



Administrative Reporting Tool Guide for Cisco CallManager

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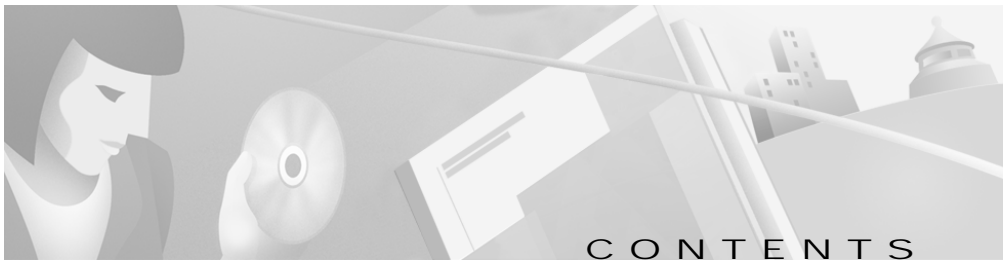
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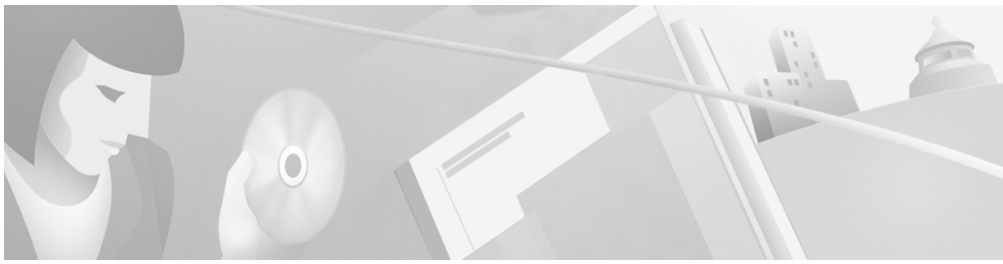
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Preface

This preface describes the purpose, audience, organization, and conventions of this guide, and provides information on how to obtain related documentation.

The preface covers these topics:

- Purpose, page vii
- Audience, page viii
- Organization, page viii
- Related Documentation, page ix
- Conventions, page ix
- Obtaining Documentation, page xi
- Obtaining Technical Assistance, page xii

Purpose

The *Administrative Reporting Tool Guide for Cisco CallManager* provides instructions for administering the reporting tool for the Cisco CallManager system. This guide includes procedural tasks for generating reports. It also provides references for commands and conceptual information that assist you in using the Administrative Reporting Tool (ART).

Audience

The *Administrative Reporting Tool Guide for Cisco CallManager* is written for network administrators responsible for managing the Cisco CallManager system. This guide requires knowledge of telephony and IP networking technology.

Organization

Table 1 shows how this guide is organized.

Table 1 *How This Document is Organized*

Chapter and Title	Description
Chapter 1, “Overview”	Provides an overview of The Administrative Reporting Tool (ART) for Cisco CallManager 3.0(5), how to install ART, and ART specifications.
Chapter 2, “Accessing ART”	Describes how access to different screens and reports is based on the security levels of your password and what reports can be accessed by those levels.
Chapter 3, “Configuring Reports for Users, Managers, and Administrators”	Describes the reports accessible by any access level and procedures for generating those reports.
Chapter 4, “Configuring Reports for Managers and Administrators”	Describes the reports only accessible by managers and administrators and procedures on generating those reports.
Chapter 5, “Configuring Administrative Reports”	Describes the reports only accessible by administrators and procedures on how to generate those reports.
Chapter 6, “Configuring the System for ART Reports”	Describes the parameters, which can be set by ART Administrators, that are required by various reports.

Related Documentation

Refer to the following documents for further information about related Cisco IP Telephony applications and products:

- *Cisco CallManager Administration Guide*
- *Installing Cisco CallManager on the Cisco Media Convergence Server*
- *Release Notes for Cisco CallManager Release 3.0(5)*
- *Remote Serviceability for Cisco CallManager*
- *Hardware Configuration Guide for the Cisco Voice Gateway 200*
- *Software Configuration Guide for the Cisco Voice Gateway 200*
- *Cisco IP Phone 7900 Family Administration Guide*
- *Bulk Administration Tool Guide for Cisco CallManager*

Conventions

This document uses the following conventions:

Convention	Description
boldface font	Commands and keywords are in boldface .
<i>italic</i> font	Arguments for which you supply values are in <i>italics</i> .
string	A nonquoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.
screen font	Terminal sessions and information the system displays are in screen font.
boldface screen font	Information you must enter is in boldface screen font .
<i>italic screen font</i>	Arguments for which you supply values are in <i>italic screen font</i> .
< >	Nonprinting characters, such as passwords, are in angle brackets.

Notes use the following conventions:



Note

Means *reader take note*. Notes contain helpful suggestions or references to material not covered in the publication.

Timesavers use the following conventions:



Timesaver

Means *the described action saves time*. You can save time by performing the action described in the paragraph.

Tips use the following conventions:



Tips

Means *the information contains useful tips*.

Cautions use the following conventions:



Caution

Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.

Warnings use the following conventions:



Warning

This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, you must be aware of the hazards involved with electrical circuitry and familiar with standard practices for preventing accidents.

Obtaining Documentation

The following sections provide sources for obtaining documentation from Cisco Systems.

World Wide Web

You can access the most current Cisco documentation on the World Wide Web at the following sites:

- <http://www.cisco.com>
- <http://www-china.cisco.com>
- <http://www-europe.cisco.com>

Documentation CD-ROM

Cisco documentation and additional literature are available in a CD-ROM package, which ships with your product. The Documentation CD-ROM is updated monthly and may be more current than printed documentation. The CD-ROM package is available as a single unit or through an annual subscription.

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Cisco documentation is available in the following ways:

- Registered Cisco Direct Customers can order Cisco Product documentation from the Networking Products MarketPlace:
http://www.cisco.com/cgi-bin/order/order_root.pl
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- Nonregistered CCO users can order documentation through a local account representative by calling Cisco corporate headquarters (California, USA) at 408 526-7208 or, in North America, by calling 800 553-NETS(6387).

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You can e-mail your comments to bug-doc@cisco.com.

To submit your comments by mail, use the response card behind the front cover of your document, or write to the following address:

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We appreciate your comments.

Obtaining Technical Assistance

Cisco provides Cisco.com as a starting point for all technical assistance. Customers and partners can obtain documentation, troubleshooting tips, and sample configurations from online tools. For Cisco.com registered users, additional troubleshooting tools are available from the Technical Assistance Center (TAC) web site.

Cisco.com

Cisco.com is the foundation of a suite of interactive, networked services that provides immediate, open access to Cisco information and resources at anytime, from anywhere in the world. This highly integrated Internet application is a powerful, easy-to-use tool for doing business with Cisco.

Cisco.com provides a broad range of features and services to help customers and partners streamline business processes and improve productivity. Through Cisco.com, you can find information about Cisco and our networking solutions, services, and programs.

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Customers and partners can self-register on Cisco.com to obtain additional personalized information and services. Registered users can order products, check on the status of an order, access technical support, and view benefits specific to their relationships with Cisco.

To access Cisco.com, go to the following web site:

<http://www.cisco.com>

Technical Assistance Center

The Cisco Technical Assistance Center (TAC) web site is available to all customers who need technical assistance with a Cisco product or technology that is under warranty or covered by a maintenance contract.

Contacting TAC by Using the Cisco TAC Web site

If you have a priority level 3 (P3) or priority level 4 (P4) problem, contact TAC by going to the TAC web site:

<http://www.cisco.com/tac>

P3 and P4 level problems are defined as follows:

- P3—Your network performance is degraded. Network functionality is noticeably impaired, but most business operations continue.
- P4—You need information or assistance on Cisco product capabilities, product installation, or basic product configuration.

In each of the above cases, use the Cisco TAC web site to quickly find answers to your questions.

To register for Cisco.com, go to the following web site:

<http://www.cisco.com/register/>

If you cannot resolve your technical issue by using the TAC online resources, Cisco.com registered users can open a case online by using the TAC Case Open tool at the following web site:

<http://www.cisco.com/tac/caseopen>

Contacting TAC by Telephone

If you have a priority level 1 (P1) or priority level 2 (P2) problem, contact TAC by telephone and immediately open a case. To obtain a directory of toll-free numbers for your country, go to the following web site:

<http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml>

P1 and P2 level problems are defined as follows:

- P1—Your production network is down, causing a critical impact to business operations if service is not restored quickly. No work around is available.
- P2—Your production network is severely degraded, affecting significant aspects of your business operations. No work around is available.



Overview

The Administrative Reporting Tool (ART) for Cisco CallManager 1.0(1), a web-based reporting application, generates the following reports that provide information regarding voice quality and generates reports on the gateway performance:

- Quality of service
- Traffic details
- User call details
- Billing details
- Gateway details
- Call Detail Records

The Cisco CallManager records information regarding each call in Call Detail Records (CDRs) and Call Management Records (CMRs). CDRs and CMRs serve as the basic information source for ART and are stored in the ART database.

Retrieve the information that is not present in the CDR and CMRs, but is required for various reports, from the Lightweight Directory Access Protocol (LDAP), or the ART administrator must enter the information.

Installing ART

The ART application is installed on a web server and distributed over the intranet. The server installation will be through an ART install package.

Development Platform

ART is installed using a self-extracting exe file. The installation package uses InstallShield 5.1 Professional Edition. VB executables are used for configuring IIS and Tomcat. The Osql utility is used for creating and populating values into the ART database.

