CAR system scheduler

The CAR System Scheduler allows you to configure the CDR load schedule and schedule daily, weekly, and monthly reports.

Set up CDR load schedule

By default, CDR data loads continuously 24 hours a day, 7 days a week, and loads only CDR records.

Note   The default batch size equals 600 CDR or CMR records. The default sleep time between each CDR batch equals 2500 ms and 3000 ms for each CMR batch. You can, however, configure the batch size from the tbl_system_preferences table "LOADER_BATCH" column to have any value between 50 and 2000.

This section describes how to customize the loading schedule, how to restore the default loading schedule if it is customized, and how to disable CDR loading.

Disable CDR loading when you are installing or upgrading the system. Of course, the CDR data does not get updated when CDR loading is disabled. Be sure to enable CDR loading again as soon as possible. The CAR tool does not affect the CDR generation in Cisco Unified Communications Manager.

Tip   To manually delete the CAR data and reload the database with CDRs.

Procedure

Step 1 Choose **System** > **Scheduler** > **CDR Load**.
The CDR Load window displays.

Step 2 Choose one of the following options:

a) Disable Loader - To disable CDR data loading, check the **Disable Loader** check box and click the **Update** button.
CDR data will not load into CAR until you enable CDR loading. Changes take effect at midnight. You can force the change to take effect immediately by stopping and restarting the CAR Scheduler service.

To enable CDR data loading, uncheck the **Disable Loader** check box and continue with the next step to configure the load parameters.

b) Continuous Loading 24/7 - To enable the CDR Loader to run continuously 24 hours a day, 7 days a week to load CDRs into the CAR database, check the **Continuous Loading 24/7** check box and click the **Update** button. This choice represents the default setting for the CDR Load Scheduler.

Note   Under the default setting, only CDR records continuously load. The CMR records do not load. You must manually uncheck the **Load CDR only** check box to force the CMR records to continuously load with the CDR records.

The CAR Scheduler service stops, and the CAR Loader, as configured, runs immediately (within 1 to 2 minutes). The CAR Scheduler service restarts. If no new files for processing exist, the CDR Loader sleeps and then checks periodically for new files to be loaded.

Note   If this option is chosen, it takes precedence over and ignores the other CDR and CMR load parameters on the screen, such as Time, Loading Interval, Duration, and Uninhibited Loading.

c) Load CDR Only - To load only CDR records into the CAR database, check the **Load CDR only** check box and click the **Update** button. Continue to the next step to configure the load parameters. With this option, CMR records do not load into the CAR database. This choice represents the default setting for the CDR Load Scheduler.

Step 3 In the Load CDR & CMR area, complete the fields as described in the following table.

Table 1: Load CDR & CMR Values

Field	Value
Time	Choose the hour and minute that you want CAR to begin loading CDR data from the CDR flat files.
Loading Interval	Choose the interval at which you want records loaded. The interval can range from every 15 minutes to every 24 hours.

Field	Value
Duration	Enter the number of minutes that you want to allow CDR data to load. Depending on the size of the CDR flat files, CAR performance may degrade when CDRs load. You can limit the time that is allowed for loading, but in doing so, the possibility exists that only a portion of the CDR data will be loaded in the time that you set. Be sure to reconcile the duration limit that you place with the interval. For example, if you load CDR data every 15 minutes, the duration of loading cannot exceed 15 minutes.

Uninhibited loading allows you to set a time during which CDR data will load continuously. CDR data does not load **automatically** in the duration that is specified. The CDR data loads uninhibited in the specified duration only if loading starts at the duration that is specified in the Load CDR and CMR area settings. If CDR data loading starts at an uninhibited loading interval, loading continues to the end of the uninhibited loading interval, plus the time in the duration field that is set in the Load CDR and CMR area, or until no new files to process exist.

Uninhibited loading take precedence over any values that are set for scheduled loading. If you do not want uninhibited loading of CDR data, set the From and To values at 00:00.

Step 4   In the Uninhibited Loading of CDR area, complete the fields as described in the following table:

Table 2: Uninhibited Loading of CDR Values

Field	Value
From	Choose the hour and minute that you want continuous loading of CDR data to begin.
To	Choose the hour and minute that you want continuous loading of CDR data to end.

