



Unified CCX Reporting

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Reporting Administration on Unified CCX

Import of Stock Reports

If you import stock reports from Unified Intelligence Center, run the CLI **utils uccx syntocuc permission all** command to reset the permissions of the user groups. For more information, see *utils uccx syntocuc* command in the *Cisco Unified Contact Center Express Administration and Operations Guide*.



Note Do not create a sub-category under the **Stock** category as the permissions for the **Stock** category is automatically reset at midnight.

You can now rename the Stock Reports folder name.

Unified CCX Historical Reports

Historical reports are the preconfigured reports in Unified Intelligence Center. These reports access past data from the historical data source to display information for the specified period of time.

Unified CCX Historical Datastore

In a Unified CCX Cluster, there can be one or more Historical datastores.



Note Support for High Availability and remote servers is available only in multiple-server deployments.

The Historical Unified CCX Datastore can be co-located with the Unified CCX.



Note In a Unified CCX High Availability server with co-resident Cisco Unified Intelligence Center, Cisco Unified Intelligence Center will intelligently point to the appropriate datasource. This will require no manual configuration during failover or in island mode scenario. For more information about Historical datastore, see *Cisco Unified Contact Center Express Serviceability Administration Guide*.

Historical Reporting Configuration

The Unified CCX Historical Reporting subsystem provides you with a way to set up and manage the purging of the Historical Reporting databases.

Setting up Unified CCX for Historical Reporting consists of the following tasks:

1. [Configure Automatic Purging, on page 3](#)

Configure Database Server Limits

To limit the performance impact of historical reporting on a particular Unified CCX server, you can configure a maximum number of five client/scheduler database connections per server.

To do so, complete the following steps:

Step 1 From the Unified CCXAdministration menu bar, choose **Tools > Historical Reporting > Database Server Configuration**.

The Database Server Configuration web page opens with the following fields:

Field	Description
Server Name	The hostname or IP Address of the database server.
Maximum DB Connections for Report Clients Sessions	<p>The maximum number of client and scheduler connections that can access the Historical Reports Database server.</p> <p>There is a limit of instances for the reporting client sessions and the scheduler sessions based on the load that can be run on each server. The following are the limits:</p> <ul style="list-style-type: none"> • Standalone Setup—1 to 8 instances • High Availability Setup—1 to 16 instances

Step 2 Enter a value in the **Maximum DB Connections for Report Client Sessions** field next to a Server Name.

Step 3 Click **Update**.

The configuration changes take effect.

View Historical Reports

You can view historical reports through the Unified Intelligence Center.

Choose **Tools > User Management > Reporting Capability View**

The User Configuration web page opens.

Purge of Historical Data

As the Unified CCX Engine runs, it collects information about the status and performance of the Unified CCX system. Historical information is stored in a database that can then be accessed to provide reports.

When the database approaches its maximum size, some or all of the data in it must be removed. Removing data from a database is called *purging*.

When the system purges data, it removes data from the db_cra database. It determines what information to purge based on the number of months you specify and on the current date. For example, if you instruct the system to purge data older than 12 months, a purge on January 15 will purge data older than January 15 of the previous year.



Note When you purge data, you permanently delete it. If you want to keep data that will be purged, back up the database.

Unified CCX Administration provides the following features for purging historical reports from the database:

- Daily comparison of the size of the database to a user-specified maximum size
- User-specified time at which the system purges data
- Automatic purging of the database when it exceeds the user-specified maximum sizes
- Automatic purging of the database based on user-specified parameters
- Manual purging of the database



Caution Not configuring the Purge parameters may make your database to be overloaded with large number of records. This leads to call data not being written to database.

Configure Automatic Purging

The Unified CCX Engine performs automatic purging each day at a preset time.

To help keep your system running most efficiently, schedule automatic purging to run when your system is least busy. By default, daily purges are scheduled to run at 01:00 a.m. (01:00 Hrs), but you can change this time.

The system bases its purging activities on a variety of parameters. You can change the default value for any parameter as needed.

The following section contains the procedure for setting the daily purge schedule and auto purge.

Configure Purge Schedule Configuration Parameters

You can change the time of day that the system assesses the need to purge data and the age of data to purge.

When data is purged, the Unified CCX sends a “Database purged” message. This message announces that a purge has taken place and includes an explanation of the purging activity. If the database is approaching its maximum size, then the Unified CCX sends the following message - “Database approaching maximum size”.

The system can send notifications through the following two methods:

- Syslog (system log)
- SNMP traps

To set the purge schedule configuration parameters, complete the following steps.

Step 1 From the Unified CCX Administration menu bar, choose **Tools > HistoricalReporting > Purge Schedule Configuration**. The Purge Schedule Configuration area opens. The following fields are displayed in the Purge Schedule Configuration area.

Field	Description
Purge Schedule	
Daily purge at	Time of day for the daily purge along with the time zone. The time that appears here is based on the primary time zone, which is specified during initial setup of Unified CCX Administration. In a High Availability over WAN deployment, the purge schedule will happen at the time zone of the primary node. Note Unified CCX to Unified Intelligence Center sync runs as part of the purge. It synchronizes the users, teams and grants Live Data report permissions.
Purge data older than	Data can persist for a number of months before being purged.
Purge run time	The total duration for which the purge process should run.
Auto Purge Configuration	
Initiate automatic purge when database exceeds	Percentage of the maximum database size at which an automatic purge is initiated (as compared to the total available size).

Field	Description
Initiate automatic purge when extent size exceeds	Percentage of the maximum extents size of any table above which an automatic purge is initiated.
Auto purge data for the oldest	Age of data to be purged.

- Step 2** From the drop-down list in the Daily purge at field, choose a time of day at which the system determines if purging is necessary.
- Step 3** From the drop-down list in the Purge data older than field, choose the required number of months.
If the system determines that purging is necessary, it will purge both databases of data that is older than the number of months specified in this field.
- Step 4** From the drop-down list in the Purge run time field, specify the required number of hours.
If the system determines that purging is necessary, it will purge both databases of data within the specified duration of time.
- Step 5** From the drop-down list in the Initiate automatic purge when database size exceeds field, accept the default, or choose another number.
- Step 6** From the drop-down menu in the Auto purge data for the oldest field, accept the default of **15**, or choose another number.
- Step 7** From the drop-down list in the initiate automatic purge when extent size exceeds field, accept the default , or choose another number.
- Step 8** Click **Update** icon that displays in the tool bar in the upper, left corner of the window or the **Update** button that displays at the bottom of the window.
The new purge schedule configuration is added to the Unified CCX system.

Purge Manually

You can manually purge the databases at any time. This action will not affect the automatic purging schedule.



Note Support for High Availability is available only in multiple-server deployments.

To manually purge historical data, complete the following steps.

- Step 1** From the Unified CCXAdministration menu bar, choose **Tools > HistoricalReporting > Purge Now**.
The Purge Now web page opens. The Purge data older than field is displayed in the Purge Now web page. You can specify this field in months and days.
- Step 2** From the drop-down list in the Purge data older than *N* months field, keep the default (13 months) or specify the required number of months.
If the system determines that purging is necessary, it will purge both databases of data that is older than the number of months specified in this field.

The Initiate automatic purge when database exceeds field displays the current historical database size as compared to the total available size.

Step 3 From the drop-down list in the Purge data older than *N* days field, keep the default (15 days) or specify the required number of days.

If the system determines that purging is necessary, it will purge both databases of data that is older than the number of days specified in this field.

Step 4 From the drop-down list in the Purge run time, keep the default (7 hours) or specify the required number of hours.

If the system determines that purging is necessary, it will purge both databases of data within the specified duration of the time .

Step 5 Click **Purge Now**.

The database purge is initiated in the server and the Purge Now area refreshes.

Unified CCX to Unified Intelligence Center Synchronization

The Unified CCX to Unified Intelligence Center synchronization runs as part of daily purge at midnight.

The following updates occur during the synchronization:

- Based on the user role (agent, supervisor, or reporting user) configured in Unified CCX, the corresponding user in Unified Intelligence Center gets added to the respective group (agent, supervisor or reporting group). The groups have predefined permissions for folders, reports and report definitions. If you edit the permissions manually in Unified Intelligence Center, these changes are reset to the predefined settings during the daily purge.
- Unified CCX sets the group association for its users based on the highest level role (reporting user, supervisor or agent) for the user. Any custom group associations that may have been done on Unified Intelligence Center is retained.
- Users created directly in the co-resident Unified Intelligence Center are removed. However, users created in the standalone Unified Intelligence Center are retained.
- Custom user groups remain unchanged unless they refer to agent, supervisor, and reporting groups and these groups get reset during the synchronization.

File Restore

Use the File Restore menu option to restore the database records written to HR files when the database goes down.

Unified CCX Real-Time Reports

When the Unified CCX system is configured and functioning, you can run reports to monitor real-time activity using the Unified CCXAdministration web interface.

You must be logged into the Unified CCX Administration web interface to run Unified CCX real-time reports.

Available Unified CCX Real-Time Reports

Unified CCX real-time reporting provides real-time reports you can use to monitor Unified CCX system activity. The following table briefly describes each of these reports.

Report	Description
Application Tasks	Provides information about currently active applications.
Application Tasks Summary	Provides a summary of specific application activity.
Applications	Provides a list of all applications loaded on the Unified CCX server.
Contacts Summary	Provides information for call contacts, email contacts, and HTTP contacts. Also provides number of contacts. Note Calls made by the Outbound subsystem will not be displayed in the Contact Real-Time Report.
Contacts	Provides information about currently active contacts.
Chat CSQ Cisco Unified Contact Center Express Stats	Provides information about Chat CSQ activity. This report is available only if Unified CCX has been configured.
Chat Resource Cisco Unified Contact Center Express Stats	Provides information about Chat Unified CCX resources activity.
CSQ Cisco Unified Contact Center Express Stats	Provides information about CSQ activity. This report is available only if Unified CCX has been configured.
Data Source Usage	Provides information about configured data source names (DSNs).
Engine Tasks	Provides information about currently active Engine tasks.
Preview Outbound Campaign Cisco Unified Contact Center Express Stats	Provides information about real-time Unified CCX information for the Outbound preview.
Outbound Campaign Stats	Provides real-time statistics on IVR and agent based progressive and predictive Outbound campaigns since the statistics were last reset. Note This report will be available only if you have an Outbound license on to Unified CCX premium license in your Unified CCX.
Overall Outbound Stats	Provides real-time statistics across all IVR and agent based progressive and predictive Outbound campaigns since the statistics were last reset. Note This report will be available only if you have an Outbound license on to Unified CCX premium license in your Unified CCX.
Overall Chat Cisco Unified Contact Center Express Stats	Provides information about Chat Unified CCX resources and contact information. This report is available only if Unified CCX has been configured.
Overall Cisco Unified Contact Center Express Stats	Provides information about Unified CCX resources and calls. This report is available only if Unified CCX has been configured.

