

Cisco CNS Subscriber Edge Services Manager

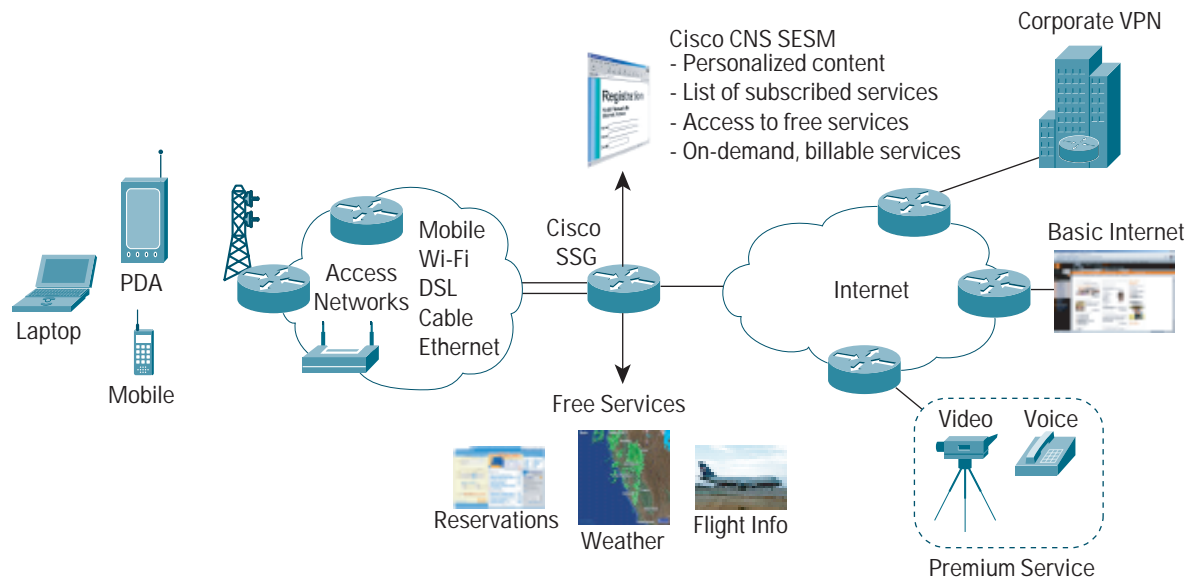
As the demand for broadband, mobile and wireless networking grows worldwide, Service Providers continue to search for solutions that can help them maximize their investments in these technologies and allow them to expand revenues and margins while the markets evolve. Service providers need solutions that can differentiate their offerings and efficiently deliver these services in order to attract and retain customers and increase per customer revenue while reducing costs.

Regardless of whether the access network is mobile, public wireless LAN (Wi-Fi), cable, DSL, or Metro Ethernet, the ability to offer customized and personalized content and enable access to on-demand, value-added IP services is key to building a strong offering and capturing new revenue. Service providers that can streamline delivery of new services will be in the best position to gain a competitive advantage in these competitive markets.

On-Demand Intelligent Networking

On-Demand Intelligent Networking delivered by Cisco Systems® (Figure 1) enables service providers to deploy and operate broadband networks carrying multiple services across the spectrum of access technologies. These solutions give the service provider complete control over the subscriber experience and deliver revenue generating services while containing the associated capital expenditures (CapEx) and operating expenses (OpEx).

Figure 1
On-Demand Intelligent Networking





Cisco CNS Subscriber Edge Services Manager

Cisco SESM is a product portfolio used for delivering on-demand subscriber services across any Cisco Service Selection Gateway (SSG) enabled network. Cisco SSG is a Cisco IOS feature module that provides the on-demand service enforcement within the Cisco powered network. Cisco CNS SESM and Cisco SSG combine to offer basic Internet access and value-added services that are customized for the customer and locale. Built on a scalable, standards-based platform, Cisco CNS SESM integrates with business support system (BSS) components to provide a complete subscriber and service management solution.

Cisco CNS SESM encompasses the following:

- Subscriber and service management, including subscriber self-care
- Subscriber Plug and Play for Cisco Wi-Fi networks
- Control interfaces for Cisco Service Selection Gateway (SSG)
- Web portal applications and software development kit (SDK)
- RADIUS authentication, authorization, and accounting (AAA), Lightweight Directory Access Protocol (LDAP) directory, and Relational Database Management System (RDBMS) integration
- Support for post and prepaid billing by time, volume, or data

Important Features and Benefits

Control of the User Experience

Cisco CNS SESM supports full customization of the user experience. Device, locale, and service-type awareness can be used to modify branding and available services. Customization and personalization of the user experience provide higher value to customers and improve satisfaction and loyalty. Features such as plug and play support for Wi-Fi and single sign-on further enhance the customer experience and value.

Subscriber Self-Care

Cisco CNS SESM supports subscriber account self-registration and self-management as well as service self-subscription, reducing the costs and management overhead associated with offering new services. Customers have the convenience of modifying account details, subscribing to new services, and managing sub-accounts without customer-care intervention.

Technology Independence

Cisco CNS SESM can be applied across all broadband access types including mobile, Wi-Fi, DSL, cable, and Ethernet to the home, building, or campus (ETTx). Cisco CNS SESM provides consistent deployment, operations, and billing models that reduce the associated CapEx and OpEx.

