

Understanding 1-Port Fast Ethernet Plus Channelized T1/PRI Network Modules

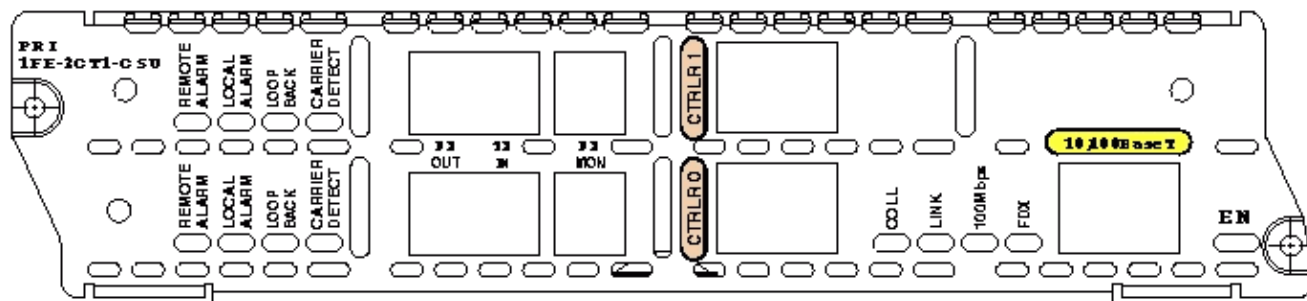
Document ID: 12059

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Introduction

The 1-port Fast Ethernet plus channelized T1/PRI network modules offer a single, integrated 10/100 BaseT port with one- or two-port T1/PRI interfaces. These T1/PRI interfaces are available with and without an integrated CSU. The network modules without an integrated CSU have a DB-15 connector and require a connection to an external CSU, PBX, or, channel bank, whereas the network modules with an integrated CSU connect directly to the Telco network via an RJ-45 cable.

Each of the T1 network modules support speeds up to 1.544 Mbps full-duplex, provide up to twenty-four virtual interfaces in channelized mode, and up to twenty-three ISDN B-channels in PRI mode.



Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

This document is not restricted to specific software and hardware versions.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Conventions

Refer to Cisco Technical Tips Conventions for more information on document conventions.

Product Numbers

- NM-1FE1CT1 – One-Port 10/100 BaseTX Ethernet with One-Port T1 PRI/Channelized
- NM-1FE1CT1-CSU – One-Port 10/100 BaseTX Ethernet with One-Port T1 PRI/Channelized with Integrated CSU
- NM-1FE2CT1 – One-Port 10/100 BaseTX Ethernet with Two-Port T1 PRI/Channelized
- NM-1FE2CT1-CSU – One-Port 10/100 BaseTX Ethernet with Two-Port T1 PRI/Channelized with Integrated CSU

Features

- Supports a Fast Ethernet connection (RJ-45 100 Base-TX interface with no MII port and no fiber option).
- Supports the following T1 connectors:
 - ◆ DB 15 connector for NM-1FE1CT1 and NM-1FE2CT1.
 - ◆ RJ-45 (RJ-48C) connector, plus monitor jacks for NM-1FE1CT1-CSU and NM-1FE2CT1-CSU.
- Supports a Fast Ethernet speed of 10 or 100 Mbps plus auto sensing.
- Supports a Fast full or half Ethernet duplex plus auto-negotiating (at 10 Mbps and 100 Mbps).
 - ◆ The default is auto-negotiate.
 - ◆ If the peer does not negotiate, then the network module runs in half-duplex.
 - ◆ Force a full Ethernet duplex with the **full-duplex** interface configuration command. Return to the default mode using the **no full-duplex** command. The **no full-duplex command** does not configure the interface for half duplex .
- Supports the Inter-Switch Link (ISL) in the hardware and requires the Cisco IOS® software "plus" feature set. Token Ring ISL is supported in Cisco IOS Version 12.0(3)T.
- Does not support a Fast Ethernet channel.
- Supports the same T1 features and functionality as network modules NM-1CT1, NM-1CT1-CSU, NM-2CT1, and NM-2CT1-CSU. Each port is configured independantly. You can configure one port for ISDN and the other for channelized T1.
- Supports receiver sensitivity.
 - ◆ With CSU, 26dB, or 36dB, select using the **cablelength** command.
 - ◆ Without CSU, 14dB.

Platform Support

Product Name	Cisco 2600, 2600XM	Cisco 3620 and 3640	Cisco 3631	Cisco 3660	Cisco 2691, 3725, 3745
NM-1FE1CT1	Not supported	Cisco IOS Versions 11.3(4)T1, 12.0(1)T,	Not supported	Cisco IOS Versions 12.0(7)XK, 12.1T, 12.2,	Not supported

		12.0XK, 12.1, 12.1T, 12.2, and 12.2T		and 12.2T	
NM-1FE1CT1-CSU	Not supported	Cisco IOS Versions 11.3(4)T1, 12.0(1)T, 12.0XK, 12.1, 12.1T, 12.2, and 12.2T	Not supported	Cisco IOS Versions 12.0(7)XK, 12.1T, 12.2, and 12.2T	Not supported
NM-1FE2CT1	Not supported	Cisco IOS Versions 11.3(4)T1, 12.0(1)T, 12.0XK, 12.1, 12.1T, 12.2, and 12.2T	Not supported	Cisco IOS Versions 12.0(7)XK, 12.1T, 12.2, and 12.2T	Not supported
NM-1FE2CT1-CSU	Not supported	Cisco IOS Versions 11.3(4)T1, 12.0(1)T, 12.0XK, 12.1, 12.1T, 12.2, and 12.2T	Not supported	Cisco IOS Versions 12.0(7)XK, 12.1T, 12.2, and 12.2T	Not supported

Note: The Cisco IOS software releases provided are typically the minimum version required to support the platform, module, or feature in question. Use the Software Advisor (registered customers only) to choose appropriate software for your network device: match software features to Cisco IOS and CatOS releases, compare IOS releases, or find out which software releases support your hardware. See Cisco TAC Tools and Utilities for more information.

Configuration

Each interface on the Cisco 3600 series is configured as a slot number / unit number. On the Fast Ethernet plus T1 network modules, the Fast Ethernet interface is addressed as **interface Fast Ethernet <slot>/<port>**. The T1 interface is configured as **controller t1 <slot>/<unit>**.

There is no restriction on the number of these modules in a chassis.

Refer to Configuring Channelized E1 and Channelized T1 for some configuration assistance.

Configure the interface as you would normally configure a channelized T1/PRI interface on any other router.

For additional T1 resources, refer to Technical Support – Dial.

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Networking Professionals Connection is a forum for networking professionals to share questions, suggestions, and information about networking solutions, products, and technologies. The featured links are some of the most recent conversations available in this technology.

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Network Infrastructure: Remote Access

Related Information

- **Configuring Channelized E1 and Channelized T1**
- **Overview of Cisco Network Modules**
- **Technical Support & Documentation – Cisco Systems**

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Updated: Mar 03, 2008

Document ID: 12059
