

## CISCO 2600 SERIES MODULAR ACCESS ROUTERS, INCLUDING THE CISCO 2600XM MODELS AND THE CISCO 2691

The Cisco® 2600 Series is an award-winning series of modular multiservice access routers, providing flexible LAN and WAN configurations, multiple security options, voice and data integration, and a range of high-performance processors. The wide range of features and interfaces and the flexibility of adding more than 50 modules makes the Cisco 2600 Series the ideal branch-office router for today's and tomorrow's customer requirements.

The Cisco 2600 Series of modular routers includes the Cisco 2612, Cisco 2600XM models, and the Cisco 2691 (see Figure 1). These models deliver extended performance, high density, enhanced security performance, and concurrent application support to meet the growing demands of branch offices. In addition, numerous Cisco 2600 Series product bundles have been introduced (Refer to Table 9). These bundles offer an additional cost savings and provide easy ordering to meet branch-office requirements.

Figure 1. Cisco 2600 Series Modular Access Routers



### PRODUCT OVERVIEW

#### Cisco 2600 Series Modular Access Routers: Introduction

As companies grow, the diversity of protocols, increased performance, LAN media, WAN services, and networking equipment required to support mission-critical network services expand dramatically. With extensive support for multiprotocol data routing, voice and data integration, DSL access, ATM, dial access services, and integrated switching, the Cisco 2600 Series provides a flexible, scalable, integrated solution that simplifies the process of deploying and managing the branch-office network solutions.

The Cisco 2600 Series offers a comprehensive feature set ideal for solutions requiring the following support:

- Multiservice voice and data integration
- VPN access with firewall and encryption options
- Analog dial access services
- Routing with bandwidth management
- Inter-VLAN routing

- Delivery of high-speed business-class DSL access
- Cost-effective ATM access
- Integration of flexible routing and low-density switching
- Integration of content networking
- Integration of intrusion detection systems (IDSs)
- Integration of network analysis systems

The foundations of these solutions are the Cisco IOS® Software elements of security, availability, quality of service (QoS), manageability, and integration. Combined, these features support the delivery of distributed intelligence that extends to the branch office. By delivering powerful business tools and applications to the branch, enterprises can realize the business benefits of increased productivity, cost reductions, and scalable exchange of information.

The modular architecture of the Cisco 2600 Series allows interfaces to be upgraded to accommodate network expansion or changes in technology as new services and applications are deployed. Modular interfaces are shared with the Cisco 1700 and Cisco 3700 series, providing unrivaled investment protection and reducing the complexity of managing the remote network solution by integrating the functions of multiple, separate devices into a single, compact unit. Network modules available for the Cisco 2600 and Cisco 3700 series support a broad range of applications, including multiservice voice and data integration, integrated switching, analog and ISDN dial access, and serial device concentration.

The integration of field-installable advanced integration modules (AIMs) enhances the performance of the Cisco 2600 Series by offloading processor-intensive functions onto a dedicated coprocessor while preserving external interface slots for other applications. A variety of AIMs are currently supported on all Cisco 2600 and Cisco 3700 series routers, providing high-performance, hardware-assisted data compression, data encryption, ATM, and digital-signal-processor (DSP) functions for up to 30 digital voice channels.

Cisco Systems® delivers enterprise- and provider-class versatility, integration, and power to branch offices with the Cisco 2600 Series of modular access routers. The Cisco 2600XM models and the Cisco 2691, they provide a high degree of performance, service density, and flexibility to address evolving branch-office requirements.

### **Cisco 2600 Series Modular Access Routers: Overview**

Driven by a powerful CPU processor along with high-performance DSPs and auxiliary processors on various interfaces, the Cisco 2600 Series supports the advanced QoS, security, and network integration features required in today's evolving branch offices (see Table 1).

Each of the Cisco 2610XM through Cisco 2651XM supports one network module slot, two WAN interface card (WIC) slots, and one AIM slot. One network module slot is provided on the Cisco 2691, offering the same format as the Cisco 2600XM Series of routers, but the Cisco 2691 also includes one additional WIC and AIM slot for applications that require increased service requirements. These slots share more than 50 different modules across three Cisco product lines—the Cisco 1700 Series, the Cisco 2600 Series, and the Cisco 3700 Series.

**Table 1.** Platform Overview

Platform	Network Modules	AIMs	WICs	Fixed LAN Ports	Performance (up to kpps)	DRAM (default MB/maximum MB)	Flash Memory (default MB/maximum MB)	Included Cisco IOS Software Feature Set
<b>Cisco 2610XM and Cisco 2611XM</b>	1	1	2	1 Fast Ethernet/2 Fast Ethernet	20	128/256	32/48	Cisco IOS Software IP Base
<b>Cisco 2612</b>	1	1	2	1 Token Ring/1 Ethernet	15	32/64	8/16	Cisco IOS Software IP Base
<b>Cisco 2620XM and Cisco 2621XM</b>	1	1	2	1 Fast Ethernet/2 Fast Ethernet	30	128/256	32/48	Cisco IOS Software IP Base
<b>Cisco 2650XM and Cisco 2651XM</b>	1	1	2	1 Fast Ethernet/2 Fast Ethernet	40	256/256	32/48	Cisco IOS Software IP Base
<b>Cisco 2691</b>	1	2	3	2 Fast Ethernet	70	256/256	32/128	Cisco IOS Software IP Base

**KEY FEATURES AND BENEFITS**

The Cisco 2600 Series supports a wide range of performance and scalability for branch-office networking solutions, allowing businesses to extend a cost-effective, transparent network infrastructure to the branch office with the following benefits:

- *Investment protection*—Support for field-upgradable, modular components on the Cisco 2600 Series allows customers to easily change network interfaces without a complete system upgrade of the entire branch-office network. The AIM slot(s) further protects investments by offering the expandability to support advanced services such as hardware-assisted data compression, data encryption, ATM data and voice access, or DSP digital voice applications.
- *Lower cost of ownership*—By integrating the functions of switches, channel service units (CSUs), data service units (DSUs), ISDN Network Termination 1 (NT1) devices, firewalls, modems, compression or encryption devices, and other equipment found in branch-office wiring closets in a single, compact unit, the Cisco 2600 Series provides a space-saving solution that is more manageable.
- *Integrated flexible routing and low-density switching*—With support of an optional 16-port 10/100 Cisco EtherSwitch® Network Module, branch offices can take advantage of the flexibility of integrated routing and switching functions in one unit for low port densities. This offers high-speed connections between individual desktops, servers, and other network resources in a single unit for Layer 2 and allows WAN connection at Layer 3 through the router. An optional external power chassis provides in-line power to IP phones and to Cisco Aironet® 802.11 base stations.

