



Cisco 3800 Series Cards and Modules

Updated 9/23/2004

This document provides links to resources for understanding, installing, and configuring cards and modules for the Cisco 3800 series integrated services routers. Use this document in HTML format on Cisco.com.

See the following sections:

- [Advanced Integration Modules, page 1](#)
- [Interface Cards, page 2](#)
- [Network Modules, page 4](#)
- [Packet Voice DSP Modules, page 7](#)



Note

For information about small-form-factor pluggable (SFP) modules, refer to [Installing SFP Modules in Cisco 3800 Series Routers](#).

Advanced Integration Modules



Note

To see which Cisco 3800 series routers support each AIM, refer to the [Cisco 3800 Series Integrated Services Routers](#) data sheet.

[Table 1](#) lists the advanced integration modules (AIMs) for Cisco 3800 series routers.

Table 1 *Advanced Integration Modules for the Cisco 3800 Series Integrated Services Routers*

AIM-ATM	High-performance ATM SAR ¹ AIM
AIM-CUE	Cisco Unity Express voice-mail AIM (includes license for 12 mailboxes)
AIM-COMPR4	16-Mbps data compression AIM
AIM-VPN/EPII-PLUS	Enhanced-performance DES ² /3DES/AES ³ VPN ⁴ encryption/compression AIM
AIM-VPN/HPII-PLUS	High-performance DES/3DES/AES VPN encryption/compression AIM



Corporate Headquarters:
Cisco Systems, Inc., 170 West Tasman Drive, San Jose, CA 95134-1706 USA

Copyright © 2004 Cisco Systems, Inc. All rights reserved.

1. SAR = segmentation and reassembly
2. DES = Data Encryption Standard
3. AES = Advanced Encryption Standard
4. VPN = Virtual Private Network

Interface Cards

Table 2 lists the interface cards for the Cisco 3800 series routers. The table includes the following categories:

- [Serial WAN Interface Cards, page 2](#)
- [Channel Service Unit/Data Service Unit \(CSU/DSU\) WAN Interface Cards, page 2](#)
- [ISDN BRI WAN Interface Cards, page 2](#)
- [DSL WAN Interface Cards, page 2](#)
- [Analog Modem WAN Interface Cards, page 2](#)
- [T1, E1, and G.703 Multiflex Trunk Voice and WAN Interface Cards, page 3](#)
- [Voice Interface Cards, page 3](#)
- [Ethernet Switch High-Speed WAN Interface Cards and Accessories, page 3](#)
- [Gigabit Ethernet High-Speed WAN Interface Card, page 3](#)

Table 2 *Interface Cards for the Cisco 3800 Series Integrated Services Routers*

Serial WAN Interface Cards	
WIC-1T	1-port serial WAN interface card
WIC-2T	2-port serial WAN interface card
WIC-2A/S	2-port asynchronous/synchronous serial WAN interface card
Channel Service Unit/Data Service Unit (CSU/DSU) WAN Interface Cards	
WIC-1DSU-T1-V2	Updated 1-port T1/fractional-T1 DSU/CSU WAN interface card
WIC-1DSU-56K4	1-port 4-wire 56/64-kbps CSU/DSU WAN interface card
ISDN BRI WAN Interface Cards	
WIC-1B-U-V2	1-port ISDN BRI WAN interface card with integrated NT1—U interface
WIC-1B-S/T-V3	1-port ISDN BRI WAN interface card—S/T interface
DSL WAN Interface Cards	
WIC-1ADSL	1-port ADSL-over-POTS WAN interface card
WIC-1ADSL-DG	1-port ADSL-over-POTS with dying gasp WAN interface card
WIC-1ADSL-I-DG	1-port ADSL-over-ISDN with dying gasp WAN interface card
WIC-1SHDSL	1-port G.shdsl WAN interface card (two-wire only)
WIC-1SHDSL-V2	1-port G.shdsl WAN interface card (two- or four-wire)
Analog Modem WAN Interface Cards	
WIC-1AM	1-port analog modem WAN interface card
WIC-2AM	2-port analog modem WAN interface card

Table 2 *Interface Cards for the Cisco 3800 Series Integrated Services Routers (continued)*

