

Highlights

Stats

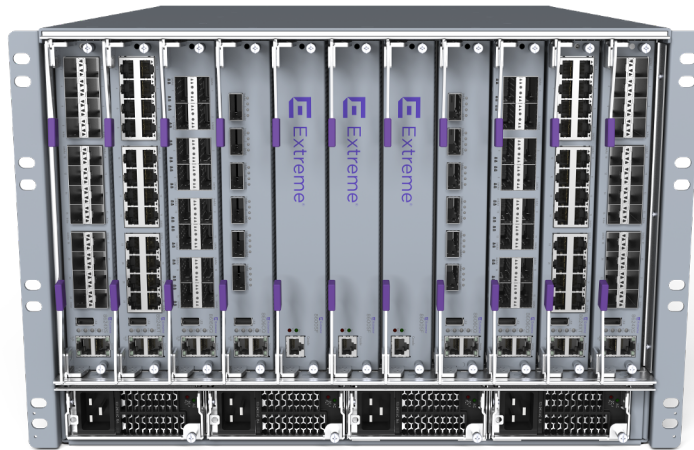
- Flexible multi-rate Gigabit Ethernet support: up to 48 ports of 100G, up to 128 ports of 40G, or up to 192 ports of 10G
- High port density, reduced footprint
- Innovative design, reduced hardware requirements
- Future-ready architecture, pay-as-you-grow software licensing
- Leverages full-featured, tried and tested VSP Operating System Software
- Supports both conventional Routed IP and/or Fabric-based network deployments

Benefits

- Engineered from the ground up to deliver must-have capabilities
- Enterprise-ready with battle-tested software
- Pioneering design delivers next-generation capabilities
- Revolutionary and evolution-ready
- Get more from less
- Pay-as-you-grow, literally

Features and Capabilities

- Support for 10/25/40/100 Multi-Rate Gigabit Ethernet
- Raw system capacity of up to 21.6Tbps
- Extreme Fabric Connect
- Extreme Switch Cluster
- Broad support for IP Routing techniques
- Hot-swappable & IPv6-optimized hardware
- MACsec and Enhanced Security Mode options



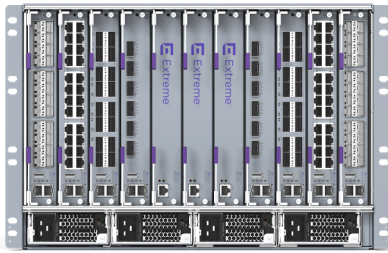
ExtremeSwitching™ VSP 8600 Series

The demands on IT have never been greater: do more, do it quicker, and reduce costs. The Virtual Services Platform 8600 Series is engineered from the ground up to deliver against a checklist of must-have capabilities. Innovative design re-imagines how the modular Ethernet Switch should be architected, but more importantly, it's been engineered to solve the most demanding challenges.

Network infrastructure needs to be both agile and powerful and decade-old products aren't up to the job of delivering what's needed. One platform, multiple solutions: the new Virtual Services Platform 8600 Series is powerful enough to be at the heart of the Campus or Data Center, versatile enough to deliver multi-rate Ethernet ranging from 1 to 100 Gigabit, and compact enough to be deployed as an end- or middle-of-row. The network foundation, re-imagined with network operators in mind.

An innovative architecture empowers the Virtual Services Platform 8600 Series to deliver more of what you need - ports and performance - while consuming less of what's finite - money, space, time, and power. The multi-terabit Switch Fabric capacity enables a fully non-blocking switching architecture.

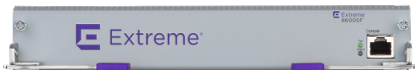
Leveraging today's most efficient switching chipset designs, the VSP 8600 provides more of the crucial 1/10/25/40/100 Gigabit Ethernet speeds that you need for agile service delivery. All this while consuming less precious real estate. At just 7RU, the product boasts an industry-leading ultra-low profile form-factor and a best-in-class Port/RU ratio.



VSP 8608 Chassis with 8 IOC Slots
(with Switch Fabrics and Power Supplies Installed)



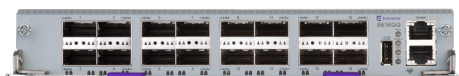
VSP 8608 - Rear View



8600SF Switch Fabric Module



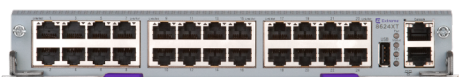
8606CQ 6-Port 100 Gigabit QSFP28
IOC Module



8616QQ 16-Port 40 Gigabit QSFP+
IOC Module



8624XS 24-Port 10 Gigabit SFP+
IOC Module



8624XT 24-Port 10 Gigabit RJ45
IOC Module

The VSP 8600 also supports the Extreme Networks Fabric Connect architecture, which greatly simplifies network operations. With Fabric Connect, it's possible for the network to handle once-manual functions automatically. This reduces the potential for error and accelerates time-to-service. It also allows IT to quickly respond to changing business requirements with precision and flexibility.