- *Integration of content networking and branch-office routing*—With the integration of an optional content-engine network module with branch-office routing, Cisco offers the industry’s first and only router-integrated content-delivery system. Combining intelligent caching, content routing, and management with robust branch-office routing, WAN bandwidth is conserved for important branch IP services such as voice over IP (VoIP), while simplifying configuration, deployment, and operations.
- *Voice and data integration*—Cisco offers the industry’s broadest, most scalable multiservice voice and data integration solution set. The Cisco 2600 Series allows network managers to provide scalable analog and digital telephony without investing in a one-time solution, giving enterprises greater control of their converged telephony needs. Using the voice and fax modules, the Cisco 2600 Series may be deployed in both VoIP and voice-over-Frame Relay (VoFR) networks. The packet voice trunk network module supports up to 60 simultaneous voice calls as well as supporting routing and other services. When used with the ATM AIM, voice over ATM (VoATM) using ATM Adaption Layer 2 (AAL2) or AAL5 can be deployed.
- *Enterprise and provider-class solution*—This solution meets the requirements of multiservice enterprises and their managed service customer-premises-equipment (CPE) providers with high-reliability features, multiple WAN connections, and the ability to migrate from data-only to time-division multiplexing (TDM) voice and from data to packetized voice and data infrastructure.
- *Security*—With the integration of optional VPN modules, Cisco IOS Software-based firewalls and Intrusion Prevention System (IPS), content-engine network modules, or intrusion detection network modules, Cisco offers the industry’s most robust and adaptable security solution for branch-office routers. VPN modules can be used to provide up to 10 times the performance over software-only encryption. Additionally, the new Cisco Intrusion Detection System Network Module allows decryption, tunnel termination, and traffic inspection at the first point of entry into the network while freeing the router CPU from process-intensive IDS tasks.
- *Business-class DSL connectivity*—With the WIC-ADSL, WIC-1ADSL-I-DG, WIC-1ADSL-DG, WIC-1SHDSL, and WIC-1SHDSL-V2 modules added to the Cisco 2600 Series offers a broad range of business-class broadband options with scalable performance, flexibility, and security for branch and regional offices. The Cisco 2600 Series provides an ideal solution for a variety of businesses requiring high-speed business-class DSL connectivity on a secure, high-performance modular platform.
- *Increased memory capacity on Cisco 2600XMs*—The memory capacity of the Cisco 2600XM platforms can now be increased to 256 MB of synchronous dynamic RAM (SDRAM) using a new 128-MB SDRAM dual in-line memory module (DIMM). This new 128-MB DIMM offers higher-density memory, providing the ability to support memory increases to 256 MB of DRAM (with the correct ROMmon).

The Cisco 2600 Series brings a cost-effective combination of versatility, integration, and increased performance to remote branch offices with the key features listed in Table 2.

**Table 2.** Cisco 2600 Series Benefits

Feature	Benefit
<b>Versatility and Investment Protection</b>	
<i>Modular Architecture that Shares Interfaces with Cisco 1700 and Cisco 3700 Series Routers</i>	<ul style="list-style-type: none"> <li>• Network interfaces are field-upgradeable to accommodate future technologies.</li> <li>• Additional services can be added on an “integrate as you grow” basis.</li> <li>• This architecture takes advantage of the large existing portfolio of WICs, virtual interface cards (VICs), network modules, and AIMS shared across platforms to reduce sparing, training, configuration and installation, and maintenance costs.</li> </ul>

Feature	Benefit
<i>LAN and WAN Connectivity Integrated into Chassis</i>	<ul style="list-style-type: none"> <li>• Voice and WIC support can be used for WAN (data-only) connectivity and then redeployed to support channelized voice and data or packet voice applications.</li> <li>• The Cisco 2600 Series offers integrated 10/100 Ethernet ports on most platforms.</li> <li>• A combination of AIMs and WICs along with network modules provides greater flexibility to create new configurations as requirements change.</li> </ul>
<i>Flexible IP Telephony and Voice Gateway Configurations</i>	<ul style="list-style-type: none"> <li>• The Cisco 2600 Series helps enable incremental migration from TDM infrastructure to IP telephony.</li> <li>• Support for optional embedded call processing using Cisco CME for up to 72 IP Phones.</li> <li>• Support for up to a 100 mailboxes using the Cisco Unity® Express voice messaging system is possible with the integration of an optional voice-mail AIM or network module.</li> <li>• The Cisco 2600 Series is compatible with over 90 percent of the world's TDM private branch exchanges (PBXs).</li> <li>• The Cisco 2600 Series offers configuration options for higher density and mixed analog and digital gateway configurations.</li> <li>• New voice gateway bundles include the features needed for immediate integration of voice and data.</li> </ul>
<i>AIM Slot</i>	<ul style="list-style-type: none"> <li>• The architecture is expandable for integration of advanced services such as hardware-assisted data compression, encryption, voice, and ATM.</li> <li>• The Cisco 2600 Series maximizes performance by offloading processor-intensive applications to a coprocessor.</li> <li>• The AIM slot provides expanded services, freeing the network module slot for other applications.</li> </ul>
<i>DC Power Supply Option Platforms</i>	<ul style="list-style-type: none"> <li>• This platform allows deployment in DC power environments such as telecommunications carrier central offices.</li> </ul>
<b>Enterprise and Managed Service CPE-Class Performance</b>	
<i>High-Performance Architecture</i>	<ul style="list-style-type: none"> <li>• The Cisco 2600 Series offers support for advanced QoS features such as the Resource Reservation Protocol (RSVP), Weighted Fair Queuing (WFQ), and IP Precedence to reduce recurring WAN costs.</li> <li>• The Cisco 2600 Series offers support for cost-effective, software-based data compression and data encryption.</li> <li>• Integration of traditional networks is accomplished with data-link switching plus (DLSW+) and Advanced Peer-to-Peer Networking (APPN).</li> <li>• High-speed routing performance of up to 70,000 packets per second offers maximum scalability to support more concurrent functions (Cisco 2691).</li> </ul>

Feature	Benefit
<i>Security</i>	<ul style="list-style-type: none"> <li>• Cisco IOS Firewall feature sets provide support for advanced security features such as Context-Based Access Control (CBAC), Java blocking, denial-of-service protection, intrusion prevention, and audit trails.</li> <li>• Network Admission Control (NAC) support provides Anti-virus protection and is available with an optional upgrade to a Cisco IOS Security image.</li> <li>• The high-performance architecture helps enable security features such as data encryption, tunneling, and user authentication and authorization for VPN access.</li> <li>• The Cisco 2600 Series supports the Advanced Encryption Standard (AES).</li> <li>• The Cisco 2600 Series offers optional encryption AIMs, providing up to 80 Mbps of encryption performance.</li> <li>• URL filtering is available onboard with an optional content-engine network module or externally with a PC server running URL filtering software working in conjunction with IOS.</li> <li>• Support for the Cisco Router and Security Device Manager (SDM) provides support faster and easier deployment of security and WAN access features.</li> <li>• An optional IDS network module is available that is capable of monitoring up to.</li> <li>• 45 Mbps of traffic and has support for over 1000 intrusion prevention signatures.</li> </ul>
<i>Cisco IOS Software</i>	<ul style="list-style-type: none"> <li>• The Cisco 2600 Series supports common Cisco IOS Software feature sets as used on the Cisco 2600 and Cisco 3700 routers.</li> <li>• New releases of Cisco IOS Software add support for new services and applications.</li> <li>• The Cisco 2600 Series helps enable end-to-end solution support for Cisco IOS Software-based QoS and security mechanisms.</li> <li>• A full range of VoIP and security and routing features is available.</li> </ul>
<b>Reliability</b>	
<i>Support for Optional Redundant Power</i>	<ul style="list-style-type: none"> <li>• The Cisco 2600 Series accommodates an optional redundant power supply and minimizes network downtime.</li> <li>• The redundant power supply can be shared with other network components such as the Cisco Catalyst® 2950 Series to protect the network from downtime due to power failures.</li> </ul>
<i>Survivable Remote Site Telephony</i>	<ul style="list-style-type: none"> <li>• The Cisco 2600 Series helps enable branch offices to take advantage of centralized voice applications while cost-effectively providing backup redundancy.</li> </ul>
<i>Dial-on-Demand Routing</i>	<ul style="list-style-type: none"> <li>• The Cisco 2600 Series allows automatic backup of WAN connection in case of a primary link failure.</li> </ul>
<b>QoS</b>	
<i>Full Support for Cisco IOS Software-Based QoS Mechanisms</i>	<ul style="list-style-type: none"> <li>• The Cisco 2600 Series allows enhanced use of network resources and guarantees quality, reliability, and efficiency in voice and data service delivery.</li> </ul>

