

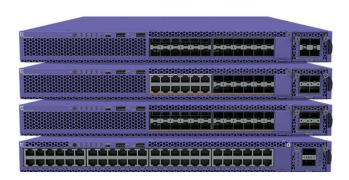
# Virtual Services Platform 4900 Series

#### **Highlights**

- Intuitive and centralized cloud-managed switching with ExtremeCloud™ IQ and ExtremeCloud IQ—Site Engine
- MACsec on 10Mb/100Mb/1000Mb and 10Gb access ports as well as modular uplink ports for secure link encryption
- Leverages Extreme Fabric Connect to simplify your network to meet regulatory and security needs
- Fabric-enabled switch operations with Fabric Extend for transparent extension of Fabric Connect services over thirdparty networks
- Supports both Fabric Connect and/or conventional Routed IP networking deployments

#### Key Hardware Features

- · Compact 1U form factor
- Non-blocking wire-speed switching architecture
- Hot-swappable, redundant power supplies and fans



#### Fixed-Form Switch for Branch and Network Edge

The Virtual Services Platform (VSP) 4900 Series is the next generation of Extreme Fabric Connect fixed-form factor switches designed for network edge and aggregation deployments. Available in four models to address a range of campus, remote site, and multiservice needs, the 4900 Series enables end-to-end fabric services from network edge to aggregation to core, as well as transparent extension of fabric services to the branch.

Multiple models support 1GbE 30W PoE, 1Gb or 10GbE SFP/SFP+ fiber, and 1GbE, 2.5GbE, 5GbE, or 10GbE multirate 60W PoE access ports. With modular uplink support at 10Gb, 25Gb, and 40Gb, VSP 4900 switches can be linked to other switches or devices over a range of media. This provides high-performance, resilient, and secure Gigabit and multi-Gigabit Ethernet connectivity, enabling VSP 4900 switches to leverage advanced capabilities that enable full-featured network virtualization to be flexibly deployed across a range of network environments.

#### **Ethernet Fabric Services**

The VSP 4900 Series natively supports Extreme Fabric Connect technology, offering you the ability to create a virtualized network that simplifies network provisioning and reduces strain on network and IT teams based on an extended implementation of the Shortest Path Bridging standards of IEEE 802.1aq. Fabric Connect delivers an edge-only provisioning model that seamlessly integrates with orchestration and automation, eliminates the need to configure network-wide VLANs, and removes the risk of network loops.

The VSP 4900 also natively supports Fabric Extend, a feature of Fabric Connect that extends Fabric Connect's simplified provisioning and virtualization services over an intermediate, Layer 2 or Layer 3-based third-party network. For example, Fabric Extend allows you to connect two Fabric Connect environments or islands over a Service Provider WAN, such as MPLS or Ethernet WAN.

### **Advanced Layer 3 Services**

The VSP 4900 Series supports advanced Layer 3 services, including IPv4 and IPv6 dynamic routing as well as IP multicast services. This enables it to satisfy conventional IP routing deployments in addition to its fabric-based services.

VSP 4900 models support Distributed Virtual Routing (DVR) leaf services, IP routing technologies (such as RIPv1/2, RIPng, and OSPFv2/v3), as well as multicast services (such as PIM-SM/SSM, IGMP v1, 2, and 3) and Fabric Connect to PIM gateway.

# **Power Over Ethernet (PoE)**

Select VSP 4900 models support PoE that conforms to IEEE standards to address the needs of powered edge devices. VSP 4900-48P model supports IEEE 802.3at 30W PoE on each of its 48 ports, while the VSP 4900-12MXU-12XE model supports IEEE 802.3bt 60W PoE on its 12 multirate ports. In addition, both these models support fast and perpetual PoE capabilities for faster startup and more continuous operation of connected, PoE-powered endpoints.

# **Integrated Application Hosting**

Select VSP 4900 models support Extreme's Integrated Application Hosting, which leverages the switch's hardware and software design to extend services without impacting switch or network performance. VSP4900-12MXU-12XE and VSP4900-24XE models can run a Guest VM directly on the switch, supporting Extreme or third-party applications and tools for real-time visibility or to meet specific business or operational needs. This can help improve network visibility and performance while reducing operational costs.

# **MACsec Link Encryption**

IEEE 802.1AE MACsec is supported on VSP 4900 Series access and modular uplink ports, enabling the encryption and decryption of packets between connected switches or devices. As a link-only encryption, 4900 switches can still apply services to the packet, such as policy or QoS, without compromising the security of packets across the link. With 128-bit and 256-bit Advanced Encryption Standard (AES) support, the VSP 4900 provides the most secure link encryption.

