Q & A

CISCO ENHANCED CONFERENCING AND TRANSCODING FOR VOICE GATEWAY ROUTERS

Q. What does Cisco® Enhanced Conferencing and Transcoding for Voice Gateway Routers provide?

A. This feature provides conferencing and transcoding capabilities in Cisco IOS® Software gateways using the onboard Cisco Packet Voice/Fax Digital Signal Processor (DSP) Module (PVDM2) on Cisco 2800 and 3800 series voice gateway routers. These capabilities are also supported using the Cisco IP Communications Voice/Fax Network Module (NM-HD) on the Cisco 2600XM, 2691, 2800, 3640, 3660, 3700 and 3800 series voice gateway routers and using the Cisco IP Communications High-Density Digital Voice/Fax Network Module (NM-HDV2) on the Cisco 2600XM, 2691, 2800, 3700, and 3800 series voice gateway routers. This feature is delivered in Cisco IOS Software and operates in conjunction with Cisco CallManager.

Q. What is the difference between Cisco Enhanced Conferencing and Transcoding for Voice Gateway Routers and Cisco Conferencing and Transcoding for Voice Gateway Routers?

A. Cisco Enhanced Conferencing and Transcoding for Voice Gateway Routers provides greater scalability and is supported on Cisco 2800 and 3800 series voice gateway routers. Cisco Enhanced Conferencing and Transcoding for Voice Gateway Routers is also supported on Cisco voice gateway router platforms using the Cisco IP Communications Voice/Fax Network Module and the Cisco IP Communications High-Density Digital Voice/Fax Network Module.

Q. Which Cisco IOS Software release is required with Cisco Enhanced Conferencing and Transcoding for Voice Gateway Routers?

A. Cisco IOS Software Release 12.3(8)T with the IP voice feature set is required for the Cisco IP Communications Voice/Fax Network Module and Cisco IP Communications High-Density Digital Voice/Fax Network Module. Cisco IOS Software Release 12.3(8)T4 with IP voice is required for the Cisco 2800 Series voice gateway routers. Cisco IOS Software Release 12.3(11)T with IP voice is required for the Cisco 3800 Series voice gateway routers. In cases where the PVDM2-8 is used for conferencing 12.3(11)T1 with IP voice is required.

Q. Which Cisco CallManager release is required for this feature?

A. Cisco 2801, 2811, 2821, 2851, 3825, and 3845 voice gateway routers require Cisco CallManager Version 4.0(2a) SR1 for full feature support including Media Termination Point (MTP). However, Cisco CallManager Version 3.3(5) may be used on the Cisco 2811, 2821, 2851, 3825, and 3845 voice gateway routers when MTP support is not needed and conferencing and transcoding support is sufficient.

On the Cisco IP Communications Voice/Fax Network Module and Cisco IP Communications High-Density Digital Voice/Fax Network Module, Cisco CallManager Version 4.0(1) is required for full feature support including MTP. However, Cisco CallManager Version 3.3(4) may be used when MTP support is not needed and conferencing and transcoding support is sufficient.

Q. How many conference calls does Cisco Enhanced Conferencing and Transcoding for Voice Gateway Routers support?

A. The total number of conference sessions is limited by the capacity of the entire system, which includes the digital signal processors, platform, physical voice interface, and Cisco CallManager. The number of conference calls is also a function of the codecs that will be used for conferencing. More details can be found in the Cisco Enhanced Conferencing and Transcoding for Voice Gateway Routers Data Sheet.

Q. What is the maximum number of participants allowed in a conference?

A. Eight.

Q. Which algorithms are supported for conferencing?

A. G.711 a/u-law, G.729, G.729a, G.729ab, G.729b, GSM FR, GSM EFR.

Q. What is the transcoding capacity of the Cisco Conferencing and Transcoding for Voice Gateway Routers feature?

A. The total number of transcoding sessions is limited by the capacity of the entire system, which includes the digital signal processors, platform, physical voice interface, packet size, and Cisco CallManager. The number of transcode sessions is also a function of the codecs that will be supported for transcoding. More details can be found in the Cisco Enhanced Conferencing and Transcoding for Voice Gateway Routers Data Sheet.

Q. Which transcoding algorithms are supported?

A. Table 1 outlines the supported transcoding algorithms.

Table 1. Transcoding Algorithms

From codec	To codec
G.729, G.729a, G.729b, G.729ab, GSM FR, GSM EFR	G.711 a/u-law
G.711 a/u-law	G.729, G.729a, G.729b, G.729ab, GSM FR, GSM EFR

Q. Is the Cisco Enhanced Conferencing and Transcoding for Voice Gateway Routers feature's capacity dynamically available for transcoding, conferencing, and voice termination capability as needed?

A. No. Each DSP is individually configurable and preallocated either for conferencing or for transcoding and voice termination. Configuration is via both the gateway command-line interface (CLI) and the Cisco CallManager configuration.

Q. What packet sizes are supported for transcode services?

A. Packet sizes of 10, 20, and 30 milliseconds (ms) are supported for G.711. Packet sizes of 10, 20, 30, 40, 50, and 60 ms are supported for G.729, G.729a, G.729b, and G.729ab. A 20-ms packet size is supported for GSM FR and GSM EFR.

Q. Can I conference and transcode using both an NM-HDV/NM-HDV-FARM card on my router as well the NM-HD, NM-HDV2 or onboard DSP capability on the Cisco 2800 or 3800 series voice gateway routers?

A. No. Two groupings apply:

- Cisco Conferencing and Transcoding for Voice Gateway Routers is used on the NM-HDV and NM-HDV-FARM.
- Cisco Enhanced Conferencing and Transcoding for Voice Gateway Routers is used for onboard conferencing and transcoding on the Cisco 2800 and 3800 series voice gateway routers as well as on the NM-HD and NM-HDV2.

Within the same router, only one of these groupings may be configured for conferencing and transcoding. However, a device not enabled for conferencing and transcoding may still be used for voice termination and in this case reside in the same router.

Q. Can any other call agents other than Cisco CallManager use the Cisco Enhanced Conferencing and Transcoding for Voice Gateway Routers feature?

A. Not at this time.

Q. In the case of a Cisco CallManager failover, will the Cisco Enhanced Conferencing and Transcoding for Voice Gateway Routers feature continue to operate?

A. Cisco Enhanced Conferencing and Transcoding for Voice Gateway Routers will automatically switch over to a secondary Cisco CallManager and continue to operate. Once the primary Cisco CallManager is back in service, the Cisco Enhanced Conferencing and Transcoding for Voice Gateway Routers feature will switch back to the primary Cisco CallManager.

Q. In the event of a WAN failure, is Cisco Enhanced Conferencing and Transcoding for Voice Gateway Routers supported by Survivable Remote Site Telephony (SRST) for continued operation?

A. At this time SRST does not support Cisco Enhanced Conferencing and Transcoding for Voice Gateway Routers.

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