Feature	Benefit
<b>Simplified Management</b>	
<i>Cisco Router and Security Device Manager (SDM)</i>	<ul style="list-style-type: none"> <li>The Cisco SDM is an intuitive, easy-to-use, Web-based device management tool embedded within the Cisco IOS Software access routers. The Cisco SDM helps enable resellers and customers to quickly and easily deploy, configure, and monitor a Cisco access router without requiring knowledge of the Cisco IOS Command-Line Interface (CLI).</li> </ul>
<i>Integrated CSU and DSU, Add/Drop Multiplexers, Analog Modems, and NTI Options</i>	<ul style="list-style-type: none"> <li>This integration helps enable remote management of all CPE elements for higher network availability and lower operational costs.</li> </ul>
<i>Enhanced Setup Feature</i>	<ul style="list-style-type: none"> <li>Context-sensitive questions guide the user through the router configuration process, allowing faster deployment.</li> </ul>
<i>Support for Cisco AutoInstall</i>	<ul style="list-style-type: none"> <li>Remote routers are configured automatically across a WAN connection to save the cost of sending technical staff to the remote site.</li> </ul>
<i>VLAN Support</i>	<ul style="list-style-type: none"> <li>VLAN support enables inter-VLAN routing with the Cisco Inter-Switch Link (ISL) protocol and 802.1Q.</li> </ul>

### Cisco 2600 Series Hardware and Software Options

Cisco 2600 Series routers offer a choice of Ethernet, Token Ring, and autosensing 10/100 Ethernet LAN interfaces. In addition, depending on the model, one network module slot, two or three WIC slots, and one or two AIM slots as well as one 115.2-kbps console port and one 115.2-kbps auxiliary asynchronous port are offered.

### Network Module Options

Network modules help enable the Cisco 2600 Series to be customized to meet the needs of virtually any branch office. These modules support a broad range of applications, including multiservice voice and data integration, analog and ISDN dial access, ATM access, integration of low-density switching, IDSs, content networking, and serial device concentration (refer to Table 5 for the complete list of supported network modules for the Cisco 2600 Series). Other advantages of the network module are to provide integrated services onto one platform for greater management of services and ease of operations. By offering network modules such as the Cisco EtherSwitch Network Module, content engine, network analysis, and intrusion detection network modules, more services are integrated onto a single platform. These modules provide the advantage of integrating switching, content networking, or intrusion detection with routing onto one platform for greater management and ease of operation.

The Cisco 16-Port 10/100 EtherSwitch Network Module combines robust Layer 3 flexible WAN routing with low-density line-rate Layer 2 switching, providing straightforward configuration, easy deployment, and integrated management in a single platform (see Figure 2). The Cisco EtherSwitch modules use the powerful features available in both Cisco IOS Software and Cisco Catalyst switching, with hardware supporting 802.1p Layer 2 prioritization, while Cisco IOS Software supports Layer 3 Differentiated Services (DiffServ) and class-of-service (CoS) markings for critical business data.

**Figure 2.** Cisco 16-Port EtherSwitch Network Module



Cisco content-engine network modules offer the industry's first and only router-integrated content-delivery system (see Figure 3). Combining intelligent caching, content routing, and management with robust branch-office routing conserves WAN bandwidth for important branch IP services such as VoIP, while simplifying configuration, deployment, and operation.

**Figure 3.** Cisco Content Engine Network Modules



The Cisco IDS Network Module is part of the Cisco integrated IDS network security solutions that help enable organizations to protect assets and reduce operating costs (see Figure 4).

The Cisco IDS Network Module is an integrated network module that delivers full-featured intrusion protection. The network module runs the latest Cisco IDS Sensor Software and is at feature and function parity with the Cisco IDS Sensor portfolio. For the first time you can now locate IDS as an integral part of the branch-office router, and monitor traffic from all interfaces on that router. If VPN generic routing encapsulation (GRE) and IP Security (IPSec) tunnels are terminating at the router, the module can monitor the decrypted traffic through collaboration with IPSec VPN and GRE traffic-an industry first in VPN deployments. The network module can be deployed at branch offices and used to protect branch-office networks, thereby isolating threats from the corporate site.



**Figure 4.** Cisco IDS Network Module



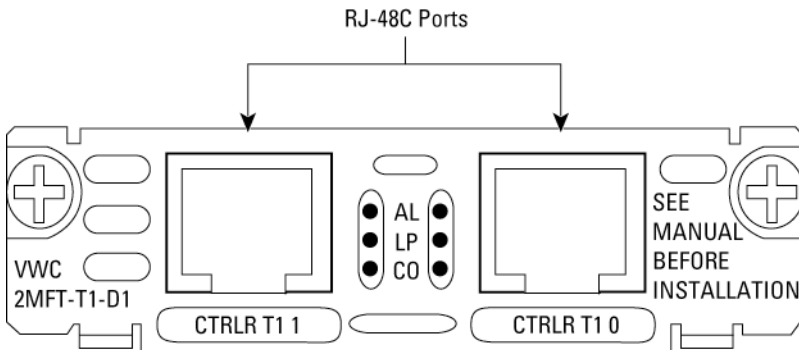
The Cisco Network Analysis Module (NAM) addresses the need for multiservice network management and traffic monitoring in enterprise branch offices. The Cisco 2600, Cisco 3660, and Cisco 3700 series NAM is an integrated traffic-monitoring network module that helps enable network managers to gain application level visibility into network traffic with the ultimate goal of improving performance, reducing failures, and maximizing return on network investments. The Cisco 2600, Cisco 3660, and Cisco 3700 series NAM expands the Cisco NAM solution currently available for Cisco Catalyst 6500 Series switches and Cisco 7600 Series routers. Cisco NAMs give network managers visibility into all layers of network traffic by providing application level Remote Monitoring (RMON) functions based on RMON2 and other advanced MIBs. They provide intelligence to analyze traffic flows for applications, hosts, conversations, and network-based services such as QoS and VoIP. Cisco NAMs come with an embedded, Web-based traffic analyzer, which provides full-scale RMON and troubleshooting capabilities that are accessible through a Web browser.

#### **Multiflex Voice/WAN Interface Card and WIC Options**

The Cisco 2600 Series WIC slots supports 20 interface cards with the introduction of the 1-port xDSL and 1- or 2-port analog modem WICs. The Cisco 2600 Series of modular routers support both asymmetric DSL (ADSL) and the G.shdsl WICs. These offerings bring high-speed business-class broadband service to the award-winning Cisco 2600 Series of multiservice routers. Now small and medium-sized businesses (SMBs), enterprise branch offices, and service provider-managed service users can take advantage of a highly flexible and scalable solution for data-only or voice and data integration, with secure VPN options.

The single- and dual-port multiflex voice/WAN interface cards (VWICs) combine WIC and VIC functions to provide unparalleled flexibility, versatility, and investment protection. Supporting up to T1 and E1 rates with integrated T1 CSUs and DSUs or E1 DSUs, the multiflex VWICs can be used in data-only, channelized (drop and insert) voice and data integration applications, as well as packet voice and data connections to a PBX or the Public Switched Telephone Network (PSTN). (Packet voice requires the use of the high-density voice trunk network module.) Unlike traditional multibox voice and data components, when used in a Cisco 2600 or Cisco 3700, the T1/E1 multiflex VWICs deliver a single-box voice and data platform that provides a graceful migration from data only to channelized voice and data, to packet voice and data. (Refer to Table 6 for the complete list of supported VWIC modules for the Cisco 2600 Series.)