Prerequisites

- ART Installation requires that the server machine have
 - Cisco CallManager (Glasshouse)
 - IIS 5.0
 - SQL server 7.0
 - LDAP Code

The installation program checks for existence of Cisco CallManager LDAP code. If any of the software does not exist, the installation program gives an appropriate error message and aborts.

No explicit check occurs for the existence of IIS and SQL server because the presence of Cisco CallManager (Glasshouse) ensures that IIS and SQL server are present.

- The ART package requires approximately 30 MB of disk space (this does not include space required for storing pregenerated reports or the ART database). A check determines whether the required disk space is available. When the required disk space is not available, installation gives an error message. It then allows the user either to continue with the installation after freeing the required amount of disk space or to abort the installation.

Halting Services and Applications

Ensure that the IIS Admin service is halted before installation begins. The IIS Admin service restarts at the end of installation.

Installation Processes

The ART installation performs the following processes.

- Checks for an existing installation of ART. If an installation of ART exists, setup prompts the user with a message and choice of aborting the installation or overwriting the existing files.
- Installs the ART files with the appropriate directory structure.
- Provides the user with an option to choose the destination location for installation of ART.
- Displays the setup information to the user.
- Creates Administrative Reporting Tool as a program folder under Cisco CallManager.
- Gets the value for SQL server login name and password from the user and uses these values for ART database installation.
- Sets registry keys for ART under Cisco Systems, Inc., in the registry.
- Creates DSN for ART and Cisco CallManager, which are required for database connection.
- Gets the value of the LDAP parameters from the registry and stores the same in the ART initialization file.
- Gets the value of the Cisco CallManager (glasshouse) server and database from the registry and uses these values for ART database population.
- Gets the value of the Mail host IP address, Mail host domain name, ART Mail Id, and Mail password from the user and uses these values for ART database population.
- Gets the value of Dial Plan type (NANP/Others) from the user.
- Installs ART database and populates the default values for various tables. If the ART database installation fails, the user receives an error message, and the installation aborts.
- Creates a new login, CiscoARTUser, for the ART database.
- Creates the ART.ini file.
- Configures Tomcat for ART.
- Creates entries in Tomcat configuration files with information specific to ART.

- Configures IIS and Tomcat.
- Registers and starts Tomcat as an NT Service named ART Tomcat.
- Creates an ART virtual directory.
- Creates a Jakarta virtual directory and sets the ISAPI filter.
- Sets the Classpath for ART.
- Installs ARTScheduler as an NT service and starts it.
- Puts ART as a plugin to Cisco CallManager.
- Restarts IIS admin service and Tomcat after installation.
- Provides capability that if you abort the installation by clicking on **Exit** or **Cancel** on any screen, the installation rolls back, and all the ART files that have been installed are removed.

**Note**

After installation, the Id and password for the first administrator would be "Admin" , "Admin".

Uninstalling ART

Uninstall performs the following processes:

- Removes the ART Tomcat NT service
- Removes ART files
- Removes Virtual directory for ART and Jakarta (Created for IIS-Tomcat configuration)
- Removes ARTScheduler service
- Removes ART plugin

ART Specifications

The following specifications apply to ART:

- ART Release 1.0(1) is compatible with Cisco CallManager Release 3.0(5).

- ART must be installed on the Cisco CallManager, the primary publisher database, and Microsoft Posting Acceptor.
- The ART application uses approximately 30 MB of disk space for the executable and the online documentation.
- ART is designed to work for an enterprise having a maximum of 2000 users with a maximum of two million CDRs and a maximum of two million records in the ART database. Exceeding the limits for the number of users or the size of the CDR database adversely impacts the performance of ART.
- The peak size of the ART database is 1.5 GB.
- The ART application requires no maintenance other than possible upgrades when Cisco CallManager is upgraded.
- System administrators, managers, and users have access to ART.
- The client machines can be running Microsoft Windows NT or 2000, or UNIX.
- The database is SQL Server version 7.0.
- ART uses StyleReport Pro for report generation and displays reports in PDF form using Adobe Acrobat Reader.
- ART currently uses only the North American Dial Plan (NADP).



Accessing ART

Access to ART is available only through a secured login to the package. The user ID and password for ART access are the same as the user profile set for Cisco CallManager.

Access ART using Internet Explorer 4.01 Service Pack 2 or later, or Netscape 4.5 or later.

To view the reports, ART requires the Adobe Acrobat reader, which you can download and install from the ART main screen.

Logon Screen

You can use this logon screen to log on to ART.

If you are using ART for the first time, you must create an ART Administrator. To create an ART administrator, login as **Admin** with password **Admin**.

You must enter your user ID and password, which are then validated against the LDAP entries. If your password is authenticated by LDAP, the Main screen displays.

Otherwise, an error message occurs, and you must re-enter your user ID and password.

Your Logon screen has the following interactive fields:

- User Name—an editable text box where you must enter your user ID.
- Password—an editable text box for your password. The system hides the password from view; an asterik (*) represents each character entered.

- **OK**—validates your entries and presents you with the next screen. If the validation results are negative, an error message displays and prompts you to re-enter your user ID and password.
- **Reset**—clears the contents of your user ID and password boxes

Procedure

Perform the following steps to log on to ART:

-
- Step 1** Enter your user ID in the User Name box.
 - Step 2** Enter your password.
 - Step 3** Click **OK**.
The main welcome screen displays.
 - Step 4** If you receive an error message, repeat Steps 1–3.
Contact your system administrator if you cannot log on to ART.
-

Your access to different screens and reports is based on the security level of your password. There are three levels of access privileges, which are configured by your network administrator:



Note

While some screens can be accessed by individual users and additional screens can be accessed by managers, system administrators have access to the complete ART application.

The three levels of access privileges are

- **Individual users**—can view or generate bills pertaining to your own phone calls.
- **Managers**—can view reports and bills pertaining to all employees within their department.
- **ART system administrators**—can use all the features of ART.

The following table details which reporting screens you can access depending on your password classification.

Table 2-1 ART Screen Access

Users	Screen Access
Individual Users, Managers, Administrators	Logon Screen Main Screen Individual Bill Mail To Contents and Index For This Page About Cisco ART
Managers, Administrators	Department Bill QOS Summary Call Report by Charge Call Report by Duration

Table 2-1 ART Screen Access (continued)

Users	Screen Access
Administrators	QOS Detail Gateway Detail Gateway Summary CDR Search By User/Extension CDR Search By Gateway Traffic Summary System Overview Call Duration Time of Day Voice Quality ART Database Alert CDR Database Alert Manual Database Purge Daily Scheduler Weekly Scheduler Monthly Scheduler Error Log Event Log System Parameters Define QOS Admin Rights Notification Limits Gateway Configuration Pregeneration/Mailing

Viewing the Application Menu Option

ART Administrators can return to Cisco CallManager from this menu option by choosing

Application > Cisco CallManager

User Interface

You can use the menu-based graphical user interface to configure and generate ART reports. The look and feel of ART is similar to the Cisco CallManager Administration window.

You can install Adobe Acrobat Reader from the main screen by clicking the link. You must have Adobe Acrobat Reader to view the ART reports.

Understanding Common Screen Properties

You can use the following common button features in all ART screens:

- **Insert**—allows you to add extra rows to the table being edited
- **Update**—saves the values on the screen
- **Delete**—allows you to delete rows by checking boxes when editing a table
- **Cancel**—cancels current entries and reloads the previous values from the database
- **Select All**—allows you to select all the check boxes
- **Clear All**—allows you to deselect all the check boxes (all boxes are checked by default)



Note

Changes made on the screens go into effect when the next load of CDR and CMR occurs.

Viewing the Main Screen

The Main screen welcomes you to ART when you successfully log into the application. It shows the copyright and contact information for ART.

ART has the following main menu options with submenu selections:

- Bills
 - Individual Bills
 - Department Bills
- Call Reports
 - By Charge
 - By Duration
 - Traffic Summary
 - System Overview
- QOS Reports
 - QOS Detail
 - QOS Summary
- Gateway Reports
 - Gateway Detail
 - Gateway Summary
- CDR Search
 - By User/Extension
 - By Gateway
- System
 - Rating Engine—Duration, Time of Day, Voice Quality
 - Database—ART Database Alert, CDR Database Alert, Manual Database Purge
 - Scheduler—Daily, Weekly, Monthly
 - System Parameters—Admin Rights, Mail Parameters, System Preferences, Pregeneration/Mailing

- Log Screens
 - Event Log
 - Error Log
- Define QOS
- Gateway Configuration
- Notification Limits

Viewing the Help Menu Option

Regardless of your level of security access, you can access the online help information by choosing **Help** and any of the following submenu items:

- Contents and Index—allows you to view a table of contents list and select any topic.
- For This Page—provides you with helpful information regarding the displayed screen.
- About Cisco ART—shows you the current version of ART and contact information.



Configuring Reports for Users, Managers, and Administrators

Regardless of your level of security access, you can access, generate, and view the reports in this chapter.

This chapter also includes information to help you understand the report output.

Generate reports in one of the following ways:

- on demand (you will need to specify a date range)
- on a scheduled basis



Note

The ART administrator sets the parameters for configuring the ART function.

Generating Individual Bills

Use this procedure to generate, view, or mail summary or detail information about individual phone bills.

You can either view pregenerated summary reports or generate new reports on demand. If you generate a new report, you must specify a date range.

The following interactive fields apply to the Individual Bill screen:

- Report Type
 - Summary—indicates the summary of all calls for a selected period (the total number of calls made and the charges incurred).
 - Detail—indicates the call types (Internal, Local, Long Distance, International, or On Net) for all calls over a selected period.
- Available Reports—provides a list of pregenerated reports (the default is the latest pregenerated report). Other reports appear in reverse chronological order. The last choice in the list is “Generate New Report.”
- From Date—provides a place to include a date range if you select Generate New Report from Available Reports.
- To Date—provides a place to include a date range if you select Generate New Report from Available Reports.
- View Report—click to view the report.
- Send Report—click to mail the report.

