



## CHAPTER 3

# Troubleshooting Utilities Used in Cisco Unity Connection 9.x

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This chapter provides brief descriptions of and procedures for accessing a selection of tools and utilities that can be used in troubleshooting Cisco Unity Connection.

See the following sections:

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- [Cisco Unity Connection Serviceability in Cisco Unity Connection 9.x, page 3-2](#)
- [Cisco Unity Connection 9.x Task Management Tool, page 3-2](#)
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## Cisco Unity Connection 9.x Grammar Statistics Tool

The Grammar Statistics tool shows information about the dynamic name grammars that are used by the Cisco Unity Connection voice-recognition conversation to match caller utterances to the names of objects on the system (for example, usernames and alternate names, distribution list names, and so on). When administrators add or change names on the Connection system, the names are not recognized by the voice-recognition conversation until they are compiled in the grammars.

For each name grammar, the tool displays information such as the finish time of the last grammar recompilation, the total number of unique items in the grammar, whether there are updates pending to the grammar, and whether the grammar is currently in the process of being recompiled.

By default, Connection recompiles grammars when administrators add named objects or change object names on the system (unless a bulk operation is in progress, in which case Connection waits ten minutes for the operation to complete before recompiling the grammars), or when there are more than five changes requested in the space of a minute. If the grammars have grown to the point where the name grammar recompilation process is affecting the performance of your Connection server during busy periods, you can modify the default Voice Recognition Update Schedule (under System Settings >

Schedules in Cisco Unity Connection Administration) to limit the times and days when the Connection voice-recognition transport utility can automatically rebuild the voice-recognition name grammars. By default, all days and times are active for this schedule; if you modify the schedule but want to override the schedule while it is inactive and force an immediate recompilation of all grammars, or if you want to force recompilation during the ten minute wait period after a bulk operation has been initiated, you can select the Rebuild Grammars button on the Grammar Statistics tool.

## Cisco Unity Connection Serviceability in Cisco Unity Connection 9.x

Cisco Unity Connection Serviceability, a web-based troubleshooting tool for Cisco Unity Connection, provides the following functionality:

- Displaying Connection alarm definitions, which you can use for troubleshooting.
- Enabling Connection traces. You can collect and view trace information in the Real-Time Monitoring Tool (RTMT).
- Configuring the logs to which Connection trace information is saved.
- Viewing and changing the server status of the Connection servers when a Connection cluster is configured.
- Viewing the status of the Connection feature services.
- Activating, deactivating, starting, and stopping the Connection services.
- Generating reports that can be viewed in different file formats.

Depending on the service and component involved, you may complete serviceability-related tasks in both Cisco Unity Connection Serviceability and Cisco Unified Serviceability. For example, you may need to start and stop services, view alarms, and configure traces in both applications to troubleshoot a problem.

For more information, see the *Administration Guide for Cisco Unity Connection Serviceability Release 9.x*, at

[http://www.cisco.com/en/US/docs/voice\\_ip\\_comm/connection/9x/serv\\_administration/guide/9xcucservagx.html](http://www.cisco.com/en/US/docs/voice_ip_comm/connection/9x/serv_administration/guide/9xcucservagx.html).

## Cisco Unity Connection 9.x Task Management Tool

The Task Management pages list a variety of system maintenance and troubleshooting tasks that Cisco Unity Connection automatically runs on a regular schedule. Tasks can be run at the same time as backups and anti-virus scans.

The default settings and schedules for each task are optimized for functionality and performance. We recommend that you not change the default settings and schedules.



### Caution

Some tasks are critical to Cisco Unity Connection functionality. Disabling or changing the frequency of critical tasks may adversely affect performance or cause Connection to stop functioning.

### To Access the Task Management Tool

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- Step 1** In Cisco Unity Connection Administration, expand **Tools**.
- Step 2** Select **Task Management**.
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## Cisco Voice Technology Group Subscription Tool in Cisco Unity Connection 9.x

You can use the Cisco Voice Technology Group Subscription tool to be notified by email of any Cisco Unity Connection software updates. To subscribe, go to the Cisco Voice Technology Group Subscription Tool page at <http://www.cisco.com/cgi-bin/Software/Newsbuilder/Builder/VOICE.cgi>.

## Real-Time Monitoring Tool in Cisco Unity Connection 9.x

The Real-Time Monitoring Tool (RTMT), which runs as a client-side application, uses HTTPS and TCP to monitor system performance, device status, device discovery, and CTI applications for Cisco Unity Connection. RTMT can connect directly to devices via HTTPS to troubleshoot system problems. RTMT can also monitor the voice messaging ports on Cisco Unity Connection.

RTMT allows you to perform the following tasks:

- Monitoring a set of predefined management objects that focus on the health of the system.
- Generating various alerts, in the form of emails, for objects when values go over or below user-configured thresholds.
- Collecting and viewing traces in various default viewers that exist in RTMT.
- Viewing syslog messages and alarm definitions in SysLog Viewer.
- Working with performance-monitoring counters.
- Monitoring the voice messaging ports on Connection. When a Connection cluster is configured, you can open multiple instances of RTMT to monitor voice messaging ports on each server in the Connection cluster.