Step 5   Click the **Update** button.
CAR will load CDR data based on the time, interval, and duration that you have specified. Changes take effect at midnight. You can force the change to take effect immediately by stopping and restarting the CAR Scheduler service.

Note   If Continuous Loading 24/7 is selected, the CAR Scheduler service restarts automatically when the **Update** button is clicked. CAR will load CDR data immediately (within 1 to 2 minutes).

Schedule daily reports

The Daily Report Scheduler schedules the time and duration of CAR daily reports.

Before You Begin

Specify the reports to be generated by using the Automatic Generation/Alert Option.

This section describes how to schedule the time and duration of the automatic daily reports.

Procedure

Step 1   Choose **System > Scheduler > Daily**.
The Daily Scheduler window displays.

Step 2   From the Time drop-down list box, choose the hour and minute when you want daily reports to be generated. A 24-hour clock represents time, where 0 equals midnight, and 1 through 11 represent a.m. hours, and 12 through 23 represent the p.m. hours of 1 p.m. through 11 p.m., respectively.

Step 3   From the Life drop-down list box, choose the duration of the report from the range of 0 to 12 days.
Tip   If you set the life of the report to 00, the report does not generate.

Step 4   Click the **Update** button.
Reports with report generation interval of Daily in the Automatic Generation/Alert Option and enabled automatically generate every day at the time that you specify and get deleted after the number of days that you specify.

Changes take effect at midnight. You can force the change to take effect immediately by stopping and restarting the CAR Scheduler service.

Tip   To restore the defaults, click the **Restore Defaults** button. By default, the daily reports run at 1 a.m. every day and get purged after two days.

Schedule weekly reports

The Weekly Report Scheduler schedules the day, time, and duration of the automatic weekly reports.

Before You Begin

Use the Automatic Generation/Alert Option to specify the reports to be generated.

This section describes how to schedule the day, time, and duration of the automatic weekly reports.

Procedure

Step 1   Choose **System > Scheduler > Weekly**.
The Weekly Scheduler window displays.

Step 2   From the Day of Week drop-down list box, choose the day that you want reports to be generated.

Step 3   From the Time drop-down list box, choose the hour and minute when you want reports to be generated. A 24-hour clock represents time, where 0 equals midnight, and 1 through 11 represent a.m. hours, and 12 through 23 represent the p.m. hours of 1 p.m. through 11 p.m., respectively.

Step 4 From the Life drop-down list box, choose the duration of the report from the range of 00 to 12 weeks. The option that you choose indicates how many weeks the report remains on the disk before the report gets deleted.
> **Tip** If you set the life of the report to 00, the report does not generate.

Step 5 Click the **Update** button.
Reports with report generation interval of Weekly in the Automatic Generation/Alert Option and enabled automatically generate every week at the time that you specify and get deleted after the number of weeks that you specify.

Changes take effect at midnight. For the changes to take effect immediately, stop and restart the CAR Scheduler service in the Control Center - Feature Services window.

> **Tip** To restore the defaults, click the **Restore Defaults** button. By default, weekly reports run at 4 a.m. every Sunday and get purged after four weeks.

Schedule monthly reports

The Monthly Report Scheduler schedules the day, time, and duration of CAR monthly reports.

Before You Begin

Use the Automatic Generation/Alert Option to specify the reports to be generated.

This section describes how to schedule the day, time, and duration of the automatic monthly reports.

Procedure

Step 1 Choose **System** > **Scheduler** > **Monthly**.
The Monthly Scheduler window displays.

Step 2 From the Day of Month drop-down list box in the Monthly Bill Generation row, choose the day of the month on which you want the report to be generated.
If you set the value to a day that does not occur in a given month (such as 29, 30, or 31), the report generates on the last day of that month.

Step 3 From the Time drop-down list box in the Monthly Bill Generation row, choose the hour and minute when you want the report to be generated.
A 24-hour clock represents time, where 0 equals midnight, and 1 through 11 represent a.m. hours, and 12 through 23 represent the p.m. hours of 1 p.m. through 11 p.m., respectively.

