**C H A P T E R 2**

# Getting Started with CDR Analysis and Reporting

The Cisco Unified Communications Manager CDR Analysis and Reporting (CAR) tool generates reports of information for quality of service, traffic, user call volume, billing, and gateways.

This chapter contains the following topics:

## Activating CAR

CAR comprises a group of complementary services, which you can activate in the Service Activation window in Cisco Unified Serviceability. Before you can launch CAR from the Tools menu in Cisco Unified Serviceability, you must activate the CAR services by using the following procedure.

**Procedure**

**Step 1** Choose **Tools > Service Activation**.

The Service Activation window displays.

**Step 2** From the Servers drop-down list box, choose the server name.

The window displays the service names for the server that you chose, the service type, and the activation status of the services.

**Step 3** Check the check boxes next to the following CDR Services:

- Cisco SOAP-CDRonDemand Service (optional). If you are using a third-party billing application that accesses CDR data via an HTTPS/SOAP interface, activate this service.
- Cisco CAR Scheduler
- Cisco CAR Web Service

**Tip**    Unchecking the check boxes next to the CDR Services and clicking **Update** deactivates the services. If you deactivate the Cisco CAR Web Service, the system removes CAR from the Tools menu in Cisco Unified Serviceability.

**Step 4**    After you have finished making the appropriate changes, click **Update**.

**Additional Information**

See the .

# Configuring CDR Service Parameters

CAR relies on the data in the CDR and CMR records to generate both the CAR and CDR reports. CAR requires that the CDRs be available in flat files on the server where you access CAR. To ensure that the CDR records are generated, and generated in the manner you can use for your particular system, you must enable certain Cisco Unified Communications Manager service parameters:

You can configure these parameters on the Service Parameters Configuration window in Cisco Unified Communications Manager Administration. To access the Service Parameters Configuration window, open Cisco Unified Communications Manager Administration and choose **System -> Service Parameters**. Choose the **Advanced** button to display the complete list of Service Parameters. The following list of service parameters can affect CDR/CMR records:

- System Parameters
  - **CDR Enabled Flag—**This parameter determines whether CDRs are generated. Valid values specify True (CDRs are generated) or False (CDRs are not generated). For this required field, the default value specifies False.
  - **CDR Log Calls With Zero Duration Flag—**This parameter enables or disables the logging of CDRs for calls which were never connected or which lasted less than 1 second. Cisco Unified Communications Manager logs unsuccessful calls (calls that result in reorder, such as might occur because of a forwarding directive failure or calls that attempt to go through a busy trunk) regardless of this flag setting. This represents a required field. The default value specifies False.

- Clusterwide Parameters (Device - General)
  - **Call Diagnostics Enabled—**This parameter determines whether the system generates call management records (CMRs), also called diagnostic records. Valid values specify Disabled (do not generate CMRs), Enabled Only When CDR Enabled Flag is True (generate CMRs only when the CDR Enabled Flag service parameter is set to True), or Enabled Regardless of CDR Enabled Flag (generates CMRs without regard to the setting in the CDR Enabled Flag service parameter). This represents a required field. The default value specifies Disabled.
  - **Display FAC in CDR**—This parameter determines whether the Forced Authorization Code (FAC) that is associated with the call displays in the CDR. Valid values specify True (display authorization code in CDRs) or False (do not display authorization code in CDRs) for this required field. The default value specifies False.
  - **Show Line Group Member DN in finalCalledPartyNumber CDR Fields**—This parameter determines whether the finalCalledPartyNumber field in CDRs shows the directory number (DN) of the line group member who answered the call or the hunt pilot DN. Valid values specify True (the finalCalledPartyNumber in CDRs will show the DN of the phone that answered the call) or False

(the finalCalledPartyNumber in CDRs will show the hunt pilot DN). This parameter applies only to basic calls that are routed through a hunt list without feature interaction such as transfer, conference, call park, and so on. If a feature is involved in the call, the hunt pilot DN will show in the finalCalledPartyNumber field regardless of the setting in this parameter. This parameter does not apply to Cisco Unified Communications Manager Attendant Console. The default value for this required field specifies False.