Report	Description
Resource Cisco Unified Contact Center Express Stats	Provides information about Unified CCX resources activity.
Sessions	Provides information on all active sessions.

Related Topic

[Report Menu, on page 11](#)

Open Real-Time Reports

Real-Time reporting is available from the Unified CCXAdministration web interface.

Real-Time Reporting requires the Java plug-in. If the Java plug-in is not already installed on the PC on which you are viewing the reports, the Unified CCX system automatically installs it when you choose **Tools > Real Time Reporting Tool**.



Note Real Time Reporting (RTR) tool is downloaded as a .jnlp file and is launched using Java Web Start (JWS). Support for JWS is deprecated from Java 9. To use RTR tool with later versions of Java, use OpenWebStart. For more information on OpenWebstart, go to [Install OpenWebStart](#).



Note Use Google Chrome, Mozilla Firefox, or Microsoft Edge to run Real Time Reporting tool.

The Application Reporting web page is a stand-alone component of the Unified CCXAdministration interface. It has its own menu bar, which replaces the Unified CCXAdministration menu bar.

To open real-time reporting, complete the following steps.

Step 1 If you are running Real-Time Reporting for the **first time** on this system, log into Unified CCXAdministration as an **Administrator**.

The system prompts you to download the Java plug-in; follow the prompt instructions.

Note After you perform the initial download of the Real-Time Reporting Java plug-in, non-Administrative users can access Real-Time Reporting on this system.

Step 2 Choose **Tools > Real-Time Reporting** from the Unified CCXAdministration menu bar.

The Application Reporting web page opens in a new window. The real-time reporting tool requires a Java plug-in. If the plug-in is not installed on the machine you are using, the Unified CCX system prompts you to accept the automatic installation of the plug-in. If you do not accept the installation, you cannot use real-time reporting.

Run Reports

Open the real-time reporting tool from the Unified CCXAdministration web interface to run reports.

To run a real-time report, complete the following steps.

Step 1 From the Application Reporting menu bar, choose **Reports**.

Step 2 From the Reports menu, choose the report to run.

The report opens in the Application Reporting window.

View Detailed Subreports

You can view more detailed information for selected items in these four reports:

- Application Tasks report
- Contacts report
- Applications report
- Sessions report

To view detailed subreports, complete the following steps.

Step 1 Run the Application Tasks, Contacts, Applications, or Sessions report.

Step 2 Click a line in the report for which you want to view more detailed information. For example, click an email address in the Contacts report.

Step 3 From the Application Reporting menu bar, choose **Views** and click the subreport that you want to run.

You can also open a subreport by right-clicking the selected item and choosing a subreport.

The subreport opens.

Print Reports

To facilitate printing, you can open a printable version of a report.

To print a report, complete the following steps.

Step 1 Run a report.

Step 2 From the Application Reporting menu, choose **Tools > Open Printable Report**.

A printable version of the report opens in a separate window.

Step 3 Print the report using your browser print functionality.

Reset Report Statistics

The Unified CCX system automatically resets all statistics each day at midnight. You can reset the accumulated statistics manually at any time. Resetting statistics does not reset active statistics, such as active contacts and active tasks.

To reset report statistics, complete the following steps.

Step 1 From the Application Reporting menu bar, choose **Tools > Reset All Stats**.

The Reset Stats dialog box opens for you to confirm the reset.

Step 2 Click **Yes**.

Accumulated statistics are reset.

Clear Contact Option for Stuck Calls

You may sometimes see a Contact/Call as waiting in Real Time Reports in CSQ Stats, and even though there are available Agents in the queue, the call does not seem to get routed to these Agents. The waiting time for the Queued call accumulates and will not clear even if the user activates “Reset All Stats” option from the Real-Time Reporting menu.

To enable clearing such stuck call entries from the system, Unified CCX system provides the Clear Contact option. This has the ability to clear stuck calls in the system without requiring a restart of the engine.

Set Report Options

You can set the following reporting options:

- Refresh interval
- Number of times that the Unified CCXAdministration web interface should attempt to reconnect to the Unified CCX server
- Whether logged off users appear in reports

To set report options, complete the following steps.

Step 1 From the Application Reporting menu bar, choose **Settings > Options**.

The Options dialog box opens.

Step 2 From the Polling Interval drop-down menu, choose the refresh rate in seconds.

Step 3 From the Server Connect Retry Count drop-down menu, choose the number of times that the Unified CCXAdministration web interface should attempt to reconnect to the Unified CCX server.

Step 4 From the Show Logged Off Resources drop-down menu, choose whether logged-off agents appear in reports.

Step 5 Click **Apply** to apply the settings.

Set Report Appearance

You can select from three report appearances:

- Windows, which displays reports in colors based on your Windows settings
- Motif, which displays reports in purple and menu items in brown
- Metal, which displays reports in grey and menu items in black

To set the report appearance:

Choose **Settings** from the Application Reporting menu bar and click the appearance that you want.

Application Reporting User Interface



Note Support for High Availability and remote servers is available only in multiple-server deployments.

When you choose **Tools > Real-Time Reporting** from the Unified CCX Administration menu, the Application Reporting tool opens a web page in a new window.

The Application Reporting tool menu bar contains the following options:

- **Report**—Choose this option to display a list of the available top-level real-time reports.
- **Tools**—Choose this option to reset all the statistics and refresh connections.
- **Settings**—Choose this option to set the look and feel of the real-time Reporting client, set the polling (refresh) interval times, and set the amount of times the server will attempt to reconnect.
- **Help**—Choose this option to display system information and to access Unified CCX online help.

Report Menu



Note All real-time reports display a **Last Updated At** field, which indicates the time of the snapshot. All summary reports display both a start time (which indicates when the summary statistics started being collected) and the current time. All real-time reports display a Connected or Not Connected status for each node in the cluster.

The Report menu provides access to a variety of top-level reports. It contains the following menu options:

- [Contacts Summary Real-Time Report, on page 13](#)
- [Application Tasks Summary, on page 14](#)
- [Application Tasks Real-Time Report, on page 15](#)
- [Engine Tasks Real-Time Report, on page 15](#)
- [Contacts Report, on page 16](#)
- [Applications Report, on page 19](#)

- [Sessions Report, on page 20](#)
- [Data Source Usage Report, on page 20](#)
- [Overall Cisco Unified Contact Center Express Stats Report, on page 21](#)
- [CSQ Cisco Unified Contact Center Express Stats Report, on page 24](#)
- [Preview Outbound Campaign Cisco Unified Contact Center Express Stats Report, on page 25](#)
- [Outbound Campaign Stats Report, on page 30](#)
- [Overall Outbound Stats Report, on page 32](#)
- [Resource Cisco Unified Contact Center Express Stats Report, on page 33](#)
- [Failover Behavior for Unified CCX Stats, on page 35](#)

High Availability (HA) Setup

In an HA setup, real-time reports obtain data from both nodes in the cluster.



- Note**
- Support for High Availability and remote servers is available only in multiple-server deployments.
 - In case of island mode where each node (on either side of the network) assumes mastership and handles calls, the real-time reports may not report accurate data.

Failover in a two-node cluster is available for Unified IP IVR reports as described in the following table.

Failover Scenario	Connection Status	Node 1 Status	Node 2 Status
Both nodes are up	Fully Connected	Node ID current/start-time	Node ID current/start-time
Node 1 is up Node 2 is down	Partially Connected	Node ID current/start-time	Node ID Not Connected
Node 1 is down Node 2 is up	Partially Connected	Node ID Not Connected	Node ID current/start-time
Both nodes are down	Not Connected	Node ID Not Connected	Node ID Not Connected

Unified CCX real-time reports obtain data only from the current master node—failover in a two-node cluster is available as described in the following table.

Failover Scenario	Connection Status	Node 1 Status	Node 2 Status
Both nodes are up Node 1 is master	Fully Connected	Node ID current/start-time	Node ID Not Connected
Node 1 is master Node 2 is down	Fully Connected	Node ID current/start-time	Node ID Not Connected

Failover Scenario	Connection Status	Node 1 Status	Node 2 Status
Node 1 is down Node 2 is master	Fully Connected	Node ID Not Connected	Node ID current/start-time
Both nodes are down	Not Connected	Node ID Not Connected	Node ID Not Connected

Contacts Summary Real-Time Report

Use the Contacts Summary report to view specific contact information for call contacts, email contacts, HTTP contacts, and total number of contacts.

To access the Contacts Summary real-time report, choose **Reports > Contacts Summary** from the Application Reporting menu bar.



Note You display the data on this report as numbers or percentages by clicking the Display Value/Display % toggle button.

The following fields are displayed on the Contacts Summary report.

Field	Description
Active	Active contacts that are currently running.
Inbound	Number of inbound contacts since the statistics were last reset.
Outbound	Number of outbound contacts since the statistics were last reset.
Connected	Number of connected contacts since the statistics were last reset. Provides a total for contacts that are connected to resources (for example, a call connected to an ACD agent).
Terminated	Number of terminated contacts since the statistics were last reset. This row reports contacts that are ended normally by the application (for example, a caller hangs up and the application terminates), indicating whether the contact was terminated: <ul style="list-style-type: none"> • Locally—On the local server. • Remotely—On a remote server in the cluster. Note Use the + toggle button to access these statistics.

