



Cisco VPN Solution Center 2.2

Dedicated IP virtual private networks (VPNs) enable service providers to lay the foundation for delivering differentiated services such as packet telephony, videoconferencing, e-commerce, and application hosting that business customers demand today. For a complete service offering, however, service providers must be able to quickly and effectively plan, provision, operate, and bill for the VPN-based services they offer. The Cisco VPN Solution Center is a carrier-class network- and service-management solution for rapid and cost-effective management of IP VPN services (Figure 1).

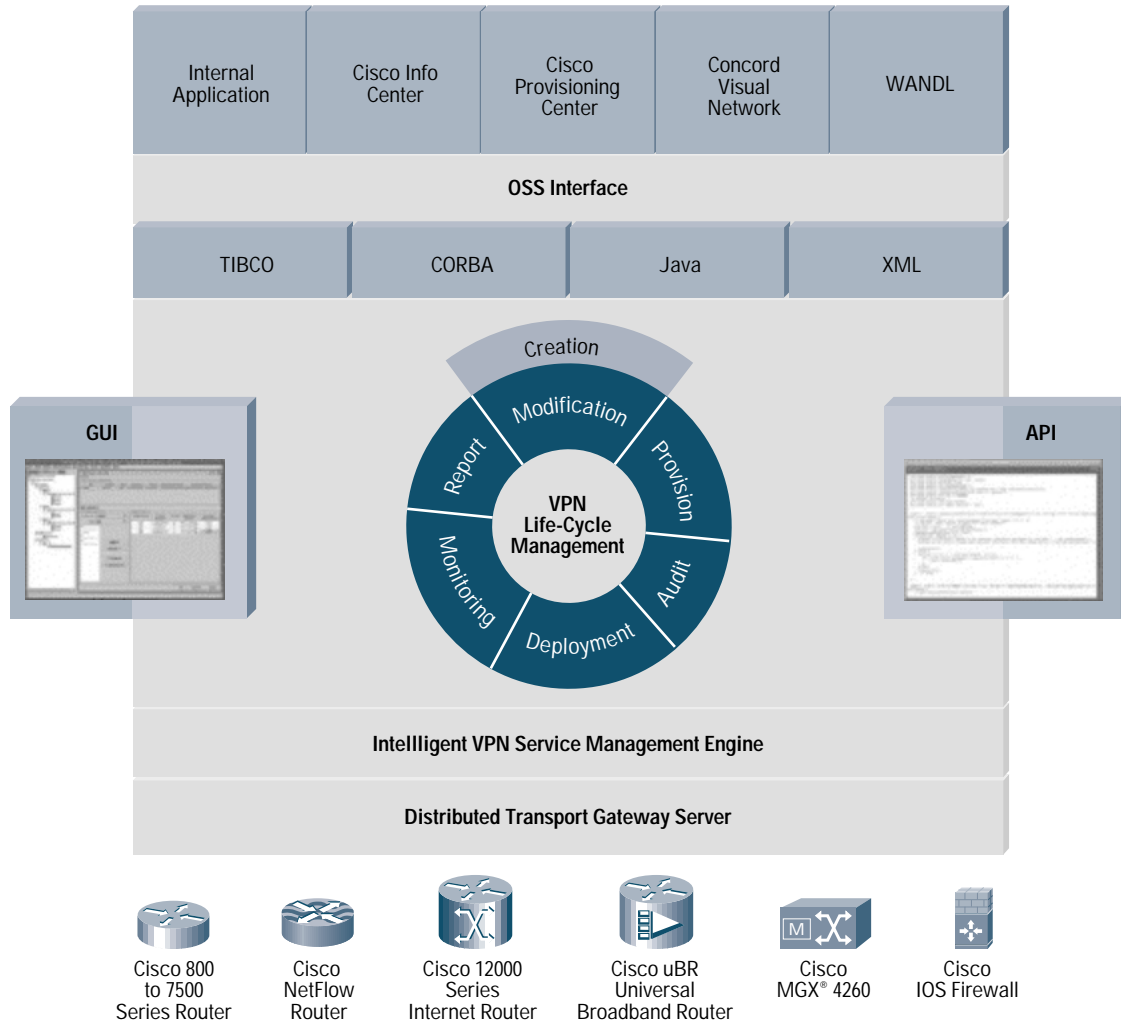
Based on a powerful, intelligent VPN service-management engine, the Cisco VPN Solution Center provides a flexible solution set for integrating with service provider and customer premises networks. Open application programming interfaces (APIs) and operations support system (OSS) interfaces enable service providers to easily integrate IP VPN services into their OSS and management infrastructures.

Carrier-Class Application for Robust IP VPN Services

The Cisco VPN Solution Center (VPNSC) provides robust and flexible management capabilities for service providers that offer Multiprotocol Label Switching (MPLS)-based services, IP security (IPSec)-based IP VPN services, or both. Based on a flexible object model architecture, the Cisco VPN Solution Center manages all VPN-enabled platforms available from Cisco for MPLS and IPSec network environments.

