

Cisco IOS Software Release 12.2(33)SXH1 Delivers Cisco Catalyst 6500 Virtual Switching System 1440

PB451002

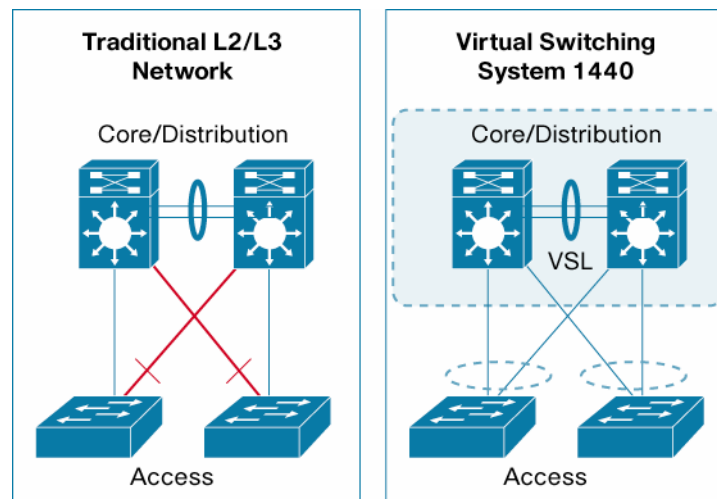
Cisco® announces availability of Cisco IOS® Software Release 12.2(33)SXH1 for the Cisco Catalyst® 6500 Series. Cisco IOS Software Release 12.2(33)SXH1 introduces the Cisco Catalyst 6500 Virtual Switching System 1440 (Cisco Catalyst 6500 VSS 1440), VRF-Lite Aware Policy Based Routing (PBR) and improves scalability for Cisco IOS Software with Modularity.

New Features

Cisco Catalyst 6500 VSS 1440

The Cisco Catalyst 6500 VSS 1440 is supported in both Cisco IOS Software and Cisco IOS Software with Modularity starting with Release 12.2(33)SXH1 on Cisco Catalyst 6500 Series Virtual Switching Supervisor Engine 720 with 10 Gigabit Ethernet uplink. The Cisco Catalyst 6500 VSS 1440 network system virtualization technology pools multiple Cisco Catalyst 6500 Series Switches into one virtual switch, increasing operational efficiency, boosting nonstop communications, and scaling system bandwidth capacity to 1.4 Tbps. At the initial phase, a VSS will allow two physical Cisco Catalyst 6500 Series Switches to operate as a single logical virtual switch called a Cisco Catalyst 6500 VSS 1440. (See Figure 1.)

Figure 1. Cisco Catalyst 6500 VSS 1440 Compared to Traditional Network Design



The Cisco Catalyst 6500 VSS 1440 offers several superior benefits compared to a traditional Layer 2/Layer 3 network design. Benefits can be grouped into three main categories:

- VSS increases operational efficiency:
 - Single point of management, including configuration file and a single gateway IP address (eliminates Hot Standby Router Protocol [HSRP], Virtual Router Redundancy Protocol [VRRP], and Gateway Load Balancing Protocol [GLBP]).
 - Multichassis EtherChannel[®] creates simplified loop-free topologies, eliminating the dependency on Spanning Tree Protocol.
 - Flexible deployment options in terms of location of the underlying physical switches because they are connected by standard 10 Gigabit Ethernet interfaces.
- VSS boosts nonstop communications:
 - Interchassis stateful failover results in no disruption to applications that rely on network state information. VSS eliminates Layer 2/Layer 3 protocol reconvergence if a virtual switch member fails, resulting in deterministic, subsecond virtual switch recovery.
 - Utilizes EtherChannel (802.3ad or Port Aggregation Protocol [PAgP]) for deterministic, subsecond Layer 2 link recovery, unlike convergence based on Spanning Tree Protocol.
- VSS scales system bandwidth capacity to 1.4 Tbps:
 - Activates all available Layer 2 bandwidth across redundant Cisco Catalyst 6500 Series Switches with even and granular load balancing based on EtherChannel.
 - Enables standards-based link aggregation for server network interface card (NIC) teaming across redundant data center switches, maximizing server bandwidth throughput.
 - Conserves bandwidth by eliminating unicast flooding caused by asymmetrical routing and optimizing the number of hops for intracampus traffic.

VRF-Lite Aware PBR

Cisco IOS Software Release 12.2(33)SXH1 also introduces the VRF-Lite Aware Policy Based Routing (PBR) feature, which provides the ability to configure PBR on a VPN routing/forwarding instance. This feature allows users to configure VRF on an ingress interface (VRF-Lite) and apply PBR using the Cisco Express Forwarding table for that VRF. VRF-Lite Aware PBR is supported on all Cisco Catalyst 6500 Series Supervisor Engine 720, Cisco Catalyst 6500 Supervisor Engine 32, and ME-6524 products.

For further details about the VRF-Lite Aware PBR configuration, visit

<http://www.cisco.com/en/US/partner/docs/switches/lan/catalyst6500/ios/12.2SX/configuration/guide/book.html>.

Improved Scalability for Cisco IOS Software with Modularity

The Cisco IOS Software with Modularity images will continue to be offered as an optional feature set of Cisco IOS Software images. With Cisco IOS Software Release 12.2(33)SXH1, there has been significant scalability improvement for Cisco IOS Software with Modularity, as shown in Table 1.