- Clusterwide Parameters (Device - Phone)
  - **Add Incoming Number Prefix to CDR** —This parameter determines whether Cisco Unified Communications Manager adds the incoming prefix (as specified in the National Number Prefix, International Number Prefix, Subscriber Number Prefix, and Unknown Number Prefix service parameters) to the calling party number in the CDRs for that call. If the destination of the call is a gateway, Cisco Unified Communications Manager will not add the prefix to the CDRs even if this parameter is enabled. The default value for this required field specifies False.

# Configuring CDR Enterprise Parameters

Configure these CDR parameters on the Enterprise Parameters Configuration window in the Cisco Communications Manager Administration. To access Enterprise Parameters Configuration windows, open Cisco Unified Communications Manager and choose **System -> Enterprise Parameters**.

- **CDR File Time Interval**—This parameter specifies the time interval for collecting CDR data. For example, if this value is set to 1, each file will contain 1 minute of CDR data (CDRs and CMRs, if enabled). The CDR database will not receive the data in each file until the interval has expired, so consider how quickly you want access to the CDR data when you decide what interval to set for this parameter. For example, setting this parameter to 60 means that each file will contain 60 minutes worth of data, but that data will not be available until the 60-minute period has elapsed, and the records are written to the CDR database. The default value is 1. The minimum value specifies 1, and the maximum value specifies 1440. The unit of measure for this required field represents a minute.

- **Cluster ID**—The value for this required field parameter provides a unique identifier for the server. The default value specifies StandAloneCluster. The maximum length comprises 50 characters and provides a valid cluster ID that comprises any of the following characters: A-Z, a-z, 0-9, . -.

- **Allowed CDRonDemand get_file Queries Per Minute**—This parameter specifies the maximum number of CDRonDemand get_file queries that are allowed per minute for the system. For this required field the default value specifies 10. The minimum value equals 1 and the maximum value equals 20.

- **Allowed CDRonDemand get_file_list Queries Per Minute**—This parameter specifies the maximum number of CDRonDemand get_file_list queries that are allowed per minute for the system. For this required field the default value specifies 20. The minimum value equals 1 and the maximum value equals 40.

# Configuring CAR Administrators, Managers, and Users

Any user can act as a CAR administrator (including application users); however, you must add the end user to the Cisco CAR Administrators User Group in Cisco Unified Communications Manager Administration (Standard CAR Admin Users). End users who have been identified as CAR administrators have full control over the CAR system. The administrator can modify all the parameters that relate to the system and the reports. End users who have not been identified as CAR administrators can access only designated CAR reports.

**Note** An application user that acts as a CAR administrator can configure all reports except for the Individual Bill report. An application user that acts as a CAR administrator cannot access end user (CCM user) windows. CAR notifications are not sent to the application user because there is no mail ID for the application user.

**Tip** To use CAR, ensure at least one CAR administrator exists in the Cisco Unified Communications Manager database.

Before you log in to CAR, you must configure at least one CAR user that has administrative privileges in CAR. To configure CAR administrators, managers, and users, perform the following procedure:

**Procedure**

**Step 1** In Cisco Unified Communications Manager Administration, add an end user by choosing **User Management > End User**. For information on how to perform this task, see the *Cisco Unified Communications Manager Administration Guide*. To create a manager, make sure that you enter a value in the Manager User ID field.

**Note** After creating the End User, edit the user password credentials by clicking the button **Edit Credentials** near the password text box. Uncheck the **User Must Change at Next Login** check box. If this action is not taken, you will get IMS_ERROR_CODE_5 (See Table 2-1 for the "CAR Invalid Logon Messages") and will not be allowed to log in to CAR. Then you must log in to Cisco Unified Communications Manager Administration to manually reset the password.

**Tip** Cisco recommends that you configure at least one CAR user that has administrative privileges in CAR before you start using CAR. If you have not configured a CAR administrator or want to configure another CAR administrator, continue with this procedure.

**Step 2** Choose **User Management > User Group**; click **Find**.

The Find and List User Groups window displays.