**Figure 5.** Dual-Port Multiflex T1 VVIC with Drop and Insert



The dual-port serial WICs feature the new Cisco compact, high-density smart serial connector to support a wide variety of electrical interfaces when used with the appropriate transition cables. Ports on each card can be configured individually to support a variety of synchronous or asynchronous protocols.

### AIM Options

All Cisco 2600 Series routers are equipped with an internal slot to support one or two field-installable AIMs. AIMs use function-specific hardware to offload the main router CPU and accelerate processor- or resource-intensive services, yielding dramatically higher throughput and higher performance than a software-only implementation. The AIM slot has access to virtually all of the router resources, including the main system bus. The TDM bus and the serial communications controllers make this a very flexible and powerful feature. Because the AIM is internally mounted, external slots remain available for integration of other modular components such as CSUs and DSUs, WAN interfaces, or other devices such as modems or packetized voice and fax processors.

For example, the data encryption AIM offloads encryption processing from the Cisco 2600 Series CPU, providing 10 times the performance over software-only encryption. The AIM-VPN/BPII, new AIM-VPN/BPII\_PLUS-PLUS, AIM-VPN/EPII, and new AIM-VPN/EPII\_PLUS-PLUS support a maximum number of 800 remote access tunnels when using the Cisco 2600 models. These modules offer hardware-accelerated Digital Encryption Standard (DES) and Triple DES (3DES) and the new AES encryption at speeds up to 80-Mbps performance (maximum based on 1400-byte packet size). In addition, these modules support hardware-assisted Layer 3 compression services, allowing bandwidth conservation for lower network connection costs, with the new AIM-VPN/BPII\_PLUS-PLUS and AIM-VPN/EPII\_PLUS-PLUS providing cryptographic-optimized wide key AES support (192 and 256).

**Figure 6.** EPII-PLUS Encryption AIM



The AIM ATM provides a high-performance hardware-based ATM access solution for one to four T1 or E1 connections supported by the T1 or E1 VWICs (for example, VWIC-1MFT-T1). This frees the network module slot to support other functions. When used in combination with a high-density voice network module (part number NM-HDV-xxx), the ATM AIM supports AAL2 and AAL5 VoATM. In addition, the AIM-VOICE-30 and AIM-ATM-VOICE-30 AIMS provides a cost-effective solution for supporting voice services or digital voice over ATM (AAL2 and AAL5) support, without the use of a network module. (Refer to Table 7 for the complete list of supported AIM modules for the Cisco 2600 Series.)

#### **CISCO IOS SOFTWARE FEATURE AVAILABILITY**

The Cisco 2600 Series offers a wide range of Cisco IOS Software features. This includes a variety of intranet, multiprotocol, QoS, and security applications in use today. Beginning in Release 12.3 Mainline, the Cisco 2600 Series feature sets have been condensed into eight cross-platform feature sets and up to nine additional special-purpose feature sets.

The cross-platform feature sets include the following:

- IP Base
- IP Voice
- Enterprise Base
- Enterprise Services
- Advanced IP Services
- Advanced Enterprise Services
- SP Services
- Advanced Security

The following special-purpose feature sets are offered in addition:

- Enterprise/Enterprise Cisco Systems SNA Switching Services (SNASw) Plus IPSec 3DES
- Enterprise/SNASw Plus
- Enterprise Services
- Enterprise Plus/H.323 Multimedia Conference Manager (MCM)
- Enterprise Service Selection Gateway (SSG) (Cisco 2650 and Cisco 2651XM only)

- Voice IP to IP Voice Gateway (Cisco 2600XM only)
- Voice IP to IP Voice Gateway IPSec 3DES (Cisco 2600XM only)
- IP/H.323
- Telco Feature Set (Cisco 2600XM only)
- Remote Access Server
- INT VOICE/VIDEO, IPIP GW, TDMIP GW
- INT VOICE/VIDEO, IPIPGW, TDMIP GW AES

Cisco IOS Software Release 12.3 Mainline and prior releases contain a traditional set of features sets, including IP, IP Plus, Enterprise, and many others.

A more detailed list of features and memory requirements for specific feature sets by release can be found in the Cisco IOS Software release notes for the Cisco 2600 Series.

## SUMMARY AND CONCLUSION

The Cisco 2600 Series modular routers extend the versatility, integration, and power to corporate branch offices by providing more performance and increased density for multiple applications. Companies can consolidate the functions of multiple, separate devices into a single, compact package that can be managed remotely. Because the Cisco 2600 Series is modular, interface configurations are easily customized to accommodate a wide variety of network applications, such as branch-office data access, integrated switching, multiservice voice and data integration, dial access services, VPN access and firewall protection, inter-VLAN routing, and serial device concentration. The Cisco 2600 Series is ideal for sites and solutions that require the highest levels of integration at the edge for branch-office IP telephony, voice gateway, and integrated, flexible routing with low-density switching solutions.

## PRODUCT SPECIFICATIONS

The Cisco 2600 Series provides unparalleled flexibility and port density options for branch offices. Table 3 highlights a few of the Cisco 2600 configuration possibilities.

**Table 3.** Maximum Cisco 2600 Port Densities

Application	Cisco 2612	Cisco 2610-51XM	Cisco 2691
<b>Simultaneous Voice Calls as a Standalone Voice Gateway</b>	Up to 48 digital <sup>(1)</sup>	Up to 90 digital <sup>(1)</sup>	120 digital
	2 to 16 analog	2 to 16 analog	16 analog
<b>T1/E1 Connections (including ATM)</b>	8	8	10
<b>Integrated Analog Modems</b>	20	20	22
<b>ISDN Primary Rate Interface (PRI) (B channels)</b>	64	64	64
<b>ISDN Basic Rate Interface (BRI)</b>	12	12	14
<b>Asynchronous Serial</b>	37	37	39
<b>Synchronous Serial</b>	12	20	22

Application	Cisco 2612	Cisco 2610-51XM	Cisco 2691
DSL Connections	4	4	5
Cisco EtherSwitch Ports	16	16	16
Token Ring Ports	1	0	1
Gig Ethernet Ports	0	0	1

(1) Requires a Cisco 2650XM for 90 channels

**Table 4.** Cisco 2600 Series System Specifications

Cisco 2600 Series Models	Cisco 2612	Cisco 2610 and Cisco 2611XM	Cisco 2620 and Cisco 2621XM	Cisco 2650 and Cisco 2651XM	Cisco 2691
Flash Memory (default/maximum)	8 MB/16 MB	32 MB/48 MB	32 MB/48 MB	32 MB/48 MB	32 MB/128 MB (Compact Flash memory)
System Memory (default/maximum)	32 MB/64 MB	128 MB/256 MB	128 MB/256 MB	256 MB/256 MB	256 MB/256 MB
Integrated WIC Slots	2	2	2	2	3
Onboard AIM (internal) Slot	1	1	1	1	2
Console Port (up to 115.2 kbps)	1	1	1	1	1
Auxiliary Port (up to 115.2 kbps)	1	1	1	1	1
Minimum Cisco IOS Software Release	12.0 Mainline	12.1(14) Mainline, 12.2(12) Mainline, 12.2(8)T1, or later	12.1(14) Mainline, 12.2(12) Mainline, 12.2(8)T1, or later	12.1(14) Mainline, 12.2(12) Mainline, 12.2(8)T1, or later	12.2(8)T1 or later
Onboard LAN Ports	1 Ethernet and 1 Token Ring port	1 to 2 10/100 Fast Ethernet ports	1 to 2 10/100 Fast Ethernet ports	1 to 2 10/100 Fast Ethernet ports	2 10/100 Fast Ethernet ports
Redundant Power Supply	External only	External only	External only	External only	External only
Rack-Mounting	Yes, 19- and 23-in. options	Yes, 19- and 23-in. options	Yes, 19- and 23-in. options	Yes, 19- and 23-in. options	Yes, 19- and 23-in. options
Wall Mounting	Yes	Yes	Yes	Yes	No
Power Supply	50W maximum (+5V, +12V, -12V) AC power supply	50W maximum (+5V, +12V, -12V) AC power supply	50W maximum (+5V, +12V, -12V) AC power supply	50W maximum (+5V, +12V, -12V) AC power supply	105W maximum (+5V, +3.3V, +12V, -12V) AC power supply