Product Overview

The VSP 8600 is a modular chassis system, supporting a field-replaceable, hot-swappable capability on all system hardware components: Power Supplies, Fan Trays, Switch Fabric and Interface Modules. Ethernet connectivity is delivered by the addition of one or more Interface Modules, referred to as IOC Modules. The VSP 8600 runs Extreme Network's feature-rich VSP Operating System Software (VOSS).

The VSP 8608 Chassis features eight slots for IOC Modules, plus three central slots reserved for Switch Fabric Modules; all are accessible from the front of the chassis. These slots are all vertically-orientated and organized such that, left-to-right, Slots 1-4 and 5-8 are available for IOC Modules, with the three central slots reserved for Switch Fabric (SF) Modules. The VSP 8608 Chassis is very low-profile, given the capacity and density, occupying just seven RU of height in a standard 19" rack.

Normally, in a modular chassis design, there is a hardware component dedicated to the control plane functionality: often referred to as a Supervisor or Controller. However, with the VSP 8600, the control plane function has been decentralized and seamlessly integrated into the design of the IOC Modules themselves. This delivers an enhanced level of hardware efficiency and helps to reduce the overall system complexity, physical profile, and cost. All IOC Modules support this role, although it's the two IOC Modules installed in Slots 1 and 2 that actively perform this task.

The front of the chassis also provides access for the Power Supply bays. Up to four independent load-sharing PSUs are supported, and both 3,000W AC or 2,500W DC models are available. It should be noted that while the system supports both AC and DC power, all PSUs must be of the same type; that is, either all AC or all DC. Typically, the VSP 8600 will be operated in a N+1 PSU configuration to ensure power resiliency.

And, finally, five Fan Trays are installed into the rear of the chassis and deliver front-to-back cooling airflow. By default, the system ships with all five Fan Modules installed, and spare units can be purchased to provide for on-site replacement to cover any failure eventualities.

The VSP 8608 supports up to three 8600SF Modules in a load-sharing, high-availability configuration, providing a raw system capacity of up to 21.6Tbps of aggregate throughput. At least one Switch Fabric Module is required for the VSP 8600 to operate, and depending upon the mix of IOC Modules installed, additional Switch Fabric Modules provide extra per-IOC slot switching capacity and/or resiliency. The first-generation IOC Modules can access up to 1,440Gbps of aggregate Switch Fabric capacity.

The VSP 8600 supports high-density 10, 40, and 100 Gigabit Ethernet connectivity with flexible multi-rate capabilities. IOC Modules leverage the latest generation high-performance ASIC, delivering full network classification and pipelining functionalities. Available VSP 8600 Series IOC modules are as follows:

- 8606CQ 6-port 100 Gigabit Ethernet in QSFP28 format
- 8616QQ 16-port 40 Gigabit Ethernet in QSFP+ format
- 8624XS 24-port 10 Gigabit Ethernet in SFP+ format
- 8624XT 24-port 10 Gigabit Ethernet in RJ45 format

It should also be noted:

- 100 Gigabit Ethernet QSFP28 ports support Channelization and can, therefore, be individually subdivided as 4x25Gbps or 4x10Gbps channels with QSFP28 and QSFP+ transceivers respectively.
- 100 Gigabit Ethernet QSFP28 ports can also operate at a 40Gbps data rate using QSFP+ transceivers.
- 40 Gigabit Ethernet QSFP+ Ports 1-4 support Channelization and can, therefore be individually sub-divided as 4x10Gbps channels.
- 10 Gigabit Ethernet SFP+ ports also support a wide range of 1 Gigabit Ethernet SFP Transceivers.
- 10 Gigabit Ethernet RJ45 ports also support 100/1000Mbps connectivity.

Please refer to the product technical documentation for further details.

System Performance

Each 8600 Switch Fabric Module provides 7.2Tbps in terms of aggregate bandwidth, or 3.6Tbps of Full-Duplex bandwidth. This capacity is evenly distributed across the eight IOC Module slots. As each additional 8600SF Module is added to the system, additional per-IOC slot bandwidth is introduced, increasing the overall capacity and performance levels.

Therefore, a fully loaded system, with three 8600SF Modules installed, delivers a raw system capacity of aggregate 21.6Tbps (10.8Tbps Full Duplex). The first-generation IOC Modules can access 480Gbps aggregate (240Gbps FDX) of each of the installed Switch Fabric Modules, up to the maximum of 1.44Tbps (720Gbps FDX).

Product Positioning

The new VSP 8600 expands the VSP line with an order of magnitude increase in port-density and switching performance. These capabilities equip the new VSP 8600 for its primary focus: Core and/or Aggregation Switch in mid-to-large Campus networks. Additionally, the VSP 8600 is suitably architected to deliver versatile services in hybrid Campus/Data Center deployment scenarios, acting as the Spine Switch in a Spine/Leaf Top-of-Rack deployment, or as the End-/Middle-of-Row that provides direct Server termination. Supporting Extreme Networks' innovative Fabric Connect and Switch Cluster technologies, in addition to conventional IP Routing, the VSP 8600 is an agile and versatile option that's suitable for a variety of deployment scenarios.

