

CA Unified Communications Monitor

Database Guide

Version 3.5



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Chapter 1: Managing the UC Monitor Database

UC Monitor uses a MySQL database for data storage. The database and the management console reside on the same server.

Periodic maintenance ensures that product functionality and performance are unaffected by database size. UC Monitor automatically purges data and optimizes database keys in the following situations:

- During scheduled database maintenance.
- When the CA UCM Inspector service starts on the management console.

Best Practice: For databases larger than 10 GB in size, defragment the *<install path>* drive every month. Before starting the defragmentation process:

- Maintain at least 20 percent of the drive as free disk space.
- Stop all CA UCM services, including the CA UCM MySQL51 service. You can restart these services after defragmentation is complete.

This section contains the following topics:

[What Types of Data are Stored?](#) (see page 7)

[View Database Status](#) (see page 8)

[Recommended Database Limits](#) (see page 9)

[Change Database Settings](#) (see page 10)

[Purge Data from the Database](#) (see page 11)

[Manually Back Up and Restore the Database](#) (see page 12)

What Types of Data are Stored?

The database stores several different types of data, each with its own tables, row counts, and storage periods. Data is stored in the following directories:

```
<install path>\CA\MySQL51\data\voip  
<install path>\CA\MySQL51\data\netqosvoipconsole
```

Interval data

Data that is collected during regular monitoring at five-minute intervals or 15-minute intervals by the collector. Incident data is included in this category.

Summary data

Data that the management console generates periodically. Used for certain long-range reports, such as the Capacity Planning reports.

Call data

Data about individual calls, such as call legs and sessions.

Abandoned call data

Data from calls that were abandoned before they were completed.

Call Watch data

Data from watched phones during a Call Watch.

Midstream device data

Medianet flow metrics and device information, such as stream legs and interface names.

View Database Status

A full, or nearly full, hard drive affects the reporting performance of existing data and the collection of new data. The Database Status page provides information about the database. Row totals are itemized by data category. The number of new rows over the past day and the past seven days is provided to help you calculate database growth.

Disk Space

Identifies the hard drive where UC Monitor is installed and how much disk space is free on that computer. We recommend having at least 6 GB of free hard disk space on the drive where the management console is installed. By default, a warning is sent when free hard disk space falls below 5 GB.

Table Growth

The rate at which the database is growing. Sorted by data type:

- Interval data
- Summary data
- Call data
- Abandoned call data
- Call Watch data
- Midstream device data

Rows in database

The number of rows in the database. For Call Watch data, includes all watched calls that the collector has seen, whether they are in progress or not.

Rows for past day

The number of rows of collected data from the past 24 hours. For Call Watch data, the value does not include calls that are still in progress. An end time is required. To have a known end time:

- The call is completed.
- The collector detected the call completion and reported it to the management console.
- The management console processed the results.

Delays can occur during reporting. Therefore, the number of rows for the past day and the past seven days may be less than actual.

Rows for past 7 days

The number of rows of collected data from the past seven days. For Call Watch data, the value does not include calls that are in progress. An end time is required. The same rules apply as to "Rows for past day."

Total duration

The difference between the oldest and newest row in the relevant database table.

Recommended Database Limits

The amount of data that can be stored in the database depends on the volume of call activity on your network. We recommend the following limits on data storage to avoid degraded performance. The database can accommodate 500 million rows per data table. We recommend no more than 200 million rows per data table, to allow for spikes in growth.

| Call Volume | 10 million calls per month | 6.6 million calls per month | 3.3 million calls per month |
|--|----------------------------|-----------------------------|-----------------------------|
| Data Type | | | |
| Interval data. Collected during regular monitoring at 15-minute intervals by the collector. Includes incident data. | 5 months | 8 months (default) | 15 months |
| Summary data. Generated by the management console for long-range reports such as the Capacity Planning reports. | 5 months | 8 months (default) | 15 months |
| Call data. Data about individual calls. | 5 months | 8 months (default) | 15 months |

| Call Volume | 10 million calls per month | 6.6 million calls per month | 3.3 million calls per month |
|---|--|-----------------------------|-----------------------------|
| Defined Call Watch data. Data from watched phones. | 5 months | 8 months (default) | 15 months |
| Automatic Call Watch data. Data from automatically watched phones in Avaya environments. | 3 days | 7 days (default) | 14 days |
| Midstream device data. Medianet flow metrics and device information. Recommendations are based on an average of three midstream devices per 3-minute call. | 1 day | 2 days (default) | 4 days |
| Abandoned call data. Data from calls that were abandoned before they were completed. | Although some information about abandoned calls can be helpful, retaining too many of this type of call can lead to degradation of report performance. By default, data from abandoned calls is stored for three months. | | |

Change Database Settings

A UC Monitor administrator can perform the following database maintenance tasks:

- Change the data retention settings.
- Schedule system maintenance.
- Arrange to send SNMP traps or email warnings when available disk space falls below a threshold.