# **VIM Options for Flexible Uplinks**

The VSP 4900 supports Versatile Interface Modules (VIM) for its uplink ports as well as its single VIM slot available for uplinks. VIM options include two-and four-port modules that support 10Gb, 25Gb, and 40Gb data rates.

# **Cloud-Based Network Management**

The VSP 4900 Series can be managed by ExtremeCloud IQ and ExtremeCloud IQ — Site Engine for centralized switch management, giving you a consolidated view of users, devices, and applications across wired and wireless networks. ExtremeCloud IQ enables zero-touch provisioning, allowing you to quickly bring new VSP 4900 switches online and a granular view that enables efficient inventory and network topology management.

Alternatively, VSP 4900 on-box management can be done manually via a web-based GUI or generic command-line interface (CLI).

# **Performance and Scale**

| Switch Model           | Max Active 10/100/<br>1000MbPorts | Max Active<br>100M/1Gb/<br>2.5Gb/5Gb/<br>10Gb Ports | Max Active<br>100M/1Gb<br>SFP ports | Max Active<br>1/10Gb SFP+<br>ports | Max Active<br>10/25Gb<br>SPF28 ports | Max Active<br>40Gb<br>QSFP+<br>ports* | Aggregated<br>Switch<br>Bandwidth | Frame<br>Forwarding<br>Rate |
|------------------------|-----------------------------------|---|-------------------------------------|------------------------------------|--------------------------------------|---------------------------------------|-----------------------------------|-----------------------------|
| VSP4900-48P            | 48                                | 0   | 0                                   | 4                                  | 2                                    | 1                                     | 196Gbps                           | 145.8Mpps                   |
| VSP4900-24S            | 0                                 | 0   | 24                                  | 4                                  | 2                                    | 1                                     | 148Gbps                           | 110.1Mpps                   |
| VSP4900-24XE           | 0                                 | 0   | 0                                   | 28                                 | 4                                    | 2                                     | 680Gbps                           | 505.9Mpps                   |
| VSP4900-<br>12MXU-12XE | n/a                               | 12  | 0                                   | 16                                 | 4                                    | 2                                     | 680Gbps                           | 505.9Mpps                   |

 $<sup>^{*}</sup>$  40Gb ports on the VIM5 module can also be broken out individually into 4 x 10Gb ports.

# **External Ports and Slots**

#### **Switches**

| Part Number        | Max Active 10/100/1000 Mb Ports   |
|--------------------|---|
| VSP4900-48P        | 48 x 10/100/1000BASE-T 802.3at (30w) ports  • Full/ Half-Duplex  • MACsec capable (128-bit)  1 x Serial (console port RJ-45)  1 x 10/100/1000BASE-T out-of-band management port  1 x USB Micro-B management port  2 x USB A ports for external USB flash 1 VIM5 slot                                |
| VSP4900-24S        | 24 x 100/1000BASE-X SFP ports (unpopulated) 1 x Serial (console port RJ-45) 1 x 10/100/1000BASE-T out-of-band management port 1 x USB Micro-B management port 2 x USB A ports for external USB flash 1 VIM5 slot  |
| VSP4900-24XE       | 24 x 1/10GBASE-X SFP+ ports (unpopulated)  • LRM and MACsec capable (256-bit) 1 x Serial (console port RJ-45) 1 x 10/100/1000BASE-T out-of-band management port 1 x USB Micro-B management port 2 x USB A ports for external USB flash 1 VIM5 slot  |
| VSP4900-12MXU-12XE | 12 x 100M/1/2.5/5/10GBASE-T 802.3bt Type3 (60w) ports 12 x 1/10GBASE-X SFP+ ports (unpopulated)  • MACsec capable (256-bit) 1 x Serial (console port RJ-45)  1 x 10/100/1000BASE-T out-of-band management port  1 x USB Micro-B management port  2 x USB A ports for external USB flash 1 VIM5 slot |

#### **VIM Modules**

| Part Number | Max Active 10/100/1000 Mb Ports   |
|-------------|---|
| VIM5-4X     | 4 x 1/10GBASE-X SFP+ (unpopulated ports)  |
| VIM5-4XE    | 4 x 1/10GBASE-X SFP+ (unpopulated ports)  LRM capable  MACsec capable (256-bit) |
| VIM5-4YE    | 4 x 10/25GBASE-X SFP28 (unpopulated ports)  • MACsec capable (256-bit)          |
| VIM5-2Q     | 2 x 40GBASE-X QSFP+ (unpopulated ports)   |