The VSP 8600 can be implemented singularly, benefiting from hitless failover high-availability that protects traffic flows in the event of any system-level failure. However, it's more typically deployed as a pair or in multiples of paired nodes. Thus implemented, the VSP 8600 delivers network-level always-on application resiliency and high-availability. When properly architected, the network is largely autonomous: network-wide application availability is protected from any single equipment, system, or node failure.

For large Campus deployments, the VSP 8600 will typically be matched with wiring closet fixed switches, like the ExtremeSwitching ERS or ExtremeXOS switch families. Leveraging 10 Gigabit network uplinks ensures end-to-end performance, complementing the demanding capabilities of Gigabit-to-the-Desktop and Wave 2 Wireless LAN infrastructures.

Data Center implementations can leverage the high-capacity 40 and 100 Gigabit connections, with the VSP 8600 acting as the Spine that supports multiple 1/10 Gigabit Top-of-Rack Switches such as the Virtual Services Platform 7200 Series. Alternatively, the VSP 8600 can be deployed as either an End-of-Row or Middle-of-Row Switch, leveraging its high 10 Gigabit port density to provide direct server termination.

Benefits

The VSP 8600 adds significant flexibility to the Extreme Networks portfolio, and is compatible with, and complementary to, existing products and technologies. It represents a highly compact, next-generation, high-performance Chassis-based Modular Ethernet Switching platform. It is positioned as a highly scalable platform delivering a broad range of interface connectivity, and focused primarily for demanding Core/Spine Switch applications in the Campus and Data Center. To this end, the VSP 8600's architecture features deep packet buffers that accommodate bursty traffic and deliver lossless performance.

Extreme Networks has a long history of innovation in the Ethernet Switching industry. The VSP 8600 continues this proud tradition. It's a modular platform that delivers high capacity yet consumes minimal space, delivering leading port and bandwidth densities. It is a highly efficient platform that reduces system complexity by integrating control functionality with a broad range of interface options. The VSP 8600 features a flexible architecture that satisfies today's need for high-performance and high-availability, and seamlessly integrates capabilities that allow for an evolution that will keep the platform class-leading for many years.

The VSP 8600 makes use of the most advanced, efficient merchant silicon from the industry's leading innovator. This achieve faster time-to-market, greater economies of performance, and broader feature capability. The VSP 8608 Chassis is very low-profile, given the capacity and density, occupying just seven (7) RU of height in a standard 19" rack.

System Compatibility

From a software perspective, the VSP 8600 was introduced with the VOSS 4.5 software release, which is the minimum required to operate the switch.

The recent VOSS 6.2 release for the VSP 8600 delivers the following major enhancements:

- **IPv6 Routing:** A comprehensive suite of IPv6 routing features, including OSPFv3, BGP+ and RIPng, now allows the VSP 8600 to fully participate in IPv6 Layer 3 network environments.
- **Shortest Path Bridging (SPB) Multicast:** : IPv4-based multicast services over the Fabric Connect (or SPB) virtual network are introduced with VOSS 6.2 on the VSP 8600. This includes IPv4 multicast over Fabric Connect L2 VSNs, L3 VSNs, as well as over IP Shortcut routing. This enables the VSP 8600 to deliver flexible, high-performance, and resilient IP multicast services over the Fabric Connect network without the complexity of PIM.
- **Application Telemetry:** Granular visibility into application performance, users and devices is provided through Application Telemetry services that operate in conjunction with Extreme's ExtremeAnalytics platform. Application Telemetry combines packet flow information from the VSP 8600, along with deep packet inspection abilities of ExtremeAnalytics, to deliver actionable insights into network and application performance – all without the need for expensive dedicated sensors or collectors.

Product Details

Features and Capabilities

- Innovative design to address the challenges of today.
- Reduced hardware requirements minimizes capital outlay.
- Higher port density from a reduced footprint.
- Break-the-mold architecture that is future-ready.
- Pioneering pay-as-you-grow software licensing model.
- Leverages full-featured, tried and tested VOSS software.
- Flexible support for up to 48 ports of 100 Gigabit Ethernet, 128 ports of 40 Gigabit Ethernet, or 192 ports of 10 Gigabit Ethernet.
- Hot-swappable hardware.
- Feature-rich support for conventional VLAN, Link Aggregation, Spanning Tree technologies.
- Support for IPv4 Routing techniques, including Static, RIP, OSPF (including Graceful Restart), BGP, VRRP, and VRF.
- Support for IPv6 Routing techniques RIPng, OSPFv3, BGP+, and VRF.