Procedure

Follow this procedure to view and mail your individual bill:

-
- Step 1 Choose **Bill > Individual Bill** from the ART main menu.
 - Step 2 Choose **Summary** or **Detail**.
 - Step 3 Choose a date range.
 - Step 4 Click **View Report**—see “Understanding the Individual Bill Report.”
 - Step 5 Click **Send Report**—see the procedure for “Mailing Your Report.”
-

Understanding the Individual Bill Report

The report groups information by the user name in ascending order. The report fields include

- Date and Time—of call origination

- Call Classification—sorted in ascending order
 - Internal
 - Local
 - Long Distance
 - International
 - On Net
- QOS—Quality of Service achieved on calls made
- Duration—the number of seconds that the call was connected

Mailing Your Report

You can access the Mail To mailing template from any report screen.

Your Mail To screen has the following interactive fields:

- Send—sends the mail to the address(es) listed in the To and Cc address boxes.
- Cancel—cancels the current attempt to mail the report, closes the template, and returns control to the previous screen.
- To and Cc—provides capability so that when you click on either button, another screen displays a list of users from which you can select addresses to receive the report.
- Subject—provides a place to enter the subject of the mail or leave it blank.
- Message—provides a space below the Subject field for the message of the mail. Sending a message is optional.

Procedure

To send a report, perform the following steps:

-
- Step 1** Click on **Send Report** from any screen.
 - Step 2** Click on the **To** and **Cc** buttons to obtain a list of all users.
 - Choose the name(s) from the list of users.
 - Click **OK**—to return to the mail template with all the addresses displayed in the respective address boxes.

- Click **Cancel**—to return to the mail template with no address selected.



Note You can also enter addresses directly into the text box.

- Step 3** Enter a subject in the **Subject** line (optional).
- Step 4** Enter a message in the **Message** area (optional).
- Step 5** Click **Send**—to send the report with this mail as an attachment.
-



Configuring Reports for Managers and Administrators

In addition to the screens described in the preceding chapters, managers and administrators can also access the following reports:

- Department Bills
- QOS Summary
- Call Report By Charge
- Call Report By Duration

This chapter also includes information to help you understand the report output.



Note

The ART administrator sets the parameters for configuring the ART function.

Generating Department Bills

You can view pregenerated bills or specify a date range and list of users for on demand reports.

The following interactive fields apply for the Department Bill screen:

- Up or Down—to view any place in the hierarchy
- Add—adds the selected person to the “List of Selected Users” box

- Remove—removes a user
- Remove All—removes all users

The selected names appear in the “List of Selected Users.”

Procedure

Use this procedure to generate, view, or mail bills for various manager groups.

-
- Step 1 Choose **Bill > Department Bill** from the ART main menu.
 - Step 2 Report Type—choose **Summary** or **Detail**.
 - Step 3 Choose a date range.
 - Step 4 Enter a User ID or click the “User Search” link to choose from the list of users.
 - Step 5 Click **Add** to add the names to the “List of Selected Users.”
 - Step 6 Click **View Report**—see “Understanding the Department Bill Report.”
 - Step 7 Click **Send Report**—see Chapter 3, “Mailing Your Report.”
-

Understanding the Department Bill Report

The report groups information by the user name in ascending order. The report fields include

- Date and Time—of call origination
- Call Classification—sorted in ascending order
 - Internal—calls that originated in the Cisco CallManager network and ended in the same Cisco CallManager network (no gateways are used).
 - Local—local calls originating in the Cisco CallManager network going out through the Public Switched Telephone Network (PSTN).
 - Long Distance—long distance calls originating in the Cisco CallManager network going out through the Public Switched Telephone Network (PSTN).
 - International—international calls originating in the Cisco CallManager network going out through the Public Switched Telephone Network (PSTN).

- On Net—outgoing calls from one Cisco CallManager cluster to another Cisco CallManager cluster.
- Others—other outgoing calls, such as Toll Free numbers, 911, and so on.
- Total Calls and Charges—the total number of calls and total charges by reportee and per-call classification by manager

Generating Quality of Service Summary Reports

The ART tool serves as the first step toward providing information on voice quality. ART allows system administrators to manage the Cisco CallManager in terms of Quality of Service (QOS) statistics and system capacity. ART categorizes calls into a Voice Quality (VQ) category based on the call details in CDRs and CMRs, and the QOS parameters provided by the administrator.



Caution

Use ART only during initial installation or during off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

The purpose of this report is to get the summary of the Quality of Service (QOS) for all the calls made during a selected date range.

This report supports outgoing and incoming call directions.

ART administrators can generate this report for an entire organization.

The following fields apply for the QOS Summary screen:

- Available Reports—allows choosing from a list of pregenerated reports (the default is the latest pregenerated report). Other reports appear in reverse chronological order. The last choice in the list is “Generate New Report.”
- Select Call Types—a required field that includes the following types:
 - On Net—outgoing calls from one Cisco CallManager cluster to another Cisco CallManager cluster.
 - Internal—calls that originated in the Cisco CallManager network and ended in the same Cisco CallManager network (no gateways are used).

- Local—local calls originating in the Cisco CallManager network going out through the Public Switched Telephone Network (PSTN).
 - Long Distance—long distance calls originating in the Cisco CallManager network going out through the Public Switched Telephone Network (PSTN).
 - International—international calls originating in the Cisco CallManager network going out through the Public Switched Telephone Network (PSTN).
 - Incoming—calls that originated outside the Cisco CallManager network, entered through a gateway, and into the Cisco CallManager IP network.
 - Tandem—calls that originated outside the Cisco CallManager network, entered the Cisco CallManager network through a gateway, and transferred outside from the Cisco CallManager network through a gateway.
 - Others—other outgoing calls, such as Toll Free numbers, 911, and so on.
- From Date—provides a place to always include a date range if you select Generate New Report from Available Reports.
 - To Date—provides a place to always include a date range if you select Generate New Report from Available Reports.
 - View Report—click to view the report.
 - Send Report—click to mail the report.

Procedure

To generate QOS Summary Reports, perform the following steps:

-
- Step 1** Choose **QOS Reports > QOS Summary** from the ART main menu.
 - Step 2** Click the drop-down arrow to choose an option from Available Reports (required)
 - Step 3** Choose Call Type (required)— click one or more of the boxes
 - Step 4** Enter From Date—enter the date and select the month and year from the drop-down menu.
 - Step 5** Enter To Date—enter the date and select the month and year from the drop-down menu.

- Step 6** Click **View Report**—see “Understanding the Quality of Service Summary Report.”
- Step 7** Click **Send Report**—if you want to mail your report, see Chapter 3, “Mailing Your Report.”
-

Understanding the Quality of Service Summary Report

The report, a three-dimensional pie chart, shows the distribution of QOS grades achieved for selected call classifications and date range.

Generating Call Reports by Charge

This screen specifies the parameters for generating call reports by charge. The report shows users, destinations, and calls that incurred a maximum charge for a certain period.

You can view this report only on demand.



Caution

Use ART only during initial installation or during off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

If the ART administrator is generating the report, the report takes into account all the calls made during the selected date range in the organization. For example, the report lists the top ‘n’ users in the organization.

The following interactive fields apply for the Call Report by Charge screen:

- **Select Call Types**—a required field that includes the following types:
 - **On Net**—outgoing calls from one Cisco CallManager cluster to another Cisco CallManager cluster.
 - **Internal**—calls that originated in the Cisco CallManager network and ended in the same Cisco CallManager network (no gateways are used).

- Local—local calls originating in the Cisco CallManager network going out through the Public Switched Telephone Network (PSTN).
- Long Distance—long distance calls originating in the Cisco CallManager network going out through the Public Switched Telephone Network (PSTN).
- International—international calls originating in the Cisco CallManager network going out through the Public Switched Telephone Network (PSTN).
- Others—other outgoing calls, such as Toll Free numbers, 911, and so on.
- Generate Report—a required field with three options:
 - By Individual Users—lists the users who incurred the maximum charges.
 - By Destinations—lists the destinations that incurred the maximum charges.
 - By All Calls—(default selection) lists the calls that incurred the maximum charges.
- No of Records—an editable text box that indicates the number (n) of records that display in the report generated by the user. The default is five.
- From Date—provides a place to always include a date range if you select Generate New Report from Available Reports.
- To Date—provides a place to always include a date range if you select Generate New Report from Available Reports.
- View Report—click to view the report.
- Send Report—click to mail the report.

Procedure

To generate Call Reports by Charge, perform the following steps:

-
- Step 1** Choose **Call Reports > By Charge** from the ART main menu.
 - Step 2** Check the Call Type (required)— check one or more of the boxes
 - Step 3** Click the drop-down arrow to choose an option from Generate Report (required)
 - Step 4** No of Records (required)—click the drop-down arrow to choose the number of records to be displayed or use the default of **5**.

- Step 5** Enter From Date—enter the date and select the month and year from the drop-down menu.
- Step 6** Enter To Date—enter the date and select the month and year from the drop-down menu.
- Step 7** Click **View Report**—see “Understanding the Call Reports by Charge Report.”
- Step 8** Click **Send Report**—if you want to mail your report, see Chapter 3, “Mailing Your Report.”
-

Understanding the Call Reports by Charge Report

This report, sorted by charge in descending order, supports outgoing call directions. The following items appear in the report fields:

- Users—user names
- Calls—total number of calls
- Duration(s)—the total number of seconds that the calls were connected
- Charge—total amount of billing charges for all calls to that user

Generating Call Reports by Duration

This screen specifies the parameters for generating call reports by duration. The report shows users who incurred a maximum time on calls for a certain period.

