

Cisco Catalyst 6500 Series **Communication** Media Module

The Cisco Communication Media Module (CMM) is a Cisco Catalyst® 6500 module that provides flexible and high-density T1 and E1 gateways, allowing organizations to connect their existing TDM network to their IP Communications network and provides connectivity to the PSTN, while taking advantage of the new opportunities afforded through the use of IP communications.

The Cisco CMM module introduces a new modular line card in the Cisco Catalyst® 6500 Series. The CMM is now available with 6-port T1 and 6-port E1 port adapters.

The Cisco Catalyst® 6500 Series delivers best in class products and services to help customers migrate to a fully converged campus by bringing voice, video, and data integration onto the campus for fully integrated IP communications on every

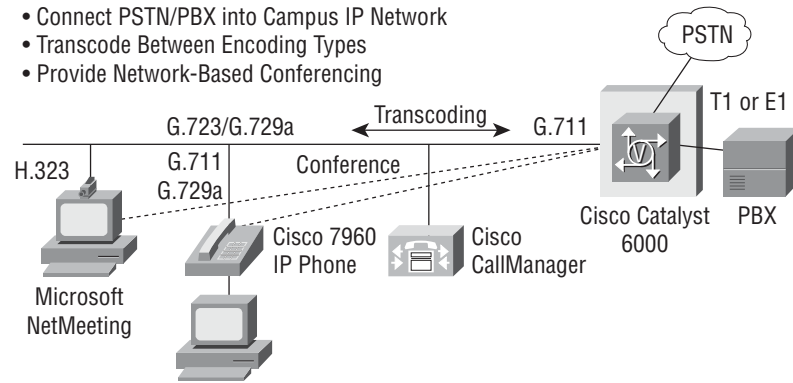
desktop. Convergence, provides voice support using the IP network infrastructure rather than the traditional PBX. This drastically increases the leverage of telephony spending into overall infrastructure spending, reduces capital and operational costs, and opens the environment to innovation by supporting new applications. (See Figure 2.)

Figure 1
Cisco Catalyst 6500
Series Communication
Media Module





Figure 2
Converged Network



Key Features and Benefits

A key component of the Cisco AVVID network infrastructure, the CMM family allows businesses to extend a cost-effective, seamless network infrastructure to all locations within their network.

The Cisco CMM module provides value added end-to-end networking solution with the following benefits:

Investment Protection—Field-upgradeable modular components allows customers to easily replace or change interface port adapters without “forklift upgrades” of the entire module. CMM is designed to facilitate expansion and adaptability for evolving requirements and maximize the 6500 slot utilization.

Lower Cost of Ownership—Modular architecture enables customers to achieve high port density in a single Cisco Catalyst® 6500 slot, thus reducing the overall cost of the system.

Cisco IOS based—Provides a familiar and standard interface across Cisco gateways. Cisco IOS brings the strength and feature richness to the platform. Cisco IOS facilitates deployment of new services in the IP Communication network as they become available.

Reliability—The Hot-swap capability on the CMM module allows hardware maintenance to be performed on an active Cisco Catalyst® 6500 switch with little or no service interruption. During a hot-swap, the CMM can be removed, inserted, or replaced, and only the calls on the card being removed are affected.

Being a part of the CMM, customers can plug in a range of port adapters to get a set of diverse functionalities within a single Cisco Catalyst 6500 slot.

Scalability

Cisco CMM provides a high-density and high-performance T1 and E1 gateway to Public Switched Telephone Network (PSTN) or existing Private Branch Exchanges (PBXs) and network-based voice services. CMM provides a very high level of flexibility to the customer and a cost-effective solution. CMM allows customers to make efficient use of Cisco Catalyst® 6500 slots by allowing to plug in multiple T1 or E1 port adapters. CMM is fabric-enabled and is also backward compatible with Classic backplane.



T1 or E1 VoIP Gateway

The CMM enables the organizations to connect their Cisco IP Communication network to the PSTN or to existing PBXs. A typical configuration includes a CMM line card (WS-SVC-CMM) with a T1 interface port adapter (WS-SVC-CMM-6T1), E1 port adapter for Europe and other countries. A total of three of these port adapters can be plugged into a single line card (WS-SVC-CMM), provides a total of 18 T1 or E1 ports.