- IP Multicast support via PIM-SM/SSM for IPv4.
- Extreme Networks Switch Cluster technology supports Triangle, Square, and Full-Mesh configurations, with both Layer 2 and Layer 3 functionality and Simplified Virtual IST.
- Extreme Networks Fabric Connect technology, with support for L2 Virtual Service Networks, L3 Virtual Service Networks, Inter-VSN Routing, and IP Routing Shortcuts. Additional Fabric Connect functionality is to be added in future software releases.
- MACsec and Enhanced Security Mode options.

Physical Dimensions

- Height: 12 inches (30.5 cm) - 7RU
- Width: 17.5 inches (44.5 cm)
- Depth: 24 inches (61 cm)

High-Availability Power and Cooling

- Up to 4 field-replaceable, hot-swappable AC or DC internal Power Supplies.
- 5 field-replaceable Fan Trays.

Warranty

- 12-month hardware warranty.
- A complete range of support options are also available,

either directly from Extreme Networks or indirectly from our Authorized Business Partner network.

Software Licensing

- IOC Base Software License. The VSP 8600 implements a new licensing paradigm that introduces a pay-as-you-grow approach to the licensing most commonly used software features. For each installed IOC Module, customers will purchase a corresponding IOC Base Software License; this has the effect of dispensing with the large up-front costs associated with the conventional one-size-fits-all Chassis license.
- Layer 3 Virtualization Feature Pack. This is an optional, system-wide, mission-specific license that enables advanced level of device- and network-level virtualization, and - where local regulations permit - MACsec. This Feature Packs enables: >16 BGP Peers, >24 Virtual Routing and Forwarding instances, Layer 3 Virtual Service Networks, and - where applicable - MACsec.

Country of Origin

- Taiwan (ROC). This ensures that the VSP 8600 Series is TAA-compliant.

Specifications

General

- Physical Connectivity:
 - up to 48 ports of 100GBASE-QSFP28
 - up to 128 ports of 40GBASE-QSFP+
 - up to 192 ports of 10GBASE-SFP+ or 10GBASE-T
- Switch Fabric Capacity: 7.2Tbps per Switch Fabric Module, up to 21.6Tbps
- Switching Capacity per IOC Module: up to 1.44Tbps
- Channelization of 100 Gigabit ports
 - 1x40Gbps, 4x25Gbps4, 4x10Gbps
- Channelization of 40 Gigabit ports
 - 4x10Gbp
- Frame forwarding rate: up to 952.32Mpps per Slot
- Jumbo Frame support: up to 9,600 Bytes
- (802.1Q Tagged)
- MACsec Link Layer Encryption
 - 10 Gigabit (8624XS SFP+ only)
 - 100 Gigabit

Layer 2

- MAC Address: 256,000
- Port-based VLANs: 4,059
- MSTP Instances: 64
- MLT/LACP Groups: up to 192
- MLT Links per Group: 8
- Extreme Networks VLACP Interfaces: up to 128
- Extreme Networks SLPP VLANs: 500

Layer 3 IPv4 Routing Services

- ARP Entries: 64,000
- Static ARP Entries: 2000 per VRF, 10,000 per switch
- IP Interfaces: 4,059
- CLIP Interfaces: 64
- IP Routes: up to 252,000
- IP Static Routes: 2,000 per VRF, 10,000 per switch
- RIP Interfaces: 200
- OSPF Interfaces: 500 Active/2,000 Passive
- OSPF Areas: 12 per VRF, 80 per switch
- BGP Peers: 256
- BGP RIB Routes: 1,500,000 (Control Plane only)
- ECMP Unique Groups: 1,000
- ECMP Paths per Group: 8
- VRRP Interfaces: 512
- RSMLT Interfaces: up to 1,000
- IPv4 UDP Forwarding Entries: 1,024
- IPv4 DHCP Relay Forwarding Entries: 1,024
- IP Route Policies: 2,000 per VRF and 16,000 per switch
- VRF Instances: 512

Layer 3 IPv6 Routing Services

- Neighbors: 16,000
- Static Neighbors: 1000
- IP Interfaces: up to 4059
- CLIP Interfaces: 64
- IP Configured Tunnels: 16
- IP Routes: up to 32,000
- IP Static Routes: 10,000
- RIPng Interfaces: 48

- RIPng Routes: up to 16,000
- OSPFv3 Interfaces: 500 Active/2,000 Passive
- OSPFv3 Routes: up to 32,000
- OSPFv3 Areas: 64
- ECMP Groups: 1,000
- ECMP Paths per Group: 8
- VRRP Interfaces: up to 512
- RSMLT Interfaces: up to 1,000

Multicast

- IGMP Interfaces: 4,000
- PIM Interfaces: 512 Active/3,000 Passive
- IGMP Senders/Receivers: 6,000 Unique S,G,V
- IP Multicast Groups per BCB: up to 50,000
- PIM Multicast Routes: 6,000 Unique S,G,V
- Static Multicast Routes: up to 4,000
- PIM-SSM Static Channels: up to 4,000