**Step 3** Click **Standard CAR Admin Users**.

The CAR User Group window displays.

**Step 4** Click the **Add End Users to Group** button.

**Step 5** Check the check box(es) for the users that you want to add to the group and click **Add Selected**.

The user displays in the Users in Group group box.

**Tip** To revoke CAR administrative privileges, check the check box of the user in Users in Group group box and click **Delete Selected**. When the warning message displays, click **OK**. The system revokes the privileges immediately.

**Additional Information**

See the "Related Topics" section on page 2-7.

# Logging On to CAR

To log on to CAR, perform the following procedure:

**Before you Begin**

Perform the following tasks:

- Before you can log in to CAR, verify that the Cisco CAR Web Service and the Cisco CAR Scheduler service run on the server. After you activate the services, the option CDR Analysis and Reporting displays under the Tools menu in Cisco Unified Serviceability. For information on how to activate services, see the "Activating CAR" section on page 2-1.

- Configure CAR administrators, managers, and users as described in "Configuring CAR Administrators, Managers, and Users" section on page 2-3.

**Procedure**

**Step 1** To log on to CAR, perform one of the following tasks:

- For CAR system administrators only—From Cisco Unified Serviceability, choose **Tools > CDR Analysis and Reporting**.

- For CAR users or administrators—From the web browser, enter **https://<Server-ip/name>:8443/car/Logon.jsp**.

**Step 2** After the CAR logon window displays, enter your user ID in the User Name field.

**Step 3** In the Password field, enter your password. Click **Login**.

The CAR window displays.

If the user ID or password is invalid, CAR displays one of the Identity Management System (IMS) messages that are listed in Table 2-1.

*Table 2-1 CAR Invalid Logon Messages*

| Error Code | Message |
|---|---|
| IMS_ERROR_CODE 1 | Either the User Name or the Password entered is invalid. Ensure that you are logging into CAR as a CAR administrator or a regular End User. |
| IMS_ERROR_CODE 2 | The account has been locked by System Administrator. Please contact the administrator. |
| IMS_ERROR_CODE 3 | The account has been temporarily locked. Please contact the System Administrator or try after sometime. |
| IMS_ERROR_CODE 4 | The account has been deactivated due to lack of activity. Please contact the System Administrator. |

*Table 2-1        CAR Invalid Logon Messages (continued)*

| Error Code | Message |
| --- | --- |
| IMS_ERROR_CODE 5 | The account has been locked as the password has expired. Please reset the password or contact the System Administrator. |
| IMS_ERROR_CODE 6 | The account has been locked as the password has expired. Please contact the System Administrator. |
| IMS_ERROR_CODE 7 = ERROR: LDAP_INACTIVE | The system has changed over to using LDAP authentication and the user is still in the old database. Please contact the System Administrator. This error code is not used for Cisco Unified Communications Manager Business Edition. |
| IMS_ERROR_CODE 8 | The account has been locked as the user needs to log in manually and change the credential first. Please reset the password from the Cisco Unified Communications Manager Administration page or contact the System Administrator. |
| IMS_ERROR_CODE UNKNOWN | System error. Please contact the System Administrator. |
| IMS_EXCEPTION (any exception returned by IMS) = AUTHENTICATION FAILURE | Unable to Authenticate User due to System Error. Please contact System Administrator. |

**Additional Information**

See the "Related Topics" section on page 2-7.

# Logging Out of CAR

This section describes how to log out of CAR.

**Procedure**

**Step 1**   At the CAR window, choose **Logout**.

**Step 2**   A prompt message "For security reasons, it is advisable to close the browser window on Logout. Do you want to close the browser window?" displays. To close the CAR window (browser), click **OK**; clicking Cancel displays the CAR Logon window.

**Additional Information**

See the "Related Topics" section on page 2-7.

# Accessing CAR Documentation Online Help

To access CAR documentation online help, choose **Help > Contents and Index** (for a list of contents) or **Help > For this page** (for information that is specific to the page that displays.)

**Additional Information**

See the .

# Related Topics

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