

Cisco VIP6-80 Services Accelerator

The Cisco Versatile Interface Processor 6-80 Services Accelerator (VIP6-80) is the newest and highest-performance versatile interface processor for the Cisco 7500 Series Router. The Cisco VIP6-80 provides up to a 40 percent improvement over the Cisco VIP4 and a more than 100 percent improvement over the Cisco VIP2-50 when distributed features and quality-of-service (QoS) services are enabled on an interface. As such, the Cisco VIP6-80 is ideal for enterprise and service provider customers who require high-performance, high-speed interfaces and applications.

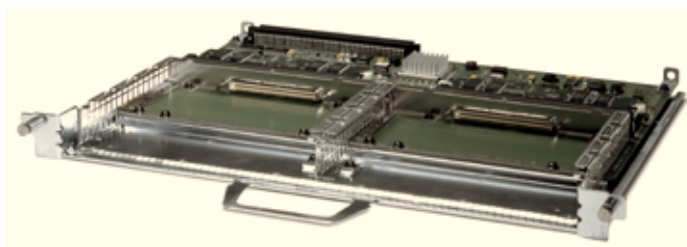
The Cisco VIP6-80 Services Accelerator is ideal for networks that require the highest-speed interfaces such as OC-12 or OC-3 ATM or channelized STM-1 combined with the application of Layer 3–7 services to these interfaces. Performance on these interfaces is significantly enhanced when certain features and QoS services are enabled. Examples of some of these distributed features and QoS services include the following:

- Distributed Committed Access Rate (dCAR)
- Distributed Weighted Fair Queuing (dWFQ)
- Distributed Weighted Random Early Detection (dWRED)

- Distributed Traffic Shaping (dTS)
- Distributed Network-Based Application Recognition (dNBAR)
- Multiprotocol Label Switching (MPLS)
- MPLS Virtual Private Networking (VPN)
- MPLS VPN + QoS

The Cisco VIP6-80 Services Accelerator is available in new system deployments and as an upgrade to existing VIP2 or VIP4-based systems. The Cisco VIP6-80 is compatible with the Cisco VIP2 and VIP4 and all VIP4-supported port adapters as well as all existing route switch processors (RSPs), including the Cisco RSP16.

The Cisco VIP6-80 Services Accelerator ensures high throughput, even while applying the broad set of intelligent Layer 3–7 services available with the Cisco 7500 Series Router.



Features and Benefits

Table 1 Cisco VIP6-80 Features and Benefits

Features	Benefits
400-MHz processor	Offers high-performance features and QoS services
Single Line Card Reload (SLCR)	Dramatically reduces total outage time and impact
Backward compatibility with all existing Cisco VIP 4-supported port adapters	Protects investment
ECC protected memory (single/double bit error detection)	Helps maintain system availability

Product Specifications: Environmental Conditions

- Operating temperature: 32 to 104 F (0 to 40 C)
- Relative humidity: 10 to 90 percent, noncondensing
- Storage temperature: -4 to 149 F (-20 to 65 C)

Product Specifications: Memory and Options

Packet memory: 64-MB synchronous dynamic random access memory (SDRAM)

Program memory (default): 64-MB SDRAM

Program memory (optional): 128-MB SDRAM; 256-MB SDRAM

Product Specifications: Traffic Management

- Simple Network Management Protocol (SNMP) agent Version 1 (RFCs 1155-1157)
- Management Information Base (MIB) II (RFC 1213)

Product Specifications: Physical Specifications

The Cisco VIP6-80 occupies one chassis slot and can be operated only in the Cisco 7505, 7507, and 7513 series routers.

The Cisco VIP6-80 installs in any interface processor slot on your router, as follows:

- Slots 0, 1, 2, or 3 of the Cisco 7505 Router
- Slots 0, 1, 4, 5, or 6 of the Cisco 7507 Router
- Slots 0, 1, 2, 3, 4, or 5, and 8, 9, 10, 11, or 12 of the Cisco 7513 Router

The Cisco VIP6-80 shipping weight is 5 lb (2.25 kg).

Product Regulatory Approvals and Compliance

The Cisco VIP6-80 bears CE Marking indicating compliance with the 89/366/EEC and 73/23/EEC directives, including the following safety and EMC standards:

For safety, these standards include:

- UL 1950
- CAN/CSA-C22.2 No. 60950-00
- EN 60950
- IEC 60950
- TS 001
- AS/NZS 3260
- IEC 60825-1
- IEC 60825-2
- EN 60825-1
- EN 60825-2
- 21 CFR 1040

For EMC, these standards include:

- FCC Part 15 (CFR 47) Class A
- ICES-003 Class A
- EN55022 Class A
- CISPR22 Class A
- AS/NZS 3548 Class A
- VCCI Class A
- EN55024
- ETS300 386-2
- EN50082-1
- EN61000-3-2
- EN61000-3-3

Product System Hardware Requirements

The Cisco VIP6-80 is a single motherboard. It operates with:

- Cisco 7505, 7507, 7507-MX, 7513, 7513-MX, and Cisco RSP2, RSP4, RSP4+, RSP8, or RSP16.

Note: The RSP should have at least 64 MB of DRAM.

- Two single-width port adapters, or one dual-width port adapter, supporting multiple LAN and WAN port adapter types, including Ethernet, Fast Ethernet, serial, Channelized serial, multichannel, High-Speed Serial Interface (HSSI), ATM, and Packet over SONET (POS)

The Cisco VIP6-80 is backward compatible with all existing Cisco VIP4 supported port adapters that are listed in Table 2.