Cisco 2600 Series Models	Cisco 2612	Cisco 2610 and Cisco 2611XM	Cisco 2620 and Cisco 2621XM	Cisco 2650 and Cisco 2651XM	Cisco 2691
<b>Power Output</b>	5V @ 9.5A, 12V @ 1.20A, -12V @ 0.5A	5V @ 9.5A, 12V @ 1.20A, -12V @ 0.5A	5V @ 9.5A, 12V @ 1.20A, -12V @ 0.5A	5V @ 9.5A, 12V @ 1.20A, -12V @ 0.5A	5V @ 15A, 3.3V @ 12A, 12V @ 5A, -12V @ 2A
<b>AC Input Voltage</b>	100-240 VAC	100-240 VAC	100-240 VAC	100-240 VAC	100-240 VAC
<b>AC Input Current</b>	1.5A	1.5A	1.5A	1.5A	2A max @ 100 VAC; 1A max @ 240 VAC
<b>AC Frequency</b>	47-63 Hz	47-63 Hz	47-63 Hz	47-63 Hz	47-63 Hz
<b>DC Input Voltage</b>	-38 to -75 VDC	-38 to -75 VDC	-38 to -75 VDC	-38 to -75 VDC	-18 to -75 VDC
<b>DC Input Current</b>	2.0A	2.0A	2.0A	2.0A	8A @ 24 VDC
<b>Power Dissipation</b>	75W (max), 260 Btus/hr	75W (max), 260 Btus/hr	75W (max), 260 Btus/hr	75W (max), 260 Btus/hr	215W (max), 745 Btus/hr
<b>Operating Temperature</b>	32° to 104°F (0 to 40°C)	32° to 104°F (0 to 40°C)	32° to 104°F (0 to 40°C)	32° to 104°F (0 to 40°C)	32° to 104°F (0 to 40°C)
<b>Nonoperating Temperature</b>	-40° to 158°F (-40° to 70°C)	-40° to 158°F (-40° to 70°C)	-40° to 158°F (-40° to 70°C)	-40° to 158°F (-40° to 70°C)	-40° to 158°F (-40° to 70°C)
<b>Relative Humidity Noncondensing</b>	5–95 percent	5–95 percent	5–95 percent	5–95 percent	5–95 percent
<b>Operation Altitude (derate 1°C per 1000 ft)</b>	Up to 6500 ft (2000m) @ 40°C	Up to 6500 ft (2000m) @ 40°C	Up to 6500 ft (2000m) @ 40°C	Up to 6500 ft (2000m) @ 40°C	Up to 6500 ft (2000m) @ 40°C
<b>Dimensions (H x W x D)</b>	1.69 x 17.5 x 11.8 in. (4.3 x 44.5 x 30 cm)	1.69 x 17.5 x 11.8 in. (4.3 x 44.5 x 30 cm)	1.69 x 17.5 x 11.8 in. (4.3 x 44.5 x 30 cm)	1.69 x 17.5 x 11.8 in. (4.3 x 44.5 x 30 cm)	3.50 x 17.1 x 11.10 in. (8.8 x 43.4 x 27.9 cm)
<b>Rack Height</b>	1 rack unit (RU)	1RU	1RU	1RU	2RU
<b>Weight (minimum)</b>	8.85 lb (4.66 kg)	8.85 lb (4.66 kg)	8.85 lb (4.66 kg)	8.85 lb (4.66 kg)	15 lb (6.80 kg)
<b>Noise Level (minimum)</b>	38 dbA	38 dbA	38 dbA	38 dbA	45 dbA
<b>Safety-Regulatory Compliance</b>	The Cisco 2600 Series conforms to numerous safety, EMI, immunity, and network homologation standards. Additional details can be obtained through your Cisco reseller or account manager.				

**Table 5.** Cisco 2600 Series Network Modules

Product Number	Description	Cisco 2612	Cisco 2600XM	Cisco 2691
<b>Serial and ATM Network Modules (requires Cisco IOS Software Release 11.3(3)T or later)</b>				
NM-4T1-ATM <sup>(1),(2)</sup>	4-port T1 ATM with inverse multiplexing over ATM (IMA) network module	X	X	X
NM-4E1-ATM <sup>(1),(2)</sup>	4-port E1 ATM with IMA network module	X	X	X
NM-8T1-ATM <sup>(1),(2)</sup>	8-port T1 ATM with IMA network module	X	X	X
NM-8E1-ATM <sup>(1),(2)</sup>	8-port E1 ATM with IMA network module	X	X	X
NM-1A-OC3MM	Single-port ATM OC-3 multimode network module (up to 2 km)			X
NM-1A-OC3MI	Single-port ATM OC-3 single-mode intermediate-reach network module (up to 15 km)			X
NM-1A-OC3ML	Single-port ATM OC-3 single-mode long-reach network module (up to 45 km)			X
NM-1A-T3 <sup>(1),(4)</sup>	1-port DS-3 ATM network module	X	X	X
NM-1A-E3 <sup>(1),(4)</sup>	1-port E3 ATM network module	X	X	X
NM-16A	16-port high-density asynchronous (async) network module	X	X	X
NM-32A	32-port high-density async network module	X	X	X
NM-4A/S	4-port low-speed (128-kbps max) async/synchronous (sync) serial network module	X	X	X
NM-8A/S	8-port low-speed (128-kbps max) async/sync serial network module	X	X	X
NM-16A/S	16-port async/sync serial network module		X	X
NM-4T	4-port serial network module			X
<b>LAN and WAN Network Modules</b>				
NM-2FE2W	2 10/100 Ethernet 2 WAN card slot network module			X
NM-1FE2W	1 10/100 Ethernet 2 WAN card slot network module			X
NM-2FE2W-V2	2 Port 10/100 Ethernet with 2 WAN Card Slot Network			X
NM-1FE2W-V2	1 10/100 Ethernet with 2 WAN card Slot Network			X
NM-1FE1R2W	1 10/100 Ethernet 14/16 Token Ring 2 WAN card slot network module			X
NM-1FE-FX	1-port Fast Ethernet network module, FX only			X

