Video Notifications

This document provides information on the support for video notifications and how to configure Cisco cBR series routers to avail the support.

Finding Feature Information

Your software release may not support all the features that are documented in this module. For the latest feature information and caveats, see the release notes for your platform and software release. The Feature Information Table at the end of this document provides information about the documented features and lists the releases in which each feature is supported.

Information About Video Notifications

The Cisco cBR-8 router sends SNMP trap notifications about video related events.

Overview of Video Notifications

The Cisco cBR-8 router sends SNMP trap notifications for the following events:

- When connection is lost or when connection is re-established between Cisco Edge QAM Manager (CEM) application and Cisco cBR-8 router.

- When connection is lost or when connection is re-established between D6 Discovery Protocol servers and Cisco cBR-8 router.

- When connection is lost or when connection is re-established between Cisco cBR-8 router and the GQI Edge Resource Manager.

- When connection is established between CEM and Cisco cBR-8 router for 180 seconds, but Cisco cBR-8 router does not receive ECM templates from the CEM. Cisco cBR-8 router also sends a notification when it receives ECM templates from CEM.

- When QAM bandwidth exceeds the specified maximum bandwidth of the QAM channel. Cisco cBR-8 router also sends a notification when the QAM bandwidth returns to within the specified bandwidth.

- When two or more PIDs have the same number in a QAM channel.

- When two or more programs have the same number in a QAM channel.

- When connection is lost or when connection is re-established between the DVB ECMG server and Cisco cBR-8 router.

- Loss of connection or reconnection between the DVB EIS client and the Cisco cBR-8 router.

- When the input stream from the primary source for a video session is lost, and the backup source is now in the active state. If the ingress video stream packet has CC (Continuity Counter) errors as per the CC threshold and report-interval configuration.

- When no traffic is seen within the OFF-timeout period for a video session, and the session gets moved to an OFF state and stays OFF for 30sec. If the ingress video stream does not have the PMT table.

Note   All cable video traps sent out are conform to the SCTE-HMS-ALAMRS-MIB standard (ANSI/SCTE 38-2 2011).

How to Configure Video Notifications

Note   To know more about the commands referenced in this module, see the Cisco IOS Master Command List.

Configuring SNMP Notification Host

To configure remote SNMP notification host on the Cisco cBR-8, follow the steps below:

```
Router> enable
Router# configure terminal
Router(config)# snmp-server host ip-address [version {1 | 2c | 3 [auth | noauth | priv]}]
community-string [udp-port port-number]
```

UDP port 162 is the default port to receive SNMP notifications.

Configuring SNMP Notification Message Queue Length

To configure SNMP message queue length, follow the steps below:

```
Router> enable
Router# configure terminal
Router(config)# snmp-server queue-length <1-5000>
```

The recommended message queue length is 5000.

Configuring Video Notification

To enable all video notifications, follow the steps below:

```
Router> enable
Router# configure terminal
Router(config)# snmp-server enable traps video-cable
```

To enable one or more specific video notifications, follow the steps below:

```
Router> enable
Router# configure terminal
Router(config)# snmp-server enable traps video-cable [video_notification]
```

Table 1: Video Notification

Video Notification	Description
backup-source-active	Enable backup source active trap notification.
cc-err	Enable CC error trap notification.
cemconn	Enable CEM connection error trap notification.
d6conn	Enable D6 connection error trap notification.
ecmgconn	Enable ECMG connection error trap notification.
eisconn	Enable EIS connection error trap notification.
gqiconn	Enable GQI connection error trap notification.
input-stream-failure	Enable In Stream Failure error trap notification.
pidcflct	Enable PID conflict trap notification.
pmeecm	Enable PME ECM missing trap notification.
pmt-missing	Enable PMT Missing error trap notification.
progcflct	Enable program conflict trap notification.
qamovr	Enable QAM over-subscription trap notification.

Viewing Active Video Notifications

To view the list of active video notifications, perform the following steps:

```
Router# show cable video snmp-alarms

Displaying the Alarms MIB alarmslogtable
Alarm Log Index    Alarm ID    Instance    Severity    Slot    Alarm Message
---------------------------------------------------------------------------------------------------

   1                 0           0           2           4       CEM_CONN:SET:0:0:
                                                                 Connection closed with
                                                                 CEM 1.200.1.163 - 5000
```

Disabling Video Notification

To disable video alarms, perform the following steps:

```
Router> enable
Router# configure terminal
Router(config)# no snmp-server enable traps video-cable
```

To disable one or more video alarms, perform the following steps:

```
Router> enable
Router# configure terminal
Router(config)# no snmp-server enable traps video-cable [video_notification]
```

Configuration Examples for Video Notifications

Example 1: Configuring Remote SNMP Notification Host

```
Router> enable
Router# configure terminal
Router(config)# snmp-server host 10.143.25.185 version 2c public udp-port 1602
```

Example 2: Configuring SNMP Notification Message Queue Length

```
Router> enable
Router# configure terminal
Router(config)# snmp-server queue-length 5000
```

Example 3: Enable Specific Video Notifications

```
Router> enable
Router# configure terminal
Router(config)# snmp-server enable traps video-cable cemconn pmeecm qamovr
```

Example 4: Disable Specific Video Notifications

```
Router> enable
Router# configure terminal
Router(config)# no snmp-server enable traps video-cable cemconn pmeecm qamovr
```

Example 5: Enable Continuity Counter error reporting on the chassis level with CC threshold and report-interval

```
Router> enable
Router# configure terminal
Router(config)# cable video
Router(config-video)# report-stream-error cc-error report-interval 15 threshold 10
```

Example 6: Enable input-stream-failure error reporting with report-interval

```
Router> enable
Router# configure terminal
Router(config)# cable video
Router(config-video)# report-stream-error input-stream-failure report-interval 25
```

Feature Information for Video Notifications

Use Cisco Feature Navigator to find information about the platform support and software image support. Cisco Feature Navigator enables you to determine which software images support a specific software release,

feature set, or platform. To access Cisco Feature Navigator, go to the cfnng.cisco.com link. An account on the Cisco.com page is not required.

Note The following table lists the software release in which a given feature is introduced. Unless noted otherwise, subsequent releases of that software release train also support that feature.

Table 2: Feature Information for Video Notifications

Feature Name	Releases	Feature Information
Video Notifications	Cisco IOS-XE Release 16.7.1	This feature was integrated into Cisco IOS-XE Release 16.7.1 on the Cisco cBR Series Converged Broadband Routers.
Video Notifications	Cisco IOS-XE Release 16.8.1	This feature was updated in Cisco IOS-XE Release 16.8.1d on the Cisco cBR Series Converged Broadband Routers.