T1, E1, and G.703 Multiflex Trunk Voice and WAN Interface Cards	
VWIC-1MFT-T1	1-port RJ-48 multiflex trunk voice/WAN interface card—T1
VWIC-2MFT-T1	2-port RJ-48 multiflex trunk voice/WAN interface card—T1
VWIC-2MFT-T1-DI	2-port RJ-48 multiflex trunk voice/WAN interface card—T1 with drop and insert
VWIC-1MFT-E1	1-port RJ-48 multiflex trunk voice/WAN interface card—E1
VWIC-2MFT-E1	2-port RJ-48 multiflex trunk voice/WAN interface card—E1
VWIC-2MFT-E1-DI	2-port RJ-48 multiflex trunk voice/WAN interface card—E1 with drop and insert
VWIC-1MFT-G703	1-port RJ-48 multiflex trunk voice/WAN interface card—G.703
VWIC-2MFT-G703	2-port RJ-48 multiflex trunk voice/WAN interface card—G.703
Voice Interface Cards	
VIC-2DID	2-port DID ¹ voice/fax interface card
VIC-1J1	1-port digital voice interface card (J1) for Japan Note VIC-1J1 must be installed in an NM-HDV or NM-HDV2.
VIC-4FXS/DID	4-port FXS ² or DID voice interface card
VIC2-2FXS	2-port voice interface card—FXS
VIC2-2FXO	2-port voice interface card—FXO ³ (universal)
VIC2-4FXO	4-port voice interface card—FXO (universal)
VIC2-2E/M	2-port voice interface card—E&M ⁴
VIC2-2BRI-NT/TE	2-port voice interface card—BRI S/T (NT and TE)
Ethernet Switch High-Speed WAN Interface Cards and Accessories	
HWIC-4ESW	4-port single-wide 10/100BASE-T Ethernet switch high-speed WAN interface card
HWIC-D-9ESW	9-port double-wide 10/100BASE-T Ethernet switch high-speed WAN interface card
HWIC-4ESW-POE	4-port Ethernet switch high-speed WAN interface card with Power over Ethernet Bundle: HWIC-4ESW with ILPM-4
HWIC-D-9ESW-POE	9-port Ethernet switch high-speed WAN interface card with Power over Ethernet Bundle: HWIC-D-9ESW with ILPM-8
Gigabit Ethernet High-Speed WAN Interface Card	
HWIC-1GE-SFP	Cisco Gigabit Ethernet high-speed WAN interface card

1. DID = Direct Inward Dial
2. FXS = Foreign Exchange Station
3. FXO = Foreign Exchange Office
4. E&M = ear and mouth

Network Modules

Table 3 lists the network modules for the Cisco 3800 series routers. The table includes the following categories:

- [Ethernet Switching Network Modules, page 4](#)
- [LAN and WAN Interface Card \(WIC\) Network Modules, page 4](#)
- [Serial Connectivity Network Modules, page 5](#)
- [Clear-Channel T3/E3 Network Module, page 5](#)
- [Channelized T1/E1 and ISDN Network Modules, page 5](#)
- [ATM Network Modules, page 5](#)
- [Digital Dial-Up and Remote Access Network Modules, page 5](#)
- [Analog Dial-Up and Remote Access Network Modules, page 5](#)
- [Voice Network Modules and Accessories, page 6](#)
- [Extension Modules, page 7](#)
- [Application Network Modules, page 7](#)
- [Alarm Monitoring and Control Network Modules and Accessories, page 7](#)
- [Circuit Emulation over IP \(CEoIP\) Network Modules, page 7](#)

Table 3 Network Modules for the Cisco 3800 Series Integrated Services Routers

Ethernet Switching Network Modules	
NM-16ESW	16-port 10/100 EtherSwitch network module
NM-16ESW-1GIG	16-port 10/100 EtherSwitch network module with 1 GE ¹ (1000BASE-T) port
NM-16ESW-PWR	16-port 10/100 EtherSwitch network module with inline power support
NM-16ESW-PWR-1GIG	16-port 10/100 EtherSwitch network module with inline power and 1 GE (1000BASE-T) port
NMD-36ESW	36-port 10/100 EtherSwitch high-density service module (HDSM)
NMD-36ESW-2GIG	36-port 10/100 EtherSwitch HDSM with 2 GE (1000BASE-T) ports
NMD-36ESW-PWR	36-port 10/100 EtherSwitch HDSM with inline power support
NMD-36ESW-PWR-2G	36-port 10/100 EtherSwitch HDSM with inline power and 2 GE (1000BASE-T) ports
LAN and WAN Interface Card (WIC) Network Modules	
NM-1FE-FX-V2	1-port Fast Ethernet (100BASE-FX interface), version 2 (no WIC slots)
NM-1GE	1-port Cisco Gigabit Ethernet network module (no WIC slots)
NM-2W	2-WIC-slot network module (no LAN ports)
NM-1FE1R2W	1-port 10/100 Ethernet 1-port 4/16 Token Ring 2-WIC-slot network module
NM-1FE2W	1-port 10/100 Ethernet 2-WIC-slot network module
NM-2FE2W	2-port 10/100 Ethernet 2-WIC-slot network module
NM-1FE2W-V2	1-port 10/100 Ethernet 2-WIC-slot network module, version 2
NM-2FE2W-V2	2-port 10/100 Ethernet 2-WIC-slot network module, version 2