Fabric Connect

- 802.1aq/RFC 6329 Shortest Path Bridging with
- Extreme Networks extensions
- MAC Address: 256,000
- NNI Interfaces/Adjacencies: up to 192
- Equal Cost Trees: 2
- BCB/BEB Nodes per Region: 2,000
- L2 Virtual Service Networks: 4,000
- L3 Virtual Service Networks: up to 512
- IP Shortcut Routes: up to 16,000
- L2 Multicast UNI ISIDs: 6,000
- L3 Multicast UNI ISIDs: 6,000

QoS and Filtering

- Total ACEs per IOC: 3,500 (2,000 IPv4 and 1,500 IPv6) Ingress and 2,000 Egress
- Total ACLs: 2,000 Ingress and 1,000 Egress

Operations and Management

- EDM On/Off-Box
- SNMP v1/2/3
- ACLI
- RADIUS, Community-based Users
- Terminal Access Controller Access-Control System, TACACS+
- Key Health Indicator (KHI)
- Logging (log to file and syslog)
- RMON
- Mirroring (port- and flow-based)
- Telnet Server/Client
- Trivial File Transfer Protocol (TFTP) Server/Client
- File Transfer Protocol (FTP) Server/Client
- Secure Shell (SSH) v1 and v2 Server/Client
- Secure Copy (SCP)
- Remote Shell (RSH) Server/Client
- Remote Login (Rlogin) Server/Client
- Domain Name Service (DNS) Client
- Network Time Protocol (NTP)
- SoNMP (Extreme Networks Topology Discovery Protocol)
- Extreme Networks Virtual Link Aggregation Control Protocol (VLACP)
- Extreme Networks Simple Loop Prevention Protocol (SLPP)
- IEEE 802.1ag Connectivity Fault Management
 - L2 Ping
 - TraceRoute

Supported Transceivers and Cables

100 Gigabit Ethernet

- 100GBASE-SR4 QSFP28 Transceiver, up to 100m over MMF (MPO)
- 100GBASE-CDWM4 QSFP28 Transceiver, up to 2km over SMF (Duplex LC)
- 100GBASE-LR4 QSFP28 Transceiver, up to 10km over SMF (Duplex LC)
- 100GBASE-QSFP28 Direct-Attach Cable, Passive Copper: 1.0m, 3.0m, 5.0m
- 100GBASE-QSFP28 Direct-Attach Cable, Active Optical: 10.0m 4
- 100GBASE-QSFP28/4x25GBASE-SFP28, Break-Out Cable, Passive Copper: 1.0m, 3.0m, 5.0m 4
- 100GBASE-QSFP28/4x25GBASE-SFP28, Break-Out Cable, Active Optical: 10.0m 4

40 Gigabit Ethernet

- 40GBASE-SR Bi-Directional QSFP+ Transceiver, up to 125m over MMF (Duplex LC)
- 40GBASE-SR4 QSFP+ Transceiver, up to 150m over MMF (MPO)
- 40GBASE-LM4 QSFP+ Transceiver, up to 160m over MMF (Duplex LC)
- 40GBASE-ESR4 QSFP+ Transceiver, up to 400m over MMF (MPO) 4
- 40GBASE-LR4 QSFP+ Transceiver, up to 10km over SMF (Duplex LC)
- 40GBASE-LR4 Parallel Single-Mode QSFP+ Transceiver, up to 10km over SMF (MPO)
- 40GBASE-ER4 QSFP+ Transceiver, up to 40km over SMF (Duplex LC)
- 40GBASE-QSFP+ Direct-Attach Cable, Passive Copper: 0.5m, 1.0m, 2.0m, 3.0m, 5.0m
- 40GBASE-QSFP+ Direct-Attach Cable, Active Optical: 10.0m
- 40GBASE-QSFP+/4x10GBASE-SFP+ Break- Out Cable, Passive Copper: 1.0m, 3.0m, 5.0m 4
- 40GBASE-QSFP+/4x10GBASE-SFP+ Break- Out Cable, Active Optical: 10.0m 4

10 Gigabit Ethernet

- 10GBASE-T SFP+ Transceiver, up to 100m over Cat 6a (RJ45)
- 10GBASE-LRM SFP+ Transceiver, up to 220m over FDDI- grade MMF/up to 300m over SMF (Duplex LC)
- 10GBASE-SR SFP+ Transceiver, up to 400m over MMF (Duplex LC)
- 10GBASE-LR/LW SFP+ Transceiver, up to 10km over SMF (Duplex LC)
- 10GBASE-BX SFP+ Transceiver (paired), up to 10km over SMF (Duplex LC)
- 10GBASE-ER/EW SFP+ Transceiver, up to 40km over SMF (Duplex LC)
- 10GBASE-BX40 Bi-Directional SFP+ Transceiver Pair, up to 40km over SMF (Simplex LC); must be implemented as a pair
- 10GBASE-ZR/ZW SFP+ Transceiver, up to 80km on SMF (Duplex LC)
- 10GBASE-SFP+ Direct-Attach Cable, Active Copper: 3.0m, 5.0m, 7.0m, 10m

Notes:

-SFP+ sockets are also capable of supporting a wide range of 1 Gigabit Ethernet Transceivers: please refer to product documentation for full details and a complete listing of all specifications and compliance.

