

IPSec VPN Services Module for the Cisco Catalyst® 6500 Series and Cisco 7600 Series

Critical high-bandwidth business applications have driven the need for ubiquitous connectivity and increased bandwidth for large main offices. Many enterprises are augmenting or replacing their traditional WANs with site-to-site virtual private networks (VPN) to better accommodate these new connectivity requirements.

The Cisco IPSec VPN Services Module delivers cost-effective VPN performance for head-end locations on the Cisco Catalyst 6500 Series and the Cisco 7600 Series Internet Routers **. Key VPN features delivered by the Cisco IPSec VPN Services Module include:

- **Integrated into Network Infrastructure**—The module supports both the Cisco Catalyst 6500 and the Cisco 7600 Series Internet Routers **. By integrating VPN into these infrastructure platforms, the network can be made secure without the need for extra overlay equipment and network alterations. Furthermore, the entire line of network services modules will be able to be used in conjunction with a secured infrastructure.
- **High Performance and Scalability**—Utilizing the latest in encryption hardware acceleration technology, this module can deliver up to 1.9 Gbps of 3DES traffic at large packet sizes (500 bytes+) and 1.6 Gbps of 3DES traffic at average packet sizes (300 bytes). In addition, it can terminate 8000 IPSec tunnels simultaneously and is able to setup those tunnels at a much-accelerated rate as compared to current offerings.

- **Provides for Advanced Security Services**—Adding encryption, authentication, and integrity to network services have just been made easier with the release of the IPSec VPN module. Such applications as secured campus, provider-edge VPN termination, and secured converged network services such as VoIP and storage-area networks are now easily deployable.

Cisco IPSec VPN Services Module Overview

The Cisco IPSec Services Module is a module that fits into the Cisco Catalyst 6500 and the Cisco 7600 **. It does not have any physical WAN or LAN interfaces and utilizes VLAN selectors for its VPN policy.



Table 1 Cisco IPSec VPN Services Module Features At-a-Glance

Requirement	Feature/Benefit
High-speed VPN performance	Up to 1.9 Gbps 3DES IPSec throughput at large packets and 1.6 Gbps at 300 byte packets.
Integrated VPN into the Infrastructure	The VPN module supports the Cisco Catalyst 6500 chassis, thus allowing for an integrated approach to building a VPN in your infrastructure. There is no need for separate VPN devices within your campus, intranet, and/or metro.
Comprehensive VPN features	Diverse PKI support, certificate auto-enrollment, and comprehensive tunneling support.
Accommodate diverse network traffic types and network topologies	Cisco IOS software supports secure, reliable transport of virtually any type of network traffic including multi protocol, multicast, and IP Telephony across the IPSec VPN. Furthermore, the rich routing capabilities enable meshed and hierarchical network topologies.
Ensure high VPN uptime	Routing over IPSec, IKE Keep-alives, HSRP, and environmental monitoring.
VPN and network infrastructure management	VPN Management comes in three flavors: <ul style="list-style-type: none">• Embedded HTML VPN Device Manager (VDM) for single device management.• Embedded HTML VPN Device Manager (VDM) for single device management.• VPN Solution Center (VPNSC) for service provider and large enterprise VPN, security, and QoS management. **

Ordering Information

Table 2 Cisco IPSec VPN Services Module

Cisco Part #	Description
WS-SVC-IPSEC-1	Gigabit IPSec VPN Services Module for the Cisco Catalyst 6500

Technical Summary

VPN Tunneling

- IPSec (IP Security—RFC 2401-2411, 2451)

Encryption

- ESP DES and 3DES (RFC 2406, 2451)

Authentication

- X.509 digital certificates (RSA signatures)
- Shared secrets
- Simple Certificate Enrollment Protocol
- RADIUS (RFC 2138)
- TACACS+
- CHAP/PAP (RFC 1994)

Integrity

- HMAC-MD5 & HMAC-SHA-1 (RFC 2403-2404)

Key Management

- Internet Key Exchange (RFC 2407-2409)
- IKE-XAUTH
- IKE-CFG-MODE

Certificate Authority Support

- Entrust
- VeriSign
- Microsoft
- IPPlanet

- Baltimore Technologies

Resiliency

- Hot Standby Router Protocol (HSRP)
- IKE Keep-Alives
- Routing across IPSec

Management Options

- VPN Device Manager (VDM) pre-loaded
- Cisco Works 2000
- Secure command-line interface using Secure Shell (SSH) or kerberized telnet

Routing Protocols

- BGP4
- RIP/RIP2
- OSPF
- EIGRP IGRP
- IS-IS

Embedded Interfaces

- None

Module Support

- All Cisco Catalyst 6500/Cisco 7600 GE & FE Interface modules
- MSFC2/SUP2

** In a future release (Cisco 7600 supported 3 weeks after initial release)



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