



Q&A

CISCO MULTIFLEX TRUNK DEDICATED ECHO CANCELLATION MODULES

GENERAL

Q. What new Cisco® modules are being announced?

A. Two Cisco Multiflex Trunk Dedicated Echo Cancellation (MFT ECAN) Modules are being announced, as described in Table 1.

Table 1. New Cisco MFT Dedicated ECAN Modules

Product Number	Description
EC-MFT-32	32-Channel Multiflex Trunk Dedicated ECAN Module
EC-MFT-64	64-Channel Multiflex Trunk Dedicated ECAN Module

Q. What voice/WAN interface cards (VWICs) contain a slot for the modules? What modules are generally used for each card?

A. The Cisco Second-generation 1- and 2-port T1/E1 Multiflex Trunk VWIC2s (MFT VWIC2s) contain slots for the dedicated ECAN modules. The MFT VWIC2s and the recommended ECAN modules are listed in Table 2.

Table 2. Recommended ECAN Modules

Product Number	Product Description	Recommended ECAN Module
VWIC2-1MFT-T1/E1	1-Port T1/E1 Multiflex Trunk Voice/WAN Interface Card	EC-MFT-32
VWIC2-2MFT-T1/E1	2-Port T1/E1 Multiflex Trunk Voice/WAN Interface Card	EC-MFT-64
VWIC2-1MFT-G703	1-Port G.703 Multiflex Trunk Voice/WAN Interface Card	EC-MFT-32
VWIC2-2MFT-G703	2-Port G.703 Multiflex Trunk Voice/WAN Interface Card	EC-MFT-64

Note:

- It is possible to install a Cisco 32-Channel MFT Dedicated ECAN Module on a 2-port MFT VWIC2. However, not all voice channels will be able to concurrently use the echo cancellation feature.
- It is possible to install a Cisco 64-Channel MFT Dedicated ECAN Module on a 1-port MFT VWIC2. However, the extra echo cancellation channels will not be used. The only ports on the MFT VWIC2 that can use the module resources are the ports directly attached to the module.

Q. What echo cancellation solution is recommended for demanding network environments where a 64 ms echo canceller coverage may not be sufficient?

A. The ECAN modules provide a dedicated hardware resource that runs the Cisco Enhanced ITU-T G.168 ECAN feature with a tail length of up to 128 ms with other optional settings set through the CLI. These optional daughter cards attach to the second-generation T1/E1 MFT VWIC2s to provide robust echo cancellation performance for demanding network environments.

Q. What is the difference between the echo canceller software feature that is run on the dedicated ECAN modules and the other DSP resources on the Packet Voice DSP Modules (PVDMs), network modules, or advanced integration modules?

A. The PVDM2s, other voice (digital signal processor [DSP]) resources mounted directly on the access router main board or directly on a network module or advanced integration module, and the dedicated ECAN modules all support the Cisco enhanced ITU-T G.168 ECAN feature. However, only the dedicated ECAN modules can support the feature with the echo canceller coverage set to 128 ms. On the other platforms, the echo canceller coverage is limited to 64 ms.

Q. What version of Cisco IOS® Software is required for supporting the dedicated ECAN modules? What are the Cisco IOS Software license requirements?

A. The dedicated ECAN modules running the Cisco Enhanced ITU-T G.168 ECAN feature are supported starting in Cisco IOS Software Release 12.3(14)T and will be first available in the Cisco IOS Software 12.4(1) mainline release. Data applications require at minimum the IP Base feature set license, and voice applications require at minimum the IP Voice feature set license.

Q. How can one find out if dedicated ECAN modules can benefit a particular voice-over-IP (VoIP) network?

A. There are a few ways to help determine whether a dedicated ECAN module will help. First, there will likely be echo only on a subset of the calls, because other calls will be handled by the 64 ms echo canceller coverage. These calls will likely be long-distance calls or calls to a small set of numbers. Additionally, the echo should be relatively the same, independent of whether the echo cancellation feature is enabled or disabled.

Q. Where can I find out more information about echo cancellers and how they are tuned?

A. The “Echo Analysis for Voice over IP” white paper provides a comprehensive overview of echo; echo cancellation components, operation, and operation verification; and case studies. It can be found at

http://www.cisco.com/en/US/tech/tk652/tk701/technologies_white_paper09186a00800d6b68.shtml.

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