-10 Gigabit Ethernet RJ45 ports also support 100/1000Mbps connectivity.

-Extreme Networks also supports third-party Transceivers in "Forgiving Mode": although operation cannot be guaranteed, ports are enabled and traffic should pass as normal.

Standards Compliance

IEEE

- 802.1 Bridging (Networking) and Network Management
- 802.1D MAC Bridges (a.k.a. Spanning Tree Protocol)
- 802.1p Traffic Class Expediting and Dynamic Multicast Filtering
- 802.1t 802.1D Maintenance

- 802.1w Rapid Reconfiguration of Spanning Tree (RSTP)
- 802.1Q Virtual Local Area Networking (VLAN)
- 802.1Qbp Equal-Cost Multi-Path (Shortest Path Bridging)
- 802.1Qcj Automatic Attachment to Provider Backbone Bridging (PBB) Services (Partial Support)
- 802.1s Multiple Spanning Trees (MSTP)
- 802.1v VLAN Classification by Protocol and Port
- 802.1ag Connectivity Fault Management
- 802.1ah Provider Backbone Bridges
- 802.1aq Shortest Path Bridging (SPB) MAC- in-MAC
- 802.1X Port-based Network Access Control 4
- 802.1AB-2005 Station and Media Access Control Connectivity Discovery; aka LLDP (partial support)
- 802.1AE Media Access Control Security
- 802.3 Ethernet
- 802.3-1983 CSMA/CD Ethernet (ISO/IEC 8802-3)
- 802.3i-1990 10Mb/s Operation, 10BASE-T Copper
- 802.3u-1995 100Mb/s Operation, 100BASE-T Copper, with Auto-Negotiation
- 802.3x-1997 Full Duplex Operation (partial support)
- 802.3z-1998 1000Mb/s Operation, implemented as 1000BASE-X
- 802.3ab-1999 1000Mb/s Operation, 1000BASE-T Copper
- 802.3ae-2002 10Gb/s Operation, implemented as 10GBASE-SFP+
- 802.3an-2006 10Gb/s Operation, 10GBASE-T Copper
- 802.3ba-2010 40Gb/s and 100Gb/s
- 802.3bm-2015 40Gb/s and 100Gb/s Operation, implemented as 40GBASE-QSFP+ and 100GBASE-QSFP28

RFC

- 768 UDP
- 783 TFTP
- 791 IP
- 792 ICMP
- 793 TCP
- 826 AR
- 854 Telnet
- 894 Transmission of IP Datagrams over Ethernet Networks
- 896 Congestion Control in IP/TCP internetworks
- 906 Bootstrap Loading using TFTP
- 950 Internet Standard Subnetting Procedure
- 951 BOOTP: Relay Agent-only
- 959 FTP
- 1027 Using ARP to Implement Transparent Subnet Gateways
- 1058 RIP
- 1112 Host Extensions for IP Multicasting
- 1122 Requirements for Internet Hosts - Communication Layers
- 1155 Structure and Identification of Management Information for TCP/IP-based Internets
- 1156 MIB for Network Management of TCP/IP
- 1157 SNMP
- 1212 Concise MIB Definitions
- 1213 MIB for Network Management of TCP/ IP-based Internets: MIB-II
- 1215 Convention for Defining Traps for use with SNMP
- 1256 ICMP Router Discovery
- 1258 BSD Rlogin
- 1271 Remote Network Monitoring MIB
- 1305 NTPv3
- 1321 MD5 Message-Digest Algorithm

- 1340 Assigned Numbers
- 1350 TFTPv2
- 1398 Ethernet MIB

RFC (cont.)

