

## Cisco 7200 Series VPN Module 2

The Cisco® VPN Acceleration Module 2 (VAM2) for Cisco 7200 Series routers provides high-performance encryption/compression and key generation services for IP security (IPsec) VPN applications. The Cisco VAM2 features hardware acceleration for Advanced Encryption Standard (AES), Data Encryption Standard (DES), and Triple DES (3DES), providing increased performance for site-to-site and remote-access IPsec VPN services. The Cisco VAM2 provides hardware-assisted Layer 3 compression services with its encryption services, conserving bandwidth and lowering network connection costs over secured links. A Cisco 7200 Series router equipped with the VAM2 extends beyond these critical VPN services with full Layer 3 routing, quality of service (QoS), multicast and multiprotocol traffic, and broad support of integrated LAN/WAN media. This combination of security features and advanced network services offers a flexible, integrated approach to accommodate the most diverse enterprise or service provider network environments.

Figure 1. VPN Acceleration Module 2



### FEATURES AT A GLANCE

The Cisco VAM2 supports DES, 3DES, and AES IPsec encryption at up to 260 Mbps while maintaining support for 5000 simultaneous tunnels. For higher IPsec performance requirements, Cisco 7200 Series routers with the NPE-G1 processor support dual Cisco VAM2s for increased encryption throughput.

The Cisco VAM2 provides hardware-assisted IP Payload Compression Protocol (IPPCP) Lempel-Ziv-Stac (LZS) compression. In environments where bandwidth is costly, the Cisco VAM2 is able to compress network traffic before it is encrypted and sent over pay-per-byte WAN connections—saving transmission costs and improving overall throughput. Table 1 lists the features of the Cisco VAM2.

Table 1. Cisco VAM2 Features

Features	Description
Physical	Service adapter; installs in a single port-adaptor slot on any Cisco 7200 Series router
Platform Support	Cisco 7200 Series with NPE G1, NPE-400, NPE-300, NPE-225, or NSE-1 processors
Throughput (Single VAM2*)	Up to 260 Mbps using 3DES
Number of IPsec Protected Tunnels**	Up to 5000 tunnels

Features	Description
<b>Hardware-Based Encryption</b>	Data protection: IPsec DES, 3DES, and AES Authentication***: RSA and Diffie-Hellman Data integrity: Secure Hash Algorithm 1 (SHA-1) and Message Digest 5 (MD5)
<b>VPN Tunneling</b>	IPsec tunnel mode; generic routing encapsulation (GRE) and Layer 2 Tunneling Protocol (L2TP) protected by IPsec
<b>Hardware-Based Compression</b>	Layer 3 IPPCP LZS
<b>LAN/WAN Interface Selection</b>	Works with most Cisco 7200 VXR-compatible port adapters
<b>Minimum Cisco IOS® Software Release Supported</b>	Cisco IOS Software releases 12.3(1)M or 12.3(1)T
<b>Standards Supported</b>	IPsec/Internet Key Exchange (IKE): RFCs 2401-2411 and 2451 IPPCP: RFCs 2393 and 2395

\* As measured with IPsec 3DES Hashed Message Authentication Code (HMAC)-SHA-1 on 1400-byte packets.

\*\* 512 MB of memory is required to support 5000 tunnels.

\*\*\* 128-bit Advanced Encryption Standard (AES) in hardware and 192/256 bits in HSP software

## ORDERING INFORMATION

Cisco VAM2 support is available beginning in Cisco IOS Software releases 12.3(1)M and 12.3.(1)T. Three Cisco 7200 Series VPN bundles, which include the VAM2 hardware accelerator and appropriate Cisco IOS Software release, are also available for easy ordering (Table 2).

**Table 2.** Ordering Information

Part Number	Description
<b>SA-VAM2</b>	VPN Acceleration Module 2 for the Cisco 7200 Series
<b>7206VXRG1/2VPNK9</b>	Cisco 7206VXR with the NPE-G1 processor and VAM2
<b>7206VXR400/2VPNK9R</b>	Cisco 7206VXR with the NPE-400 processor and VAM2
<b>7206VXR225/2VPNK9</b>	Cisco 7206VXR with the NPE-225 processor and VAM2

\* All bundles include an SA-VAM2, a single AC power supply, and an IPsec Cisco IOS Software image.

## EXPORT REGULATIONS

3DES software for the Cisco VAM2 is controlled by U.S. export regulations on encryption products. The module itself is not controlled. U.S. regulations require the recording of names and addresses of recipients of DES and 3DES software. For more information, visit:

<http://www.cisco.com/wwl/export/crypto/>

## ADDITIONAL INFORMATION

For Cisco 7200 Series VPN information: [http://www.cisco.com/en/US/products/hw/routers/ps341/prod\\_eol\\_notice0900aecd8033791f.html](http://www.cisco.com/en/US/products/hw/routers/ps341/prod_eol_notice0900aecd8033791f.html)

For more information about Cisco products, please contact your Cisco account manager and/or Cisco Channel Partner.

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