# Weights and Dimensions

# Switches

| Part Number        | Weight             | Physical Dimensions  |  |  |
|--------------------|--------------------|--|--|--|
|                    |                    | Chassis Only   | With PSU   |  |
| VSP4900-48P        | 8.39 kg (18.49 lb) | Height: 43.18 mm (1.70 in)                                 | Height: 43.18 mm (1.70 in)                                 |  |
| VSP4900-24S        | 8.17 kg (18.01 lb) | Width: 440.44 mm (17.34 in)<br>Depth: 488.44 mm (19.23 in) | Width: 440.44 mm (17.34 in)<br>Depth: 506.22 mm (19.93 in) |  |
| VSP4900-24XE       | 7.66 kg (16.89 lb) |  |  |  |
| VSP4900-12MXU-12XE | 7.58 kg (16.67 lb) |  |  |  |

#### **VIM Modules**

| Part Number | Weight            | Physical Dimensions                                     |
|-------------|-------------------|---|
| VIM5-4X     | 0.17 kg (0.37 lb) | Height: 40.89 mm (1.61 in)                              |
| VIM5-4XE    | 0.19 kg (0.41 lb) | Width: 48.77 mm (1.92 in)<br>Depth: 146.30 mm (5.76 in) |
| VIM5-4YE    | 0.19 kg (0.41 lb) |   |
| VIM-2Q      | 0.17 kg (0.37 lb) |   |

# **Power Supplies**

| Part Number                    | Weight            | Physical Dimensions  |
|--------------------------------|-------------------|--|
| 10953 (350W AC)                | 1.08 kg (2.38 lb) | Height: 39.62 mm (1.56 in)   |
| 10951 (715W AC)                | 1.16 kg (2.55 lb) | Width: 82.55 mm (3.25 in)<br>Depth: 287.02 mm (11.30 in)                               |
| 10941 (1100W AC)               | 1.16 kg (2.55 lb) |  |
| XN-ACPWR-2000W-F<br>(2000W AC) | 1.16 kg (2.56 lb) | Height: 39.62 mm (1.56 in)<br>Width: 82.55 mm (3.25 in)<br>Depth: 292.10 mm (11.50 in) |

# **Power Supply Unit Specifications**

|                               | 10953   | 10951   | 10941   | XN-ACPWR-2000W-F*                               |
|-------------------------------|---|---|---|---|
| Voltage Input Range (Nominal) | 100-127 / 200-240 VAC                           |
| Line Frequency Range          | 50 to 60 Hz                                     |
| Power Supply Input Socket     | IEC/EN 60320 C14                                | IEC/EN 60320 C16                                | IEC/EN 60320 C16                                | IEC/EN 60320 C16                                |
| Power Cord Input Plug         | IEC/EN 60320 C15                                | IEC/EN 60320 C15                                | IEC/EN 60320 C15                                | IEC/EN 60320 C15                                |
| Operating Temperature         | 0°C to 55°C (32°F to 131°F)<br>Normal Operation | 0°C to 50°C (32°F to 122°F)<br>Normal Operation | 0°C to 50°C (32°F to 122°F)<br>Normal Operation | 0°C to 55°C (32°F to 131°F)<br>Normal Operation |

<sup>\*200-240</sup> VAC is required to achieve full 2000W output. If run at 100-120 VAC, output is limited to 1100W.

|                               | XN-ACPWR-350W-FB                                | XN-ACPWR-715W-FB                                | XN-ACPWR-1100W-FB                               | XN-ACPWR-2000W-FB*                              |
|-------------------------------|---|---|---|---|
| Voltage Input Range (Nominal) | 100-240 VAC                                     | 100-240 VAC                                     | 100-240 VAC                                     | 100-240 VAC                                     |
| Line Frequency Range          | 50 to 60 Hz                                     |
| Power Supply Input Socket     | IEC/EN 60320 C14                                | IEC/EN 60320 C16                                | IEC/EN 60320 C16                                | IEC/EN 60320 C16                                |
| Power Cord Input Plug         | IEC/EN 60320 C15                                | IEC/EN 60320 C15                                | IEC/EN 60320 C15                                | IEC/EN 60320 C15                                |
| Operating Temperature         | 0°C to 55°C (32°F to 131°F)<br>Normal Operation | 0°C to 55°C (32°F to 131°F)<br>Normal Operation | 0°C to 50°C (32°F to 122°F)<br>Normal Operation | 0°C to 50°C (32°F to 122°F)<br>Normal Operation |

<sup>\*200-240</sup> VAC is required to achieve full 2000W output. If run at 100-120 VAC, output is limited to 1100W.