You can view this report only on demand.



Caution

Use ART only during initial installation or during off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

If the ART administrator is generating the report, the report takes into account all the calls made during the selected date range in the organization. For example, the report lists the top ‘n’ users in the organization.

The following interactive fields apply for the Call Report by Charge screen:

- Select Call Types—a required field that includes the following types:
 - On Net—outgoing calls from one Cisco CallManager cluster to another Cisco CallManager cluster.
 - Internal—calls that originated in the Cisco CallManager network and ended in the same Cisco CallManager network (no gateways are used).
 - Local—local calls originating in the Cisco CallManager network going out through the Public Switched Telephone Network (PSTN).
 - Long Distance—long distance calls originating in the Cisco CallManager network going out through the Public Switched Telephone Network (PSTN).
 - International—international calls originating in the Cisco CallManager network going out through the Public Switched Telephone Network (PSTN).
 - Incoming—calls that originated outside the Cisco CallManager network, entered through a gateway, and into the Cisco CallManager IP network.
 - Tandem—calls that originated outside the Cisco CallManager network, entered the Cisco CallManager network through a gateway, and transferred outside from the Cisco CallManager network through a gateway.
 - Others—other outgoing calls, such as Toll Free numbers, 911, and so on.
- Generate Report—a required field that includes three options:
 - By Individual Users—lists the users who have used phones for the maximum duration.
 - By Destinations—lists destinations that engaged the network for the maximum period.
 - By All Calls—(default selection) lists the longest calls.
- No of Records—an editable text box that indicates the number of records that display in the report generated by the user. The default is five.
- From Date—provides a place to always include a date range if you select Generate New Report from Available Reports.
- To Date—provides a place to always include a date range if you select Generate New Report from Available Reports.

- View Report—click to view the report.
- Send Report—click to mail the report.

Procedure

To generate Call Reports by Duration, perform the following steps:

-
- Step 1** Choose **Call Reports > By Duration** from the ART main menu.
 - Step 2** Check Call Type—check one or more of the check boxes (required).
 - Step 3** Choose an option from Generate Report (required).
 - Step 4** No of Records (required)—click the drop-down arrow to choose the number of records to be displayed, or use the default of 5.
 - Step 5** Enter From Date—enter the date and select the month and year from the drop-down menu.
 - Step 6** Enter To Date—enter the date and select the month and year from the drop-down menu.
 - Step 7** Click **View Report**—see “Understanding the Call Reports by Duration Report.”
 - Step 8** Click **Send Report**—if you want to mail your report, see Chapter 3, “Mailing Your Report”.
-

Understanding the Call Reports by Duration Report

This report, sorted by duration in descending order, supports outgoing call directions. The following information appears in the report fields:

- Users—user names
- Calls—total number of calls
- Charge—total amount of billing charges for all calls to that user
- Duration(s)—the total number of seconds that the calls were connected



Configuring Administrative Reports

This chapter provides administrators with procedures on how to configure administrative reports.

This chapter also includes information to help you understand the report output.



Note

The ART administrator sets the parameters for configuring the ART function.

Configuring Administrative Report Parameters

In addition to all reports described in previous chapters, the Administrator can configure the following report parameters:

- QOS Detail
- QOS Summary
- Gateway Detail
- Gateway Summary
- CDR Search by User/Extension
- CDR Search by Gateway
- Traffic Summary
- System Overview

Generating QOS Detail Reports

Use this procedure to specify the parameters for generating a report, which gives the voice quality grades achieved for various calls. You can also analyze the performance of the Cisco CallManager for various manager groups or for the entire organization.

**Caution**

Use ART only during initial installation or during off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

The following interactive fields apply for the QOS Detail screen:

- Available Reports—required field in which you can choose from a list of pregenerated reports (the default is the latest pregenerated report). Other reports appear in reverse chronological order. The last choice in the list is “Generate New Report.”
- Select Call Types—required field that includes the following check boxes (all are checked by default):
 - On Net—outgoing calls from one Cisco CallManager cluster to another Cisco CallManager cluster.
 - Internal—calls that originated in the Cisco CallManager network and ended in the same Cisco CallManager network (no gateways are used).
 - Local—local calls originating in the Cisco CallManager network going out through the Public Switched Telephone Network (PSTN).
 - Long Distance—long distance calls originating in the Cisco CallManager network going out through the Public Switched Telephone Network (PSTN).
 - International—international calls originating in the Cisco CallManager network going out through the Public Switched Telephone Network (PSTN).
 - Incoming—calls that originated outside the Cisco CallManager network, entered through a gateway, and into the Cisco CallManager IP network.

- Tandem—calls that originated outside the Cisco CallManager network, entered the Cisco CallManager network through a gateway, and transferred outside from the Cisco CallManager network through a gateway.
 - Others—other outgoing calls, such as Toll Free numbers, 911, and so on.
- Select QOS
 - Good
 - Acceptable
 - Fair
 - Poor
- From Date—provides a place to always include a date if you choose Generate New Report from Available Reports.
- To Date—provides a place to always include a date if you choose Generate New Report from Available Reports.
- Up or Down—to view any place in the hierarchy.
- Add—adds the selected person to the “List of Selected Users” box.
- Remove—removes a user.
- Remove All—removes all users.

The selected names appear in the “List of Selected Users.”

- View Report—click to view reports.
- Send Report—click to mail reports.

Procedure

To generate QOS Detail Reports, perform the following steps:

-
- Step 1** Choose **QOS Reports > QOS Detail** from the ART main menu.
 - Step 2** Click the drop-down arrow to choose an option from Available Reports (required).
 - Step 3** Check Call Type (required)— check one or more of the boxes.
 - Step 4** Enter From Date—enter the date and select the month and year from the drop-down menu.

- Step 5** Enter To Date—enter the date and select the month and year from the drop-down menu.
 - Step 6** Enter a User ID or click the “User Search” link to choose from the list of users.
 - Step 7** Click **Add** to add the names to the “List of Selected Users.”
 - Step 8** Click **View Report**—see “Understanding the Quality of Service Detail Reports.”
 - Step 9** Click **Send Report**—if you want to mail your report, see Chapter 3, “Mailing Your Report.”
-

Understanding the Quality of Service Detail Reports

The QOS Detail report provides information in the following report fields:

- **Orig. Time**—Origination time
- **Term. Time**—Termination time
- **Duration(s)**—Call Duration shows the number of seconds that the call was connected. It is the difference between the Destination Connect and the Destination Disconnect.
- **Orig**—Originating Number shows the directory number of the device from which the call originated.
- **Dest**—Destination Span or Port applies only to outgoing calls made through a gateway and is the span or physical port through which the call went.
- **Call Classification**—Call Classification designates types of calls to consider for the QOS detail report (internal, local, long distance, international, incoming, tandem, others).
- **Orig. Codec**—Origination codec designates the codec type (compression or payload type) that the originator used on its sending side during this call. This may differ from the codec type used on its receiving side.
- **Dest. Codec**—Destination codec designates the codec type (compression or payload type) that the destination used on its sending side during this call. This may differ from the codec type used on its receiving side.
- **Origination IP**—Originating Number IP Address shows the IP address of the device from which the call originated.

- **Orig. Span**—Digital gateway span or analog port applies only to incoming calls received through a gateway and is the span or physical port through which the call entered.
- **QOS**—Quality of Service shows the voice quality grade achieved for the calls.

Generating QOS Summary Reports

Use this procedure to specify the parameters for generating a report, which gives the voice quality grades achieved for various calls. You can also analyze the performance of the Cisco CallManager for various manager groups or for the entire organization.



Caution

Use ART only during initial installation or during off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

The following interactive fields apply for the QOS Summary screen:

- **Available Reports**—required field in which you can choose from a list of pregenerated reports (the default is the latest pregenerated report). Other reports appear in reverse chronological order. The last choice in the list is “Generate New Report.”
- **Select Call Types**—required field that includes the following check boxes (all are checked by default).
 - **On Net**—outgoing calls from one Cisco CallManager cluster to another Cisco CallManager cluster.
 - **Internal**—calls that originated in the Cisco CallManager network and ended in the same Cisco CallManager network (no gateways are used).
 - **Local**—local calls originating in the Cisco CallManager network going out through the Public Switched Telephone Network (PSTN).
 - **Long Distance**—long distance calls originating in the Cisco CallManager network going out through the Public Switched Telephone Network (PSTN).

- International—international calls originating in the Cisco CallManager network going out through the Public Switched Telephone Network (PSTN).
- Incoming—calls that originated outside the Cisco CallManager network, entered through a gateway, and into the Cisco CallManager IP network.
- Tandem—calls that originated outside the Cisco CallManager network, entered the Cisco CallManager network through a gateway, and transferred outside from the Cisco CallManager network through a gateway.
- Others—other outgoing calls, such as Toll Free numbers, 911, and so on.
- From Date—provides a place to always include a date if you choose Generate New Report from Available Reports.
- To Date—provides a place to always include a date if you choose Generate New Report from Available Reports.
- Select All—allows checking all the check boxes.
- Clear All—allows unchecking all the check boxes.
- View Report—click view your report.
- Send Report—click mail your report.

Procedure

To generate QOS Summary Reports, perform the following steps:

-
- Step 1** Choose **QOS Reports > QOS Summary** from the ART main menu.
 - Step 2** Click the drop-down arrow to choose an option from Available Reports (required).
 - Step 3** Check Call Type (required)— check one or more of the boxes.
 - Step 4** Enter From Date—enter the date and select the month and year from the drop-down menu.
 - Step 5** Enter To Date—enter the date and select the month and year from the drop-down menu.