Field	Description
Rejected	<p>Number of rejected contacts since the statistics were last reset.</p> <p>This row reports contacts that are not accepted and processed (as a result, for example, of insufficient resources or the rejection of the contact based on some customer-defined logic). Indicates the reason code for the reject:</p> <ul style="list-style-type: none"> • Channels busy • No channel license • No trigger <p>Note Use the + toggle button to access these statistics.</p>
Aborted	<p>Number of aborted contacts since the statistics were last reset.</p> <p>This row reports contacts improperly ended by a task associated with the application (as when, for example, the system generates an exception or can not invoke the application because of some error in the application) and includes the associated Java exception code.</p> <p>Note Java exception codes are dynamic, as they can be generated from a variety of sources.</p> <p>Note Use the + toggle button to access these statistics.</p>
Handled	<p>Number of handled contacts since the statistics were last reset.</p> <p>This row reports contacts that are explicitly marked “Handled” by the application (typically when the application connects the contact to a Unified CCX agent).</p>
Abandoned	<p>Number of abandoned contacts since the statistics were last reset.</p> <p>This row reports contacts that end without being marked “Handled” by the application.</p>

Application Tasks Summary

Use the Application Tasks Summary report to display statistics that summarize the activity of specific applications.

To access the Application Tasks Summary real-time report, choose **Reports > Application Tasks Summary** from the Application Reporting menu bar.

The following fields are displayed on the Application Tasks Summary report.

Field	Description
Application Name	Names of the applications that are running or have run.
Running	Currently running applications.
Completed	Applications that have stopped running.
Total	Number of times an application was invoked since the statistics were last reset.
DTMF VB and AA	Application names configured from the Unified CCX Administration.

Field	Description
Status	Displays the failover connection status. The possibilities are: Fully connected, Partially connected, and Not connected. See the following tables for detailed status information for Unified IP IVR and Unified CCX reports.

Application Tasks Real-Time Report

Use the Application Tasks real-time report to view information about currently active applications.

To access the Application Tasks report, choose **Reports > Application Tasks** from the Application Reporting menu bar. The following fields are displayed on the Application Tasks report.

Field	Description
ID	Unique application task ID.
Node ID	Unique ID for a server in the cluster.
Application	Name of the application.
Start Time	Time when the application task started.
Duration	Length of time that the application has been active.



Note If this report indicates that an application is running for an unusually long time, there may be a problem with the application. The application script may not include error handling that prevents infinite retries if a call is no longer present. If the application does not receive a disconnect signal after a call, the application repeatedly retries to locate the call, and causes the application to run for an unusually long time. To prevent this problem, include the proper error handling in the application script.

Engine Tasks Real-Time Report

Use the Engine Tasks real-time report to view information about currently active Engine tasks.

To access the Engine Tasks report, choose **Reports > Engine Tasks** from the Application Reporting menu bar.

The following fields are displayed on the Engine Tasks report.

Field	Description
ID	Unique identifier of the engine task. If the engine task is the main task running the application and the parent ID is empty, its identifier will match the Application Task Identifier.
Parent ID	Unique identifier for the parent of the engine task (if any).
Node ID	Unique identifier for a server in the cluster.
Server IP Address	IP address identifying the server in the cluster.

Field	Description
Script	Name of the script that is running the task (if the task is running a Unified CCX script).
Start Time	Time that the task started.
Duration	Length of time the task has been active.

Contacts Report

Use the Contacts real-time report to view information for all the active contacts for all servers across clusters.



Note Support for High Availability and remote servers is available only in multiple-server deployments.

To access the Contacts report, choose **Reports > Contacts** from the Application Reporting menu bar.

You can access detailed information about specific contacts listed on the Contacts web page by performing one of the following procedures:

- [Call Contacts Detailed Info Report, on page 17](#)
- [Email Detailed Info Report, on page 17](#)
- [HTTP Detailed Info Report, on page 18](#)

The following fields are displayed on the Contacts report.

Field	Description
ID	Unique identifier representing a contact.
Type	Type of contact: Unified CM Telephony call, Cisco agent call, or
Impl ID	Unique identifier provided by the particular type of contact. For example, for a call contact, this identifier would represent the Unified CM global call ID.
Node ID	Unique identifier for a server in the cluster.
Start Time	Time stamp when the contact was created.
Duration	Length of time that the contact is active.
Handled	If True, the contact is handled; if False, the contact is not handled.
Aborting	If True, the contact is aborted with a default treatment; if False, the contact is not aborted.
Application	Name of the application currently managing the contact.
Task	Unique identifier of the application task that is currently responsible for the contact.
Session	Unique identifier of the session currently managing the contact (if any).



Note The information displayed is dependent on the type of contact selected. Depending on the type of call, some fields may not be supported and will appear blank.

Call Contacts Detailed Info Report

Use the Call Contacts Detailed Info real-time report to view all information related to the call contact.

To access the Call Contacts Detailed Info report, right-click a specific call contact record on the Contacts report; information for that specific record displays.

The following fields are displayed on the Call Contacts Detailed Info report.

Field	Description
State	Current state of the contact.
Inbound	If True, this call was received by the Unified CCX server; if False, this call was placed as an outbound call by an application.
Language	The selected language context of the call.
Application ID	Unique identifier of the associated application.
Called Number	Called number for this call leg from the perspective of the called party.
Dialed Number	Dialed number for this call leg from the perspective of the calling party.
Calling Number	Calling number of the originator of this call.
ANI	Automatic number identification.
DNIS	Dialed number identification service.
CLID	Caller ID.
Arrival Type	Information on how the call contact arrived in the system.
Last Redirected Number	Number from which the last call diversion or transfer was invoked.
Original Called Number	Originally called number.
Original Dialed Number	Originally dialed number.
ANI Digits	Automatic Number Identification information indicator digit codes.
CED	Entered digits that were gathered by the network before the call was received.

Email Detailed Info Report

Use the Email Detailed Info real-time report to view all information related to the email contact.

To access the Email Detailed Info report, right-click a specific email contact record on the Contacts report; information for that specific record displays.

The following fields are displayed on the Email Detailed Info report.

Field	Description
State	Current state of the contact.
Inbound	If True, this email message was received by the Unified CCX server; if False, this email was created by an application. Note Inbound email messages are not currently supported.
Language	Selected language context of the email message.
Application ID	Unique identifier of the associated application.
From	Sender of this email message.
To	All the recipients of this email message.
Subject	“Subject” field of this email message.
Attachments	List of all attachments (file names) associated with this email message.

HTTP Detailed Info Report

Use the HTTP Detailed Info real-time report to view all information related to the HTTP contact.

To access the HTTP Detailed Info report, right-click a specific HTTP contact record in the Contacts report; information for that specific record displays.

The following fields are displayed on the HTTP Detailed Info report.

Field	Description
State	Current state of the contact.
Inbound	If True, this HTTP request was received by the Unified CCX server; if False, this HTTP request was created by an application. Note This information will always be reported as True, because the Unified CCX server does not currently track outbound HTTP requests in this way.
Language	Language currently associated with the HTTP request.
Application ID	Unique identifier of the associated application.
Authentication Type	Name of the authentication scheme used to protect the servlet; for example, “BASIC” or “SSL.”
Character Encoding	Length, in bytes, of the request body, which is made available by the input stream, or -1 if the length is not known. Note This length is the same as the value of the CGI ¹ variable CONTENT_LENGTH.

Field	Description
Content Length	MIME type of the body of the request, or null if the type is not known. Note This is the same as the value of the CGI variable CONTENT_TYPE.
Content Type	Type of HTTP contact request.
Request Language	Preferred language for client content (the language that the client accepts for its content), based on the Accept-Language header.
Path Info	Any extra path information associated with the URL the client sent when the HTTP request was made.
Protocol	Name and version of the protocol the request uses in the form: <i>protocol/majorVersion.minorVersion</i> ; for example, HTTP/1.1 Note This value is the same as the value of the CGI variable SERVER_PROTOCOL.
Remote Address	IP address of the client that sent the request Note This value is the same as the value of the CGI variable REMOTE_ADDR.
Remote Host	Fully qualified name of the client that sent the request, or the IP address of the client, if the name cannot be determined Note This value is the same as the value of the CGI variable REMOTE_HOST.
Remote User	Login of the user making this request, if the user has been authenticated.
Requested Session ID	HTTP session ID as specified by the client.
Request URL	Section of the URL of the HTTP request, from the protocol name up to the query string in the first line of the HTTP request.

¹ CGI = Common Gateway Interface

Applications Report

Use the Applications real-time report to view all the applications loaded on the server.

To access the Applications report, choose **Reports > Applications** from the Application Reporting menu bar.

The following fields are displayed on the Applications report.

Field	Description
Name	Unique name of the currently loaded application.
ID	Application ID.
Type	Type of application that is currently running (for example, a Cisco Script Application).

Field	Description
Description	Description of the application as entered on the Unified CCXAdministration web site.
Enabled	If True, the application is enabled; if False, the application is disabled.
Max. Sessions	Maximum number of simultaneous task instances that can run simultaneously on the Unified CCX server.
Valid	If True, the application is valid; if False, the application is invalid. ²

² An application is valid if it was successfully loaded and initialized from its configuration. At any time, an application can become invalid if it internally fails to be refreshed.

Sessions Report

Use the Sessions real-time report to view real-time information on all the active sessions.

To access the Sessions report, choose **Reports > Sessions** from the Application Reporting menu bar.

The following fields are displayed on the Sessions report.

Field	Description
ID	Session ID. Note This identifier is guaranteed to remain unique for a period of 12 months.
Mapping ID	User- or system-defined identifier that maps to this session.
Node ID	Unique identifier for a server in the cluster.
Parent	Sessions that were created as a result of consult calls propagated in the system.
Creation Time	Creation time of the session.
State	Current state of the session. Note When marked IDLE, the session is subject to being “garbage collected” by the system after a specified period of time. In addition, a session is IN_USE if it still has a contact associated or a child session.
Idle Time	Length of time that the session has been idle.

Data Source Usage Report

Use the Data Source Usage real-time report to view real-time information on all configured Data Source Names (DSNs).

To access the Data Source Usage report, choose **Reports > Datasource Usage** from the Application Reporting menu bar.

The following fields are displayed on the Data Source Usage report.

Field	Description
Data Source Name	Name of the data source, as configured through the Unified CCX Administration web interface.
Available Connections	Number of connections available.
Busy Connections	Number of busy connections. Note Busy + available = Maximum number of connections configured.
Checkouts Granted	Number of times the database connections have been used up since the statistics were last reset.
Checkouts Denied	Number of times the Database connections have been denied since the statistics were last reset.