Product Number	Description	Cisco 2612	Cisco 2600XM	Cisco 2691
NM-1FE-FX-V2	1-port Fast Ethernet network module, FX only			X
NM-2W	2 WIC slot network module, (WAN I/F cards offered separately)	X	X	X
NM-1E	1-port Ethernet network module	X	X	
NM-4E	4-port Ethernet network module	X	X	
NM-1ATM-25	1-port ATM 25-Mbps network module	X	X	
NM-1GE	1-port Gigabit Ethernet network module			X
NM-1T3/E3 <sup>(12)</sup>	1-port Clear Channel		X	X
NM-CEM-4TE1	4-port T1/E1 circuit emulation over IP network module		X	X
NM-CEM-4SER	4-port serial circuit emulation over IP network module		X	X
<b>Dial, ISDN, Analog Modems, and Channel Serial Network Module (Cisco IOS Software Release 11.3 (4) T or later)</b>				
NM-1CE1T1-PRI	1-port Channelized E1/T1/ISDN PRI network module		X	X
NM-2CE1T1-PRI	2-port Channelized E1/T1/ISDN PRI network module		X	X
NM-1CT1	1-port Channelized T1/ISDN PRI network module	X	X	X
NM-1CT1-CSU	1-port Channelized T1/ISDN PRI with CSU network module	X	X	X
NM-2CT1	2-port Channelized T1/ISDN PRI network module	X	X	X
NM-2CT1-CSU	2-port Channelized T1/ISDN PRI with CSU network module	X	X	X
NM-1CE1B	1-port Channelized E1/ISDN PRI balanced network module	X	X	X
NM-1CE1U	1-port Channelized E1/ISDN PRI unbalanced network module	X	X	X
NM-2CE1B	2-port Channelized E1/ISDN PRI balanced network module	X	X	X
NM-2CE1U	2-port Channelized E1/ISDN PRI unbalanced network module	X	X	X
NM-4B-S/T	4-port ISDN BRI network module (S/T interface)	X	X	X
NM-4B-U	4-port ISDN BRI with NT1 network module (U interface)	X	X	X
NM-8B-S/T	8-port ISDN BRI network module (S/T interface)	X	X	X
NM-8B-U	8-port ISDN BRI with NT1 network module (U interface)	X	X	X
NM-8AM	8-port analog modem network module	X	X	X
NM-16AM	16-port analog modem network module	X	X	X
NM-8AM-V2	8-port analog modem network module with V.92		X	X



Product Number	Description	Cisco 2612	Cisco 2600XM	Cisco 2691
NM-16AM-V2	16-port analog modem network module with V.92		X	X
NM-1HSSI	1-port High-Speed Serial Interface (HSSI) network module			X
<b>Voice and Fax Network Modules</b>				
NM-HDV2	IP Communications high-density digital voice network module		X	X
NM-HDV-	High Density Voice Network Module	X	X	X
NM-HDV2-1T1/E1	IP Communications high-density digital voice network module with 1 T1/E1		X	X
NM-HDV2-2T1/E1	IP Communications high-density digital voice network module with 2 T1/E1		X	X
NM-HDV-1T1-12 <sup>(1),(2)</sup>	12-channel T1 high-density voice and fax network module	X	X	X
NM-HDV-1E1-12 <sup>(1),(3)</sup>	12-channel E1 high-density voice and fax network module	X	X	X
NM-HDV-1T1-24 <sup>(1),(2)</sup>	24-channel T1 high-density voice and fax network module	X	X	X
NM-HDV-1T1-24E <sup>(1),(2)</sup>	24-channel T1 enhanced high-density voice and fax network module	X	X	X
NM-HDV-1E1-30 <sup>(1),(3)</sup>	30-channel E1 high-density voice and fax network module	X	X	X
NM-HDV-1E1-30E <sup>(1),(3)</sup>	30-channel enhanced E1 high-density voice and fax network module	X	X	X
NM-HDV-2T1-48 <sup>(1),(2)</sup>	48-channel T1 high-density voice and fax network module	X	X	X
NM-HDV-2E1-60 <sup>(1),(3)</sup>	60-channel E1 high-density voice and fax network module	X	X	X
NM-1V <sup>(1)</sup>	1-slot voice and fax network module	X	X	X
NM-2V <sup>(1)</sup>	2-slot voice and fax network module	X	X	X
NM-16ESW-PWR <sup>(5)</sup>	Cisco 16-Port 10/100 EtherSwitch Network Module with power card	X	X	X
NM-16ESW-PWR-1GIG(14)	16 port 10/100 EtherSwitch NM with In-Line Power and GE	X	X	X
NM-16ESW <sup>(5)</sup>	Cisco 16-port 10/100 EtherSwitch Network Module	X	X	X
NM-16ESW-1GIG(14)	16 port 10/100 EtherSwitch NM + 1 Gig Port	X	X	X
EM-HDA-8FXS <sup>(5)</sup>	8-port voice and fax expansion module, foreign exchange station (FXS)	X	X	X
NM-HDA-4FXS <sup>(5)</sup>	High-density analog voice and fax network module with 4 FXSs	X	X	X

Product Number	Description	Cisco 2612	Cisco 2600XM	Cisco 2691
EM-HDA-4FXO <sup>(5)</sup>	4-port voice and fax expansion module, foreign exchange office (FXO)	X	X	X
NM-HDV-1J1-30 <sup>(7)</sup>	1-port 30-channel J1 high-density voice network module	X	X	X
NM-HDV-1J1-30E <sup>(7)</sup>	1-port 30-enhanced channel J1 high-density voice network module	X	X	X
NM-HDV-FARM-C36 <sup>(10)</sup>	Network module 36-port DSP farm bundle	X11	X	X
NM-HDV-FARM-C54 <sup>(10)</sup>	Network module 54-port DSP farm bundle	X11	X	X
NM-HDV-FARM-C90 <sup>(10)</sup>	Network module 90-port DSP farm bundle	X11	X	X
NM-HD-1V	1-slot IP Communications voice and fax network module		X	X
NM-HD-2V	2-slot IP Communications voice and fax network module		X	X
NM-HD-2VE	2-slot IP Communications enhanced voice and fax network module		X	X
<b>CUE Network Modules</b>				
NM-CUE	Cisco Unity Express Module		X	X
NM-CUE-EC	Cisco Unity Express Network Module Enhanced Capacity		X	X
<b>Alarm Interface Controller (AIC) Network Module</b>				
NM-AIC-64 <sup>(6)</sup>	Alarm monitoring and control network module; 64 contact points and 16 control points	X	X	X13
<b>IDS Network Modules</b>				
NM-CIDS-K9	Cisco IDS Network Module, 20-GB Integrated Drive Electronics (IDE) hard disk		X	X
<b>Content-Engine Network Modules</b>				
NM-CE-BP-20G-K9 <sup>(9),(10)</sup>	Content-engine network module, basic performance, 20-GB IDE hard disk	X	X	X
NM-CE-BP-40G-K9 <sup>(9),(10)</sup>	Content-engine network module, basic performance, 40-GB IDE hard disk	X	X	X
NM-CE-BP-80G-K9	Content-engine network module, 80-GB IDE hard disk	X	X	X
NM-CE-BP-SCSI-K9 <sup>(9),(10)</sup>	2-port E&M voice and fax interface card for voice and fax network module	X	X	X
<b>Network Analysis Modules</b>				
NM-NAM	Network analysis module		X	X

Product Number	Description	Cisco 2612	Cisco 2600XM	Cisco 2691
<b>VSAT Satellite Module</b>				
NM-1VSAT-GILAT	Cisco IP VSAT Satellite WAN Network Module		X	X

1. The voice and fax and ATM network modules require a Cisco IOS Plus Software feature set
2. Requires Cisco IOS Software Release 12.05XK, 12.07T, 12.1, 12.1T, 12.2, 12.2T, or later
3. Requires Cisco IOS Software Release 12.07XK, 12.12T, 12.2, 12.2T, or later
4. Requires Cisco IOS Software Release 12.1.2T or later
5. Requires Cisco IOS Software Release 12.2(2)XT, 12.2(8)T, or later
6. Requires Cisco IOS Software Release 12.2(2)XG and 12.2(7)T or later
7. Requires Cisco IOS Software Release 12.2(8)T or later
8. Scheduled for future support on the Cisco 2691
9. Requires Cisco IOS Software Release 12.2(11)YT
10. Requires Cisco IOS Software Release 12.2(13)T
11. Available on Cisco 2650 or Cisco 2651 only
12. Available on Cisco 2650XM or Cisco 2651XM only
13. Requires Cisco IOS Software Release 12.3(2)T or later on the Cisco 2691
14. Requires Cisco IOS Software Release 12.2(2)XT, 12.2(8)T or later

