Understanding 4– and 8–Port ISDN BRI Network Modules

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Contents

Introduction

This document provides an overview of 4– and 8–Port ISDN BRI network modules.

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.
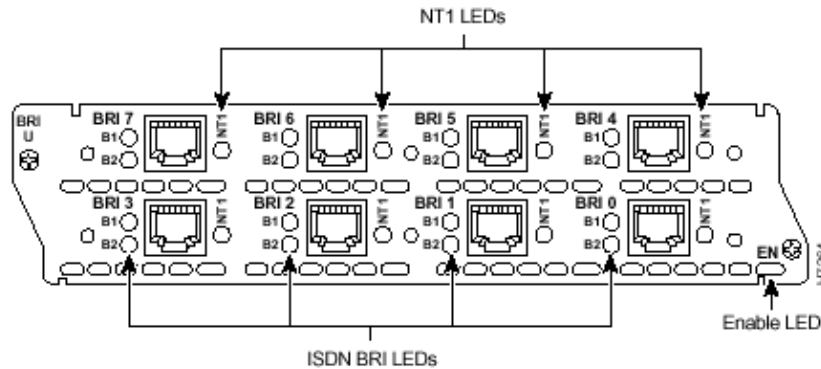
Conventions

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

Background Information

The 4– and 8–port ISDN BRI network modules provide various port densities for ISDN BRI connectivity. The optional, integrated NT1 allows consolidated customer premises equipment (CPE) to provide multifunction dial access server, router, and other capabilities within power branch office environments.

Four versions of ISDN BRI network modules are available. Each 4– and 8–port module has the option of an S/T interface or an onboard NT1 for each port. Local static RAM (SRAM) is used for buffer descriptors and input queues. The 4–port module cannot be field–upgraded to the 8–port module. When all eight BRI ports run continuous data (144 kbps each) and 50–byte packets, the maximum performance possible is 5760 pps, and an aggregate full–duplex data rate of 2.3 Mbps.

Figure 1   The NM–8B–U

Product Numbers

Here are the product numbers of the various network modules:

Product Number	Description
NM–4B–S/T	Four Port ISDN–BRI Network Module
NM–8B–S/T	Eight Port ISDN–BRI Network Module
NM–4B–U	Four Port ISDN–BRI with a built–in NT–1 Network Module
NM–8B–U	Eight Port ISDN–BRI with a built–in NT–1 Network Module

Features

4– and 8–Port ISDN BRI network modules:

- Enable you to query the network module.
- Have traps to monitor the network module.
- Integrate with CiscoWorks and CiscoView management tools.
- Support the ISDN MIB.
- Support plain old telephone service (POTS) call redirection to internal digital modems.

Feature Support

4– and 8–Port ISDN BRI network modules:

- Support four or eight ISDN BRI ports.
- Do not allow the ISDN S–bus to be shared.
- Support the 128 KB ISDN leased line, but not the 144 KB leased line.

• Support modem dialup with the NM−DM Digital Modem modules in Cisco IOS® Version 12.0(2)XC and later.

Platform Support

Product Name	Cisco 2600	Cisco 2600XM	Cisco 3620 & 3640	Cisco 3631	Cisco 3660	Cisco 2691, 3725, 3745
NM−4B−S/T	Cisco IOS Software Releases 11.3(4)T, all 12.x	All Cisco IOS Software Releases	All Cisco IOS Software Releases	All Cisco IOS Software Releases	Cisco IOS Software Releases 12.0(7)XK, 12.1T, 12.2, and 12.2T	All Cisco IOS Software Releases
NM−4B−U	Cisco IOS Software Releases 11.3(4)T, all 12.x	All Cisco IOS Software Releases	All Cisco IOS Software Releases	All Cisco IOS Software Releases	Cisco IOS Software Releases 12.0(7)XK, 12.1T, 12.2, and 12.2T	All Cisco IOS Software Releases
NM−8B−S/T	Cisco IOS Software Releases 11.3(4)T, all 12.x	All Cisco IOS Software Releases	All Cisco IOS Software Releases	All Cisco IOS Software Releases	Cisco IOS Software Releases 12.0(7)XK, 12.1T, 12.2, and 12.2T	All Cisco IOS Software Releases
NM−8B−U	Cisco IOS Software Releases 11.3(4)T, all 12.x	All Cisco IOS Software Releases	All Cisco IOS Software Releases	All Cisco IOS Software Releases	Cisco IOS Software Releases 12.0(7)XK, 12.1T, 12.2, and 12.2T	All Cisco IOS Software Releases

Configuration

Each interface on the Cisco 3600 series is configured as a slot/unit number. On the 4− and 8−port ISDN BRI network module, the interfaces are addressed as **interface bri** *slot/unit* . Simultaneous ISDN PRIs and BRIs in the same chassis require Cisco IOS Software Releases 11.3(3)T, 12.0, or 12.0T and later.

For some general ISDN BRI sample configurations that you can use with these modules, refer to the Access Technology Support Page.

For a sample configuration used with these ISDN BRI network modules, refer to Configuring Modem Connectivity with a Cisco 3640 BRI. Remember that you can use any BRI sample configuration with this module also.

Note: Modem dialup requires the Digital Modem Module (NM−DM) and Cisco IOS Software Release 12.0(2)XC or later. The ISDN BRI network module must also have these hardware revisions (which you can determine through the **show diag** command):

- NM−4B−S/T Four port ISDN BRI network module, minimum version 800−01236−03
- NM−4B−U Four port ISDN BRI network module with integrated NT−1 network module, minimum version 800−01238−06
- NM−8B−S/T Eight port ISDN BRI network module, minimum version 800−01237−03
- NM−8B−U Eight port ISDN BRI network module with integrated NT−1 network module, minimum version 800−01239−06

Field Notices

For more information, refer to these field notices:

- Field Notice: Cisco 3600 NM−4B−U and NM−8B−U Problems
- Field Notice: Using Digital Modems with the Cisco 3600 Basic Rate Interface (BRI) Network Module Upgrade

Related Information

- **Connecting ISDN BRI Network Modules**
- **Configuring ISDN DDR with Dialer Profiles**
- **Configuring Modem Connectivity with a Cisco 3640 BRI**
- **Access Technology Support Page**
- **Technical Support & Documentation − Cisco Systems**

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