Table 2

Port Adapter Product Number	Description	Number of Ports	Single/Dual Width
PA-A3-T3	ATM DS3 port adapter, enhanced	1	Single
PA-A3-E3	ATM E3 port adapter, enhanced	1	Single
PA-A3-8T1IMA	ATM inverse multiplexer over ATM port adapter	8	Single
PA-A3-8E1IMA	ATM inverse multiplexer over ATM port adapter	8	Single
PA-A3-OC3MM	ATM OC-3c/STM-1 multimode, enhanced	1	Single
PA-A3-OC3SMI	ATM OC-3c/STM-1 single-mode intermediate reach, enhanced	1	Single
PA-A3-OC3SML	ATM OC-3c/STM-1 single-mode long reach, enhanced	1	Single
PA-A3-OC12-MM	ATM OC-12/STM-4 single-mode intermediate reach, multimode	1	Dual
PA-A3-OC12-SMI	ATM OC-12/STM-4 single-mode intermediate reach, multimode	1	Dual
PA-POS-OC3- MM	Single-wide OC-3c/STM-1	1	Single
PA-POS-OC3- SMI	Single-wide OC-3c/STM-1	1	Single
PA-POS-OC3- SML	Single-wide OC-3c/STM-1	1	Single
PA-FE-TX	Fast Ethernet 100BASE-TX	1	Single
PA-FE-FX	Fast Ethernet 100BASE-FX	1	Single
PA-2FE-TX	Dual-port Fast Ethernet 100BASE-TX	2	Single
PA-2FE-FX	Dual-port Fast Ethernet 100BASE-FX	2	Single
PA-4E	Ethernet 10BASE-T	4	Single
PA-8E	Ethernet 10BASE-T	8	Single
PA-F/FD-MM	FDDI ¹ full-duplex multimode	1	Single
PA-F/FD-SM	FDDI full-duplex single mode	1	Single
PA-4T+	Serial, enhanced	4	Single
PA-8T-V35	Serial, V.35	8	Single
PA-8T-232	Serial, EIA/TIA-232	8	Single
PA-8T-X21	Serial, X.21	8	Single
PA-T3	T3 serial interface	1	Single
PA-T3+	T3 serial interface	1	Single
PA-2T3	T3 serial interface	2	Single
PA-2T3+	T3 serial interface	2	Single



Table 2

Port Adapter Product Number	Description	Number of Ports	Single/Dual Width
PA-E3	E3 serial interface	1	Single
PA-2E3	E3 serial interface	2	Single
PA-4E1G/75	E1 G.703 serial (75 ohm/unbalanced)	4	Single
PA-4E1G/120	E1 G.703 serial (120 ohm/balanced)	4	Single
PA-MC-T3	Multichannel T3	1	Single
PA-MC-E3	Multichannel E3	1	Single
PA-MC-2T1	Multichannel DS1/PRI ² T1 (100 ohm)	2	Single
PA-MC-4T1	Multichannel DS1/PRI T1 (100 ohm)	4	Single
PA-MC-8T1	Multichannel DS1/PRI T1 (100 ohm)	8	Single
PA-MC-2T3+	Multichannel with two T3 interfaces	2	Single
PA-MC-2E1/120	Multichannel E1 with G.703 120-ohm interface	2	Single
PA-MC-8E1/120	Multichannel E1 with G.703 120-ohm interface	8	Single
PA-MC-STM-1MM	Multichannel STM-1	1	Single
PA-MC-STM-1SMI	Multichannel STM-1	1	Single
PA-H	HSSI	1	Single
PA-2H	HSSI	2	Single
PA-VXC-2TE1+	High-capacity digital voice	2	Single
PA-VXB-2TE1+	Moderate-capacity digital voice	2	Single

1. Fiber Distributed Data Interface

2. Primary Rate Interface

Software Requirements

The Cisco VIP6-80 is supported in the following minimum releases and higher:

- Cisco IOS[®] Software Release 12.1(12)E
- Cisco IOS Software Release 12.0(22)S
- Cisco IOS Software Release 12.2(12)T
- Cisco IOS Software Release 12.2(16)

For more information, refer to the Hardware/Software Compatibility Matrix available at:

<http://www.cisco.com/cgi-bin/front.x/Support/HWSWmatrix/hswsmatrix.cgi>

Product Ordering Details: Ordering Instructions

Please visit http://www.cisco.com/public/ordering_info.shtml to place an order.

Product Ordering Details: Product Part Number

Table 3 Ordering Information for Cisco VIP6-80

Product Number	Product Description
VIP6-80=	Cisco 7500 Versatile Interface Processor 6-80 Services Accelerator (spare)

Memory Product Number	Product Description
MEM-VIP6-64M-SD	64-MB SDRAM option for Cisco VIP6 (default)
MEM-VIP6-64M-SD=	64-MB SDRAM option for Cisco VIP6 (spare)
MEM-VIP6-128M-SD	128-MB SDRAM option for Cisco VIP6
MEM-VIP6-128M-SD=	128-MB SDRAM option for Cisco VIP6 (spare)
MEM-VIP6-256M-SD	256-MB SDRAM option for Cisco VIP6
MEM-VIP6-256M-SD=	256-MB SDRAM option for Cisco VIP6 (spare)

Product Ordering Details: Migration Program

A Technology Migration Plan has been established for this product. The Technology Migration Plan is an innovative, industry-first sales program that allows customers to trade in Cisco products to receive a trade-in credit toward the purchase of any new Cisco product. The program underscores Cisco's commitment to the customer in terms of end-to-end product solutions as well as emphasizing to the customer Cisco's commitment to provide effective migration options in the face of ever-changing network requirements.

More details about this program are available at:

http://www.cisco.com/offer/tic/TMP_PA.html

Service and Support

Cisco Systems offers a wide range of service and support options for its customers. For more information on Cisco service and support programs and benefits, visit

http://www.cisco.com/public/Support_root.shtml.



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