**Table 6.** Cisco 2600 Series VWICs (VICs supported for use with the voice and fax network modules.)

Product Number	Description	Cisco 2612	Cisco 2600XM	Cisco 2691
VIC-2BRI-S/T-TE <sup>(1)</sup>	2-port BRI S/T terminal equipment voice and fax interface card for voice and fax network module	X	X	X
VIC-2BRI-NT/TE <sup>(3)</sup>	2-port BRI (NT and TE) voice interface module	X	X	X
VIC2-2BRI-NT/TE	2-port BRI (NT and TE) voice interface module		X	X
VIC-2FXS	2-port FXS voice and fax interface card for voice and fax network module	X	X	X
VIC2-2FXS	Two-port VIC-FXS		X	X
VIC-4FXS/DID	4-port FXS voice and fax interface card (Note: The direct-inward-dialing (DID) feature is not supported at this time.)		X	X
VIC-2FXO-M1 <sup>(2)</sup>	2-port FXO voice and fax interface card for voice and fax network module with calling line identification (caller ID) and supervisory disconnect (North American version and other countries)	X	X	X
VIC-2FXO	2-port FXO voice and fax interface card for voice and fax network module (North American version and other countries)	X	X	X
VIC2-2FXO	2-port VIC-FXO (universal)		X	X
VIC2-4FXO	4-port VIC-FXO (universal)		X	X

Product Number	Description	Cisco 2612	Cisco 2600XM	Cisco 2691
VIC-2FXO-M2 <sup>(2)</sup>	2-port FXO voice and fax interface card with caller ID and supervisory disconnect (Europe version)	X	X	X
VIC-2FXO-EU	2-port FXO voice and fax interface card (Europe version)	X	X	X
VIC-2FXO-M3	2-port FXO voice and fax interface card for Australia	X	X	X
VIC-2E/M	2-port E&M voice and fax interface card for voice and fax network module	X	X	X
VIC2-2E/M	2-port E&M voice and fax interface card for voice and fax network module		X	X
VIC-2DID	2-port DID voice and fax interface card	X	X	X
VIC-2CAMA <sup>(3)</sup>	2-port Centralized Annotated Message Accounting (CAMA) trunk interface card	X	X	X

1. Supported with Cisco IOS 12.0(3)T or later
2. Supported with Cisco IOS 12.1(2)XH or later
3. Supported with Cisco IOS 12.2(11)T or later

**Table 7.** Cisco 2600 Series Multiflex VWANs and WICs

Product Number	Description	Cisco 2612	Cisco 2600XM	Cisco 2691
VWIC-1MFT-T1 <sup>(1)</sup>	1-port T1/fractional T1 multiflex trunk with CSU and DSU	X	X	X
VWIC2-1MFT-T1/E1	1-Port 2nd Gen Multiflex Trunk Voice/WAN Int. Card - T1/E1		X	X
VWIC2-2MFT-T1/E1	2-Port 2nd Gen Multiflex Trunk Voice/WAN Int. Card - T1/E1		X	X
VWIC2-1MFT-G703	1-Port RJ-48 Multiflex Trunk - G.703		X	X
VWIC2-2MFT-G703	2-Port 2nd Gen Multiflex Trunk Voice/WAN Int. Card - G.703		X	X
VWIC-2MFT-T1 <sup>(1)</sup>	2-port T1/fractional T1 multiflex trunk with CSU and DSU	X	X	X
VWIC-2MFT-T1-DI <sup>(1)</sup>	2-port T1/fractional T1 multiflex trunk with CSU and DSU and drop and insert	X	X	X
VWIC-1MFT-E1 <sup>(1)</sup>	1-port E1/fractional E1 multiflex trunk with DSU	X	X	X
VWIC-2MFT-E1 <sup>(1)</sup>	2-port E1/fractional E1 multiflex trunk with DSU	X	X	X

Product Number	Description	Cisco 2612	Cisco 2600XM	Cisco 2691
VWIC-2MFT-E1-DI <sup>(1)</sup>	2-port E1/fractional E1 multiflex trunk with DSU and drop and insert	X	X	X
VWIC-1MFT-G703 <sup>(2)</sup>	1-port G.703 multiflex trunk	X	X	X
VWIC-2MFT-G703 <sup>(2)</sup>	2-port G703 multiflex trunk	X	X	X
WIC-1DSU-T1 <sup>(1),(6)</sup>	T1/fractional T1 CSU and DSU	X	X	X
WIC-1DSU-T1-V2	T1/fractional T1 CSU and DSU (replaces WIC-1DSU-T1)		X	X
WIC-1DSU-56K <sup>(4)</sup>	1-port 4-wire 56- and 64-kbps CSU and DSU	X	X	X
WIC-1T <sup>(6)</sup>	1-port high-speed serial	X	X	X
WIC-2T	2-port high-speed serial	X	X	X
WIC-2A/S	2-port async/sync serial	X	X	X
WIC-1B-S/T	1-port ISDN BRI	X	X	X
WIC-1B-S/T-V3	1-Port ISDN WAN interface card (Dial and leased line)		X	X
WIC-1B-U-V2	1-port ISDN BRI with NT1	X	X	X
WIC-1AM <sup>(5)</sup>	1-port analog modem interface card	X	X	X
WIC-2AM <sup>(5)</sup>	2-port analog modem interface card	X	X	X
WIC-1ADSL <sup>(3)</sup>	1-port ADSL over basic telephone service WAN interface	X	X	X
WIC-1ADSL-DG	1-port ADSL over basic telephone service WAN interface with dying gasp		X	X
WIC-1ADSL-I-DG	1-port ADSL over ISDN WAN interface		X	X
WIC-1SHDSL <sup>(4),(6)</sup>	1-port G.SHDSL WAN interface	X	X	X
WIC-1SHDSL-V2	1-Port G.SHDSL WIC with 4-wire support		X	X
WIC-1SHDSL-V3	One port G.shdsl WIC with 4-wire support		X	X

1. Requires Cisco IOS Software Release 12.0(5)XK or later
2. Requires Cisco IOS Software Release 12.1(1)T or later
3. Requires Cisco IOS Software Release 12.1(5)YB, 12.2(2)XK, 12.2(4)T, or later
4. Requires Cisco IOS Software Release 12.2(4)XL or later
5. Requires Cisco IOS Software Release 12.2(2)XB or later
6. Requires Cisco IOS Software Release 12.2(11)YT or 12.2(13)T or later for Cisco 2691