- 1442 SMIv2 of SNMPv
- 1450 SNMPv2 MIB
- 1519 CIDR
- 1541 DHCP
- 1542 Clarifications and Extensions for BOOTP
- 1573 Evolution of the Interfaces Group of MIB-II
- 1587 OSPF NSSA Option
- 1591 DNS Client
- 1650 Definitions of Managed Objects for Ethernet-like Interface Types
- 1657 Definitions of Managed Objects for BGP-4 using SMIv2
- 1723 RIPv2 Carrying Additional Information
- 1812 Router Requirements
- 1850 OSPFv2 MIB
- 1866 HTMLv2
- 1907 SNMPv2 MIB
- 1930 Guidelines for Creation, Selection, and Registration of an AS
- 1981 Path MTU Discovery for IPv6
- 2021 Remote Network Monitoring MIBv2 using SMIv2
- 2068 HTTP
- 2080 RIPv2 for IPv6
- 2131 DHCP
- 2138 RADIUS Authentication
- 2139 RADIUS Accounting
- 2236 IGMPv2 Snooping
- 2284 PPP Extensible Authentication Protocol
- 2328 OSPFv2
- 2404 HMAC-SHA-1-96 within ESP and AH
- 2407 Internet IP Security Domain of Interpretation for ISAKMP5
- 2408 Internet Security Association and Key Management Protocol5
- 2428 FTP Extensions for IPv6 and NAT
- 2452 TCP IPv6 MIB
- 2453 RIPv2
- 2454 UDP IPv6 MIB
- 2460 IPv6 Basic Specification
- 2463 ICMPv6
- 2464 Transmission of IPv6 Packets over Ethernet Networks
- 2466 MIB for IPv6: ICMPv6 Group
- 2474 Differentiated Services Field Definitions in IPv4 and IPv6 Headers
- 2475 Architecture for Differentiated Service
- 2541 DNS Security Operational Considerations
- 2545 BGP-4 Multiprotocol Extensions for IPv6 Inter-Domain Routing
- 2548 Microsoft Vendor-specific RADIUS Attributes
- 2572 Message Processing and Dispatching for SNMP
- 2573 SNMP Applications
- 2574 USM for SNMPv3
- 2575 VACM for SNMP
- 2576 Coexistence between v1/v2/v3 of the Internet-standard Network Management Framework
- 2578 SMIv2
- 2579 Textual Conventions for SMIv2
- 2580 Conformance Statements for SMIv2
- 2597 Assured Forwarding PHB Group
- 2598 Expedited Forwarding PHB
- 2616 HTTPv1.1
- 2710 MLD for IPv6
- 2716 PPP EAP TLS Authentication Protocol
- 2787 Definitions of Managed Objects for VRRP
- 2818 HTTP over TLS
- 2819 Remote Network Monitoring MIB
- 2863 Interfaces Group MIB
- 2865 RADIUS
- 2869 RADIUS Extensions (Partial Support)
- 2874 DNS Extensions for IPv6
- 2925 Definitions of Managed Objects for Remote Ping, Traceroute, and Lookup Operations
- 2933 IGMP MIB
- 2934 PIM MIB for IPv4
- 2992 ECMP Algorithm
- Option 82
- 3046 DHCP Relay Agent Information
- 3162 RADIUS and IPv6
- 3246 Expedited Forwarding PHB
- 3315 DHCPv6
- 3376 IGMPv3
- 3339 Date & Time on The Internet: Timestamps
- 3411 Architecture for Describing SNMP Management Frameworks
- 3412 Message Processing and Dispatching for SNMP
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- 3416 Protocol Operations v2 for SNMP
- 3417 Transport Mappings for SNMP
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- 3484 Default Address Selection for IPv6
- 3513 IPv6 Addressing Architecture
- 3569 Overview of SSM
- 3587 IPv6 Global Unicast Address Format
- 3596 DNS Extensions to support IPv6
- 4007 IPv6 Scoped Address Architecture
- 4022 TCP MIB
- 4087 IP Tunnel MIB
- 4113 UDP MIB
- 4133 Entity MIB Version 3 (partial support)
- 4213 Basic Transition Mechanisms for IPv6 Hosts and Routers
- 4250 SSH Assigned Numbers
- 4251 SSH Protocol Architecture
- 4252 SSH Authentication Protocol
- 4253 SSH Transport Layer Protocol
- 4254 SSH Connection Protocol
- 4255 DNS to Securely Publish SSH Key Fingerprints
- 4256 Generic Message Exchange Authentication for SSH
- 4291 IPv6 Addressing Architecture
- 4292 IP Forwarding Table MIB
- 4293 IP MIB
- 4301 Security Architecture for IP5
- 4302 IP Authentication Header5
- 4303 IP Encapsulating Security Payload5
- 4308 Cryptographic Suites for IPsec
- 4363 Definitions of Managed Objects for Bridges with Traffic Classes, Multicast Filtering and VLAN Extensions (Partial Support)
- 4429 Optimistic DAD for IPv6 (Partial Support)
- 4443 ICMP for IPv6
- 4541 Considerations for IGMP and MLD Snooping Switches
- 4552 Authentication/Confidentiality for OSPFv3
- 4601 PIM-SM: Revised Protocol Specification

- 4607 Source-Specific Multicast for IP
- 4675 RADIUS Attributes for Virtual LAN and Priority Support (Partial Support)

RFC (cont.)