# **PoE Power Budget**

| Switch Model       | 1 x 715W PSU | 2 x 715W PSU | 1 x 1100W PSU | 2 x 1100W<br>PSU | 1 x 2000W @<br>200-240 VAC | 1 x 2000W @<br>100-120 VAC | 2 x 2000 @<br>200-240 VAC | 2 x 2000W @<br>100-120 VAC |
|--------------------|--------------|--------------|---------------|------------------|----------------------------|----------------------------|---------------------------|----------------------------|
| VSP4900-48P        | 460W         | 1045W        | 845W          | 1440W            | 1440W                      | 845W                       | 1440W                     | 1440W                      |
| VSP4900-12MXU-12XE | TBD          | 720W         | 720W          | 720W             | 720W                       | 720W                       | 720W                      | 720W                       |

# Minimum/Maximum Power Consumption and Heat Dissipation

| Switch Model       | Minimum Power<br>Consumption (W) | Minimum Heat Dissipation<br>(BTU/hr) | Maximum Power<br>Consumption (W)* | Maximum Heat Dissipation<br>(BTU/hr)** |
|--------------------|----------------------------------|--------------------------------------|-----------------------------------|--|
| VSP4900-48P        | 74                               | 254                                  | 1746                              | 1046                                   |
| VSP4900-24S        | 52                               | 179                                  | 173                               | 590                                    |
| VSP4900-24XE       | 80                               | 271                                  | 207                               | 707                                    |
| VSP4900-12MXU-12XE | 73                               | 250                                  | 970                               | 854                                    |

<sup>\*</sup> Includes maximum PoE load (W) through the switch

<sup>\*\*</sup> Does not include PoE load heat dissipated through external electronic load

# **Product Specifications**

#### **Memory**

VSP4900-48P and VSP4900-24S

2GB DRAM / 8GB eMMC NVRAM

VSP4900-12MXU-12XE and VSP4900-24XE

8GB DRAM / 8GB eMMC NVRAM

#### Layer 2

MAC Address: up to 80,000

Port-based VLANs: 4,059

MSTP Instances: 12

LACP Links per Group: 8 Active

#### **Layer 3 IPv4 Routing Services**

ARP Entries: up to 32,000

IP Routes: up to 15,488

RIP Interfaces: 200

OSPF Interfaces: 500

BGP Peers: 256

VRF Instances: up to 256

Layer 3 IPv6 Routing Services

Neighbors: up to 8,000

IP Routes: up to 7,744

RIPng Interfaces: 48

OSPFv3 Interfaces: 500

BGPv6 Peers: 256

VRF Instances: up to 256

#### Multicast

IGMP Interfaces: 4,059

PIM Active Interfaces: 128

MLD Interfaces: 4,059

IP Multicast Streams: 6,000

#### **Fabric Connect**

MAC Address: 40,000

NNI Interfaces/Adjacencies: up to 255

BEB Nodes per VSN: 500

BCB/ BEB Nodes per Region: 550

L2 Virtual Service Networks: 4,059

L3 Virtual Service Networks: up to 256

IP Shortcut Routes: IPv4 up to 15,488 and IPv6 7,488

L2 Multicast Virtual Service Networks: 2,000

L3 Multicast Virtual Service Networks: 256

Maximum SGVs: 6,000

#### **QoS and Filtering**

IPv4 ACE: 1536 (1024 Security + 512 QOS) Ingress and 248 Egress

IPv6 ACE: 1024 Ingress and 256 Egress

QoS priority queues-8

#### **Operations and Management**

Mirrored Ports: 49

sFlow: up to 3100 samples per second

Fabric RSPAN: 1,000 VLAN IDs

#### **Environmental Specifications**

EN/ETSI 300 019-2-1 v2.1.2 - Class 1.2 Storage

EN/ETSI 300 019-2-2 v2.1.2 - Class 2.3 Transportation

EN/ETSI 300 019-2-3 v2.1.2 - Class 3.1e Operational

EN/ETSI 300 753 (1997-10) - Acoustic Noise

ASTM D3580 Random Vibration Unpackaged 1.5G

#### **Environmental Compliance**

EU RoHS 2011/65/EU

EU WEEE 2012/19/EU

China RoHS SJ/T 11363-2006

Taiwan RoHS CNS 15663(2013.7)

#### **Operating Conditions**

Temp: 0°C to 45°C (32°F to 113°F)