Step 4 From the Life drop-down list box in the Monthly Bill Generation row, choose the duration of the report from the range of 00 to 12 months. The option that you choose indicates how many months the report remains on the disk before the report gets deleted.
> **Tip** If you set the life of the report to 00, the report does not generate.

Step 5 From the Day of Month drop-down list box in the Other Monthly Reports row, choose the day of the month on which you want the reports to be generated.
If you set this value to a day that does not occur in a given month (such as 29, 30, or 31), the report generates on the last day of that month.

Step 6 From the Time drop-down list box in the Other Monthly Reports row, choose the hour and minute that you want reports to be generated.
A 24-hour clock represents time, where 0 equals midnight, and 1 through 11 represent a.m. hours, and 12 through 23 represent the p.m. hours of 1 p.m. through 11 p.m., respectively.

Step 7 From the Life drop-down list box in the Other Monthly Reports row, choose the life of the report from the range of 00 to 12 months. The option that you choose indicates how many months the report remains on the disk before the report gets deleted.

Tip If you set the life of the report to 00, the report does not generate.

Step 8 Click the **Update** button.
Reports with report generation interval of Monthly in Automatic Generation/Alert Option and enabled automatically generate every month at the time that you specify and are deleted after the number of months that you specify.

Changes take effect at midnight. For the changes to take effect immediately, stop and restart the CAR Scheduler service in the Control Center - Feature Services window.

Tip To restore the defaults, click the **Restore Defaults** button. By default, monthly bill reports run at 3 a.m. on the first day of every month and get purged after two months, and other monthly reports run at 2 a.m. on the first day of every month and get purged after two months.

Alarms

This release of Cisco Unified Communications Manager introduces a CAR alarm catalog (CARAlarmCatalog.xml) for the CAR Scheduler.

The following table displays the alarms/alerts in this catalog.

To configure these alarms, go to **Cisco Unified Serviceability** > **Alarm** > **Configuration** > **CDR Services**.

Table 3: CAR Alarm Catalog

Name	Severity	Description
CARSchedulerJobFailed	ERROR_ALARM	A critical CAR scheduled job failed. An alert gets raised when critical CDR Scheduler jobs and tasks fail (for example, DailyCdrLoad, PopulateSchedules, etc.).
CARSchedulerJobError	ERROR_ALARM	A CAR scheduled job failed. An alarm gets sent for all other noncritical CAR Scheduler jobs and tasks (for example, daily, weekly, and monthly reports, QoSNotification, ChargeLimitNotification, etc.).

Name	Severity	Description
BadCDRFileFound	ERROR_ALARM	Bad CDR or CMR flat file was found during CDR Load to the CAR database. The CDR Loader can detect bad or corrupted CDR and/or CMR flat files and log the specified error. Information on the failure cause (specified reason for the bad record) and the failure summary (tracks number of bad records in comparison to the total records in the file) gets provided.
CARIDSEngineDebug	DEBUG_ALARM	Indicates debug events from CAR IDS database engine. This alarm provides low-level debugging information from CAR IDS database engine. System administrator can disregard this alarm.
CARIDSEngineInformation	INFORMATION_ALARM	No error has occurred but some routine event has completed in CAR IDS database engine.
CARIDSEngineCritical	CRITICAL_ALARM	This alarm does not compromise data or prevent the use of the system but requires monitoring by the CAR DB adminstrator.
CARIDSEngineFailure	ERROR_ALARM	Combined alarm for emergency and error situations. This alarm indicates that something unexpected occurred that can compromise data, or access to data, or cause CAR IDS to fail.

For additional information on these alarms and recommended action, see the alarm definitions at **Cisco Unified Serviceability** > **Alarm** > **Definitions** > **CARAlarmCatalog**.

Related topics

- Generate CDR Analysis and reporting
- Report configuration
- CAR rating engine
- CAR reports QoS values
- CAR reports notification limits

Additional documentation

- Cisco Unified Communications Operating System Administration Guide

- Cisco Unified Serviceability Administration Guide

- Cisco Unified Communications Manager Call Detail Records Administration Guide