**Table 8.** Cisco 2600 Series AIMS

Product Number	Description	Cisco 2612	Cisco 2600XM	Cisco 2691
AIM-COMPR2	Data compression AIM for Cisco 2600 Series	X	X	
AIM-COMPR2-V2	8-Mbps compression AIM		X	
AIM-COMPR4 <sup>(2)</sup>	Data compression AIM for Cisco 2691, Cisco 3660, and Cisco 3700 Series			X
AIM-VPN/BP	DES/3DES data VPN encryption AIM for Cisco 2600 Series	X	X	
AIM-VPN/BPII	DES/3DES/AES VPN encryption and compression module for Cisco 2600XM		X	
AIM-VPN/BPII-PLUS	DES/3DES/AES VPN encryption and compression module for Cisco 2600XM		X	
AIM-VPN/EP <sup>(1)</sup>	DES/3DES data VPN encryption AIM for Cisco 2600 Series	X	X	X
AIM-VPN/EPII <sup>(3)</sup>	DES/3DES/AES VPN encryption and compression module for Cisco 2691 and Cisco 3725			X
AIM-VPN/EPII-PLUS	DES/3DES/AES VPN encryption and compression module for Cisco 2691 and Cisco 3725			X
AIM-ATM <sup>(2)</sup>	High-performance ATM AIM	X	X	X
AIM-VOICE-30 <sup>(2)</sup>	30-channel T1/E1 digital voice module (requires Cisco IOS Software Release 12.2(2)XB or later)	X	X	X
AIM-ATM-VOICE-30 <sup>(2)</sup>	ATM segmentation and reassembly (SAR) and 30-channel T1/E1 digital voice module (requires Cisco IOS Software Release 12.2(2)XB or later)	X	X	X
AIM-CUE	Unity Express AIM -price includes 12 mailbox		X	X

1. Recommended with the Cisco 2650, Cisco 2650XM, and Cisco 2691 only
2. Requires Cisco IOS Software Release 12.2(11)YT; 12.2(13)T for Cisco 2691
3. Requires Cisco IOS Software Release 12.2(13)T for Cisco 2691

**Table 9.** Cisco 2600 Series PVDMs

Product Number	Description	Cisco 2612	Cisco 2600XM	Cisco 2691
PVDM2-16 <sup>(1)</sup>	16-channel packet voice and fax DSP module (PVDM)		X	X
PVDM2-32 <sup>(1)</sup>	32-channel PVDM		X	X
PVDM2-48 <sup>(1)</sup>	48-channel PVDM		X	X
PVDM2-64 <sup>(1)</sup>	64-channel PVDM		X	X

1. PVDM2s can be used only in conjunction with the high-density digital voice (HDV2) network modules.

## ORDERING INFORMATION

To place an order, visit the Cisco Ordering Home Page.

**Table 10.** Ordering Information

Product Name	Part Number
Cisco 10/100 Ethernet Router with Cisco IOS IP Software, 32F/128D	CISCO2610XM
Cisco 10/100 Ethernet Router with Cisco IOS IP Software, 32F/128D—DC	CISCO2610XM-DC
Cisco 10/100 Ethernet Router with Cisco IOS IP Software-use, 32F/128D—with external redundant power supply	CISCO2610XM-RPS
Cisco 2610XM Terminal Server Bundle, 32F/128D	CISCO2610XM-16TS
Cisco Dual 10/100 Ethernet Router with Cisco IOS IP Software, 32F/128D	CISCO2611XM
Cisco Dual 10/100 Ethernet Router with Cisco IOS IP Software, 32F/128D—DC	CISCO2611XM-DC
Cisco Dual 10/100 Ethernet Router with Cisco IOS IP Software-use, 32F/128D—with external redundant power supply	CISCO2611XM-RPS
Cisco 2611XM, 36-phone CCME, NM-HD-2V, 256D/32F, Add FXO VIC	CISCO2611XM-V-CCME
Cisco Mid-Performance 10/100 Ethernet Router with Cisco IOS IP Software, 32F/128D	CISCO2620XM
Cisco Mid-Performance 10/100 Ethernet Router with Cisco IOS IP Software, 32F/128D—DC	CISCO2620XM-DC
Cisco Mid-Performance 10/100 Ethernet Router with Cisco IOS IP Software, 32F/128D—redundant power supply ADPT	CISCO2620XM-RPS
Cisco Mid-Performance Dual 10/100 Ethernet Router with Cisco IOS IP Software, 32F/128D	CISCO2621XM
Cisco Mid-Performance Dual 10/100 Ethernet Router with Cisco IOS IP Software, 32F/128D—DC	CISCO2621XM-DC
Cisco Mid-Performance Dual 10/100 Ethernet Router with Cisco IOS IP Software, 32F/128D—redundant power supply ADPT	CISCO2621XM-RPS
Cisco High-Performance 10/100 Modular Router with Cisco IOS IP Software, 32F/256D	CISCO2650XM
Cisco High-Performance 10/100 Modular Router with Cisco IOS IP Software, 32F/256D—DC NEBs	CISCO2650XM-DC
Cisco High-Performance 10/100 Modular Router with Cisco IOS IP Software, 32F/256D—redundant power supply ADPT	CISCO2650XM-RPS
Cisco High-Performance Dual 10/100 Modular Router with Cisco IOS IP Software, 32F/256D	CISCO2651XM
Cisco High-Performance Dual 10/100 Modular Router with IP, 32F/256D—DC NEB	CISCO2651XM-DC
Cisco High-Performance Dual 10/100 Modular Router with IP, 32F/256D—redundant power supply ADPT	CISCO2651XM-RPS
Cisco 2651XM, AIM-VOICE-30, Cisco IOS IP Voice, 256D/32F	CISCO2651XM-V

Product Name	Part Number
Cisco 2651XM, FL-SRST-MEDIUM, AIM-VOICE-30, IP Voice, 256D/32F	CISCO2651XM-V-SRST
Cisco 2651XM, 48-phone CCME, AIM-ATM-VOICE30, 256D/32F, add VWIC	CISCO2651XM-V-CCME
Cisco High-Performance 10/100 Dual Ethernet Router with 3 WIC slots, 1 network module, 32F/256D	CISCO2691
Cisco 2691 Router with Universal Power Supply 24/48 volts, 32F/256D	CISCO2691-DC-U
Cisco High-Performance 10/100 Dual Ethernet Router with 3 WIC slots, 1 network module, 32F/256D— redundant power supply ADPT	CISCO2691-RPS
Cisco Ethernet/Token-Ring Modular Router with Cisco IOS IP Software, 8F/32D	CISCO2612
Cisco Ethernet/Token Ring Modular Router with Cisco IOS IP Software, 8F/32D—DC	CISCO2612-DC
Cisco Ethernet/Token Ring Modular Router with Cisco IOS IP Software, 8F/32D—RPS	CISCO2612-RPS
Cisco 2611XM VPN Bundle, AIM-VPN/BPII-PLUS/2FE/IOSAdvancedIP/256DRAM	C2611XM-2FE/VPN/K9
Cisco 2621XM VPN Bundle, AIM-VPN/BPII-PLUS/2FE/IOSAdvancedIP/256DRAM	C2621XM-2FE/VPN/K9
Cisco 2651XM VPN Bundle, AIM-VPN/BPII-PLUS/2FE/IOSAdvancedIP/256DRAM	C2651XM-2FE/VPN/K9
Cisco 2691 VPN Bundle, AIM-VPN/EPII-PLUS, AdvancedIP, 256DRAM	C2691-VPN/K9
Cisco 2691 V3PN Bundle, AIM-VPN/EPII-PLUS, AIM-ATM-VOICE-30, Adv Cisco IOS IP Software, 32F, 256D	C2691-V3PN/K9
Cisco 2611XM ADSL Bundle, WIC-1ADSL, 2FE, SP Services, 32F, 256D	CISCO2611XM-ADSL
Cisco 2621XM-ADSL Bundle, WIC-1ADSL, 2FE, SP Services, 32F, 256D	CISCO2621XM-ADSL
Cisco 2651XM-ADSL Bundle, WIC-1ADSL, 2FE, SP Services, 32F, 256D	CISCO2651XM-ADSL
Cisco 2611XM-SHDSL Bundle, WIC-1SHDSL-V2, SP Services, 32F, 256D	CISCO2611XM-SHDSL
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