Overall Cisco Unified Contact Center Express Stats Report

Use the Overall Cisco Unified Contact Center Express Stats real-time report to view real-time Unified CCX resource and call information.



Note Unified CCX reports contain information for calls that have been queued in one or more CSQs. If a call is not queued (for example, the caller hangs up before being queued), the reports do not display data for that call.

Unified CCX reports retrieve the following statistics:

- Unified CCX statistics from the current Master node.
- Unified IP IVR statistics from all nodes in the cluster.

To access the Overall Unified CCX Stats report, choose **Reports > Overall Cisco Unified Contact Center Express Stats** from the Application Reporting menu bar.



Note Preview Outbound durations are updated when the preview outbound call disconnects and all agents (resources) involved in the call move out of the Work and Talking state.

The following fields are displayed on the Overall Cisco Unified Contact Center Express Stats report.

Field	Description
Resource Information	
CSQs	Number of CSQs currently configured. If a CSQ is added or removed, this statistic reflects that change.
Logged-in Resources	Number of resources currently logged in.

Field	Description
Talking Resources	Number of resources currently talking. Note This number includes resources in Talking, Work, and Reserved states.
Ready Resources	Number of resources currently ready.
Not Ready Resources	Number of resources currently not ready.
Call Information — Inbound	
Total Contacts	Number of total contacts that have arrived since the statistics were last reset. This includes contacts that are waiting, contacts connected to a resource, and contacts that have disconnected. If a resource transfers to or conferences with a route point, this value increases.
Contacts Waiting	Number of contacts waiting to be connected to a resource. Note A contact is shown as waiting until the call is <i>answered</i> by the agent. This means that, even if the phone is ringing at the agent, the contact will still show as waiting in RTR.
Oldest Contact in Queue	Displays the wait time for the oldest contact in the queue.
Contacts Handled	Number of contacts that have been handled by a resource.
Contacts Abandoned	Number of contacts that have arrived and disconnected before being connected to a resource.
Avg Talk Duration	Average duration (in seconds) that resources spend talking on Unified CCX contacts. Talk duration starts when a contact first connects to a resource and ends when the contact disconnects from the last resource to which it was connected. Talk duration does not include hold time.
Avg Wait Duration	Average wait time (in seconds). It begins when the contact enters the system and ends when the contact stops waiting. Wait duration does not include hold time. The time a contact spends on a CTI port prior to getting queued is included in this report.
Longest Talk Duration	Longest talk duration (in seconds) of a contact. Talk duration does not include hold time.
Longest Wait Duration	Longest wait (in seconds) for a contact to be connected to a resource. Wait duration does not include hold time.
Call Information — Preview Outbound	
Active	Total number of preview outbound calls currently previewed or connected to agents.

Field	Description
Preview	Total number of preview outbound calls currently previewed but have not been accepted, rejected, or closed by the agents.
Connected	Total number of preview outbound calls currently connected to agents. When an agent conferences in other agents, the call is counted once towards the total number of connected calls.
Offered	Total number of preview outbound calls offered. A call is considered offered when it is presented to an agent. A contact that is presented to an agent, skipped/rejected by that agent, and then presented to the same agent or to another agent is counted twice towards the number of calls offered. Offered = Accepted + Rejected + Closed + Timed-out.
Accepted	Total number of preview 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 accepted.
Rejected	<p>The number of preview outbound calls that were skipped or rejected by an agent. This means that the agent selected Reject, Skip, or Cancel Reservation. These contacts will be dialed again. If a contact is rejected by multiple agents, this field increments each time the contact is rejected.</p> <p>The number Rejected is also incremented each time an agent drops the preview call while it is ringing at the customer's contact.</p>
Closed	The number of preview outbound contacts that were closed by agents. This means that the agent selected Skip-Close or Reject-close. These contacts will not be dialed again.
Timed-Out	Total number of preview outbound calls that timed out. A call is considered timed out when it is presented to an agent and not accepted, rejected, or closed within the allocated time. These contacts will be dialed again. If a contact timed out multiple agents, this field is incremented each time the contact is timed out for each agent.
Invalid Number	<p>The number of preview outbound calls that were dialed to an invalid number. This means that the agent accepted the call (by clicking Accept), got connected to the customer, and selected the Invalid Number option from the contact Reclassification drop down. It also includes the number of preview outbound calls that failed at the network level.</p> <p>Note The agent can manually reclassify the contact as Invalid Number while the customer contact is on the call or when the agent has gone into the Work state after the call.</p>
Voice	The number of preview outbound calls that ended in successful customer contact. This means that an agent accepted the call (by clicking Accept) <i>and</i> selected a classification of Voice (default) or Do Not Call for this contact.

Field	Description
Answering Machine	<p>The number of preview outbound calls that connected to an answering machine for this campaign. This means that the agent accepted the call (by clicking Accept), got connected to the answering machine and selected the Answering Machine option from the contact Reclassification drop down.</p> <p>Note The agent can manually reclassify the contact as Answering Machine while the customer contact is on the call or when the agent has gone into the Work state after the call.</p>
Requested Callback	The number of contacts marked for callback. This means that the agent accepted the call (by clicking Accept), got connected to the contact, the contact requested a callback, and the agent selected the CallBack option. 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.
Avg Outbound Talk Duration	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. If a preview outbound call is transferred or conferenced to a route point, this average outbound talk duration does not include the talk time of agents who handle the call after it came through the route point. Instead, the talk time is included in the inbound talk duration.
Longest Outbound Talk Duration	The longest talk duration of a preview outbound call in HH:MM:SS (hours, minutes, seconds). The durations consider all calls that were Agent Accepted and classified as Voice.

CSQ Cisco Unified Contact Center Express Stats Report

Use the CSQ Cisco Unified Contact Center Express Stats real-time report to view real-time information.



Note Unified CCX reports contain information for calls that have been queued in one or more CSQs. If a call is not queued, the reports do not display data for that call. .

To access the CSQ Cisco Unified Contact Center Express Stats report, choose **Reports > CSQ Cisco Unified Contact Center Express Stats** from the Application Reporting menu bar.

The following fields are displayed on the CSQ Cisco Unified Contact Center Express Stats report.

Field	Description
Name	Name of the CSQ.

Field	Description
Talking/Ready Resources/Not Ready Resources/Logged-In Resources	<p>Number of resources who are in the talking, ready, and not ready states, and the number of resources logged in for this CSQ. Values for the four items are separated by colons. Values are displayed in the same order that the items appear in the column heading.</p> <p>Note This number includes resources in Talking, Work, and Reserved states. If you are logged into the Unified CCX Administration web interface as a Supervisor and opening the Real-Time Reporting plug-in, you will be able see all the logged in agents from all the teams independent of team membership.</p>
Total Contacts	Number of total contacts since the statistics were last reset for this CSQ.
Contacts Waiting	<p>Number of contacts waiting to be connected to a resource in this CSQ.</p> <p>This column also displays how long the oldest contact has been waiting.</p>
Contacts [oldest contact in queue]	Duration of longest currently waiting contact.
Contacts Handled	Number of contacts that have been handled by this CSQ.
Contacts Abandoned	Number of contacts that have been abandoned by this CSQ.
Contacts Dequeued	Number of contacts that have been dequeued from this CSQ.
Avg Talk Duration	Average time (in seconds) agents in this CSQ spent talking to contacts.
Avg Wait Duration	<p>Average wait time (in seconds). It begins when the call was queued (when you execute the “Select Resource” step) and ends when the call reaches the agent. Wait duration does not include hold time. The time a contact spends on a CTI port prior to getting queued is not included in this wait time.</p>
Longest Talk Duration	Longest time (in seconds) agents in this CSQ spend talking to contacts.
Longest Wait Duration	Longest wait (in seconds) for a contact to be connected to a resource.

Preview Outbound Campaign Cisco Unified Contact Center Express Stats Report

Use the Preview Outbound Campaign Cisco Unified Contact Center Express Stats real-time report to view real-time Unified Contact CCX information for the Outbound preview dialer.

To access the Preview Outbound Campaign Cisco Unified Contact Center Express Stats report, choose **Reports > Preview Outbound Campaign Cisco Unified Contact Center Express Stats** from the Application Reporting menu bar.

The following fields are displayed on the Preview Outbound Campaign Cisco Unified Contact Center Express Stats report.

Field	Description
Campaign	The name of the preview outbound campaign.

Field	Description
Status	The current activation state of the preview outbound campaign: <ul style="list-style-type: none"> • Running: an active preview outbound campaign • Stopped: an inactive preview outbound campaign
Active	Total number of outbound calls currently previewed by or connected to agents for this preview outbound campaign. Active Calls = Previewed + Connected.
Preview	Total number of outbound calls currently previewed but have not been accepted, rejected or closed by the agents as part of this preview outbound campaign.
Connected	Total number of outbound calls currently connected to agents for this preview outbound campaign. When an agent conferences in other agents, the call is counted once towards the total number of connected calls.
Offered	Total number of outbound calls offered for this preview outbound campaign. A call is considered offered when it is presented to an agent as part of this preview outbound campaign. A contact that is presented to an agent, rejected by that agent, and then presented to the same agent or to another agent is counted twice towards the number of calls offered. Offered = Accepted + Rejected + Closed + Timed-out.
Accepted	Total number of outbound calls accepted for this preview outbound campaign. A call is considered accepted if an agent has clicked Accept when presented the call. A call that is presented to an agent, rejected by that agent, presented to another agent, and then accepted by that other agent is counted once towards the number of calls accepted.
Rejected	The number of outbound calls that were rejected by an agent as part of this preview outbound campaign. This means that the agent selected Reject or Cancel Reservation. These contacts will be dialed again. If a contact is rejected by multiple agents, this field increments each time the contact is rejected. The number Rejected is also incremented each time an agent drops the preview call while it is ringing at the customer contact.
Closed	The number of outbound contacts that were closed by agents as part of this preview outbound campaign. This means that the agent selected Reject-close. These contacts will not be dialed again.
Timed-Out	Total number of outbound calls that timed out. A call is considered timed out when it is presented to an agent and not accepted, rejected, or closed within the allocated time. These contacts will be dialed again. If a contact times out for multiple agents, this field is incremented each time the contact is timed out for each agent.
Invalid Number	The number of outbound calls that were dialed to an invalid number for this preview outbound campaign. This means that the agent accepted the call (by clicking Accept), got connected to the customer, and selected the "Invalid Number" option from the contact Reclassification drop down. It also includes the number of outbound calls that failed at the network level. Note The agent can manually reclassify the contact as Invalid Number while the customer contact is on the call or when the agent has gone into the Work state after the call.
Voice	The number of outbound calls that ended in successful customer contact. This means that an agent accepted the call (by clicking Accept) <i>and</i> selected a classification of Voice or Do Not Call for this contact.

