



Implementing H.248 nt/qualert Events

When the virtual media gateway (vMG) determines that a media flow has stopped, it issues one or more Megaco events to the media gateway controller (MGC)—unless a call is on hold or the hold timer has elapsed. The event generated can now be either an H.248.1 v3 Network Package Quality Alert (nt/qualert) Event or a Middlebox (ETSI TS 101 332 V4.1.1) Pin Hole Timer Expired event.

The Middlebox (ETSI TS 101 332 V4.1.1) Pin Hole Timer Expired event is subscribed to at the termination level, enabled by default, and cannot be modified, whereas nt/qualert events can be subscribed to at the level of the stream, in addition to the termination level. However, reporting occurs on the stream only.

Also, the nt/qualert event can be modified, in contrast to the Middlebox Pin Hole Timer Expired event.

Feature History for Implementing H.248 nt/qualert Events

Release	Modification
Release 3.5.0	This command was first introduced on the Cisco CRS-1.
Release 3.6.0	No modification.

Contents

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Restrictions for Implementing H.248 nt/qualert Events

- When requesting Network Package Quality Alert events, you can specify a threshold. The vMG accepts any valid value for this parameter (0-99), but only the value 99 triggers an event. This happens, because the vMG only detects the complete media failure and cannot detect partial frame loss, which may be caused, for example, by network congestion.
- Media-timeout timer restarts when the termination or stream receives the last packet.
- DBE treats all nt/qualert threshold values the same.

- If the MGC does not respond to notification messages, the DBE stops generating event notifications after 10 seconds.
- DBE does not generate event notifications during an H.248 association outage.
- Pending event notifications are lost when the H.248 association resets.
- DBE deletes the context if its terminations (or the stream) experience a media timeout during an H.248 association outage.
- DBE rejects attempts by the MGC to subscribe an nt/qualert event to a signaling pinhole.

Information About Implementing H.248 nt/qualert Events

Event subscription may be added or removed during the lifetime of the stream, with the event monitored independently for each side of the stream.

Neither, either, or both of the previously described events may now be generated when the vMG detects lost media.

The new event support offers the following enhancements:

- MGC can be provisioned by means of the CLI to generate a Middlebox-Pin-Hole-Timer-Expired event when media loss occurs, or this functionality can also be disabled. This is the default behavior.
- MGC can additionally be provisioned to generate a Network Package Quality Alert event on a per stream or per termination basis when media loss is detected. But, the event is always reported on a per-stream basis.

Configuring H.248 nt/qualert Events

This section contains the steps for configuring whether a Middlebox Pin Hole Timer Expired event is generated when the vDBE detects lost media.

SUMMARY STEPS

1. **configure**
2. **sbc** *service-name*
3. **dbe**
4. **vdbe**
5. **h248-media-alert-event**
6. **commit**
7. **exit**

DETAILED STEPS

	Command or Action	Purpose
Step 1	configure Example: RP/0/0/CPU0:router# configure	Enables the global configuration mode.
Step 2	sbc service-name Example: RP/0/0/CPU0:router(config)# sbc mysbc	Enters the mode of an SBC service. <ul style="list-style-type: none"> Use the <i>service-name</i> argument to define the name of the SBC.
Step 3	dbe Example: RP/0/0/CPU0:router(config-sbc)# dbe	Enters the mode of the data border element (DBE) function of the SBC.
Step 4	vdbe Example: RP/0/0/CPU0:router(config-sbc-dbe)# vdbe	Enters the mode for configuring virtual DBE (vDBE) parameters.
Step 5	h248-media-alert-event Example: RP/0/0/CPU0:router(config-sbc-dbe-vdbe)# h248-media-alert-event	Defines whether a Middlebox-Pin-Hole-Timer-Expired event is generated when the vDBE detects lost media. The no version of the command disables generation of the Middlebox Pin Hole Timer Expired event on detection of lost media. The default value generates the event. The MGC can still request generation of a Network Package Quality Alert event, regardless of whether the h248-media-alert-event is set or not, for example: E=1000 {nt/qualert {th=99, ST=2} }
Step 6	commit Example: RP/0/0/CPU0:router(config-sbc-dbe-vdbe)# commit	Saves configuration changes. Use the commit command to save the configuration changes to the running configuration file and remain within the configuration session.
Step 7	exit Example: RP/0/0/CPU0:router(config-sbc-dbe-vdbe)# exit	Exits the current mode of the configuration.

Additional References

The following sections provide references related to implementing H.248 nt/qualert events.

Related Documents

Related Topic	Document Title
Cisco IOS XR master command reference	Cisco IOS XR Master Commands List
Cisco IOS XR SBC interface configuration commands	<i>Cisco IOS XR Session Border Controller Command Reference</i>
Initial system bootup and configuration information for a router using the Cisco IOS XR Software	<i>Cisco IOS XR Getting Started Guide</i>
Cisco IOS XR command modes	<i>Cisco IOS XR Command Mode Reference</i>

Standards

Standards	Title
ETSI TS 101 332 V4.1.1	Middlebox Pin Hole Timer Event Package
ITU-T H.248.1v3	Network Package Quality Alert (nt/qualert) Event

MIBs

MIBs	MIBs Link
—	To locate and download MIBs using Cisco IOS XR software, use the Cisco MIB Locator found at the following URL and choose a platform under the Cisco Access Products menu: http://cisco.com/public/sw-center/netmgmt/cmtk/mibs.shtml

Technical Assistance

Description	Link
The Cisco Technical Support website contains thousands of pages of searchable technical content, including links to products, technologies, solutions, technical tips, and tools. Registered Cisco.com users can log in from this page to access even more content.	http://www.cisco.com/techsupport