Protocols

The Cisco CMM operates as an MGCP gateway under control of the Cisco CallManager. The following interface types are supported in MGCP mode:

- T1/E1 PRI
- T1 CAS

When operating in this mode, the Cisco CMM becomes a stateless client to the Cisco CallManager, giving it full control of enhanced management and calling features.

Catalyst Switch Platform Requirements

Requirement	Communication Media Module
Catalyst Operation System	Yes
Native mode Cisco IOS	Future
Backplane	
Classic	Yes
Fabric enabled	Yes

Software Compatibility Requirements

Requirement	Communication Media Module
Catalyst Operation System	7.3(1)
Native mode Cisco IOS	12.1(13)E
Cisco CallManager	3.2(2)



System Data

Cisco CMM Features	Cisco Communication Media Module
Processor Type	R7k
Flash Memory	32M
System Memory	256M
Boot Flash Memory	128M
Port Adapter Slots	4 (3 visible from front)

Physical Specifications

Dimensions	Communication Media Module
Occupies 1 slot in the Cisco Catalyst 6500 chassis	
Width	14.4 in. (35.6 cm)
Height	1.2 in. (3.0 cm)
Depth	16 in. (40.6 cm)

Power Requirements

Dimensions	Communication Media Module
Output Watts	252W
DC Input Voltage	32 Volts
DC Input Current	6A

Environmental Specifications

Dimensions	Communication Media Module
Operation Temperature	0 to 40°C (32 to 104°F)
Nonoperating Temperature	-40 to 75°C (-40 to 167°F)
Relative Humidity	10 to 90 percent, non-condensing



Six-Port T1 Port Adapter

WS-SVC-CMM-6T1	Six-Port, 144-Channel T1 Voice Port Adapter
Interface Type	Channelized T1
Voice Ports	144 channels of G.711 and G.729 codecs
Cisco Part Number	WS-SVC-CMM-6T1
Spare	WS-SVC-CMM-6T1=
FCC Specifications	TIA/EIA-IS-968, FCC Part 68, CS-03
Safety Conformance	AS/NZS 3260
Line Bit Rate	T1, 1.544 Mbps
Line Code	AMI, B8ZS (T1)
Framing Format	D4 (SF) and ESF
LED Indicators	Link Status
Physical Interface Standard	T1 ANSI, ATT T1.1, ANSI T1.403
Physical Connector	RJ-48
Number of connectors/port	6

Six-Port E1 Port Adapter

WS-SVC-CMM-6E1	Six-Port, 180-Channel E1 Voice Port Adapter
Interface Type	Channelized E1
Voice Ports	180 channels of G.711 and G.729 codecs
Cisco Part Number	WS-SVC-CMM-6E1
Spare	WS-SVC-CMM-6E1=
FCC Specifications	TIA/EIA-IS-968, FCC Part 68, CS-03
Safety Conformance	AS/NZS 3260
EMC	EN50082-1, EN 399 386, EN55022, EN55024, EN61000, EN60950, CISPR22
Line Bit Rate	E1, 2048 Mbps
Line Code	HDB3
Framing Format	D4 (SF) and ESF
LED Indicators	Link status
Physical Connector	RJ-48
Number of connectors/port	6

Ordering Information

Module	Description
WS-SVC-CMM	Communication Media Module—Line Card for Cisco Catalyst® 6500
WS-SVC-CMM-6T1	Six-port T1 interface port adapter
WS-SVC-CMM-6E1	Six-port E1 interface port adapter

Service and Support

Cisco IP Communications services and support reduce the cost, time, and complexity of implementing a converged network, and they can help you create a resilient IP communications infrastructure that will meet your business needs today—and in the future.

Cisco and its partners have designed and deployed some of today's largest IP communications networks—they understand how to integrate an IP communications solution into your network infrastructure, a solution that will help you more quickly realize business results and gain a competitive advantage.

These results are delivered through a flexible suite of collaborative offerings that help you plan, design, implement, operate, and grow an IP communications solution.

Cisco design tools and best practices ensure the solution best fits your business needs from the start, eliminating costly redesigns and downtime. Cisco proven methods ensure a sound implementation that will deliver the functions and features you expect—on time. Support services include remote network operations, network management tools to administer the converged application and network infrastructure, and technical support services.

Cisco provides the flexibility you need to employ a services strategy that meets your specific requirements.



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