Field	Description
Answering Machine	The number of outbound calls that connected to an answering machine for this preview outbound campaign. This means that the agent accepted the call (by clicking Accept), got connected to the answering machine and selected the Answering Machine option from the contact Reclassification drop down. Note The agent can manually reclassify the contact as Answering Machine while the customer contact is on the call or when the agent has gone into the Work state after the call.
Requested Callback	The number of contacts marked for callback for this preview outbound campaign. This means that the agent accepted the call (by clicking Accept), got connected to the contact, the contact requested a callback and the agent selected the CallBack option. 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.
Avg Talk Duration	The average time in HH:MM:SS (hours, minutes, seconds) that agents spend talking on outbound calls for this preview outbound campaign. The durations consider all calls that were Agent Accepted and classified as Voice. If a call is transferred or conferenced back to the route point, the preview outbound campaign talk duration does not handle the talk time of agents who handle the call after it came through the route point.
Longest Talk Duration	The longest talk duration of an outbound call in HH:MM:SS (hours, minutes, seconds) for this preview outbound campaign. The durations consider all calls that were Agent Accepted and classified as Voice.

Chat CSQ Cisco Unified Contact Center Express Stats Report

Use the Chat CSQ Cisco Unified Contact Center Express Stats real-time report to view real-time queue information. This report is available in Cisco Unified CCX Premium license package.



Note Unified CCX reports contain information for a chat contact that are queued with a specific CSQ. If a contact is not queued, the reports do not display data for that chat contact.

To access the Chat CSQ Cisco Unified Contact Center Express Stats report, choose **Reports > Chat CSQ Cisco Unified Contact Center Express Stats** from the Application Reporting menu bar.

The following fields are displayed on the Chat CSQ Cisco Unified Contact Center Express Stats report.

Field	Description
Name	Name of the chat CSQ
Busy Resources/ Ready Resources/ Not Ready Resources/ Logged-In Resources	Number of resources who are in the Busy, Ready, and Not Ready states, and the number of agents logged in for this chat CSQ. Values for the four items are separated by colons. Values are displayed in the same order that the items appear in the column heading. Note If you are logged in to the Unified CCX Administration web interface as a supervisor and you open the Real-Time Reporting plug-in, you can see all the logged-in agents from all the teams.
Total Contacts	Number of total contacts presented to this queue since last reset of statistics.

Field	Description
Contacts Waiting [Oldest Contact in Queue]	Number of contacts waiting in this queue with the duration of longest waiting contact in this queue.
Contacts Handled	Number of contacts that have been handled by this queue since last reset of statistics.
Contacts Abandoned	Number of contacts that have been abandoned in this queue since last reset of statistics.
Avg Contact Handling Duration	Average time (in HH:MM:SS) agents in this CSQ spent chatting with contacts.
Avg Wait Duration	Average wait time (in HH:MM:SS) a contact spent in queue waiting for an agent.
Longest Contact Handling Duration	Longest time (in HH:MM:SS) agents in this CSQ spent chatting with contacts.
Longest Wait Duration	Longest wait (in HH:MM:SS) for a contact to be connected to an agent.

Chat Resource Cisco Unified Contact Center Express Stats Report

Use the Chat Resource Cisco Unified Contact Center Express Stats real-time report to view real-time Unified CCX chat resource information. This report is available in Cisco Unified CCX Premium license package.

To access the Chat Resource Cisco Unified Contact Center Express Stats report, choose **Reports > Chat Resource Cisco Unified Contact Center Express Stats** from the Application Reporting menu bar.

The following fields are displayed on the Chat Resource Cisco Unified Contact Center Express Stats report:

Field	Description
Name (ID)	Unique identifier of the resource.
State	Current state of the resource.
Current Active Contacts	Number of active contacts that the agent is handling.
Duration in State	Length of time (in HH:MM:SS) the resource has remained in the current state.
Avg Resource Busy Duration	Average time the agent spent with contacts. The resource busy duration is the elapsed time between the resource accepting the contact and completing the chat by clicking End.
Longest Resource Busy Duration	Longest time the agent spent with a contact. The resource busy duration is the elapsed time between the resource accepting the contact and completing the chat by clicking End.
Contacts Presented	Number of contacts that have been presented to this resource.
Contacts Handled	Number of contacts that have been handled by this resource.

Overall Chat Cisco Unified Contact Center Express Stats Report

Use the Overall Chat Cisco Unified Contact Center Express Stats real-time report to view real-time Unified CCX resource and contact information. This report is available in Cisco Unified CCX Premium license package.



Note Unified CCX reports contain information for contacts that have been queued in one or more CSQs. If a contact is not queued, the reports do not display data for that contact.

To access the Overall Chat Unified CCX Stats report, choose **Reports > Overall Chat Cisco Unified Contact Center Express Stats** from the Application Reporting menu bar.

The following fields are displayed on the Overall Chat Cisco Unified Contact Center Express Stats report.

Field	Description
Resource Information	
CSQs	Number of chat CSQs currently configured. If a chat CSQ is added or removed, this statistic reflects that change.
Logged-in Resources	Number of resources currently logged in.
Busy Resources	Number of resources currently busy.
Ready Resources	Number of resources currently ready.
Not Ready Resources	Number of resources currently not ready.
Contact Information	
Total Contacts	Number of total contacts that have arrived since the statistics were last reset. This includes contacts that are waiting, contacts connected to a resource, and contacts that have disconnected.
Contacts Waiting	Number of contacts waiting to be connected to a resource. Note A contact is shown as waiting until the contact is answered by the agent.
Oldest Contact in Queue	Displays the wait time for the oldest contact in the queue.
Contacts Handled	Number of contacts that have been handled by a resource.

Field	Description
Contacts Abandoned	Number of contacts that are routed to the CSQ since midnight but are abandoned due to one of the following: <ul style="list-style-type: none"> • Customer ended the chat as the chat was not answered by an agent. • Customer chat was disconnected. • No agents were available. • All agents were busy.
Avg Contact Handling Duration	Average duration (in HH:MM:SS) that resources spent chatting on Unified CCX contacts. Chat duration starts when a contact first connects to a resource and ends when the contact disconnects from the resource to which it was connected.
Avg Wait Duration	Average wait time (in HH:MM:SS). It begins when the contact enters the system and ends when either the contact is connected with an agent or if contact was disconnected.
Longest Contact Handling Duration	Longest contact handling duration (in HH:MM:SS) of a contact.
Longest Wait Duration	Longest wait (in HH:MM:SS) for a contact to be connected to a resource.

Outbound Campaign Stats Report

If you have an Outbound license, use the Outbound Campaign Stats report to view real-time statistics on each IVR-based and agent-based progressive and predictive Outbound campaign configured in Unified CCX. This report will be available only if you have an Outbound license on top of Unified CCX premium license in your Unified CCX.

To access the Outbound Campaign Stats report, choose **Reports > Outbound Campaign Stats** from the Application Reporting menu bar. The following fields are displayed on the Outbound Campaign Stats report.



Note The call related fields display the data from the time the statistics were last reset.

Field	Description
Campaign Name	The name of the IVR-based or agent-based progressive or predictive campaign.
Status	The current activation state of the campaign: <ul style="list-style-type: none"> • Running: an active IVR-based or agent-based progressive or predictive campaign. • Stopped: an inactive IVR-based or agent-based progressive or predictive campaign.

Field	Description
Campaign Type	<p>The dialer type of the campaign, which can be one of the following:</p> <ul style="list-style-type: none"> • IVR Progressive • IVR Predictive • Agent Progressive • Agent Predictive
Attempted	<p>The total number of attempted calls.</p> <p>If there are no customer abandoned calls, then Attempted will be equal to sum of the following counters:</p> <p>Voice + Answering Machine + Invalid Number + Fax/Modem + No Answer + Busy + Failed.</p>
Voice	<p>The total number of calls that are connected to live voice.</p> <p>Note The call will be marked as System Abandoned after it has been marked as Voice and Active due to any of the following reasons:</p> <ul style="list-style-type: none"> • Whenever there is an exception while executing some steps in an IVR script in case of IVR-based campaigns. For example, if there is any codec mismatch issue, there will be an exception in the Accept Step. In such cases, the same call will be marked in the following three categories voice, active, and system abandoned. • Whenever the call that is ringing on the agent's phone fails in case of agent-based campaigns.
Answering Machine	<p>The total number of calls that reached an answering machine.</p>
Invalid Number	<p>The total number of calls that reached an invalid number:</p> <ul style="list-style-type: none"> • A failed call when the gateway returns an invalid or not found error.
Fax/Modem	<p>The total number of calls that reached fax or modem.</p>
No Answer	<p>The total number of calls that were not answered within the time configured for the No Answer Ring Limit field in the Add New Campaign web page.</p>
Busy	<p>The total number of calls that reached a busy destination.</p>
Failed	<p>The total number of calls that failed due to any one of the following reasons:</p> <ul style="list-style-type: none"> • Dialer asked the Gateway to cancel a call that was dialed out, but not connected. • Gateway has declined the call. • Gateway failure or configuration issues at the Gateway. • Gateway is down.