For more information, see the *Cisco Unified Real-Time Monitoring Tool Administration Guide* at [http://www.cisco.com/en/US/products/ps6509/prod\\_maintenance\\_guides\\_list.html](http://www.cisco.com/en/US/products/ps6509/prod_maintenance_guides_list.html).

## Cisco Unified Serviceability in Cisco Unity Connection 9.x

Cisco Unified Serviceability, a web-based troubleshooting tool for Cisco Unity Connection, provides the following functionality:

- Saving alarms and events for troubleshooting and providing alarm message definitions.
- Saving trace information to various log files for troubleshooting.
- Providing feature services that you can turn on, turn off, and view through the Service Activation window.

- Providing an interface for starting and stopping feature and network services.
- Generating and archiving daily reports; for example, alert summary or server statistic reports.
- Monitoring the number of threads and processes in the system; uses cache to enhance the performance.

Depending on the service and component involved, you may complete serviceability-related tasks in both Cisco Unified Serviceability and Cisco Unity Connection Serviceability. For example, you may need to start and stop services, view alarms, and configure traces in both applications to troubleshoot a problem.

For more information, see the *Cisco Unified Serviceability Administration Guide* at [http://www.cisco.com/en/US/products/ps6509/prod\\_maintenance\\_guides\\_list.html](http://www.cisco.com/en/US/products/ps6509/prod_maintenance_guides_list.html).

## Remote Database Administration Tools in Cisco Unity Connection 9.x

A database proxy can be enabled to allow the use of some Windows-based remote database administration tools that are available on the Cisco Unity Tools website (<http://ciscounitytools.com>), where updates to utilities are frequently posted between Cisco Unity Connection releases.



### Note

You can sign up to be notified when the utilities posted on the Cisco Unity Tools website are updated. Go to <http://ciscounitytools.com> and select Sign Up Here.

For details on enabling remote database access, see the “Enabling Database Access for Remote Administration Tools” section in the “[Administrative Tools in Cisco Unity Connection 9.x](#)” chapter of the *System Administration Guide for Cisco Unity Connection Release 9.x*, available at [http://www.cisco.com/en/US/docs/voice\\_ip\\_comm/connection/9x/administration/guide/9xcucsagx.html](http://www.cisco.com/en/US/docs/voice_ip_comm/connection/9x/administration/guide/9xcucsagx.html).

## Cisco Utilities Database Link for Informix (CUDLI) in Cisco Unity Connection 9.x

The Cisco Utilities Database Link for Informix (CUDLI) tool allows you to navigate the Cisco Unity Connection database, learn about the purpose of data in a particular table or column, and jump between referenced objects in the database. It also shows stored procedures and includes a custom query builder.

Download the tool and view training videos and Help at <http://www.ciscounitytools.com/Applications/CxN/CUDLI/CUDLI.html>.

## Remote Port Status Monitor in Cisco Unity Connection 9.x

The Remote Port Status Monitor (rPSM) provides a real-time view of the activity of each voice messaging port on Cisco Unity Connection to assist in troubleshooting conversation flow and other problems.

Download the tool and view training videos and Help at

<http://www.ciscounitytools.com/Applications/CxN/PortStatusMonitorCUC7x/PortStatusMonitorCUC7x.html>.

## Application Audit Logging in Cisco Unity Connection

Application audit logging reports configuration and administrative changes for Cisco Unity Connection Administration, Cisco Personal Communications Assistant, Cisco Unity Connection Serviceability, Cisco Unified Serviceability, Real-Time Monitoring Tool (RTMT), and the command-line interface (CLI). It also reports user authentication events for Connection clients that use the Representational State Transfer (REST) APIs, and reports API calls for clients that use the Cisco Unity Connection Provisioning Interface (CUPI) or the Diagnostic Portal API (used by Analysis Manager in RTMT).

Application audit logging is enabled by default. Users with the Audit Administrator role can configure auditing on the Tools > Audit Log Configuration page in Cisco Unified Serviceability. (By default, the application administration account that is created during installation is assigned the Audit Administrator role.) For Cisco Unified Communications Manager Business Edition, the Audit Log Configuration page settings also control auditing for Cisco Unified Communications Manager components.

To access the audit logs, users with the Audit Administrator role can use the Real-Time Monitoring Tool. In Trace and Log Central, go to System > Audit Logs > Nodes. After you select the node, another window displays System > Cisco Audit Logs. The application audit logs are stored in the AuditApp folder. In a Connection cluster, the publisher and subscriber each have separate application audit logs which you can reach by selecting the appropriate node.

Database and operating system audit logging are also available in Connection, although they are disabled by default. For more information on audit logging, see the “Configuring the Audit Log” chapter of the *Cisco Unified Serviceability Administration Guide, Release 9.0(1)*, available at [http://www.cisco.com/en/US/products/sw/voicesw/ps556/products\\_documentation\\_roadmaps\\_list.html](http://www.cisco.com/en/US/products/sw/voicesw/ps556/products_documentation_roadmaps_list.html).

