Monitoring the Cisco Unified Messaging Gateway System

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This chapter contains procedures for monitoring the Cisco Unified Messaging Gateway system's health and performance and includes the following sections:

Viewing Network Status

Use these commands to verify the status of peer messaging gateways and endpoints.

Table 11 Network Status Commands

Command	Function
show ddr timeout	Displays lapse of time (in hours) after which the system generates a DDR for a message. Default is one hour.
show endpoint local	Displays a list of all the endpoints associated with the current Cisco UMG.
show endpoint network	Displays a list of all the endpoints associated with peer Cisco UMGs.
show ndr timeout	Displays lapse of time (in hours) after which the system generates an NDR for a message. Default is six hours.
show registration block	Displays a list of endpoints that are prevented from registering.
show registration status	Displays a list of registered endpoints and their status: whether online or not, and so on.

Table 11 Network Status Commands (continued)

Command	Function
show registration users	Displays the user credentials of the autoregistered endpoints.
show spoken-name	Indicates whether spoken-name has been enabled on the current configuring messaging gateway.
show statistics	Displays statistics relative to endpoints.

Locating and Viewing Individual Mailbox Details

To locate an individual mailbox in your system and view its details (the phone number, extension, and first and last names associated with the mailbox), use the following procedure.

This procedure assumes that you know the subscriber number, and that you do not know whether it is associated with a local or remote endpoint. It also assumes that you use the **show mailbox** command for each of the listed endpoints.

If you have provisioned your endpoints with prefixes, you can more easily identify which of the endpoints is worth searching. However, to find a mailbox, it is not sufficient to know the prefix associated with the mailbox's endpoint (unless each of your prefixes applies only to a single endpoint), you must know which endpoint the mailbox is associated with.

Note The system only displays the first 300 search results. If necessary, the system asks you to use a filter to limit the search results.

SUMMARY STEPS

1. **show endpoint local**
2. **show mailbox** *location-id* **filter** *filter*
3. **show endpoint network** *location-id*
4. **show mailbox** *location-id* **filter** *filter*
5. **show mailbox** *location-id mailbox*

DETAILED STEPS

	Command or Action	Purpose
Step 1	**show endpoint local** **Example:** `umg-1# show endpoint local`	Displays all the endpoints associated with the current Cisco UMG, their location IDs, location prefixes, types, primary messaging gateways, and if applicable, secondary messaging gateways.
Step 2	**show mailbox** *location-id* **filter** *filter* **Example:** `umg-1# show mailbox 300 filter 0100`	Displays all the mailboxes associated with the specified endpoint, filtered by subscriber extension.

	Command or Action	Purpose
Step 3	**Example:** **show endpoint network** *location-id* **Example:** umg-1# **show endpoint network**	Displays all the endpoints associated with peer messaging gateways, their location IDs, their location prefixes, their types, their primary messaging gateways, and if applicable, their secondary messaging gateways.
Step 4	**show mailbox** *location-id* **filter** *filter* **Example:** umg-1# show mailbox 7 filter 0100	Displays all the mailboxes associated with the specified endpoint, filtered by subscriber extension.
Step 5	**show mailbox** *location-id* *mailbox* **Example:** umg-1# show mailbox 7 4085550100	Displays the details of the specified mailbox, that is, extension, first name and last name of the subscriber.

Examples

The following example illustrates the output for the **show endpoint local**, **show endpoint network**, and **show mailbox** commands when used in the sequence described previously:

```
se-10-1-12-96# show endpoint local
A total of 8 local endpoint(s) have been found:

Location    Location          Endpoint     Endpoint  Primary     Secondary
ID          Prefix            Type         Status    Gateway     Gateway
-------------------------------------------------------------------------------
300         408555            CUE          Offline   51000
365         408555            CUE          Offline   51000
366         408555            CUE          Offline   51000
369         408555            CUE          Offline   51000
370         408555            CUE          Offline   51000
375         408109            CUE          Offline   51000
376         408110            CUE          Offline   51000
379         408111            CUE          Offline   51000

umg-1# show mailbox prefix 408555 filter 0100
No mailbox has been found for prefix 408555(filter='0100').
umg-1# show endpoint network
A total of 259 network endpoint(s) have been found:

Location    Location          Endpoint     Primary     Secondary
ID          Prefix            Type         Gateway     Gateway
-------------------------------------------------------------------
1           408101            CUE          50000
2           408102            CUE          50000
3           408103            CUE          50000
4           408104            CUE          50000
5           408105            CUE          50000
6           408555            CUE          50000
7           408555            CUE          50000
8           408108            CUE          50000
[...]
umg-1# show mailbox prefix 408555 filter 0100
1 mailbox(s) has been found for prefix 408555(filter='0100).
umg-1# show mailbox 7 4085550100
Phone:      4085550100
Extension:  0100
```

```
First Name: John
Last Name:  Doe
```