- 4835 Cryptographic Algorithm Implementation Requirements for ESP and AH
- 4861 Neighbor Discovery for IPv6
- 4862 IPv6 Stateless Address Auto-Configuration
- 5095 Deprecation of Type 0 Routing Headers in IPv6
- 5187 OSPFv3 Graceful Restart (Helper-mode)
- 5308 Routing IPv6 with IS-IS
- 5340 OSPF for IPv6
- 5424 The Syslog Protocol
- 5798 VRRPv3 for IPv4 and IPv6
- 6105 IPv6 Router Advertisement Guard
- 6329 IS-IS Extensions supporting IEEE 802.1aq SPB
- 6933 Entity MIBv4 (Partial Support)
- 7358 VXLAN: A Framework for Overlaying Virtualized L2 Networks over L3 Networks (partial support)⁴
- 7610 DHCPv6 Shield: Protecting against Rogue DHCPv6 Servers
- Internet-Draft IP/IPVPN services with IEEE 802.1aq SPB networks (draft-unbehagen-spb-ip-ipvpn-00)
- Internet-Draft SPB Deployment Considerations (draft-lapuh-spb-deployment-03)

Ordering Information

Part Code	Description
Chassis	
EC8602001-E6	VSP 8608 Chassis with eight (8) IOC Module Slots, complete with five (5) Fan Modules, Rack Mount, & Cable Guide.
SF & IOC Modules	
EC8604001-E6	8600SF Switch Fabric Module.
EC8604002-E6	8624XS 24-Port 10 Gigabit Ethernet SFP+ Input Output Controller Module.
EC8604003-E6	8624XT 24-Port 10 Gigabit Ethernet RJ45 Input Output Controller Module.
EC8604004-E6	8616QQ 16-Port 40 Gigabit Ethernet QSFP+ Input Output Controller Module.
EC8604005-E6	8606CQ 6-Port 100 Gigabit Ethernet QSFP28 Input Output Controller Module.
Accessories	
EC8605A01-E6	3,000W 100-240V AC Power Supply for use with the VSP 8600 Series.
EC8605A02-E6	2,500W DC Power Supply for use with the VSP 8600 Series.
EC8611001-E6	Spare Fan Module for use with the VSP 8600 Series.
EC8611002-E6	Module Filler Panel for use with the VSP 8600 Series.
EC8611003-E6	Power Supply Filler Panel for use with the VSP 8600 Series.
EC8611004-E6	Rack Mount for the VSP 8600 Series.
EC8611005-E6	Cable Guide for the VSP 8600 Series.
EC8611006-E6	Power Supply Bay Cover Panel for use with the VSP 8600 Series.
Software Licenses	
392259	VSP 8600 IOC Base Software License; One (1) required per VSP 8600 IOC Module.
392670	VSP 8600 Layer 3 Virtualization Feature Pack Software License; One (1) required per VSP 8600 Chassis.
392671	VSP 8600 Layer 3 Virtualization and MACsec Feature Pack Software License; One (1) required per VSP 8600 Chassis.

Ordering Information (cont.)

Part Code	Description
Power Cords	
AA0020076-E6	AC Power Cord 20A/125V NEMA 5-20, North America.
AA0020077-E6	AC Power Cord 15A/250V NEMA 6-15, North America.
AA0020078-E6	AC Power Cord 16A/250V CEE7/7, Continental Europe.
AA0020079-E6	AC Power Cord 16A/250V CEI 23-50 S17, Italy.
AA0020080-E6	AC Power Cord 16A/250V SI 32, Israel.
AA0020081-E6	AC Power Cord 15A/250V BS-546, India / South Africa.
AA0020082-E6	AC Power Cord 16A/230V 3-Pin IEC60309, International.
AA0020083-E6	AC Power Cord 20A/250V NEMA L6-20 Twist Lock, North America.
AA0020084-E6	AC Power Cord 15A/250V AS 3112, Australia.
AA0020085-E6	AC Power Cord 13A/230V BS 1362, UK and Ireland.
AA0020086-E6	AC Power Cord 16A/250V GB 11918-86, Greater China.
AA0020087-E6	AC Power Cord 15A/250V NEMA L6-15 Twist Lock, North America.
A0020102-E6	AC Power Cord IEC C19 TO NBR 14136 (IEC 60906-1) Brazil (2.5m 16A/250V).
AA0020112-E6	DC Power Cord for use with EC8602001-E6 2,500W DC Power Supply.
Chassis Bundles	
EC8602002-E6	<ul style="list-style-type: none"> VSP 8600 AC Chassis Bundle, complete with: VSP 8608 Chassis with eight (8) IOC Module Slots, complete with five (5) Fan Modules, Rack Mount, and Cable Guide. 4 x 3,000W 100-240V AC Power Supply for use with the VSP 8600 Series. 3 x 8600SF Switch Fabric Modules.
EC8602003-E6	<ul style="list-style-type: none"> VSP 8600 DC Chassis Bundle, complete with: VSP 8608 Chassis with eight (8) IOC Module Slots, complete with five (5) Fan Modules, Rack Mount, and Cable Guide. 4 x 2,500W DC Power Supply for use with the VSP 8600 Series. 3 x 8600SF Switch Fabric Modules.

Notes:

Customers should separately order the power cord that corresponds with their regional power cord requirements. Extreme Networks recommends that Customers purchase additional power supplies, to provide N+1 highly available power. It should be noted that while the system supports both AC and DC power, all PSUs must be of the same type; that is, all AC or all DC. By default, the system will ship with one empty PSU bay and the remaining three bays covered with filler panels. A PSU Cover Panel is an optional accessory.