

# Understanding the Ethernet LAN/WAN Interface Card Network Modules

Document ID: 7251

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## Introduction

The Ethernet LAN/WAN interface card (WIC) Network Modules expand the capabilities of the Cisco 2600 and 3600 Series Routers, by providing slots for additional WICs. These network modules also include Ethernet or Token Ring ports for LAN connectivity.

## Prerequisites

### Requirements

There are no specific requirements for this document.

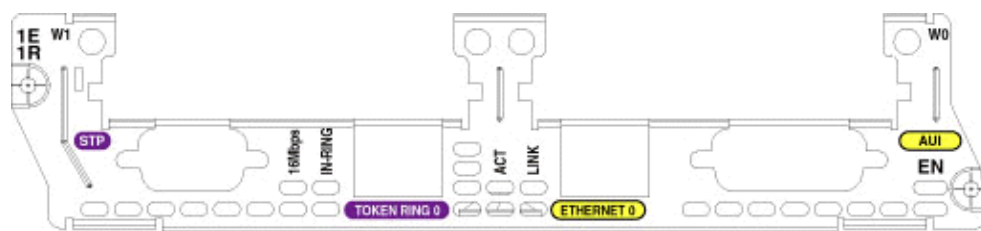
### Components Used

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

### Conventions

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

## Product Numbers



| Product Number | Description |
|----------------|-------------|
|----------------|-------------|

|           |   |
|-----------|---|
| NM-1E2W   | Network Module with One Ethernet and Two WIC slots                  |
| NM-1E1R2W | Network Module with One Ethernet, One Token Ring, and Two WIC slots |
| NM-2E2W   | Two-Ethernet, Two-WIC slots Network Module                          |

Refer to Fast Ethernet LAN/WIC Network Modules for more information.

## Features

- Ethernet 10 Mbps only.
  - ◆ Ethernet 0 has both 10 Base-T and AUI connectors (auto sensing).
  - ◆ Ethernet 1 on the NM-2E2W is RJ-45 only.
  - ◆ Supports half-duplex in all Cisco IOS® software releases.
  - ◆ Supports full-duplex beginning with Cisco IOS Software Release 12.0(4)T.

**Note:** Cisco Discovery Protocol version 2 (CDPv2) can report an Ethernet Interface as half-duplex, even though it has been configured as full-duplex. This issue is documented in Cisco bug ID CSCdp48362 (registered customers only) . You can resolve this issue by upgrading the system software to the Cisco IOS software release not affected by the bug.

```
%CDP-4-DUPLEX_MISMATCH: duplex mismatch discovered on Ethernet2/0
(not full duplex), with C3550-03 FastEthernet0/11 (full duplex).
```

- Token Ring 0 has both shielded twisted-pair (STP) and unshielded twisted-pair (UTP) (auto sensing).
  - ◆ No full-duplex support. Use the NM-1FE1R2W.
- Two WIC slots.
- WIC cards are not hot-swappable, but no hardware damage occurs if they are hot-swapped.

## Platform Support

| Cisco IOS Support | Cisco 2600, Cisco 2600XM <sup>1</sup> | Cisco 3620,3640  | Cisco 3631    | Cisco 3660                      | Cisco 2691, 3725, 3745 |
|-------------------|---------------------------------------|--|---------------|---------------------------------|------------------------|
| NM-1E2W           | Not supported                         | All Cisco IOS Software Releases  | Not supported | All Cisco IOS Software Releases | Not supported          |
| NM-1E1R2W         | Not supported                         | Cisco IOS versions 11.1(8)AA, 11.2(4)XA, 11.2(5)P, 11.3, 11.3T, all 12.x | Not supported | All Cisco IOS Software Releases | Not supported          |
| NM-2E2W           |                                       |  |               |                                 |                        |

|  |               |                                 |               |                                 |               |
|--|---------------|---------------------------------|---------------|---------------------------------|---------------|
|  | Not supported | All Cisco IOS Software Releases | Not supported | All Cisco IOS Software Releases | Not supported |
|--|---------------|---------------------------------|---------------|---------------------------------|---------------|

<sup>1</sup> Refer to NM-2W for additional WIC slots on the Cisco 2600 Series Router.

**Note:** The Cisco IOS software releases in this document are typically the minimum version requirement in order to support the platform, module, or feature in question. Use the Software Advisor (registered customers only) in order 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. The Software Advisor and other tools are available in the TACWeb Tools and Utilities page.

## Configuration

Each interface on the Cisco 3600 series is configured as a slot/unit number. Refer to Overview of Cisco Network Modules for more information on how to identify the slot numbers. On the network module, the interfaces are addressed as seen in this list:

- The Ethernet interface is **interface ethernet <slot>/0**.
- The Token Ring interface is **interface tokenring <slot>/0**.
- A serial WIC, a T1 channel service unit/data service unit (CSU/DSU), or a 56/64k CSU/DSU WIC in slot W0 is **interface serial <slot>/0**.
- A BRI-S/T WIC or BRI-U WIC in slot W0 is **interface bri <slot>/0**.
- A serial WIC, a T1 CSU/DSU, or a 56/64k CSU/DSU WIC in slot W1 is **interface serial <slot>/0** if slot W0 does not contain a serial port (serial WIC or 56/64k CSU/DSU). If slot W0 has a serial WIC, the serial WIC in slot W1 is **interface serial <slot>/1**.
- A BRI-S/T WIC or BRI-U WIC in slot W1 is **interface bri <slot>/0** if slot W0 does not contain a BRI WIC. If slot W0 has a BRI WIC, the BRI WIC in slot W1 is **interface bri <slot>/1**.

## Related Information

- [OIR Support for Analog and Digital Modem Network Modules](#)
- [Technical Support – Cisco Systems](#)

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Updated: Mar 03, 2008

Document ID: 7251

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