- Step 6** Click **View Report**—see “Understanding the Quality of Service Summary Reports.”
- Step 7** Click **Send Report**—if you want to mail your report, see Chapter 3, “Mailing Your Report.”
-

Understanding the Quality of Service Summary Reports

The QOS Detail report provides information in the following report fields:

- **Orig. Time**—Origination time
- **Term. Time**—Termination time
- **Duration(s)**—Call Duration shows the number of seconds that the call was connected. It is the difference between the Destination Connect and the Destination Disconnect.
- **Orig**—Originating Number shows the directory number of the device from which the call originated.
- **Dest**—Destination Span or Port applies only to outgoing calls made through a gateway and is the span or physical port through which the call went.
- **Call Classification**—Call Classification designates types of calls to consider for the QOS detail report (internal, local, long distance, international, incoming, tandem, others).
- **Orig. Codec**—Origination codec designates the codec type (compression or payload type) that the originator used on its sending side during this call. This may differ from the codec type used on its receiving side.
- **Dest. Codec**—Destination codec designates the codec type (compression or payload type) that the destination used on its sending side during this call. This may differ from the codec type used on its receiving side.
- **Origination IP**—Originating Number IP Address shows the IP address of the device from which the call originated.

- **Orig. Span**—Digital gateway span or analog port applies only to incoming calls received through a gateway and is the span or physical port through which the call entered.
- **QOS**—Quality of Service shows the voice quality grade achieved for the calls.

Generating Gateway Detail Reports

Use this procedure for generating a detailed report of all calls that went through gateways in the enterprise.



Caution

Use ART only during initial installation or during off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

The following interactive fields apply for the Gateway Detail screen:

- **Available Reports**—required field in which you can choose from a list of pregenerated reports (the default is the latest pregenerated report). Other reports appear in reverse chronological order. The last choice in the list is “Generate New Report.”
- **Select Call Types**—required field that includes seven check boxes (all are checked by default).
 - **On Net**—outgoing calls from one Cisco CallManager cluster to another Cisco CallManager cluster.
 - **Internal**—calls that originated in the Cisco CallManager network and ended in the same Cisco CallManager network (no gateways are used).
 - **Local**—local calls originating in the Cisco CallManager network going out through the Public Switched Telephone Network (PSTN).
 - **Long Distance**—long distance calls originating in the Cisco CallManager network going out through the Public Switched Telephone Network (PSTN).

- International—international calls originating in the Cisco CallManager network going out through the Public Switched Telephone Network (PSTN).
 - Incoming—calls that originated outside the Cisco CallManager network, entered through a gateway, and into the Cisco CallManager IP network.
 - Tandem—calls that originated outside the Cisco CallManager network, entered the Cisco CallManager network through a gateway, and transferred outside from the Cisco CallManager network through a gateway.
 - Others—other outgoing calls, such as Toll Free numbers, 911, and so on.
- Select QOS—required field. Check one or more boxes.
 - Good
 - Acceptable
 - Fair
 - Poor
 - N/A
- From Date—provides a place to always include a date if you choose Generate New Report from Available Reports.
- To Date—provides a place to always include a date if you choose Generate New Report from Available Reports.
- Select Gateways—shows all the gateways populated in the “List of Gateways” list box and the IP addresses of the gateways. You can choose all or some of the gateways by using the following buttons:
 - Add
 - Remove
 - Add All
 - Remove All
- View Report—click to view reports.
- Send Report—click to send reports.

Procedure

To generate Gateway Detail Reports, perform the following steps:

-
- Step 1 Choose **Gateway Reports** > **Gateway Detail** from the ART main menu.
 - Step 2 Click the drop-down arrow to choose an option from Available Reports (required).
 - Step 3 Check Call Type (required)—check one or more of the boxes.
 - Step 4 Check QOS (required)—check one or more of the boxes.
 - Step 5 Enter From Date (required if you choose Generate New Report).
 - Step 6 Enter To Date (required if you choose Generate New Report).
 - Step 7 Choose Gateways—choose one or more gateways.
Click **Add** to place the selected gateway(s) in the Selected Gateways list box.
 - Step 8 Click **View Report**—see “Understanding Gateway Detail Reports.”
 - Step 9 Click **Send Report**—if you want to mail your report, see Chapter 3, “Mailing Your Report.”
-

Understanding Gateway Detail Reports

The Gateway Detail report provides information in the following fields for calls that used the gateway:

- Date—when the call went through the gateway
- Orig. Time—Origination time
- Term. Time—Termination time
- Duration(s)—Call Duration shows the number of seconds that the call was connected. It is the difference between the Destination Connect and the Destination Disconnect times.
- Orig—Originating Number shows the directory number of the device from which the call originated.

- **Dest**—Destination shows the directory number to which the call was originally placed. If the call is not forwarded, this directory number should match the Final Destination number. If the call was forwarded, this field contains the original destination of the call before it was forwarded.
- **Orig. Codec**—Origination codec designates the codec type (compression or payload type) that the originator used on its sending side during this call. This may differ from the codec type used on its receiving side.
- **Dest. Codec**—Destination codec designates the codec type (compression or payload type) that the destination used on its sending side during this call. This may differ from the codec type used on its receiving side.
- **Origination IP**—Originating Number IP Address shows the IP address of the device from which the call originated.
- **QOS**—Quality of Service shows the voice quality grade achieved for the calls.

Generating the Gateway Summary Report

Use this procedure for specifying the parameters for generating a summary report of all the calls that went through the gateways. The reports generated provide information for monitoring the traffic and QOS for calls through the gateways.

This report also provides the total number of calls and the duration under each of the categories.

You can schedule the report for generation every month or generate the report on demand.



Caution

Use ART only during initial installation or during off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

The following interactive fields apply for the Gateway Summary screen:

- **Available Reports**—required field in which you can choose from a list of pregenerated reports (the default is the latest pregenerated report). Other reports appear in reverse chronological order. The last choice in the list is “Generate New Report.”

- Select Call Types—check boxes (all are checked by default)
 - Incoming—calls that originated outside the Cisco CallManager network, entered through a gateway, and into the Cisco CallManager IP network.
 - On Net—outgoing calls from one Cisco CallManager cluster to another Cisco CallManager cluster.
 - Internal—calls that originated in the Cisco CallManager network and ended in the same Cisco CallManager network (no gateways are used).
 - Local—local calls originating in the Cisco CallManager network going out through the Public Switched Telephone Network (PSTN).
 - Long Distance—long distance calls originating in the Cisco CallManager network going out through the Public Switched Telephone Network (PSTN).
 - International—international calls originating in the Cisco CallManager network going out through the Public Switched Telephone Network (PSTN).
 - Tandem—calls that originated outside the Cisco CallManager network, entered the Cisco CallManager network through a gateway, and transferred outside from the Cisco CallManager network through a gateway.
- From Date—provides place to always include a date if you generate a new report.
- To Date—provides place to always include a date if you generate a new report.
- View Report—click to view a report.
- Send Report—click to send a report.

Procedure

To generate a Gateway Summary Report, perform the following steps:

-
- Step 1** Choose **Gateway Reports > Gateway Summary** from the ART main menu.
 - Step 2** Click the drop-down arrow to choose an option from Available Reports (required).
 - Step 3** Check Call Type— check one or more of the boxes.

- Step 4** Enter From Date—enter the date and select the month and year from the drop-down menu.
- Step 5** Enter To Date—enter the date and select the month and year from the drop-down menu.
- Step 6** Click **View Report**—see “Understanding Gateway Summary Reports.”
- Step 7** Click **Send Report**—if you want to mail your report, see Chapter 3, “Mailing Your Report.”
-

Understanding Gateway Summary Reports

The Gateway Summary report presents a matrix showing the number of calls of various call classifications and QOS that passed through a gateway:

- Quality of Service—shows a summary of the performance of the various gateways with the total number of calls for each of the categories: Good, Acceptable, Fair, and Poor.
- Call Classification—shows the types of calls considered for this report.
- Calls—shows the total number of calls for each call classification.
- Duration(s)—shows the number of seconds that the call was connected.

Generating Traffic Summary Reports

You can use this procedure to specify the parameters to generate reports for traffic monitoring and peak hour determination.



Caution

Use ART only during initial installation or during off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

You can generate three types of reports:

- Hourly Summary—generates a three-dimensional, stacked bar representing the number of calls of each call type made every hour for the selected date range
- Day of Week Summary—generates a three-dimensional, stacked bar representing the number of calls of each call type made every day of the week for the selected week
- Daily Summary—generates a three-dimensional, stacked bar representing the number of calls of each call type made every day of the month for the selected month

You can also generate the report on demand for a selected date range.

The following interactive fields apply for the Traffic Summary screen:

- Generate Report—includes the following options:
 - Hourly Summary (default)
 - Day of Week Summary
 - Daily Summary
- Available Reports—required field in which you can choose from a list of pregenerated reports (the default is the latest pregenerated report). Other reports appear in reverse chronological order. The last choice in the list is “Generate New Report.”
- Select Call Types—required field that includes the following check boxes (all checked by default). Check one or more of the check boxes.
 - On Net—outgoing calls from one Cisco CallManager cluster to another Cisco CallManager cluster.
 - Internal—calls that originated in the Cisco CallManager network and ended in the same Cisco CallManager network (no gateways are used).
 - Local—local calls originating in the Cisco CallManager network going out through the Public Switched Telephone Network (PSTN).
 - Long Distance—long distance calls originating in the Cisco CallManager network going out through the Public Switched Telephone Network (PSTN).
 - International—international calls originating in the Cisco CallManager network going out through the Public Switched Telephone Network (PSTN).