Table 1. Improved Scalability with Cisco IOS Software with Modularity

Feature	Scalability Consideration
Multicast	30k mroutes (PIM Sparse-mode), 13K mroutes (Bi-Dir PIM), 10K mroutes across 100 mVPN tunnels and 15K IGMP Joins

Upgrade Paths

Customers running Release 12.2(33) SXH in either Cisco IOS Software or Cisco IOS Software with Modularity can upgrade to Release 12.2(33)SXH1 of either Cisco IOS Software or Cisco IOS Software with Modularity.

The Cisco Catalyst 6500 VSS 1440 is supported only on the Cisco Catalyst 6500 Series Virtual Switching Supervisor Engine 720 with 10 Gigabit Ethernet uplinks and not supported on Cisco Catalyst 6500/Cisco 7600 Series Supervisor Engine 720, Cisco Catalyst 6500/Cisco 7600 Series Supervisor Engine 720-3B, or Cisco Catalyst 6500/Cisco 7600 Series Supervisor Engine 32.

Customers who are planning to upgrade or purchase a new software image license on a Supervisor Engine, order the 6500-SW-SPARECD part number and configure the image of choice onto it.

For further details about ordering 6500-SW-SPARECD, visit:

http://www.cisco.com/en/US/prod/collateral/switches/ps5718/ps708/prod_bulletin0900aecd806780a3.html

Availability of Cisco Catalyst 6500 VSS 1440

The Cisco Catalyst 6500 Series Virtual Switching Supervisor Engine 720 with 10 Gigabit Ethernet uplinks and the minimum required software (Cisco IOS Software Release 12.2(33)SXH1) for the Cisco Catalyst 6500 VSS 1440 are available today.

Ordering Information for Cisco Catalyst 6500 VSS 1440

To place an order, visit the [Cisco Ordering homepage](#). To download software, visit the [Cisco Software Center](#).

Table 2 shows ordering information for Virtual Switching System 1440.

Table 2. Ordering Information

Part Number	Product Name
VS-S720-10G-3C	Cisco Catalyst 6500 Series Virtual Switching Supervisor Engine 720 with two 10 Gigabit Ethernet ports and MSFC3 PFC3C
VS-S720-10G-3CXL	Cisco Catalyst 6500 Series Virtual Switching Supervisor Engine 720 with two 10 Gigabit Ethernet ports and MSFC3 PFC3C XL
WS-F6700-DFC3C	Cisco Catalyst 6500 Series Distributed Forwarding Card 3C for WS-X67xx modules
WS-F6700-DFC3CXL	Cisco Catalyst 6500 Series Distributed Forwarding Card 3CXL for WS-X67xx modules
SV33ISK9-12233SXH	Cisco CAT6000-VSS720 IOS IP Services SSH
SV33AIK9-12233SXH	Cisco CAT6000-VSS720 IOS Advanced IP Services SSH
SV33AEK9L-12233SXH	Cisco CAT6000-VSS720 IOS ADV ENT SERV SSH LAN Only
SV33AEK9-12233SXH	Cisco CAT6000-VSS720 IOS Advanced Enterprise Services SSH
SV33ISK9M-12233SXH	Cisco CAT6000-VSS720 IOS IP Services SSH (Modular)
SV33AIK9M-12233SXH	Cisco CAT6000-VSS720 IOS Advanced IP Services SSH (Modular)
SV33AEK9N-12233SXH	Cisco CAT6000-VSS720 IOS ADV ENT SERV SSH LAN Only (Modular)
SV33AEK9M-12233SXH	Cisco CAT6000-VSS720 IOS Advanced ENT Services SSH (Modular)

For More Information

For more information about the Cisco Catalyst 6500 Virtual Switching System 1440, visit <http://www.cisco.com/go/vss>.

For information about the Cisco Catalyst 6500 Series, visit <http://www.cisco.com/en/US/products/hw/switches/ps708/index.html>.



Americas Headquarters
 Cisco Systems, Inc.
 170 West Tasman Drive
 San Jose, CA 95134-1706
 USA
www.cisco.com
 Tel: 408 526-4000
 800 553-NETS (6387)
 Fax: 408 527-0883

Asia Pacific Headquarters
 Cisco Systems (USA) Pte. Ltd.
 168 Robinson Road
 #28-01 Capital Tower
 Singapore 068912
www.cisco.com
 Tel: +65 6317 7777
 Fax: +65 6317 7799

Europe Headquarters
 Cisco Systems International BV
 Haarlerbergpark
 Haarlerbergweg 13-19
 1101 CH Amsterdam
 The Netherlands
www-europe.cisco.com
 Tel: +31 0 800 020 0791
 Fax: +31 0 20 357 1100

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at www.cisco.com/go/offices.

CCVP, the Cisco logo, and Welcome to the Human Network are trademarks of Cisco Systems, Inc.; Changing the Way We Work, Live, Play, and Learn is a service mark of Cisco Systems, Inc.; and Access Registrar, Aironet, Catalyst, CCDA, CCDP, CCIE, CCIP, CCNA, CCNP, CCSP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Cisco Unity, Enterprise/Solver, EtherChannel, EtherFast, EtherSwitch, Fast Step, Follow Me Browsing, FormShare, GigaDrive, HomeLink, Internet Quotient, IOS, iPhone, IP/TV, IQ Expertise, the IQ logo, IQ Net Readiness Scorecard, iQuick Study, LightStream, Linksys, MeetingPlace, MGX, Networkers, Networking Academy, Network Registrar, PIX, ProConnect, ScriptShare, SMARTnet, StackWise, The Fastest Way to Increase Your Internet Quotient, and TransPath are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries.

All other trademarks mentioned in this document or Website are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0711R)