or a problem, open the appropriate log file and locate the entry that describes the activity that was taking place when the error occurred.

Related Topics

- [The hrcConfig.ini Configuration File, page 2-13](#)
- [The sch.ini Configuration File, page 2-17](#)

Server Log File

The main server log file related with Historical Reporting is Historical Reporting Servlet log file, which is explained in the following subsection.

Servlet Log File

The servlet log file resides on the Cisco Unified CCX server in the following directories:

- \var\log\active\tomcat\logs
- \var\log\active\uccx\logs

The main log file is jvm.stdout. This file logs information from each servlet running on the Cisco Unified CCX server, including the histRepClientsServlet servlet. This servlet provides the following information for every user who attempts to log in to the Cisco Unified CCX Historical Reports system:

- IP address of the client computer from which the login was attempted
- Date and time of the login attempt
- Whether the login attempt was successful

There is no maximum size for the `jvm.stdout` file. When new information is generated, it is appended to the existing `jfm.stdout` file. To find information related to logging in to the Cisco Unified CCX Historical Reports system, open this file and search for `histRepClientsServlet`.

Cisco Unified CCX Reason Codes

This appendix describes the events that cause an agent to go to the Logout state or Not Ready state. The built-in agent Not Ready reason codes are generated by the Unified CCX server. The Agent State Detail table includes a valid reason code for these two states. Reason codes for other states is zero (default).

This appendix includes the following sections:

- [About Reason Codes, page A-1](#)
- [System-Generated Reason Code Events, page A-2](#)

About Reason Codes

Reason codes are initiated by the agent from the Cisco Agent Desktop or are generated by the system. For details on agent-triggered reason code explanations see the *Cisco Agent Desktop User's Guide* and the *Cisco Desktop Administrator User's Guide*.

The system-generated reason codes are displayed in the following reports when the Unified CCX server moves an agent to the Logout or Not Ready states:

- **Logout reason codes:** The Agent Login Logout Activity Report displays detailed information about the login/logout date, time, and other details for each session during the report period (see [Agent Login Logout Activity Report, page 3-18](#)).

- **Not Ready reason codes:** The Agent Not Ready Reason Code Summary Report displays information about the length of time each agent spent in Not Ready state during a specified report period. For each agent, the total time spent in the Not Ready state is displayed along with other details (see [Agent Not Ready Reason Code Summary Report, page 3-20](#)).
- **Logout and Not Ready reason codes:** The Agent State Detail Report displays about when the agent changed from one state to another. (see [Agent State Detail Report, page 3-23](#)).

Each system-generated reason code in these reports are associated with an event indicating the agent's status (see [System-Generated Reason Code Events, page A-2](#)).

System-Generated Reason Code Events

The following events trigger system-generated reason codes:

- [AGT_RELOGIN](#) = 32767
- [CLOSE_CAD](#) = 32766
- [CONNECTION_DOWN](#) = 32765
- [CRS_FAILURE](#) = 32764
- [AGT_RNA](#) = 32763
- [AGT_OFFHOOK](#) = 32762
- [AGT_RCV_NON_ICD](#) = 32761
- [AGT_LOGON](#) = 32760
- [PHONE_DOWN](#) = 327659
- [WORK_TIMER_EXP](#) = 327658
- [CM_FAILOVER](#) = 327657
- [PHONE_UP](#) = 327656
- [CALL_ENDED](#) = 327655
- [DEVICE_RESTRICTED](#) = 32754
- [LINE_RESTRICTED](#) = 32753
- [CANCEL_RESERVATION](#) = 32752

- `AGENT_SKIPS` = 32751
- `AGT_IPCC_EXT_CHANGED` = 32750
- `CANCEL_FEATURE` = 32749
- `SUP_AGT_TO_NOTREADY` = 33
- `SUP_AGT_TO_LOGOUT` = 22

AGT_RELOGIN

Reason Code: 32767

State: Logout

The system issues this reason code when an agent is already logged in to one device (computer or phone) and then tries to relog in to a second device.

CLOSE_CAD

Reason Code: 32766

State: Logout

The system issues this reason code when an agent closes the CAD without logging off.

CONNECTION_DOWN

Reason Code: 32765

State: Logout

The system issues this reason code when an IP Phone Agent or CAD crashes due to any reason or if the connection is disrupted.

CRS_FAILURE

Reason Code: 32764

State: Logout

The system issues this reason code when the active server becomes the standby server and the agent loses connection to the Unified CCX Platform.