Field	Description
Active	The total number of calls that were connected to IVR ports or agents. All the voice calls that will be connected to Outbound IVR ports or agents will be marked as active. If you have selected Answering Machine Treatment or Abandoned Call Treatment as "Transfer to IVR," the answering machine calls and abandoned calls that are getting transferred to Outbound IVR ports will also be marked as active.
Customer Abandoned	The total number of calls that were disconnected by the customer or agent within the Abandoned Call Wait Time configured in Add New Campaign web page.
System Abandoned	The total number of calls that were abandoned due to any of the following reasons: <ul style="list-style-type: none"> • Non-availability of ports or agents. • Any issues at system level.
Abandon Rate (in %)	Abandon Rate = (System Abandoned/Voice)*100



- Note**
- If you have selected Answering Machine Treatment as "End Call" for an IVR or agent based outbound campaign through Campaign Configuration web page, then Voice = Active + System Abandoned.
 - If you have selected Answering Machine Treatment or Abandoned Call Treatment as "Transfer to IVR" for an IVR or agent based outbound campaign through Campaign Configuration web page, then Voice + Answering Machine = Active + System Abandoned.

Overall Outbound Stats Report

If you have an Outbound license, you can use the Overall Outbound Stats report to view real-time statistics across all IVR-based and agent-based progressive and predictive campaigns since the statistics were last reset. This report will be available only if you have an Outbound license on top of Unified CCX premium license in your Unified CCX.

To access the Overall Outbound Stats report, choose **Reports > Overall Outbound Stats** from the Application Reporting menu bar. The following fields are displayed on the Overall Outbound Stats report for all the configured IVR-based and agent-based Outbound campaigns.



Note The call related fields display the data from the time the statistics were last reset.

Field	Description
Attempted	The total number of attempted Outbound calls.
Voice	The total number of Outbound calls that were connected to live voice.
Answering Machine	The total number of Outbound calls that reached answering machine.

Field	Description
Invalid Number	The total number of Outbound calls that reached an invalid number.
Fax/Modem	The total number of Outbound calls that reached fax or modem.
No Answer	The total number of Outbound calls that were not answered.
Busy	The total number of Outbound calls that reached a busy destination.
Failed	The total number of failed Outbound calls for all IVR and agent based Outbound campaigns.
Active	The total number of Outbound calls that were connected to Outbound IVR ports or agents.
Customer Abandoned	The total number of Outbound calls that were abandoned by the customer or disconnected by the agent.
System Abandoned	The total number of Outbound calls that were abandoned by the system.

Resource Cisco Unified Contact Center Express Stats Report

Use the Resource Cisco Unified Contact Center Express Stats real-time report to view real-time Unified Contact CCX agent information.

To access the Resource Cisco Unified Contact Center Express Stats report, choose **Reports > Resource Cisco Unified Contact Center Express Stats** from the Application Reporting menu bar.



Note If multiple lines are configured for an agent, only the calls on the agent's primary extension are reported in Resource Cisco Unified Contact Center Express Stats report.

The following fields are displayed on the Resource Cisco Unified Contact Center Express Stats report.

Field	Description
Name (ID)	Unique identifier of the agent.
State	Current state of the agent.
Duration in State	Amount of time (in seconds) the agent has remained in the current state.
Contacts Presented	Number of contacts presented to the agent.
Contacts Handled	Number of contacts handled by the agent.
Avg Talk Duration	Average time (in seconds) the agent spent in talking state.
Avg Hold Duration	Average time (in seconds) the agent keeps calls on hold.
Longest Talk Duration	Longest time (in seconds) the agent spent in talking state.
Longest Hold Duration	Longest time (in seconds) the agent keeps a call on hold.

Field	Description
Outbound Offered	Total number of preview outbound calls offered to the agent. A call is considered offered when it is presented to an agent. The number of calls offered is counted twice if a contact that is presented to an agent is skipped/rejected by that agent and then the contact is presented to the same agent or to another agent. Offered = Accepted + Rejected + Closed + Timed-out.
Outbound Accepted	<p>Total number of outbound calls accepted by the agent. For transferred or conferenced outbound calls, the call is considered accepted if it is answered by the agent.</p> <p>A preview outbound call is considered accepted if an agent has clicked Accept to accept the call and then the system places the call to the customer. The number of calls accepted is counted once if a call that is presented to an agent is skipped/rejected by that agent and then the call is presented to another agent who accepts the call.</p> <p>A progressive or predictive outbound call is considered accepted if an agent has answered a live voice call that is presented to the agent (if Auto Answer is disabled).</p>
Outbound Rejected	<p>The number of preview outbound calls skipped/rejected by the agent. This means that the agent selected Reject, Skip, or Cancel Reservation. These contacts will be dialed again.</p> <p>The number of calls rejected is also incremented each time an agent drops the preview call while it is ringing at the customer's contact.</p>
Outbound Closed	The number of contacts closed by the agent for preview outbound. This means that the agent selected Skip-Close or Reject-close. These contacts will not be dialed again.
Outbound Timed-Out	Total number of preview outbound calls that timed out. A call is considered timed out when the call is presented to an agent but not accepted, rejected, or closed within the allocated time. These contacts will be dialed again. If a contact timed out for multiple agents, this field is incremented each time the contact is timed out for each agent.
Outbound Voice	The number of preview outbound calls that ended in successful customer contact for the agent. This means that the agent accepted the call (by clicking Accept) <i>and</i> selected a classification of Voice or Do Not Call for this contact.
Outbound Avg Talk Duration	<p>The average time in HH:MM:SS (hours, minutes, seconds) that the agent spends in talking state for outbound calls. This talk duration also includes the time spent on outbound calls that were transferred or conferenced to a route point.</p> <p>For preview outbound, the talk duration considers all calls that were Agent Accepted and classified as Voice.</p>
Outbound Avg Hold Duration	<p>The average time in HH:MM:SS (hours, minutes, seconds) that the agent spent in holding an outbound call.</p> <p>For preview outbound, the hold duration considers all calls that were Agent Accepted and classified as Voice.</p>

Field	Description
Outbound Longest Talk Duration	The longest time in HH:MM:SS (hours, minutes, seconds) that the agent spent in talking state for an outbound call . For preview outbound, the talk duration considers all calls that were Agent Accepted and classified as Voice.
Outbound Longest Hold Duration	The longest time in HH:MM:SS (hours, minutes, seconds) that the agent spent in holding an outbound call. For preview outbound, the hold duration considers all calls that were Agent Accepted and classified as Voice.

Failover Behavior for Unified CCX Stats

All failovers, regardless of whether the Unified CCX Engine is restarted, will cause the Unified CCX stats to reset.

The Unified IP IVR stats do not reset in all cases if the Unified CCX Engine is not restarted on a node. However, the node loses its active server status. The Unified IP IVR stats on that node will not be reset.

Tools Menu

The Tools menu gives you access to the following Application Reporting tools:

- **Reset All Stats**—Choose this option to reset all statistics.
- **Open Printable Report**—Choose this option to get a printable report of all currently active contacts in the system.
- **Refresh Connections**—Choose this option to refresh connections with the Unified CCX system.
- **Clear Contact**—Choose this option to clear contacts/calls that have been stuck in the system for a long time.

Reset All Statistics

Use the Reset All Stats option to reset all statistics accumulated since the last time the statistics were reset. It will not reset active statistics, such as active contacts, tasks, and so on.



Note The Unified CCX system automatically resets all statistics each day at midnight.

Choose **Tools > Reset All Statistics** from the Application Reporting menu bar.

Open Printable Report

Use the option to get a printable report of all currently active contacts in the system.

To get a printable report:

Choose a real-time report from the Report menu option and then **Tools > Open Printable Report** from the Application Reporting menu bar.

Refresh Connections

To refresh connections with the Unified CCX system:

Choose **Tools > Refresh Connections** from the Application Reporting menu bar.

The Unified CCX system refreshes all connections.

Clear Contact Menu

You can use the Clear Contact menu option to clear contacts in the following three situations:

Clear Stuck Calls from Sontacts Real-Time Report

To clear stuck calls or contacts from the Unified CCX system:

-
- Step 1** Choose the contact from **Reports > Contacts**.
 - Step 2** From the Application Reporting menu bar, choose **Tools > Clear Contact**. A Clear Call dialog box is displayed to warn you. If you want to continue with the clear action, click **No**. To cancel the action, click **Yes**.
 - Step 3** Click **No** to proceed with the clear action. A Clear Contact dialog box is displayed for you to confirm the action. You can click **Yes** to proceed or **No** to cancel.
 - Step 4** Click **Yes**. The Unified CCX system removes the contact from all its queues.
-

Clear Stuck Calls from Overall Cisco Unified CCX Stats

To clear stuck calls/contacts from the Unified CCX system:

-
- Step 1** Choose **Reports > Overall Cisco Unified Contact Center Express Stats**.
 - Step 2** Choose the contact from **Views** and click **Overall Waiting Contacts Info**.
 - Note** Please note that the Overall Waiting Contacts Info menu option displays only those calls that are queued in CSQs and not agent-based routing calls.
 - Step 3** From the Application Reporting menu bar, choose **Tools** and click **Clear Contact**. A Clear Call dialog box is displayed to warn you. If you want to continue with the clear action, click **No**. To cancel the action, click **Yes**.
 - Step 4** Click **No** to proceed with the clear action. A Clear Contact dialog box is displayed for you to confirm the action. You can click **Yes** to proceed or **No** to cancel.
 - Step 5** Click **Yes**. The Unified CCX system removes the contact from all its queues.
-

Clear Stuck Calls from CSQ Cisco Unified CCX Stats

To clear stuck calls or contacts from the Unified CCX system:

-
- Step 1** Choose **Reports > CSQ Cisco Unified Contact Center Express Stats**.
 - Step 2** Choose the contact from **Views** and click **CSQ Waiting Contacts Info**.
 - Step 3** From the Application Reporting menu bar, choose **Tools > Clear Contact**. A Clear Call dialog box is displayed to warn you. If you want to continue with the clear action, click **No**. To cancel the action, click **Yes**.
 - Step 4** Click **No** to proceed with the clear action. A Clear Contact dialog box is displayed for you to confirm the action. You can click **Yes** to proceed or **No** to cancel.
 - Step 5** Click **Yes**. The Unified CCX system removes the contact from all its queues.
-

Views Menu

The Views menu allows you to access more detailed information for the following reports: The Application Tasks report, the Contacts report, the Applications report, the Sessions report, Overall Cisco Unified Contact Center Express Stats report, and the CSQ Cisco Unified Contact Center Express Stats report.



Note For some reports, detailed information is also available by right-clicking a record in that report.