- Incoming—calls that originated outside the Cisco CallManager network, entered through a gateway, and into the Cisco CallManager IP network.
- Tandem—calls that originated outside the Cisco CallManager network, entered the Cisco CallManager network through a gateway, and transferred outside from the Cisco CallManager network through a gateway.
- Others—other outgoing calls, such as Toll Free numbers, 911, and so on.
- Select QOS—required field. Check one or more of the check boxes.
 - Good
 - Acceptable
 - Fair
 - Poor
 - N/A
- From Date—provides a place to always include a date if you generate a new report.
- To Date—provides a place to always include a date if you generate a new report.
- View Report—click to view a report.
- Send Report—click to send a report.

Procedure

To generate Traffic Summary Reports, perform the following steps:

-
- Step 1** Choose **Call Reports > Traffic Summary** from the ART main menu.
 - Step 2** Generate Reports—(required) click the drop-down arrow to choose a report to generate. Hourly Summary is the default.
 - Step 3** Available Reports—(required) choose from the list of pregenerated reports or Generate New Report.
 - Step 4** Check Call Type— check one or more of the check boxes.
 - Step 5** Check QOS—check one or more of the boxes.
 - Step 6** Enter From Date—enter the date and select the month and year from the drop-down menu.

- Step 7** Enter **To Date**—enter the date and select the month and year from the drop-down menu.
- Step 8** Click **View Report**—see “Understanding Traffic Summary Reports.”
- Step 9** Click **Send Report**—if you want to mail your report, see Chapter 3, “Mailing Your Report.”
-

Understanding Traffic Summary Reports

Traffic Summary reports display as stacked bar charts representing the traffic for a period (hour, day, or date) with each block on the bars indicating a different call classification.

The table below the graph presents the data on which the graph is based.

The three types of reports are as follows:

- **Traffic Summary - Hourly**—This report presents the traffic details on an hourly basis for a selected date range.
- **Traffic Summary - Day of the Week**—This report presents the traffic details based on every day of the selected week.
- **Traffic Summary - Daily**—This report presents the traffic details based on every day of the selected month.

Generating a System Overview Report

The System Overview shows a composite report consisting of call reports, QOS Summary, and the gateway summary report. This report gives a broad overview of the overall system performance.

You can schedule the report for generation every month or generate the report on demand for any selected date range.

**Caution**

Use ART only during initial installation or during off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

The following interactive fields apply for the System Overview screen:

- **Available Reports**—required field in which you can choose from a list of pregenerated reports (the default is the latest pregenerated report). Other reports appear in reverse chronological order. The last choice in the list is “Generate New Report.”
- **From Date**—provides a place to always include a date if you generate a new report.
- **To Date**—provides a place to always include a date if you generate a new report.
- **View Report**—click to view a report.
- **Send Report**—click to send a report.

Procedure

To generate a System Overview Report, perform the following steps:

-
- Step 1** Choose **Call Reports > System Overview** from the ART main menu.
 - Step 2** **Available Reports**—(required). Click the drop-down arrow to choose from the list of pregenerated reports or Generate New Report.
 - Step 3** **Enter From Date**—enter the date and select the month and year from the drop-down menu.
 - Step 4** **Enter To Date**—enter the date and select the month and year from the drop-down menu.
 - Step 5** Click **View Report**—see “Understanding System Overview Reports.”
 - Step 6** Click **Send Report**—if you want to mail your report, see Chapter 3, “Mailing Your Report.”
-

Understanding System Overview Reports

The System Overview report contains many of the reports described in this document. Table 5-1 lists each report and where you can find detailed information about the report.

Table 5-1 System Overview Reports

Report	Where to find report details
Top 5 Users Based on Charge	Chapter 4, “Understanding the Call Reports by Charge Report”
Top 5 Destinations Based on Charge	Chapter 4, “Understanding the Call Reports by Duration Report”
Top 5 Calls Based on Charge	Chapter 4, “Understanding the Call Reports by Charge Report”
Top 5 Users Based on Duration	Chapter 4, “Understanding the Call Reports by Duration Report”
Top 5 Destinations Based on Duration	Chapter 4, “Understanding the Call Reports by Duration Report”
Top 5 Calls Based on Duration	Chapter 4, “Understanding the Call Reports by Duration Report”
Traffic Summary - Hourly	Chapter 5, “Understanding Traffic Summary Reports”
Traffic Summary - Day of the Week	Chapter 5, “Understanding Traffic Summary Reports”
Traffic Summary - Daily	Chapter 5, “Understanding Traffic Summary Reports”
Quality of Service Summary Report	Chapter 5, “Understanding the Quality of Service Detail Reports”
Gateway Summary Report	Chapter 5, “Understanding Gateway Summary Reports”

CDR Search By User/Extension

Use this procedure to show the details of CDR records based on the user or extension.



Caution

Use ART only during initial installation or during off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

The following interactive fields apply for the CDR Search By User/Extension screen:

- First Name—user’s first name.
- Last Name—user’s last name.
- Extension—the phone extension for the user.
- Report Criteria—information used to generate the report.
- From Date and To Date—the date range on which to base the report.
- OK—generates the report.
- Close—returns you to the main screen.

Procedure

To generate CDR Search by User/Extension reports, perform the following steps:

-
- Step 1** Choose **CDR Search > By User/Extension** from the ART main menu.
 - Step 2** Enter a first name or last name and click **Find User** to choose from a list of users. If you know the name of the user and the extension, enter the information in the appropriate boxes.
 - Step 3** Extension—enter the extension number.
 - Step 4** Click **Add Extension**—to add the user name and extension to the “Report Criteria” box.
 - Step 5** Enter From Date—enter the date and select the month and year from the drop-down menu.

- Step 6** Enter To Date—enter the date and select the month and year from the drop-down menu.
- Step 7** Enter a User ID or click **User Search** to select from the list of users.
- Step 8** Click **OK** to generate the report.
- Step 9** Click **Close** to return to the main screen.
-

Understanding CDR Search User/Extension Reports

The CDR Search By User/Extension report provides information for the first 100 records that satisfy the search criteria. If more than 100 records are returned, the results are truncated. Each page displays a maximum of five records.

You can navigate from one page to another page or go directly to a specific page.

The display also shows the report criteria on each page. All associated records, such as Transfer and Conference Calls, display together as a logical group.

CDR Search By Gateway

Use this procedure to show the details of CDR records sorted on gateways.



Caution

Use ART only during initial installation or during off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

The following interactive fields apply for the CDR Search By Gateway screen:

- List of Gateways—a list of gateways populated this box along with associated IP address for each gateway.
- Selected Gateways—designates the gateway and IP address on which to base the report.
- Current Time—displays the current time in Greenwich Mean Time and Local Time.

- From Date and To Date—the date range on which to base the report.
- OK—generates the report.
- Close—returns you to the main screen.

Procedure

To generate CDR Search by Gateway reports, perform the following steps:

-
- Step 1** Choose **CDR Search > By Gateway** from the ART main menu.
A list of gateways displays in the “List of Gateways” list box.
 - Step 2** Click on a gateway.
 - Step 3** Click **Add** to add the gateway to the “Selected Gateways” box.
 - Step 4** Click **Add All** to add all the gateways to the “Selected Gateways” box.
 - Step 5** Click **Remove** to remove a gateway from the “Selected Gateways” box.
 - Step 6** Click **Remove All** to remove all the gateways from the “Selected Gateways box.
 - Step 7** Enter From Date—enter the date and select the month and year from the drop-down menu.
 - Step 8** Enter To Date—enter the date and select the month and year from the drop-down menu.
 - Step 9** Click **OK** to generate the report.
 - Step 10** Click **Close** to return to the main screen.
-

Understanding CDR Search By Gateway Reports

The CDR Search By Gateway report provides information for the first 100 records that satisfy the search criteria. If more than 100 records are returned, the results are truncated. Each page displays a maximum of five records.

You can navigate from one page to another page or go directly to a specific page.

The display also shows the report criteria on each page. All associated records, such as Transfer and Conference Calls, display together as a logical group.

CTI Port Reports

The CTI Port Report displays the users who are authorized to enable the CTI ports.

**Caution**

Use ART only during initial installation or during off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

The report displays the number of users who can enable CTI ports. It also displays the list of users who are authorized to enable CTI ports.

The Close button returns you to the main screen.



Configuring the System for ART Reports

This chapter provides administrators with procedures on how to configure information that is not in CDRs or CMRs but is required for various reports. The chapter also includes information to help you understand the report output.



Note

The ART administrator sets the parameters for configuring the ART function.



Caution

Use ART only during initial installation or during off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

Configuring ART System Parameters

In addition to all reports described in previous chapters, the Administrator can configure the following system parameters for reports:

- Call Duration
- Time of Day
- Voice Quality

- ART Database Alert
- CDR Database Alert
- Manual Database Purge
- Daily Scheduler
- Weekly Scheduler
- Monthly Scheduler
- Admin Rights
- Mail Parameters
- System Preferences
- Pregeneration/Mailing
- Event Log
- Error Log
- Define QOS
- Gateway Configuration
- Notification Limits

Configuring Rating Engine Parameters

Use the following call rating parameters to set the computation of call charges:

- Duration
- Time of Day
- Voice Quality

You can access these screens from the ART main menu by choosing one of the following selections:

- **Rating Engine > Duration**
- **Rating Engine > Time of Day**
- **Rating Engine > Voice Quality**

**Note**

Changes made in these screens reflect what ART loads from the CDRs and CMRs.

Configuring Call Duration Parameters

Use this rating parameter screen to set the charging block and corresponding base charge.

Changes made in this screen reflect what ART loads from the CDRs and CMRs.

