Cisco Fourth Generation 1-, 2-, 4-, and 8-Port T1/E1 Multiflex Trunk Voice/WAN Network Interface Modules

T1/E1 Network Interface Module (NIM) Q&A

Q. What are the different voice T1/E1 cards available on the Cisco® 4451-X Integrated Services Router (ISR)?

A. The cards are described in Table 1.

Table 1. Cisco T1/E1 Network Interface Modules

Part Number	Description
NIM-1MFT-T1/E1	1-port multi-flex trunk voice/clear-channel data T1/E1 module
NIM-2MFT-T1/E1	2-port multi-flex trunk voice/clear-channel data T1/E1 module
NIM-4MFT-T1/E1	4-port multi-flex trunk voice/clear-channel data T1/E1 module
NIM-8MFT-T1/E1	8-port multi-flex trunk voice/clear-channel data T1/E1 module
NIM-1CE1T1-PRI	1-port multi-flex trunk voice/channelized data T1/E1 module
NIM-2CE1T1-PRI	2-port multi-flex trunk voice/channelized data T1/E1 module
NIM-8CE1T1-PRI	8-port multi-flex trunk voice/channelized data T1/E1 module

Q. How do the NIM cards differ from the voice/WAN interface card 3 (VWIC3)?

A. The NIM cards are supported only on the Cisco 4451-X ISRs. These are the next-generation form factor of the Ethernet High-Speed WAN Interface Card (EHWIC) modules.

Q. How many NIM multi-flex trunk (MFT) cards can I install in a Cisco 4451-X ISR?

A. You can install up to three NIM MFT cards in the NIM slots on the 4451-X.

Q. Can I use the Packet Voice Digital Signal Processor Module (PVDM3) DSPs with the NIM MFT modules?

A. No, you cannot use PVDM3 DSP with the NIM MFT modules.

Q. What DSPs can I use with the NIM MFT Modules?

A. The NIM MFT modules use PVDM4 DSPs.

Q. What features are supported on the NIM MFT modules?

A. NIM MFT modules have complete feature parity with the VWIC3 MFT modules. Please refer to [Cisco 4000 Series Integrated Services Router T1/E1 Voice and WAN Network Interface Modules Data Sheet](#)

Q. Can Cisco NIM MFT T1/E1 modules support T1 and E1 ports on the same 2- or 4- port card?

A. No, all ports can support T1 and E1, but all ports must be of the same type on the same card.

Q. What version of Cisco IOS® Software is required for supporting the Cisco NIM MFT cards, and what are the Cisco IOS Software license requirements?

A. The Cisco 1-, 2-, 4-, and 8-port NIM cards are supported only on the Cisco 4451-X ISR. The modules are supported only with Cisco IOS XE 3.9.1.

Data applications require a minimum of the IP Base Technology Package, and voice applications require a minimum of the Unified Communications Technology Package.

Q. Can the 2-, 4-, and 8-port NIMs support different clocking domains?

A. When the 2-, 4-, or 8-port NIM is used in data only, each port can connect to a different clocking domain, for example, when two different T1/E1 carriers are used. When the NIM is used for voice applications, all voice T1/E1s have to be synchronized to a single clock source and any difference in clocks risk clock slips or interface flaps. When the NIM is used for mixed data and voice applications, each data port can use an independent clock, and the voice ports can use a clock source independent from the data ports. Please refer to Configuring the Cisco Fourth-generation T1/E1 Voice and WAN Network Interface Module.

Q. Can I use the motherboard PVDM4 for T1/E1 TDM voice service?

A. No. Only PVDM4 installed on T1/E1 NIM can be used for TDM voice services, the motherboard PVDM4 can only be used for IP based voice services such as conferencing, transcoding and MTP. However, extra DSP resources on PVDM4 installed on T1/E1 NIM can be pooled together with motherboard PVDM4 in dspfarm for IP based voice services. Please also refer to Cisco High-Density Packet Voice Digital Signal Processor Modules FAQ.

Q. Can PVDM4 on one T1/E1 NIM be shared with another T1/E1 module for TDM voice service?

A. No. Each T1/E1 NIM needs to have a dedicated PVDM4 to support TDM voice services.

Q. Can I use the PVDM4 on the motherboard on T1/E1 NIM?

A. Yes. The PVDM4 on motherboard and T1/E1 NIM are identical.

For More Information

For more information on the Cisco 4451-X ISR visit
http://www.cisco.com/en/US/prod/collateral/routers/ps10906/ps12522/ps12626/qa_c67-728261.html.

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