Cisco Catalyst 6500 Offers Secure and Mobile Solution with Its Borderless Services Node

PB604618

Product Overview

With increasing globalization leading to more mobile workers, proliferation of personal devices in the workplace, and the need to connect more closely with customers, enterprises are looking for a solution that will truly connect anyone, anything, anywhere, any time. The new Cisco® Catalyst® 6500 Borderless Services Node (BSN) is an integrated services solution that comes complete with a VSS-capable Supervisor Engine VS-S720-10G-3C along with two firewall service modules (FWSMs) and one wireless service module (WiSM). The system can deliver up to 8Gbps combined services throughput to service this emerging need for transparent connectivity and meet customer demand for integrated mobility and security. (See Figure 1.)

Figure 1.   Cisco Catalyst 6500 BSN

Some of the primary benefits of the Cisco Catalyst 6500 BSN are:

- **Rapid service deployment:** Multiple virtual firewalls can be configured on one physical hardware platform, reducing the needed number of physical devices in the network, thereby reducing the cost and complexity of managing the network infrastructure.

- **Regulatory compliance:** Firewall provides the platform for stateful inspection and granular policy enforcement. Virtualization of network and services not only simplifies network operations, but also facilitates compliance with government regulations that require strict change tracking and access control.

- **Reduced greenhouse emissions:** Cisco EnergyWise monitors, reports, and reduces energy usage across the entire network.

- **High availability:** VSS enables load sharing and increases availability of the supervisor and service modules.
- **Security of network, data, and resources:** With its integration of wired and wireless users and unified security policies, BSN enables visibility into, and control of, who is connecting to the network and what they can do once connected.
- **Lower cost of ownership:** Since the FWSM and WiSM are installed inside a Cisco Catalyst 6500 Series Switch, there are savings in rack space and fewer boxes to manage. VSS pools two Cisco Catalyst 6500 Series Switches to provide a single point of management, eliminates need for STP, and shrinks maintenance windows, thereby also reducing the total cost of ownership of a BSN.
- **Pay as you grow capability:** A single firewall can be partitioned into 250 virtual firewalls (security contexts). The virtual context licenses allow customers to buy capability as their network needs grow.

The Cisco Catalyst 6500 Series Virtual Switching Supervisor Engine 720 with 10 Gigabit Ethernet uplinks combines high-density uplinks, system virtualization, and increased throughput with scalable performance. This supervisor engine is a primary component of the Cisco VSS 1440 Virtual Switching System, enabling high availability, operational efficiency, and increased bandwidth with a greater ease of deployment.

The FWSM for Cisco Catalyst 6500 Series Switches is a high-performance, integrated stateful inspection firewall with application and protocol inspection engines. One FWSM provides up to 5.5 Gbps of throughput, 100,000 connections per second, and one million concurrent connections. Up to two additional FWSMs can be added to BSN for additional scalability.

The Cisco Catalyst 6500 WiSM provides mobility, redundancy, and ease of use for business-critical wireless LANs (WLANs), thereby allowing network managers and operators to control and manage their wireless networks easily. As a member of the Cisco Wireless LAN Controller family, the Cisco WiSM works in conjunction with Cisco Aironet® access points and the Cisco Wireless Control System (WCS) to support mission-critical wireless data, voice, and video applications. Because the Cisco WiSM supports 802.11a/b/g and the IEEE 802.11n draft 2.0 standard, organizations can deploy the solution that best meets their individual requirements. The available data throughput for the Cisco WiSM is 8 Gbps.

The Cisco Catalyst 6500 BSN has two SKUs that can best serve different needs in the campus for enterprise, commercial, and service provider customers. The 16-port 10 Gigabit Ethernet fiber module is designed for LAN campus aggregation and data center access. Users can operate each port group either in oversubscription mode, when used as uplinks to wiring closets, or in performance mode to create a virtual switch link in a VSS, providing flexible design options. The 24-port 1 Gigabit Ethernet fiber module is designed for LAN campus aggregation where fanout is the primary factor.

Ordering Information

To place an order, visit the Cisco Ordering homepage. To download software, visit the Cisco Software Center. Table 1 shows ordering information.

Table 1. Ordering Information

Product Name	Part Number
Cisco Catalyst 6509-E Switch with Supervisor Engine VS-SUP720-10G, 6509E Fan, dual 6000W AC power supplies, two FWSMs, 1 WiSM, 1 6716-10G-3C, and 2 VFW licenses for 20 VC each	BSN09E-VS720-10G
Cisco Catalyst 6509-E Switch with Supervisor Engine VS-SUP720-10G, 6509E Fan, dual 6000W AC power supplies, two FWSMs, 1 WiSM, 1 6724-SFP, and 2 VFW licenses for 20 VC each	BSN09E-VS720-1G

Minimum Software Requirements

Table 2 lists minimum software requirements for the Cisco Catalyst 6500 Borderless Services Node solution.

Table 2. Minimum Software Requirements

Product Number	Minimum Software Release
VS-SUP720-10G-3C	Cisco IOS® Software Release 12.2(33)SXI and later For Cisco EnergyWise solution on Cisco Catalyst 6500, use 12.2(33)SXI4 and later
WS-SVC-WISM-1-K9	6.0
WS-SVC-FWM-1-K9	4.0.4

For More Information

For more information about Cisco Catalyst 6500 Series Switches, visit
http://www.cisco.com/en/US/partner/products/ps6526/index.html.

For more information about Cisco Catalyst 6500 Service Modules, visit:

- http://www.cisco.com/en/US/prod/collateral/modules/ps2706/ps6526/product_data_sheet0900aecd80364340_ps708_Products_Data_Sheet.html
- http://www.cisco.com/en/US/partner/products/hw/modules/ps2706/ps4452/index.html

For more information about service module integration with VSS, visit
http://www.cisco.com/en/US/products/ps9336/products_tech_note09186a0080a7c72b.shtml.

For more information on Cisco's Borderless Architecture and solutions, visit
http://cisco.com/en/US/netsol/ns1015/index.html.