Displaying Management Data Activity

Use the following commands in Cisco UMG EXEC mode to display management data activity:

- **trace management agent { all | debug }** —Enables tracing of management data requests.
- **trace management all**
- show trace buffer tail

The following example displays sample output of the **show trace buffer tail** command:

```
umg-1# show trace buffer tail 10
Press <CTRL-C> to exit...
2037 10/30 02:57:35.484 umg dirx 0 com.cisco.umg.direx.thread.MessageProcessorSc
heduler:Processor schdler woke up
2037 10/30 02:57:35.491 umg dirx 0 com.cisco.umg.direx.thread.MessageProcessorSc
heduler:Processor schdler going back to sleep
2037 10/30 03:02:35.492 umg dirx 0 com.cisco.umg.direx.thread.MessageProcessorSc
heduler:Processor schdler woke up
2037 10/30 03:02:35.495 umg dirx 0 com.cisco.umg.direx.thread.MessageProcessorSc
heduler:Processor schdler going back to sleep
2037 10/30 03:07:35.500 umg dirx 0 com.cisco.umg.direx.thread.MessageProcessorSc
heduler:Processor schdler woke up
2037 10/30 03:07:35.503 umg dirx 0 com.cisco.umg.direx.thread.MessageProcessorSc
heduler:Processor schdler going back to sleep
2037 10/30 03:12:35.504 umg dirx 0 com.cisco.umg.direx.thread.MessageProcessorSc
heduler:Processor schdler woke up
2037 10/30 03:12:35.507 umg dirx 0 com.cisco.umg.direx.thread.MessageProcessorSc
heduler:Processor schdler going back to sleep
2037 10/30 03:17:35.508 umg dirx 0 com.cisco.umg.direx.thread.MessageProcessorSc
heduler:Processor schdler woke up
2037 10/30 03:17:35.511 umg dirx 0 com.cisco.umg.direx.thread.MessageProcessorSc
heduler:Processor schdler going back to sleep
```

Checking Hard Disk Memory Wear Activity

Cisco UMG tracks the use and wear of the hard disk memory as log and trace data are saved to the module. To display this data, use the **show interface ide 0** command in Cisco UMG EXEC mode.

show interface ide 0

Examples

The following is sample output:

```
umg-1# show interface ide 0

IDE hd0 is up, line protocol is up
     218224 reads, 1941088256 bytes
     0 read errors
     2208286 write, 27276906496 bytes
     0 write errors
```

Viewing System Activity Messages

Cisco UMG captures messages that describe activities in the system. The messages are categorized according to the impact on the system of the activity described in the message:

- Information—Describes normal system activity.
- 3_debug--Describes debugging activity
- 2_warn—An alert that a non-normal activity is occurring. The Cisco UMG system continues to function.
- 1_error—Indicates that a system error has occurred. The Cisco UMG system may have stopped functioning.
- 0_crash—Describes a critical situation with the system. The Cisco UMG system has stopped functioning.

These messages are collected and directed to three possible destinations:

- messages.log file—This option is the default. The file contains all system messages and resides on the Cisco UMG hard disk. You can view them on the console or copy them to a server to review for troubleshooting and error reporting.
- Console—View the system messages as they occur by using the **log console** command.
- External system log (syslog) server—Cisco UMG copies the messages to another server and collects them in a file on that server's hard disk. The syslog daemon configuration on the external server determines the directory to which the messages log will be saved.

Note To configure a syslog server, see "Configuring Logging Operations" on page 43. The external server must be configured to listen on UDP port 514 for traffic coming from your messaging gateway's IP address.

To view system activity, use the **log console monitor**, **log trace boot**, and **log trace buffer save** commands.

Checking Log and Trace Files

To check the log and trace files on the hard disk, use the show logs command in Cisco UMG EXEC mode.

show logs

Logging and tracing to the hard disk is turned off by default. Executing the **log trace** command starts the log and trace functions immediately.

The command displays the **atrace.log** and **messages.log** files. Each file has a fixed length of 10 MB, and tracing or logging stops automatically when the file reaches this length. New files overwrite the old files.