**Caution**

Use ART only during initial installation or during off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

Procedure

Use the following procedure to change the Call Duration parameters.

-
- Step 1** Choose **System Configuration > Rating Engine > Duration** from the ART main menu.
- Step 2** The rating table requires the following values:
- From (seconds)—starting value of the block. The default is **0** (the least possible duration).
 - To (seconds)—the end value of the block. The default is **6**.
 - Base charge/block—specifies the rate for the block. The default is **0**.
- Step 3** Click **Update**—to save the values you changed on the screen.
- Step 4** Click **Cancel**—to cancel the current entries and reload the values from the database.
-

Configuring Time of Day Parameters

Use this rating parameter screen to set time blocks and corresponding multiplications factors. This screen allows you to add and delete additional time blocks or to change the multiplication factors for rating a call.

Changes made in this screen reflect what ART loads from the CDRs and CMRs.



Caution

Use ART only during initial installation or during off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

Procedure

Use the following procedure to change the Time of Day parameters.

-
- Step 1** Choose **System Configuration > Rating Engine > Time of Day** from the ART main menu.
- Step 2** The rating table requires the following values:
- From (hh:mm:ss)—starting value of the time block. The default is **00:00:00**.
 - To (hh:mm:ss)—the end value of the time block. The default is **23:59:59**.
 - Multiplication factor—specifies the factor by which the base charge is multiplied if calls are made during this time block. The default is **0** (range can be from 0.00 to 999.99).
- Step 3** Click **Insert**—to add extra rows.
- Step 4** Click **Update**—to save the values you changed on the screen.
- Step 5** Click **Delete**—to delete rows by checking any of the check boxes from the table.
- Step 6** Click **Cancel**—to cancel the current entries and reload the values from the database.
-

Configuring Voice Quality Parameters

This rating parameter screen sets the multiplication factors for various voice quality categories (Good, Acceptable, Fair, and Poor).

Changes made in this screen reflect what ART loads from the CDRs and CMRs.



Caution

Use ART only during initial installation or during off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

Procedure

Use the following procedure to change the Voice Quality parameters. ART requires values be specified for all voice quality categories: Good, Acceptable, Fair, and Poor.

Step 1 Choose **System Configuration > Rating Engine > Voice Quality** from the ART main menu.

Voice Quality Table—contains two columns:

Voice Quality Category—a noneditable field with four predefined QOS values: Good, Acceptable, Fair, and Poor.

Multiplication factor—the factor by which the charge for each call is multiplied for the quality received. Default is **1**.

Step 2 Enter the Multiplication factor.

Step 3 Click **Update**—to save the values you changed.

Step 4 Click **Cancel**—to cancel the current entries and reloads the values from the database.

Configuring ART Database Alerts

Use this procedure to set the conditions for database size alert for the ART database. You must specify the maximum number of records in the billing table. Specify the threshold for database alert as a percentage of the maximum number of records in the billing table.



Caution

Use ART only during initial installation or during off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

Procedure

To configure ART Database Alerts, perform the following steps:

-
- Step 1** Choose **System Configuration > Database > ART Database Alert** from the ART main menu.
 - Step 2** Maximum number of records in Billing Table—specify the maximum number of records in the billing table. The default is **2000000**.
 - Step 3** Notify users when number of rows reaches—specify the percentage of the maximum number of records at which alert mails must be sent. The default is **80%**.
 - Step 4** Mail to Administrator—this check box, checked by default, indicates whether the ART administrators must be notified when alerts are generated.
 - Step 5** Click **To**—opens another window from which you can select mail ids. Alternatively, enter mail IDs in the text box next to this button.
 - Step 6** Click **Cc**—opens another window from which you can select mail IDs. Alternatively, enter mail ids in the text box next to this button.
 - Step 7** Enter Mail Subject—to enter the subject of the alert message.
 - Step 8** Mail Message—a multiline text box where you can set the content of the mail.

- Step 9** Click **Update**—to save the values you changed on the screen.
- Step 10** Click **Cancel**— to cancel the current entries and reloads the values from the database.
-

Configuring CDR Database Alerts

Use this procedure to set the conditions for database size alert for the CCMdatabase. Specify the threshold for database alert as a percentage of the maximum number of records in the CDR table, which is two million CDR records.



Caution

Use ART only during initial installation or during off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

Procedure

To configure CDR Database Alerts, perform the following procedures:

- Step 1** Choose **System Configuration > Database > CDR Database Alert** from the ART main menu.
- Step 2** Maximum number of records in CDR Table—specify the maximum number of records in the CDR table (the maximum is 2000000).
- Step 3** Notify users when number of rows reaches—specify the percentage of the maximum number of CDR records at which alert mails must be sent. The default is **80%**.
- Step 4** Mail to Administrator—this check box, checked by default, indicates whether the ART administrators must be notified when alerts are generated.
- Step 5** Click **To**—opens another window from which you can select mail ids. Alternatively, a user can enter mail IDs in the text box placed next to this button.
- Step 6** Click **Cc**—opens another window from which you can select mail IDs. Alternatively, a user can enter mail ids in the text box placed next to this button.
- Step 7** Enter Mail Subject—text box for entering the subject of the alert message.

- Step 8** Mail Message—a multiline text box where you can set the content of the mail.
- Step 9** Click **Update**—to save the values you changed on the screen.
- Step 10** Click **Cancel**—to cancel the current entries and reload the values from the database.
-

Configuring Manual Database Purge

Use this procedure to specify the purging condition for the billing database.



Caution

Use ART only during initial installation or during off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

Procedure

To configure Manual Database Purge, perform the following steps:

- Step 1** Choose **System Configuration > Database > Manual Database Purge** from the ART main menu.
- Step 2** Select Database—choose **ART** or **CCM**.
- Step 3** Select Table—choose the table from which the records are to be purged.
- Step 4** Table Information—click this button to open a new screen that shows all the tables for which manual purge is permitted. It shows the number of records and the date of the latest and oldest record in that table.
- Step 5** Delete all the records older than—enter the date prior to which all records are to be purged.

- Step 6** Click **Purge**—to purge all records in the system according to the specifications you set.



Note You receive a warning message telling you that you are about to delete records. You cannot roll back the changes.

- Step 7** Click **Cancel**—to cancel the current entries and reload the values from the database.
-

Configuring the Daily Scheduler

Use this procedure to take input for jobs scheduled on a daily basis. You can set the time for generation of daily reports.

Specify all times in hh:mm format.



Caution

Set the Daily Scheduler for off-peak hours. Otherwise, ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

Procedure

To configure the Daily Scheduler, perform the following steps:

- Step 1** Choose **System Configuration > Scheduler > Daily** from the ART main menu.
- Step 2** Choose a Time for each Process (required):
- Daily Report Generation—choose a time when auto-generation of reports must occur. The default value is **00:00**. The life of a report specifies the number of days after which a pregenerated report would be deleted.

Step 3 Click **Update**—to save the values you changed.



Note The new parameters take effect at midnight the following day.

Step 4 Click **Cancel**—to cancel the current entries and reload the values from the database.

Configuring the Weekly Scheduler

Use this procedure to set the date and time at which jobs scheduled on a weekly basis execute. The default day is **Sunday**, and the default time is **00:00**.

Specify all times in hh:mm format.



Caution

Set the Weekly Scheduler for off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

Procedure

To configure the Weekly Scheduler, perform the following steps:

Step 1 Choose **System Configuration > Scheduler > Weekly** from the ART main menu.

Step 2 Choose a Day of Week and Time for the following Process (required):

Weekly Report Generation—choose a day and time when auto-generation of weekly reports must occur.

Step 3 Click **Update**—to save the values you changed.



Note The new parameters take effect at midnight the following day.

Step 4 Click **Cancel**—to cancel the current entries and reload the values from the database.

Configuring the Monthly Scheduler

Use this procedure to set the date and time at which monthly jobs execute. If the day is set as 29/30/31 and if the month does not have this day, the report generates on the last day of the month. The default day is the first day of the month, and the default time is **00:00**.

Specify all times in hh:mm format.



Caution

Set the Monthly Scheduler for off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

Procedure

To configure the Monthly Scheduler, perform the following steps:

Step 1 Choose **System Configuration > Scheduler > Monthly** from the ART main menu.

Step 2 Choose a Day of Week and Time for the following Process (required):

Monthly Bill Generation—Choose a day and time when auto-generation of monthly bills must occur.

Other Monthly Reports—Choose a day and time when auto-generation of other reports must occur.

Step 3 Click **Update**—to save the values you changed.



Note The new parameters takes effect at midnight the following day.

Step 4 Click **Cancel**—to cancel the current entries and reload the values from the database.

Configuring System Parameters

You can set the following system parameters:

- Admin Rights
- Mail Parameters
- System Preferences
- Pregeneration/Mailing

Configuring Admin Rights

Use this procedure to grant or revoke ART administrator rights.



Caution

Use ART only during initial installation or during off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

Procedure

To configure Admin Rights, perform the following steps:

Step 1 Choose **System > System Parameters > Admin Rights** from the ART main menu.

- Step 2** Type Name or Select From List—enter a name of the user for whom rights are granted or revoked.
Alternatively, choose a name from the List Of Users or List of Admins boxes in Steps 3 and 4.
- Step 3** Click a name in the List of Users—choose from this list of all employees in the organization for whom you can grant admin rights.
- Step 4** Click a name in the List of Admins—choose from this list of all ART Administrators from whom you can revoke admin rights.
- Step 5** Click **Update**—to save the values you changed.
- Step 6** Click **Cancel**—to cancel the current entries and reload the values from the database.
-

Configuring Mail Parameters

Use this procedure to specify the mail parameters for the ART administrator.