The Views menu contains different options, depending on the report you have chosen. Possible options are:

- **Contacts by Application Task ID**—Choose this option to view contacts according to Application Task ID numbers.
- **Engine Tasks by Application Task ID**—Choose this option to view Engine tasks according to Application Task ID numbers.
- **Detailed Info**—Choose this option to view more detailed information on selected reports.
- **Application Tasks by Application Name**—Choose this option to view application tasks by application name.
- **Contacts by Session ID**—Choose this option to view contacts by session ID.
- **Overall Waiting Contacts Info**—Choose this option to view detailed information for the overall waiting contacts. To clear stuck calls in this view, see Scenario 2 in **Clear contact menu** option.
- **CSQ Waiting Contacts Info**—Choose this option to view detailed information for the CSQ waiting contacts. To clear stuck calls in this view, see Scenario 3 in **Clear contact menu** option.

Application Tasks

You can obtain reports based on the application task ID associated with application tasks.

Contacts by Application Task ID

This report displays the same report as the Contact report with the exception that the Contacts by Application Task ID report has been filtered using only the contact currently being managed by the selected application task.

Engine Tasks by Application Task ID

This report displays the same report as the Engine Task reports except that the Engine Tasks by Application Task ID report has been filtered to display only the engine tasks that are associated with the application task.

Contacts

When you use the Views options with the Contacts report, the Views menu contains only the Detailed Info option.

The Detailed Info option provides various detailed information, depending on the type of contact selected. For example, if the contact is a call, the Calling Party number, the Called Number, and so on, are displayed for that particular call.

Applications

When you use the Views options with the Application reports, the Views menu contains only the Application Tasks by Application Name option.

The Application Task By Application Name report displays the same report as the Application Task report except that the Application Task By Application Name report is filtered using only the active application tasks associated with this application.

Sessions

You can obtain reports based on the session ID associated with a session.

Contacts by Session ID

This report displays the same report as the Contact report with the exception that the Contacts By Session ID report is filtered using only the contacts associated with the selected session.

Detailed Info

Detailed info displays the time the session was created and its current state.

Settings Menu

The Settings menu of the Application Reporting menu bar allows you to adjust various settings of the Real Time Reporting tool.

The Settings menu contains the following menu options:

- **Options**—Choose this option to set the polling (refresh) interval times and to set the amount of times the server will attempt to reconnect.
- **Window**—Choose this option to display reports in colors based on your Windows settings.
- **Motif**—Choose this option to display reports in purple and menu items in brown.
- **Metal**—Choose this option to display reports in grey and menu items in black.

Options Menu

Choose **Settings** and click **Options** to access the Options dialog box. Use the Options dialog box to set the polling (refresh) interval time, set the number of times the server will attempt to reconnect, and specify whether logged off agents appear in reports.

The following fields are displayed in the Options dialog box.

Field	Description
Polling Interval	Time between two requests to the server for new statistics by the client.
Server Connect Retry Count	The number of times that the Unified CCXAdministration web interface should attempt to reconnect to the Unified CCX server. Note If an error occurs, an Error dialog box opens to alert you that the server is not communicating with the web interface.
Show Logged Off Resources	Specifies whether logged off agents appear in reports.

Click **Apply** to submit configuration changes.

Reporting Administration on Unified Intelligence Center

Unified Intelligence Center is the default reporting solution for Unified CCX. Unified Intelligence Center is a comprehensive, end-to-end reporting solution.



Note Do not access Unified Intelligence Center until you complete the post installation tasks for Unified CCX.

Live Data reports can only be run by agents, supervisors, and reporting users.



Note The maximum number of users who can concurrently run Live Data reports is 42 .

For more information, see the following guides:

- *Cisco Unified Contact Center Express Report User Guide*
- *Cisco Unified Contact Center Express Report Developer Guide*, located at: https://www.cisco.com/en/US/products/sw/custcosw/ps1846/products_programming_reference_guides_list.html



Note Historical Reporting Client (HRC) is not available from 10.0(1).

Cisco Finesse

You can configure the Live Data reports that are to be displayed in the gadgets of the Cisco Finesse desktops.

Start Unified Intelligence Center

Step 1 Open a web browser.

Step 2 Access `http://<host address>` and click **Cisco Unified Contact Center Express Reporting**.

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

Step 3 Enter your username and password.

Step 4 Click **Log In**.

Administrator Overview

Access to the functions in the Unified Intelligence Center reporting application is controlled by the one or more users who have the user role of Security Administrator.

The initial, default Security Administrator is the user defined as the System Application User during the installation.

Security Administrators can:

- Create and maintain users.
- Assign User Roles—User roles are assigned to users to control access to drawers and what objects the user can create.
- Assign users to User Groups.
- Create and maintain user groups.
- Assign Permissions—Whereas User Roles are associated with people, permissions are associated with objects (Dashboards, Reports, Report Definitions, Data Sources, Value Lists, and Collections).
- Use the Run As feature to verify other users' permissions.

Security Overview

Unified Intelligence Center security offers multilayered and flexible functionality that allows a security administrator to create a flat or a tiered structure of access to Unified Intelligence Center functions, based on the organization's needs.

A user's access to Unified Intelligence Center functions is based on:

- Login authentication.
- License type under which the user's organization runs Unified Intelligence Center. For example, organizations that use a Standard license cannot access the Report Definition functions.
- User Role (a user can have one, some, or all seven User Roles).
- User Groups in which user is a member.
- For an object the user can access, the *object-level permissions* assigned by the person who created that object.

User List

User List page opens from the Security drawer. If a user who does not have the Security Administrator user role accesses this page, that user can see all the parameters except the user roles. The user cannot change his role or group membership.

When Security Administrators access this page, they can see all existing users; can create users, modify or delete users, review or edit user information, and use the **Run As** feature to work in Cisco Unified Intelligence Center as a user.

Table 1: Fields on User List Page

Field	Explanation
Only show currently active users	Check the check box to display users who are currently active.
Name Contains	Use this filter field to narrow the list of names or to move to a specific name.
User Name	The domain and user name (domain\name).
First Name	The user's first name.
Last Name	The user's last name.

You can perform the following actions on the user lists page:

- **Create**—Opens the User Information page.
- **Edit**—Select a user name and click **Edit** to edit the User Information page.
- **Delete**—Select a user and click **Delete** to delete the user.
- **Run As**—Select a user and click **Run As** to refresh the Cisco Unified Intelligence Center reporting interface.
- **Refresh**—Refreshes the page to show any latest changes to the User List.
- **Page**—Click the arrow to move to the next page of the User List.
- **Help**—Opens online help.
- **X**—Closes the page.

Create a User

To create a user, perform the following procedure:

-
- Step 1** Navigate to **Security > User List**.
- Step 2** Under the General Information tab, perform the following:
- a) In the **User Name** field, enter the domain and user name (domain\name).

- b) In the **Alias** field, enter the alias name for this user.
- c) Check the **User is active** check box to enable the user to log in and remain active.

Note If the check box is unchecked, the user cannot log in.

- d) In the **First Name** field, enter the first name of the user.
- e) In the **Last Name** field, enter the last name.
- f) In the **Organization** field, enter the company name or other descriptive text to be associated with the user, such as region or Line of Business.
- g) In the **Email** field, enter the email address of the user.
- h) In the **Phone** field, enter a phone number for the user. This can be the user's personal phone number or an emergency contact.
- i) In the **Description** field, enter the description of the user.
- j) In the **Time Zone** field, choose the time zone that you want to use in the report from the drop-down list.

This time zone is also used for the user's scheduled reports and takes precedence over the time zone used by the report server.

Note If this field is left blank, the system uses the time zone of the report server.

- k) For **Start Day of the Week**, perform the following:
 - Select **Locale Based** to select starting day of the week based on locale.
 - Select **Custom Settings** to choose one of the seven days of the week from the drop-down list.

Note Start Day Of The Week is used in Scheduled Report, Report Views, and Permalink.

- l) In the **Roles** field, select and assign one or more roles for this user.
If the Security Administrator adds or changes User Roles, the change does not take effect until the user logs out and then logs in again.
- m) In the **Permissions** field, choose the user's permission setting preference for My Group when creating new objects. My Group is the object owner's default group.

Note Settings for My Group configures whether other users who belong to this user's default group can write, or execute the objects. Higher level permissions persist and override other permissions.

Step 3 Under the Groups tab, you can determine which groups this user is a member of and how to add group membership(s) for a user. You can view the following:

- **My Group:** This field shows the user's default group. The Security Administrator can change it. The group is represented as “My Group” for the user.
- **Available Groups:** This list shows all the groups that have been created and that the user is not yet a member of. You can use arrows to move groups between columns.
- **Selected Groups:** This column shows all the groups that the user is a member of. You can use arrows to move groups between columns.

Note By default, every user has AllUsers in their Selected Groups column. You cannot remove the AllUsers group from the Selected Groups column.

User Groups

User Groups page opens from the Security drawer. Use it to see the existing groups, to create or delete groups, and to review or edit group information.

The following are the two default groups created by the system:

- The *AllUsers* group is supplied by Unified Intelligence Center. All users belong to this group by default.
- The *Administrators* group consists of administrators.

Table 2: Fields on the User Groups Page

Field	Explanation
Name Contains	Use this filter field to narrow down the list of group names or to move to a specific name.
Name	Name of the group.
Full Name	The full name shows the child relationship of a group, as indicated by a dot separator. For example, if the default group for Group3 is Group1, and Group1 is a top level group (does not have a parent), then the Full Name of Group1 is <i>Group1</i> . The Full Name of Group 3 is <i>Group1.Group3</i> .
Description	Description text of the group.

You can perform the following actions on the User Groups page:

- **Create**—Opens the Group Information page.
- **Edit**—Select the group name and click Edit to open the Group Information page.
- **Delete**—Select the group name and click Delete.
- **Refresh**—Refreshes the page to show any changes to the Group List.
- **Help**—Opens online help.
- **X**—Closes the page.

About User Groups

User Groups are constructs that allow security administrators to partition Unified Intelligence Center functionality.

Creating User Groups expedites the process of provisioning users when multiple users need the same access to dashboards and reports, or when users require distinct permissions and features based on regional or organizational requirements.