AGT_RNA

Reason Code: 32763

State: Not Ready

The system issues this reason code when the agent fails to answer an Unified CCX call within the specified timeout period.

AGT_OFFHOOK

Reason Code: 32762

State: Not Ready

The system issues this reason code when the agent goes *off the hook* to place a call. If the agent remembered to do this task the corresponding agent-triggered reason code is displayed. If the agent did not remember to do this task, the system issues this reason code.

AGT_RCV_NON_ICD

Reason Code: 32761

State: Not Ready

The system issues this reason code when the agent is logged on to the CAD or IP Phone and then receives a call that is not queued on the Unified CCX Platform.

AGT_LOGON

Reason Code: 32760

State: Not Ready

The system issues this reason code when an agent logs in and is automatically placed in the Not Ready state.

PHONE_DOWN

Reason Code: 32759

State: Not Ready

The system issues this reason code if the agent's phone crashes and that agent is placed in the unavailable state.

WORK_TIMER_EXP

Reason Code: 32758

State: Not Ready

The system issues this reason code when an agent's state is changed from WORK to Not Ready. This change occurs if the WORK state for that agent's CSQ is associated with an expired wrap-up timer.

CM_FAILOVER

Reason Code: 32757

State: Not Ready

The system issues this reason code when the Unified CM fails over and the agent is moved to the Not Ready state.

PHONE_UP

Reason Code: 32756

State: Not Ready

The system issues this reason code when the agent's phone comes up after it has been through a Phone Down state.

CALL_ENDED

Reason Code: 32755

State: Not Ready

The system issues this reason code when an agent is moved to the Not Ready state after handling a Unified CCX call. This situation occurs in one of two cases:

- If an agent (Agent 1) is in the Not Ready state and gets a consult Unified CCX call from another agent (Agent 2). In this case, after handling the call, Agent 1 moves back to the Not Ready state.
- If an agent's *Automatic Available* option is disabled and this agent gets a Unified CCX call, then this agent goes to the Not Ready state after handling the call.

DEVICE_RESTRICTED

Reason Code: 32754

State: Not Ready

The system issues this reason code if the agent device is flagged as a restricted device by the Unified CM Administrator.



Warning

If an agent's device is added to the restricted list, then the functionality of the RmCm subsystem is impacted.



Note

If the Allow Control of Device from CTI checkbox is not checked in the Default Device Profile Configuration window in the Unified CM GUI, then the device remains restricted and cannot be controlled. This setting can be modified for devices that register with Unified CM. For more information, see the *Cisco Unified Communications Manager Administration Guide*.

LINE_RESTRICTED

Reason Code: 32753

State: Not Ready

The system issues this reason code if the agent's phone line is flagged as a restricted device by the Unified CM Administrator.



Warning

If an agent's line is added to the restricted list, then the functionality of the RmCm subsystem is impacted.



Note

If the Allow Control of Device from CTI checkbox is not checked in the Default Device Profile Configuration window in the Unified CM GUI, then the line remains restricted and cannot be controlled. This setting can be modified for devices that register with Unified CM. For more information, see the *Cisco Unified Communications Manager Administration Guide*.

CANCEL_RESERVATION

Reason Code: 32752

State: Ready

The system issues this reason code when an agent receives a preview outbound call and decides to cancel the reservation by pressing "Cancel Reservation" button on CAD.

AGENT_SKIPS

Reason Code: 32751

State: Ready

The system issues this reason code when an agent receives a preview outbound call and decides to skip the call.

AGT_IPCC_EXT_CHANGED

Reason Code: 32750

State: Logout

The system issues this reason code when an agent is logged out from CCX because the agent's IPCC extension has been changed in Unified Communications Manager.

CANCEL_FEATURE

Reason Code: 32749

State: Not Ready

The system issues this reason code when an agent's state is changed from TALKING to Not Ready as a result of the Cancel feature. The feature is triggered during an ICD consult call between two agents. When the consulting agent presses the Cancel softkey on the phone, the consulted agent is no longer associated with an ICD call and his/her state changes to Not Ready. This feature is only available on some newer phone models.

SUP_AGT_TO_NOTREADY

Reason Code: 33

State: Not Ready

The system issues this reason code when the Supervisor changes an agent's state to Not Ready state.

SUP_AGT_TO_LOGOUT

Reason Code: 22

State: Logout

The system issues this reason code when the Supervisor changes an agent's state to Logout.



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