Caution

Use ART only during initial installation or during off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

Procedure

To configure Mail parameters, perform the following steps:

-
- Step 1** Choose **System > System Parameters > Mail Parameters** from the ART main menu.
- Step 2** Type the Mail ID—enter the Mail ID for ARTAdmin.
- Step 3** Type the Password—enter the password for the ARTAdmin Mail ID.

**Note**

ART does not authenticate the user ID and password. Disable authentication on the mail server or enter a valid user ID and password.

- Step 4** Type the Password again—enter the same password from Step 3 to confirm.
- Step 5** Type the Mail ID—enter the Mail ID for ARTAdmin.
- Step 6** Type the Mail Domain—enter the mail domain.
- Step 7** Type the Mail Server IP—enter the Mail Server IP address.
- Step 8** Click **Update**—to save the values you changed on the screen.
- Step 9** Click **Cancel**—to cancel the current entries and reload the values from the database.
-

Configuring System Preferences

Use this procedure to specify values for system parameters, including the following parameters:

- ErrorLog file size
- Toll free numbers
- Dial plan
- Session timeout
- Error recycling
- Digits in internal number
- LDAP parameters in the ART ini file

**Caution**

Use ART only during initial installation or during off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

Procedure

To configure System Preferences, perform the following steps:

-
- Step 1** Choose **System > System Parameters > System Preferences** from the ART main menu.
 - Step 2** Choose a parameter from the list.
 - Step 3** Enter a value.
An explanation for each parameter value displays below the value box.
 - Step 4** Click **Update**—to save the values you changed on the screen.
-

Configuring Pregeneration/Mailing

Use this procedure to configure pregeneration and mailing of reports. This option gives the user the functionality to control the database alerts mailing, QOS notification, and Charge Limit Notifications.



Caution

Use ART only during initial installation or during off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

Procedure

To configure Pregeneration/Mailing, perform the following steps:

-
- Step 1** Choose **System > System Parameters > Pregeneration/Mailing** from the ART main menu.
 - Step 2** Click an option to Enable or Disable.
The value box displays the default.

- Step 3** Choose **Enable** or **Disable** from the drop-down menu, if you want to change the default.
- Step 4** Click **Update**—to save the values you changed on the screen.
-

Configuring the Daily CDR Load Process

The CDR Load screen allows you to specify the time for execution of the Loader process. You can specify the following parameters for the loader execution:

- Start time
- Intervals between two loader executions
- Duration

You can also specify the time range for the uninhibited run of the loader. The default time is midnight, frequency is every 24 hours, and duration is 10 minutes.

The default setting for an uninhibited load is midnight to 5:00 a.m.

Procedure

To configure the CDR Load Process time, perform the following steps:

-
- Step 1** Load CDR & CMR At—enter the time at which the CDRs and CMRs must be loaded.
- Step 2** Loading Interval—enter the interval in **hh:mm** format.
- Step 3** Loading Duration—enter the duration for each loader run in minutes.
- Step 4** From Time—enter the start time to begin the uninhibited run of the loader.
- Step 5** To Time—enter the stop time to halt the uninhibited run of the loader.
- Step 6** Click **Update**—to save the values you changed on the screen.
- Step 7** Click **Cancel**—to return to the ART main screen.
-

Configuring Event Logs

The Event Log is a report on the status of the events initiated by the ART scheduler. The report shows when the task started, completed successfully, or is in progress.

Use this procedure to configure the Event Log report.



Caution

Use ART only during initial installation or during off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

Procedure

To configure the Event Log report, perform the following steps:

-
- Step 1** Choose **System > Log Screens > Event Log** from the ART main menu.
 - Step 2** Select **Jobs**—click **Daily**, **Weekly**, or **Monthly**.
 - Step 3** **List of Jobs**—click the task on which a report is required.
 - Step 4** Click **Add**—to add a task to the report list.
 - Step 5** Click **Add All**—to receive reports on all the tasks.
 - Step 6** Click **Remove** to remove a task.
 - Step 7** Click **Remove All**—to remove all tasks you placed in the report list.
 - Step 8** Select **Status**—click on the status of the jobs in the report: **Complete**, **InProgress**, or **Unsuccessful**.
 - Step 9** Choose a **From Date** and **To Date**
 - Step 10** Click **OK**—to generate the event log report.
 - Step 11** Click **Close**—to return to the ART main screen.
-

Configuring Error Logs

The Error Log report shows the records logged into the Error Log table.

Use this procedure to configure the Error Log report.



Caution

Use ART only during initial installation or during off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

Procedure

To configure the Error Log report, perform the following steps:

-
- Step 1** Choose **System > Log Screens > Error Log** from the ART main menu.
 - Step 2** List of Modules—click to choose modules from the list.
 - Step 3** Selected Modules—click a task on which a report is required.
 - Step 4** Click **Add**—to add a module name to the “Selected Modules” list.
 - Step 5** Click **Add All**—to add all module names in the list.
 - Step 6** Click **Remove**—to remove a module name.
 - Step 7** Click **Remove All**—to remove all modules from the “Selected Modules” list.
 - Step 8** List of Users—click **Loader**.
 - Step 9** Choose a date range.
 - Step 10** Click **OK**—to generate the error log report.
 - Step 11** Click **Close**—to return to the ART main screen.
-

Configuring QOS Parameters

Use this procedure to specify the rules for classifying a call into the various voice quality categories: Good, Acceptable, Fair, or Poor. You can specify more than one rule for each Voice Quality Category; however, specify at least one rule for each Voice Quality Category.

**Note**

You can enter NA or Infinity to ignore the values of a parameter.

**Caution**

Use ART only during initial installation or during off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

Procedure

To configure QOS parameters, perform the following steps:

-
- Step 1** Choose **System Configuration > Define QOS** from the ART main menu.
 - Step 2** Lost Packets %—(required) enter the lower limit and upper limit for the Lost Packets as a percentage.
 - Step 3** Jitter (ms)—(required) enter the lower and upper limit for Jitter.
 - Step 4** Latency (ms)—enter the lower and upper limit for Jitter (mandatory field).
 - Step 5** Voice Quality—(required) click the drop-down arrow to choose the voice quality category from four predefined QOS values: Good, Acceptable, Fair, and Poor.
 - Step 6** Click **Insert**—to add extra rows.
 - Step 7** Click **Update**—to save the values you changed on the screen.
 - Step 8** Click **Delete**—to delete rows by checking any of the check boxes from the table.
 - Step 9** Click **Cancel**—to cancel the current entries and reload the values from the database.
 - Step 10** Click **Restore Defaults**—to load the default QOS definitions.
-

Configuring Gateways

Use this procedure to specify the gateway configurations, such as name, IP address, area codes attached, and location of each gateway. ART uses this information for call classification.



Caution

Use ART only during initial installation or during off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

Procedure

To configure Gateways, perform the following steps:



Note

All fields require an entry.

-
- Step 1** Choose **System Configuration > Gateway Configuration** from the ART main menu.
- Step 2** Gateway Information Table—the table has four columns:
- Name—enter the name of the gateway.
 - IP Address—enter the IP address of the gateway.
 - Area Codes—enter the area codes attached with the gateway (separate multiple values with commas).
 - Location—enter the location of the gateway.
The left side of the table has check boxes attached to each row. Click the box when updating or deleting a gateway.
- Step 3** Click **Insert**—to add extra rows.
- Step 4** Click **Update**—to save the values you changed on the screen.
- Step 5** Click **Delete**—to delete rows by checking any of the check boxes from the table.
- Step 6** Click **Cancel**—to cancel the current entries and reload the values from the database.
-

Configuring the Set Limits For Notification Parameters

Use this screen to set the conditions for

- QOS parameters
- Daily charge limit for users

The ART administrator receives notification if

- The percentage of good (QOS) calls falls below the limit specified
- The percentage of poor (QOS) calls is more than the limit specified

ART sends mail to a manager when one of the manager's direct reports exceeds the specified limit for the user's daily charge.



Caution

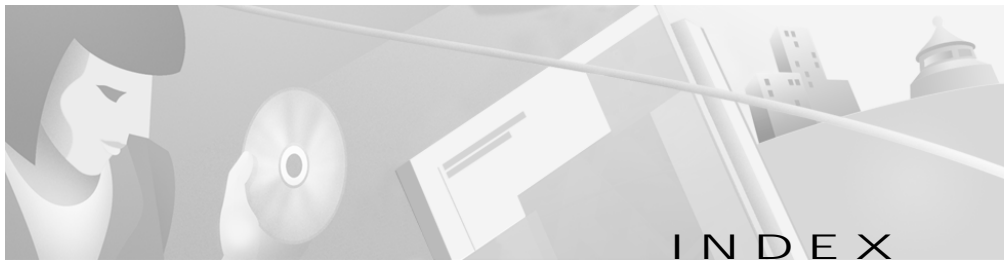
Use ART only during initial installation or during off-peak hours. Otherwise, data collection and ad-hoc reports could affect the Cisco CallManager performance, and call processing may be adversely affected.

Procedure

To configure Set Limits for Notification parameters, perform the following steps:

-
- Step 1** Choose **System Configuration > Notification Limits >** from the ART main menu.
- Step 2** Daily QOS Parameters
- When Good Calls are less than—(required) enter a percentage or accept the default of **20%**.
- When Poor Calls are greater than—(required) enter a percentage or accept the default of **30%**.
- Step 3** Daily Charge Limit
- For a user—(required) enter the charge limit per day for any user. The default value for the daily charge limit is **200**.

- Step 4** Click **Update**—to save the values you changed.
- Step 5** Click **Cancel**—to cancel the current entries and reload the values from the database.
-



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