The Cisco VPN Solution Center enables rapid deployment and fast time to market for new IP VPN services. Fast time to market enables service providers to gain a competitive advantage and speed revenue generation for increased profitability. At the same time, the Cisco VPN Solution Center simplifies management of complex carrier-class IP VPN services by automating service and network provisioning. Features that improve ease of use, free network administrators for other tasks, and enable IP VPN services to scale easily reduce costs and enhance a provider's competitive advantage.

Figure 1
Cisco VPN Solution Center



Built for High-Demand Networking Environments

Cisco VPN Solution Center 2.2 is designed to ensure carrier-class availability, which is critical for demanding production networks. Key features include:

- Redundant Cisco VPN Solution Center workstations ensure application uptime in the event of unexpected workstation downtime
- Database journaling links to a backup tool to ensure high data integrity
- Database journaling and playback restore service requests if downtime occurs

A scalable, multithreaded application and intelligent VPN service-management provisioning engine enables service providers to easily add, upgrade, or relocate IP VPN devices and quickly respond to customers' changing needs. Cisco VPN Solution Center 2.2 can be concurrently distributed across multiple machines to support management for large network infrastructures.

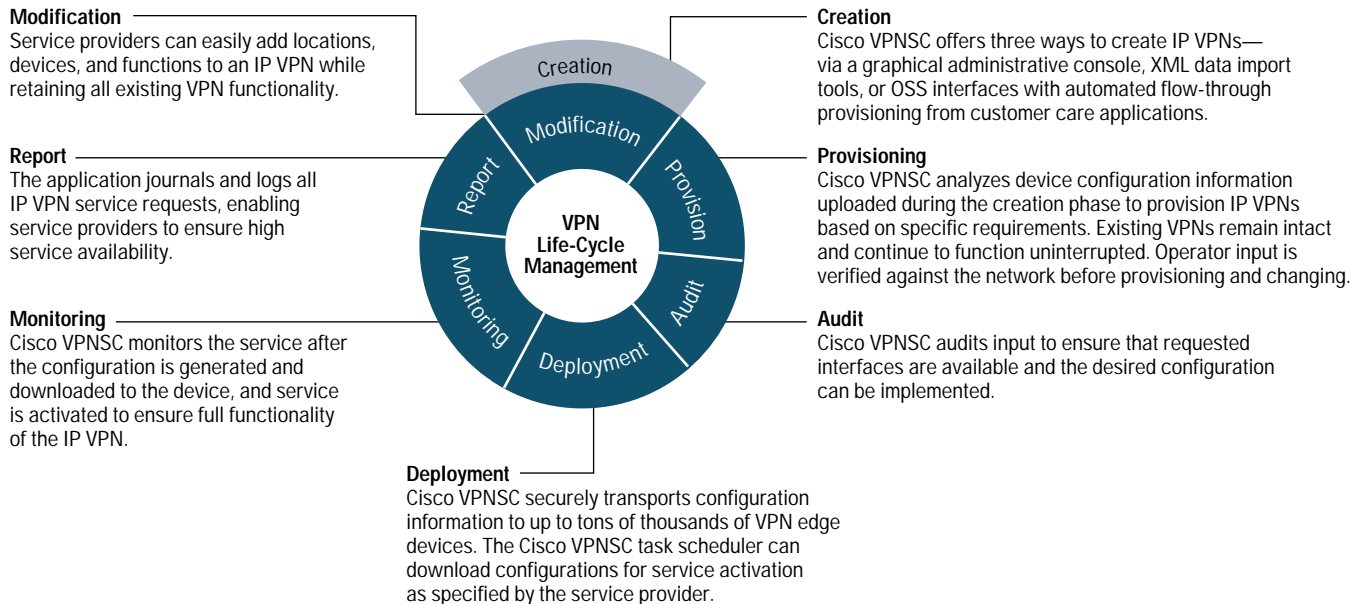
IP VPN Life-Cycle Approach Ensures Seamless Operations

The Cisco VPN Solution Center manages service providers' IP VPNs as they evolve to meet corporate customers' requirements (Figure 2). From initial provisioning through OSS integration to service-level-agreement (SLA) reporting, the Cisco VPN Solution Center provides a comprehensive carrier-class solution that enables:

- MPLS-based IP VPN management

- IPsec-based IP VPN management
- Management of broadband and narrowband access IP VPNs

Figure 2
Cisco VPN Solution Center Supports the Complete IP VPN Life Cycle



Features and Benefits

Easy Service Provisioning

- Provision MPLS VPNs by configuring the provider network-edge devices to customer network-edge devices
- Provision IPsec IP VPNs by configuring an Internet Key Exchange (IKE) and IPsec tunnel between the Cisco devices – all Cisco IOS® devices, the Cisco VPN 3000 Series Concentrator, and Cisco PIX®.
- Provision IPsec remote access services by configuring Cisco VPN 3000 Series Concentrator
- Form arbitrary VPN topologies by adding multiple sites to the VPN, including extranet and intranet VPNs
- Provision instructions for Cisco Service Assurance Agent
- Perform time-based provisioning

Flexible Service Activation

Cisco VPN Solution Center 2.2 provides a full task scheduler, enabling service providers to schedule date and time of day for service activation.