Table 3 Network Modules for the Cisco 3800 Series Integrated Services Routers (continued)

Serial Connectivity Network Modules	
NM-1HSSI	1-port High-Speed Serial Interface (HSSI) network module
NM-4T	4-port serial network module
NM-4A/S	4-port asynchronous/synchronous serial network module
NM-8A/S	8-port asynchronous/synchronous serial network module
NM-16A/S	16-port asynchronous/synchronous serial network module
NM-16A	16-port asynchronous serial network module
NM-32A	32-port asynchronous serial network module
Clear-Channel T3/E3 Network Module	
NM-1T3/E3	1-port clear-channel T3/E3 network module
Channelized T1/E1 and ISDN Network Modules	
NM-1CE1T1-PRI	1-port channelized E1/T1/ISDN-PRI network module
NM-2CE1T1-PRI	2-port channelized E1/T1/ISDN-PRI network module
NM-4B-S/T	4-port ISDN BRI network module—S/T interface
NM-4B-U	4-port ISDN BRI network module with integrated Network Termination 1 (NT1)—U interface
NM-8B-S/T	8-port ISDN BRI network module—S/T interface
NM-8B-U	8-port ISDN BRI network module with integrated NT1—U interface
ATM Network Modules	
NM-1A-T3	1-port DS3 ATM network module
NM-1A-E3	1-port E3 ATM network module
NM-4T1-IMA	4-port T1 ATM network module with IMA ²
NM-4E1-IMA	4-port E1 ATM network module with IMA
NM-8T1-IMA	8-port T1 ATM network module with IMA
NM-8E1-IMA	8-port E1 ATM network module with IMA
Digital Dial-Up and Remote Access Network Modules	
NM-6DM	6-digital-modem network module
NM-12DM	12-digital-modem network module
NM-18DM	18-digital-modem network module
NM-24DM	24-digital-modem network module
NM-30DM	30-digital-modem network module
Analog Dial-Up and Remote Access Network Modules	
NM-8AM-V2	8-port analog modem network module with v.92
NM-16AM-V2	16-port analog modem network module with v.92

Table 3 Network Modules for the Cisco 3800 Series Integrated Services Routers (continued)

Voice Network Modules and Accessories	
NM-HD-1V	1-slot IP communications voice/fax network module
NM-HD-2V	2-slot IP communications voice/fax network module
NM-HD-2VE	2-slot IP communications enhanced voice/fax network module
NM-HDA-4FXS	4-port FXS ³ high-density analog (HDA) voice/fax network module
EM-HDA-4FXO	4-port FXO ⁴ expansion module
EM-HDA-8FXS	8-port FXS expansion module
NM-HDV2	IP communications high-density digital voice/fax network module
NM-HDV2-1T1/E1	1-port T1/E1 IP communications high-density digital voice/fax network module
NM-HDV2-2T1/E1	2-port T1/E1 IP communications high-density digital voice/fax network module
NM-HDV	High-density voice network module (no VWIC ⁵ , no PVDMs ⁶)
NM-HDV-1T1-12	1-port 12-channel T1 voice/fax network module Bundle: NM-HDV with one (1) VWIC-1MFT-T1 and one (1) PVDM-12
NM-HDV-1T1-24	1-port 24-channel T1 voice/fax network module Bundle: NM-HDV with one (1) VWIC-1MFT-T1 and two (2) PVDM-12s
NM-HDV-1T1-24E	1-port 24-channel enhanced T1 voice/fax network module Bundle: NM-HDV with one (1) VWIC-1MFT-T1 and four (4) PVDM-12s
NM-HDV-2T1-48	2-port 48-channel T1 voice/fax network module Bundle: NM-HDV with one (1) VWIC-2MFT-T1-DI and four (4) PVDM-12s
NM-HDV-1E1-12	1-port 12-channel E1 voice/fax network module Bundle: NM-HDV with one (1) VWIC-1MFT-E1 and one (1) PVDM-12
NM-HDV-1E1-30	1-port 30-channel E1 voice/fax network module Bundle: NM-HDV with one (1) VWIC-1MFT-E1 and three (3) PVDM-12s
NM-HDV-1E1-30E	1-port 30-channel enhanced E1 voice/fax network module Bundle: NM-HDV with one (1) VWIC-1MFT-E1 and five (5) PVDM-12s
NM-HDV-2E1-60	2-port 60-channel E1 voice/fax network module Bundle: NM-HDV with one (1) VWIC-2MFT-E1-DI and five (5) PVDM-12s
NM-HDV-1J1-30	1-port 30-channel J1 high-density voice network module Bundle: NM-HDV with one (1) VIC-1J1 and three (3) PVDM-12s
NM-HDV-1J1-30E	1-port 30-channel enhanced J1 high-density voice network module Bundle: NM-HDV with one (1) VIC-1J1 and five (5) PVDM-12s
NM-HDV-FARM-C36	Network module 36-port DSP ⁷ farm bundle: HDV transcoding/conferencing DSP farm equipped with two (2) DSP SIMMs
NM-HDV-FARM-C54	Network module 54-port DSP farm bundle: HDV transcoding/conferencing DSP farm equipped with three (3) DSP SIMMs
NM-HDV-FARM-C90	Network module 90-port DSP farm bundle: HDV transcoding/conferencing DSP farm equipped with five (5) DSP SIMMs