Open Architecture, Standards Support

Cisco CNS SESM is based on Java 2 Platform Enterprise Edition (J2EE), which defines a Java applications environment with standard APIs, protocols, and services. The J2EE platform provides a blueprint for developing highly available and scalable Internet solutions. Support for standard protocols including RADIUS and LDAP further enables easy integration with existing network security, subscriber management, and billing systems.



Comprehensive Management

Cisco CNS SESM provides Web-based administrative tools including an application for subscriber and service management and an application manager that manages all Cisco CNS SESM components through Java Management Extensions (JMX).

Cisco SESM Product Components

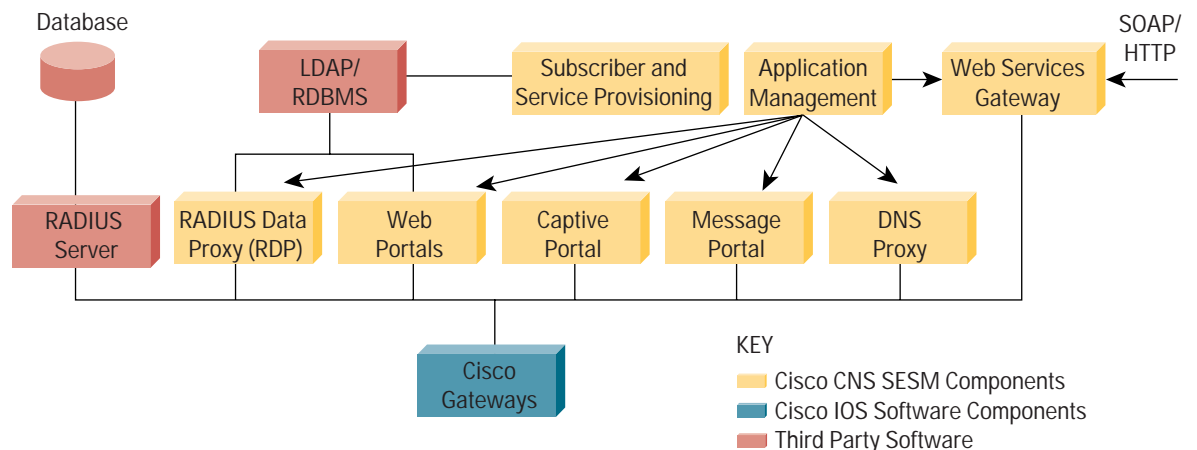
Cisco CNS SESM product components include the following:

- Web portals—The CNS SESM web portals showcase all subscriber portal features and can be used to build custom portals. A Wireless Application Protocol (WAP) portal and personal digital assistant (PDA) portal are also included for mobile wireless and PDA-based services.
- Captive portal—Supports Cisco SSG TCP redirection by handling HTTP requests for unauthenticated connections and disconnected services. The captive portal redirects requests to a configured Web portal or message portal.
- Message portal—Displays messages for subscribers based on their profiles. Supports new service advertisement and system messages.
- Web services gateway—Provides a Simple Object Access Protocol interface to allow other applications to integrate with Cisco CNS SESM for session and service control.
- RADIUS data proxy (RDP)—Manages authentication, accounting, and service profile requests. RDP is a proxy to RADIUS servers, LDAP directories, or RDBMS.
- DNS Proxy—Supports Wi-Fi Plug and Play.
- Cisco distributed administration tool—Administrative interface for creating and maintaining subscriber, service, and policy information used by Cisco CNS SESM and Cisco SSG.
- Application management—JMX-based application management for all solution components.

Figure 2 shows the Cisco SESM product components and its key interfaces with other applications.

Figure 2

Cisco CNS SESM Product Components





Cisco SESM Solution Requirements

Tables 1 and 2 list the system requirements and other required components for Cisco CNS SESM.

Table 1 System Requirements

Operating System and Workstation	Linux: Red Hat Linux Version 8, SuSE Linux Version 7.3 Solaris: Version 8 Windows: Windows 2000 (Pentium III or equivalent, 256 MB RAM)
Java Support	Cisco CNS SESM is bundled with Java Runtime Environment (JRE) 1.4.2 Java 2 SDK 1.4.2 and a J2EE 1.4 platform is required for development
Web Server	Cisco CNS SESM is designed to work with any J2EE 4.2 Web server Cisco CNS SESM is bundled with Jetty 4.2 Web server
Web Browser	Netscape 4.7 or 7.0 or Internet Explorer 6.0 or later with JavaScript and cookies enabled

Table 2 Additional Required Components

Cisco SSG	Cisco IOS Release 12.2(4)B or later (determined by feature set required) Please go to http://www.cisco.com/go/ssg for information on supported Cisco devices
RADIUS Server	RFC 2865-compliant RADIUS server with vendor-specific attribute (VSA) support Cisco Access Registrar (recommended)
LDAP Server	Sun ONE Directory Server Version 5.1 Novell NDS eDirectory Version 8.7

For More Information

For more information, go to <http://www.cisco.com/en/US/products/sw/netmgmtsw/ps4889/index.html>.



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