User groups have no impact on how data is stored in the database. They are used only for assigning permissions to all the user members of the group through one operation instead of repeating the same operation for each user.

System-Defined All Users Group

All users are automatically a member of the system-defined *All Users* group.

All Users always appears on the Manage User Groups window. The security administrator cannot delete it.

System-Defined Administrator User Group

The security administrator is automatically a member of the system-defined Administrators group and can add other security administrators to it.

Additional Security Administrators must be added to the Administrators group. Having the role does not automatically make them members of that group.

Customer-Defined User Groups

Security administrators can create any number of user groups and can add users to them. From those other user groups, one is designated as the user's *Group* (also called *My Group*).

Default Group

After creating the customer-defined groups, the security administrator can add a user to any of these groups and can configure one of them as the user's default Group (*My Group*). The *All Users* group can also be selected as the default group.

The owner of an object can set permission for its Group. Only the Security Administrator can set extra permissions to other groups or individual users on the User Permissions page. A user's access permission to an object is the highest level of the permission that user gets from all the permission sources.

Create a User Group

To create a user group, perform the following:

-
- Step 1** Navigate to **Security > User Groups**.
- Step 2** Under the General Information tab, perform the following:
- In the **Group Name** field, enter the name of the group. This field is available only when you create a new group.
 - In the **Description** field, enter or modify text to describe this group
- Step 3** Under the Groups tab, perform the following:
- Default Group**—From the drop-down list, enter the default group.
 - Available Groups**—Lists the groups that were created and that are available for this group to become a child of. Click **>** or **<** to move just that group or groups.
 - Selected Groups**—Lists the groups that this group is a child of. Click **>** or **<** to move just that group or groups.
- Step 4** Under the Groups Members tab, perform the following:

- a) Under **Users** tab:
- **Available Users**—Lists all the users that were created and that are available to be children of this group. Click > **or** < to move just that group or groups.
 - **Selected User Members**—Lists the users that are currently children of this group. Click > **or** < to move just that group or groups.
- b) Under **Groups** tab:
- **Available Groups**—Lists all the groups that were created and that are available to be children of this group. Click > **or** < to move just that group or groups.
 - **Selected Groups Members**—Lists the groups that are currently children of this group. Click > **or** < to move just that group or groups.

Step 5 Click **Save** to update new entry or changes to the fields.

Step 6 Click **Cancel** to cancel or close the page.

Manage User Permissions

Use this page to set extra permissions to Groups or to individual users.

User permissions page has the following tabs:

About Permissions

User Roles are associated with people and permissions are associated with objects. Unified Intelligence Center objects are Dashboards, Reports, Report Definitions, Data Sources, Categories, Value Lists, and Collections.

Permissions:

- **EXECUTE**: When the user has EXECUTE permissions for an object, that user can perform some actions that depend on the object.

For example, with EXECUTE permission, a user can run, print, and refresh a report, open and refresh a dashboard and run a dashboard slide show, and see a Value List query. EXECUTE permission includes the read permission.



Note Permissions set on categories are not recursive. For all entities under Dashboard, Report, or Report Definition types, you need separate EXECUTE/WRITE permissions.

- **WRITE**: When the user has WRITE permission for an object, that user can alter, rename or delete the object. For example, With WRITE permission, you Save As, import, and export reports; you can edit a data source and can delete a custom Value List. WRITE permission also includes EXECUTE and read permission.



Note If no check boxes are selected when setting permission for an object, the user has no access privileges to the object.

The following rules are applicable for all category trees in Unified Intelligence Center — Reports, Report Definitions, Dashboards.

- To delete an entity, you need WRITE permissions for the entity and the entity's parent category.
- To delete a category, you need WRITE permissions for the category, the category's parent, and all the categories and/or entities belonging to the category.
- A user can only Edit or Save an entity even if the immediate parent category has no WRITE permissions.
- A user can only use the Save As feature if the entity has no WRITE permissions enabled.
- Any category owner within the **Imported Report Definitions** can delete a category if the administrator provides explicit WRITE permissions on the **Imported Report Definitions** category.

Permissions are combined and the highest level prevails.

A user receives permission for an object from different sources. Permission can be inherited from the AllUsers group, the Default Group (My Group), or the permission assigned by the Security Administrator. Among all these permissions, the highest level permission is used when the user accesses the object.

User Roles and Permissions

Your User Role allows you to “open” the drawer that corresponds to that role. If you have EXECUTE permission, you can create objects for that drawer. For example, if you are a Dashboard Designer, you can create dashboards on the Available Dashboards page.

When you create an object, you are the *owner* of that object. You have WRITE permission for the object, and you can set the permissions for that object for users in your Group only.

If the object is still a work-in-progress and you do not want anyone to access it yet, you can make it “private” by leaving all permissions unchecked for both the All Users and the Groups.

When the object is ready, set your default Group (My Group) permissions to EXECUTE or even WRITE. For example, if you create a Dashboard for your Group and the dashboard has notes, you might want others in your Group to update the notes.

Even though *you* are a Dashboard Designer, if the Available Dashboards page contains dashboards created by (owned by) other Dashboard Designers, you may not be able to see those dashboards, based on your Group permissions and on the object-level permissions those owners have set for their dashboards.

Assigned Group Permissions

-
- Step 1** Select the object type in the Permissions For panel. For Dashboard, Report or Report Definition type, you can select a category or an object within a category. For other object types, select an object from the list. All the groups that have already been assigned permissions for the object are displayed in the Group permissions for the selected item panel.

- Step 2** Select a group in the All Groups panel. All user members of this group are displayed in the All Users for the selected group panel.
- Step 3** Click **Set Permissions**. Check the level you want for the group (Execute, Write), and click **OK**.
- Step 4** The **Group Permissions for the selected item** panel updates to include the group and its assigned permission you defined in **Step 3**.



Note If the Security Administrator adds or changes User Permissions, the change may not occur immediately.

Table 3: Fields on the Group Members Tab

Field	Description
Permissions For panel (top left)	Click the drop-down list to select the objects for which you want to set permissions. Options are: Data Sources, Report Definitions, Reports, Dashboards, Value Lists, and Collections. Selecting an object type refreshes the panel to show the list of items or categories for that object.
All Groups panel (top right)	This panel shows the available User Groups. Highlighting a user group refreshes the page to display an All Users for Selected Group panel that lists the member of the group.
All Users for the Selected Group panel (bottom right)	This panel shows all members in the group that is highlighted in the All Groups panel above.
Set Permissions button	Click this option to open a dialog box where you select the permission level for the selected object in the Permissions For panel and the selected group in the All Groups panel.
Group Permissions for the selected item	This panel shows the groups that have already been assigned permission for the selected object, and their permission level.

Assigned User Permissions

- Step 1** Select the object type in the Permissions For panel. For Dashboard, Report, or Report Definition type, you can select a category or an object within a category. For other object types, select an object from the list. All the users that have already been assigned permission for the object are displayed in the User permissions for the selected item panel.
- Step 2** Select a user name in the User List panel.
- Step 3** Click **Show Groups** to see the groups for which this user is a member.
- Step 4** Click **Set Permissions**, check the level you want for this user (Execute, Write), and click **OK**.

The **All Permissions for the selected item** panel refreshes to show the user permissions you have added or changed for this user in steps 3 and 4.

Field	Description
Permissions For panel (top left)	Click the drop-down arrow to select the kinds of object for which you want to set permissions. Options are Data Sources, Report Definitions, Reports, Dashboards, Value Lists, Collections, and System Collections. Selecting an object type refreshes the panel to show the list of items or categories for that object.
User List panel (top right)	This panel shows current users. Filter the list and select one or many user names.
Show Groups button	Click this option to show the All Groups for the selected user panel.
All Groups for the selected User (bottom right)	This panel shows all groups to which the highlighted username in the User List panel above is a member.
Set Permissions button	Click this option to open a dialog box where you select the permission level for the object (Execute, Write).
All Permissions for the selected item	This panel shows users who have permission for the object, and the level of permissions they have.

Note You cannot change the permission for the owner of an object. The owner always has Write permission for the object. For example, if a user is the owner of Report 1, then that user has WRITE permission for Report 1, and no one else can change the permission to EXECUTE.

Run As

Security Administrators can select a name on the User List page and click **Run As**. This refreshes the Unified Intelligence Center web page so that it reflects the interface that user has when logged in.

Use this tool to verify that the User Roles and permissions are configured properly.



- Note**
- When you Run As another user, the top of the page shows both your Logged In identity and your Run As identity.
 - You cannot Run As yourself.
 - You can Run As one level of user. A Security Admin cannot *Run As* User A and, as User A, then *Run As* User B.

To leave Run As mode, click **Stop Run As** at the top of the page.

Audit Trail Logging in Cisco Unified Intelligence Center

Unified Intelligence Center now supports Audit Trail Logging. This feature allows you to view the sequence of audit records of the transactions related to create, update, modify, and delete that are performed on the

entities of a Unified Intelligence Center server. You can view the audit trails using the Audit Trail stock report. Only System Administrators can access and view this feature by default. However, a System Administrator can then give permissions to other Unified Intelligence Center users to use this feature.



Note Localization of Audit Trail report is not supported.

View Audit Trail Logging in Unified Intelligence Center

-
- Step 1** Log in to the Unified Intelligence Center Reporting Interface.
- Step 2** Navigate to **Reports > Stock > Intelligence Center Admin** and click **Audit Trail**. The system opens the **Audit Trail Report Filter** window.
- Step 3** Specify the required filter criteria and click **Run**. The system displays the Audit Trail report based on the filter criteria that you specified.
-

Audit Trail Report

Views: This report has three grid views - Non-grouped, Groupby – EntityName, Groupby –Username.

Grouping: This report has two grouped views - grouped and sorted by User and Entity Name. The third view is un-grouped which is also the default view for this report.

Value List: CUIC Users, CUIC Operations, CUIC Entity Types.

Database Schema Tables from which data is retrieved:

- CUICAUDITLOG
- CUICLOGEDENTITY

Security Considerations

If you make the user a member of one or more other groups, make one of those groups the user's default group, and set the permissions for the default group higher than those of the AllUsers group.

Higher permissions for the default group prevail over permissions in the AllUsers group. Individual user permissions prevail over group permissions.

