



Alarm and Event Management

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The Alarm and Event Management feature in Cisco RF Gateway 10 (RFGW-10) Universal Edge Quadrature Amplitude Modulation (UEQAM) provides information on what previously occurred in the system and what is currently occurring in the system.

Finding Feature Information

Your software release may not support all the features documented in this module. For the latest feature information and caveats, see the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the [“Feature Information for Alarm and Event Management”](#) section on page 61.

Use Cisco Feature Navigator to find information about platform support and Cisco IOS, Catalyst OS, and Cisco IOS XE software image support. To access Cisco Feature Navigator, go to <http://www.cisco.com/go/cfn>. An account on Cisco.com is not required.

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Information About Alarm and Event Management

This section provides the following detailed information about Alarm and Event Management:

- [Feature Overview, page 58](#)
- [Event Management Processing, page 58](#)
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Feature Overview

The Cisco RFGW-10 UEQAM Alarm and Event Management feature tracks and records the events that have occurred in the system. It monitors and determines the real-time status of a particular physical entity (such as chassis, slots, modules, DC PEMs, fans, and ports).

Event Management Processing

Event Management is comprised of two major functions: event logging and event deletion.

Event Logging

The Cisco RFGW-10 UEQAM software uses an event database to record system events on the Supervisor card. An event notification client exists on every Cisco RFGW-10 line card and is responsible for receiving line card logging requests from various line card processes, translating each request to an event message, and sending this to the notification server on the Supervisor card. The notification server logs each event in the event database. The stored events can be accessed using the **show facility-alarm status** command.

Event Deletion

When the system events stored in the event database are removed using the **clear facility-alarm** command, all the system logs matching the severity are removed from the event database.

Alarm Management Processing

The Alarm Management is a special set of system events that exceed a certain event criticality level. The Cisco RFGW-10 UEQAM software provides the capability to assert and clear alarm conditions for any physical entity contained in the system. It populates the Management Information Base (MIB) with the alarms as they appear, so that a management client can monitor the alarms generated by all the Cisco RFGW-10 UEQAM physical entities including the chassis, slots, modules, DC PEMs, fans, and ports. Alarm Management is comprised of two major functions: alarm logging and notification, and alarm deletion.

Alarm Logging and Notification

Alarm Management employs the same client-server architecture as Event Management for alarm reporting, where a notification client on each line card detects and reports an alarm event to the notification server on the Supervisor card, which then stores these alarm events in an alarm database and further notifies the event management applications such as the SNMP MIB and system LED display. In addition, when a physical entity is inserted in the system, Alarm Management logs this event in the alarm database. Outstanding alarms can be viewed using the **show facility-alarm** command.

Alarm Deletion

When the outstanding alarms are cleared using the **clear facility-alarm** command, Alarm Management deletes the alarm events stored in the alarm database. When a physical entity is removed from the system, Alarm Management clears all the entity alarms. In the case of line card removal, Alarm Management removes the line card from the MIB.

How to Manage Alarms and Events

This section contains the following procedures:

- [Managing Alarms via the MIB, page 59](#)
- [Managing Alarms Using the CLI, page 59](#)

Managing Alarms via the MIB

A network manager interfaces with an SNMP agent to issue requests to access the objects defined within the CISCO-ENTITY-ALARM-MIB. The CISCO-ENTITY-ALARM-MIB uses registry calls to access the data and functionality provided by Alarm Management. The CISCO-ENTITY-ALARM-MIB only supports the reporting of alarms that were reported via the alarm_submit registry call. Therefore, any system logs stored in the Cisco RFGW-10 UEQAM alarm database cannot be accessed (they can be displayed, but cannot be accessed via the MIB).

Managing Alarms Using the CLI

Alarm Management supports the **facility-alarm** CLI commands.

Displaying the List of Current Active Alarms and Events

To display the list of current active alarms and events in the Cisco RFGW-10 UEQAM chassis, use the following command on the Supervisor card:

```
Router# show facility-alarm status [critical] [major] [minor] [info]
```

System alarms are displayed first followed by the system events. All alarms and events will be displayed in the order in which they were received. If a severity level is issued with the **show facility-alarm status** command, then only the alarms and events containing the matching severity level are displayed.

Clearing Specific Alarms and Events

To clear specific alarms and events from the Cisco RFGW-10 UEQAM chassis, you can specify the severity option using the following command on the Supervisor card:

```
Router# clear facility-alarm [critical] [major] [minor]
```

Additional References

The following sections provide references related to the Alarm and Event Management feature.

Related Documents

Related Topic	Document Title
Cisco RFGW-10 commands	Cisco RF Gateway 10 Command Reference http://www.cisco.com/en/US/docs/cable/rf_gateway/command/reference/RFGW-10_Book.html
New Software Features in Cisco IOS Release 12.2SQ	Cisco RF Gateway 10 Software Feature and Configuration Guide http://www.cisco.com/en/US/docs/cable/rf_gateway/feature/guide/rfgw_scg.html

Standards

Standard	Title
No new or modified standards are supported by this feature, and support for existing standards has not been modified by this feature.	—

MIBs

MIB	MIBs Link
No new or modified MIBs are supported by this feature, and support for existing MIBs has not been modified by this feature.	To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator found at the following URL: http://www.cisco.com/go/mibs

RFCs

RFC	Title
No new or modified RFCs are supported by this feature, and support for existing RFCs has not been modified by this feature.	—

Technical Assistance

Description	Link
The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies. To receive security and technical information about your products, you can subscribe to various services, such as the Product Alert Tool (accessed from Field Notices), the Cisco Technical Services Newsletter, and Really Simple Syndication (RSS) Feeds. Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.	http://www.cisco.com/techsupport

Command Reference

The following commands are introduced or modified in the feature or features documented in this module. For information about these commands, see the *Cisco RF Gateway 10 Command Reference* at http://www.cisco.com/en/US/docs/cable/rf_gateway/command/reference/RFGW-10_Book.html. For information about all Cisco IOS commands, use the Command Lookup Tool at <http://tools.cisco.com/Support/CLILookup> or the *Cisco IOS Master Command List, All Releases*, at http://www.cisco.com/en/US/docs/ios/mcl/allreleasemcl/all_book.html.

- **show facility-alarm status** [critical] [major] [minor] [info]
- **clear facility-alarm** [critical] [major] [minor]

Feature Information for Alarm and Event Management

Table 1 lists the release history for this feature.

Not all commands may be available in your Cisco IOS software release. For release information about a specific command, see the command reference documentation.

Use Cisco Feature Navigator to find information about platform support and software image support. Cisco Feature Navigator enables you to determine which Cisco IOS, Catalyst OS, and Cisco IOS XE software images support a specific software release, feature set, or platform. To access Cisco Feature Navigator, go to <http://www.cisco.com/go/cfn>. An account on Cisco.com is not required.



Note

Table 1 lists only the Cisco IOS software release that introduced support for a given feature in a given Cisco IOS software release train. Unless noted otherwise, subsequent releases of that Cisco IOS software release train also support that feature.

Table 1 *Feature Information for Alarm and Event Management*

Feature Name	Releases	Feature Information
Alarm and Event Management	12.2(44)SQ	This feature was introduced in the Cisco IOS Release 12.2(44)SQ to support the Cisco RF Gateway 10. The following commands were introduced or modified: • show facility-alarm status [critical] [major] [minor] [info] • clear facility-alarm [critical] [major] [minor]

Glossary

EQAM—Edge Quadrature Amplitude Modulation. A network element, which receives MPEG-TS frames over a network interface such as Ethernet, and modulates them onto QAM carriers for use on an HFC plant.

MIB—Management Information Base

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