Follow these steps:

1. Click Administration, Console, Database, Maintenance in the navigation bar.
The Database Maintenance page opens.
2. Complete the following fields:
 - **Save interval data for.** The length of time to store five-minute or 15-minute data. The default is eight months.
 - **Save summary data for.** The length of time to store summary data. The management console periodically generates summary data, which is used for long-range reporting. The default is eight months.
 - **Save call data for.** The length of time to store call data. The default is eight months. Store call data for at least as long as Call Watch data due to dependencies.

- **Save abandoned call data for.** The length of time to store data about abandoned calls. The default is three months.
- **Save call watch (Defined) data for.** The length of time to store data from your Call Watch definitions. The default is eight months. Do not store Call Watch data for longer than you store call data, due to dependencies.
Note: Call Watch definitions apply only to Cisco IP phones.
- **Save call watch (Automatic) data for.** The length of time to store data from Avaya endpoints, which are watched automatically. The default is one week. Do not store Call Watch data for longer than you store call data, due to dependencies.
- **Save midstream device data for.** The length of time to store data from medianet-enabled devices, which is generated every 15 seconds. The default is two days.
- **Run system maintenance every.** The day of the week and the time at which system maintenance is performed. The default setting is Sunday at 12:00 AM (00:00).
- **When disk free space falls below.** The minimum allowable amount of available disk space. When the amount of free disk space falls below the threshold, UC Monitor sends a notification to the specified recipient. The default threshold is 5 GB.
- **Email warnings to.** Send an email message when the available disk space falls below the specified threshold. Provide the email address of the recipient.
- **Send SNMP traps to.** Send an SNMP trap when the available disk space falls below the specified threshold. Provide the name of the server or the IP address to receive the SNMP trap.

3. Click Save.

Purge Data from the Database

UC Monitor automatically purges data from the database during [scheduled maintenance](#) (see page 10). However, an administrator can purge selected data on demand. Purged data is *permanently* removed from the database. You *cannot* recover purged data.

Follow these steps:

1. Click Administration, Console, Database, Purge Data in the navigation bar.
The Purge Data page opens.
2. Select from the following choices:
 - **Collected interval data.** Purge all five- or 15-minute data from regular monitoring, including all incident data.

- **Collected summary data.** Purge all summary data that the management console generated for long-range reporting.
- **Collected call watch data.** Purge all data from watched phones.
- **Collected call and call watch data.** Purge all data from detailed call records and from watched phones.

Note: If you enable this purge setting and also select "Purge prior to this date/time," UC Monitor retains data from the past 30 days. All other call and Call Watch data is purged. To purge all phone data, select "Purge all selected data."

- **Collected midstream device data.** Purge all data from medianet-enabled devices.
- **Abandoned calls.** Purge all data from abandoned calls.
- **Purge all selected data.** Purge selected data across all dates.
- **Purge prior to this date/time.** Purge data from a specific time frame. Enter a date and time before which all data is purged. Use the following format:

MM/DD/YYYY HH:MM:SS

3. Click Purge.
The Purge Data page opens.
4. Click Continue.
The selected data is purged.

Manually Back Up and Restore the Database

You can manually back up and restore the database for debugging purposes, before upgrading the UC Monitor software, or when directed to do so by a [CA Technical Support](#) representative.

Follow these steps:

1. Navigate to Administrative Tools, Services in the Control Panel.
The Services window opens.
2. Stop the following services:
 - CA UCM MySql51
 - CA UCM Console Communicator
 - CA UCM Inspector

Note: Do not stop the CA UCM Collector service.

3. *To back up the database*, copy the `<install path>\CA\MySQL51\data` directory to a backup location.
4. *To restore the database*, replace the `<install path>\CA\MySQL51\data` directory with the most recent backup version.
5. Restart the services that you stopped.

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