High-Performance Service Auditing

A high-performance auditor is built into Cisco VPN Solution Center 2.2 for validating IP VPN service configuration, monitoring performance, and identifying faults to ensure high network integrity and service quality. The Cisco VPN Solution Center generates reports on the status (requested, pending, deployed, or functional) of active service requests.

Service Quality Assurance

Service assurance features ensure that IP VPN target devices remain provisioned correctly and that the VPN itself is operational. Reports and alarms can be generated based on preconfigured designated requirements, such as SLA thresholds.

Easy Service Enhancement

Because of its object model architecture, Cisco VPN Solution Center 2.2 enables service providers to easily change IP VPN topologies and upgrade target VPN devices to accommodate changing customer needs. The Cisco VPN Solution Center supports an Intelligent Service Management Engine that simply generates new Cisco IOS® Software instructions for targeted VPN devices to match new VPN requirements.

SLA Monitoring and Reporting

Cisco VPN Solution Center 2.2 also includes an SLA subsystem that monitors VPN-aware SLAs for round-trip delay time, packet loss, availability, and usage. Thresholds can be configured to report violations. For MPLS/VPN the SLA subsystem includes a variety of reports: provider-edge to provider-edge- core measurements, customer-edge to customer-edge site-to-site measurements, and provider-edge to customer-edge customer-access measurements. The Cisco VPN Solution Center can also measure outside the VPN between any devices in your network.

Quality-of-Service (QoS) Provisioning and Measurement for Service Differentiation

Cisco VPN Solution Center 2.2 QoS provisioning enables service providers to offer and monitor different classes of service (CoSs). Cisco VPN Solution Center generates router configurations that allocate bandwidth to different CoS and then measures SLA compliance.

Templates Enable Real-Time Provisioning

The Cisco VPN Solution Center 2.2 includes templates that allow smart, flexible provisioning of Cisco IOS Software commands. Templates are accessible via the Cisco VPN Solution Center OSS interface or administrative console. Cisco VPN Solution Center templates are converted into the appropriate Cisco IOS Software commands, which can be scheduled and downloaded to the targeted VPN devices. Templates make it fast and easy for operators to:

- Add, delete, and modify Cisco routers for standard IP Version 4 (IPv4) provisioning
- Provision QoS, MPLS core devices, Network Address Translation (NAT), Hot Standby Router Protocol (HSRP), Cisco PIX® firewalls, and Cisco IOS Software command-line interface (CLI) commands
- Assure high levels of provisioning accuracy through a powerful scripting language with syntax checking

OSS Integration Delivers Advanced Capabilities

Carriers can deploy Cisco VPN Solution Center 2.2 as a standalone application to create VPNs with rapid time to market, error-free deployment, and reduced operations costs. Cisco VPN Solution Center 2.2 also enhances optional Cisco service-management applications, such as Cisco Provisioning Center and Cisco Info Center, and makes them VPN-aware.

Cisco VPN Solution Center 2.2 also includes a rich set of open APIs that enable integration with third-party applications and customer OSSs. The following OSS interfaces are available:

- Service provisioning and auditing for site-to-site IPsec, remote access IPsec, and MPLS
- SLA monitoring for IPsec and MPLS
- Performance
- Task manager (scheduling)
- Events APIs including TIBCO event bus, and Common Object Request Broker Architecture (CORBA) event API
- Extensible Markup Language (XML) interface for easy import and export of data to the Cisco VPN Solution Center repository

Many OSS interfaces are pre-integrated with Cisco service-management applications, enabling immediate integration with third-party applications such as fault monitoring (Cisco Info Center), and performance monitoring (Concord eHealth suite).

Additional Features

- Full support of Cisco IOS devices, Cisco VPN 3000 Series concentrators, and Cisco PIX devices

- Integration with Cisco IE 2100 to support “plug and play” VPN deployment
- Graphical user interface (GUI) administration console for automating management tasks
- Easy-to-use service request entry format for creating, encrypting, auditing, monitoring, and reporting on IP VPN services
- Comprehensive hub-and-spoke, full-mesh, and partial-mesh VPN topology views
- Simple Network Management Protocol (SNMP) Version 3 support
- Secure Shell (SSH) support
- Support for terminal server and multiple transport servers
- Transaction journaling
- Support for Cisco 7600 Series Internet Router for MPLS/VPN

Cisco Support and Services

Service and support for Cisco VPN Solution Center is available as a one-time service or annual maintenance contract. Support contracts include minor Cisco IOS Software updates, full access to Cisco.com, and 24-hour-a-day technical assistance. Cisco also provides customization, product training, API training, onsite consulting, and deployment assistance with Cisco VPN Solution Center 2.2. For more information about these services, contact a Cisco sales representative.

MPLS Provider-Edge Equipment Support

- Cisco IOS Software Release 12.1 (5a)T and above

MPLS Customer-Edge Equipment Support

- Cisco IOS Software Release 12.0 and above

IPSec Customer Premises Equipment Support

- Cisco IOS Software Release 12.2(1) and above, k8 or k9 images



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