Table 3 Network Modules for the Cisco 3800 Series Integrated Services Routers (continued)

Extension Modules	
EVM-HD-8FXS/DID	High-density analog and digital extension module for voice and fax
EM-4BRI-NT/TE	4-port BRI S/T digital voice/fax expansion module
EM-HDA-8FXS	8-port FXS analog voice/fax expansion module
EM-HDA-6FXO	6-port FXO analog voice/fax expansion module
EM-HDA-3FXS/4FXO	3-port FXS 4-port FXO analog voice/fax expansion module
Application Network Modules	
NM-CE-BP-40G-K9	Cisco Content Engine network module, basic performance, 40-GB IDE hard disk
NM-CE-BP-80G-K9	Cisco Content Engine network module, basic performance, 80-GB IDE hard disk
NM-CE-BP-SCSI-K9	Cisco Content Engine network module, basic performance, SCSI controller (requires external SCSI disk array such as the Cisco SA-6)
NM-CIDS-K9	Cisco Intrusion Detection System network module
NM-CUE	Cisco Unity Express voice-mail network module (includes license for 12 mailboxes)
NM-NAM	Cisco Network Analysis Module for branch routers
Alarm Monitoring and Control Network Modules and Accessories	
NM-AIC-64	Alarm monitoring and control network module
Circuit Emulation over IP (CEoIP) Network Modules	
NM-CEM-4SER	4-port serial CEoIP network module
NM-CEM-4TE1	4-port T1/E1 CEoIP network module

1. GE = Gigabit Ethernet
2. IMA = inverse multiplexing over ATM
3. FXS = Foreign Exchange Station
4. FXO = Foreign Exchange Office
5. VWIC = voice/WAN interface card
6. PVDM = packet voice digital signal processor (DSP) module
7. DSP = digital signal processor

Packet Voice DSP Modules

[Table 4](#) lists packet voice digital signal processor (DSP) modules for the Cisco 3800 series routers.

Table 4 Packet Voice DSP Modules (PVDMS) for the Cisco 3800 Series Integrated Services Routers

PVDM2-8	8-channel packet fax/voice DSP module
PVDM2-16	16-channel packet fax/voice DSP module
PVDM2-32	32-channel packet fax/voice DSP module
PVDM2-48	48-channel packet fax/voice DSP module
PVDM2-64	64-channel packet fax/voice DSP module

CCSP, the Cisco Square Bridge logo, Follow Me Browsing, and StackWise are trademarks of Cisco Systems, Inc.; Changing the Way We Work, Live, Play, and Learn, and iQuick Study are service marks of Cisco Systems, Inc.; and Access Registrar, Aironet, ASIST, BPX, Catalyst, CCDA, CCDP, CCIE, CCIP, CCNA, CCNP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Cisco Unity, Empowering the Internet Generation, Enterprise/Solver, EtherChannel, EtherFast, EtherSwitch, Fast Step, FormShare, GigaDrive, GigaStack, HomeLink, Internet Quotient, IOS, IP/TV, iQ Expertise, the iQ logo, iQ Net Readiness Scorecard, LightStream, Linksys, MeetingPlace, MGX, the Networkers logo, Networking Academy, Network Registrar, *Packet*, PIX, Post-Routing, Pre-Routing, ProConnect, RateMUX, ScriptShare, SlideCast, SMARTnet, StrataView Plus, SwitchProbe, TeleRouter, The Fastest Way to Increase Your Internet Quotient, TransPath, and VCO are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries.

All other trademarks mentioned in this document or Website are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0501R)

Copyright © 2004 Cisco Systems, Inc. All rights reserved.