Humidity: 10% to 95% relative humidity, non-condensing

Altitude: 0 to 3,000 meters (9,850 feet)

Shock (half sine) 30m/s2 (3G), 11ms, 60 shocks

Random vibration: 3 to 500Hz at 1.5G rms

#### **Packaging and Storage Specifications**

Temp: -40°C to 70°C (-40°F to 158°F)

Humidity: 10% to 95% relative humidity, non-condensing

Packaged Shock (half sine): 180m/s2 (18 G), 6ms, 600 shocks

Packaged Vibration: 5 to 62Hz at velocity 5mm/s, 62 to 500Hz at 0.2G

Packaged Random Vibration: 5 to 20Hz at 1.0 ASD w/-3 dB/oct. from 20 to

Packaged Drop Height: 14 drops minimum on sides and corners at 42 inches (<15 kg box)

#### **Regulatory and Safety**

North American ITE

UL 60950-1

UL 62368-1

Complies with FCC 21CFR 1040.10 (U.S. Laser Safety)

CDRH Letter of Approval (US FDA Approval)

CAN/CSA 22.2 No. 60950-1

CAN/CSA No. 22.2 62368-1-14

European ITE

EN 60950-1, EN 62368-1

EN 60825-1Class 1 (Lasers Safety)

2014 / 35/ EU Low Voltage Directive

#### International ITE

CB Report & Certificate per IEC 60950-1 AS/NZS 60950-1 (Australia /New Zealand)

IEC 62368-1

GB 4943.1-2011

CNS 14336-1

#### **EMI/EMC Standards**

North American EMC for ITE

FCC CFR 47 part 15 Class A (USA)

ICES-003 Class A (Canada)

#### European EMC Standards

EN 55032 Class A

EN 55024

EN 61000-3-2,2014 (Harmonics)

EN 61000-3-3 2013 (Flicker)

EN 300 386 v1.6.1 (EMC Telecommunications)

2014/30/EU EMC Directive

EN 55011 Class A

#### International EMC Certifications

CISPR 32, Class A (International Emissions)

AS/NZS CISPR32

CISPR 24 Class A (International Immunity)

IEC 61000-4-2 / EN 61000-4-2 Electrostatic Discharge, 8kV Contact, 15 kV Air, Criteria A

IEC 61000-4-3 /EN 61000-4-3 Radiated Immunity 10V/m, Criteria A

IEC 61000-4-4 / EN 61000-4-4 Transient Burst, 1 kV, Criteria A

IEC 61000-4-5 /EN 61000-4-5 Surge, 2 kV L-L, 2 kV L-G, Level 3, Criteria A IEC 61000-4-6 Conducted Immunity, 0.15-80 MHz, 10V/m unmod. RMS,

IEC/EN (1000 / 11 Dayler Dir

IEC/EN 61000-4-11 Power Dips & Interruptions, >30%, 25 periods, Criteria C

IEC 61000-4-8 / EN 61000-4-8

CISPR 11 Class A

GB/T 9254-2008

#### Country Specific

VCCI Class A (Japan Emissions)

ACMA RCM (Australia Emissions)

CCC Mark (China)

KCC Mark, EMC Approval (Korea)

EAC Mark (Custom Union)

NRCS / SABS Mark (South Africa)

BSMI Mark (Taiwan)

Telecom Standards

#### Telecom Standards

CE 2.0 Compliant

#### **IEEE 802.3 Media Access Standards**

IEEE 802.3ab 1000BASE-T

IEEE 802.3ae 10GBASE-X

IEEE 802.3aq 10GBASE-LRM

25Gb Ethernet implemented per Ethernet Consortium specification and

IEEE 802.3 standard

IEEE 802.3ba / 802.3bm 40GBASE-X

IEEE 802.3at PoE Plus

IEEE 802.3az Energy Efficient Ethernet

# **Ordering Notes**

Many VSP 4900 Series systems are ordered and shipped as a bundled offering. The bundle includes the base VSP 4900 system along with a single Power Supply, Fan Modules, and the VOSS operating system. (Note: "Unbundled" VSP 4900 systems without a PSU can also be ordered.) With all VSP 4900 systems, the VIM5 modules, additional power supply, power cords, transceivers/optics and optional Premier Software Licenses must be separately ordered.

# **Base Software and Licensing**

VSP 4900 Series hardware models come with base software that provide most features available on the switch. Certain features, however, require a Premium Software license in order to operate. These include:

- · Layer 3 Virtual Services Networks (L3 VSNs)
- · 17 or more BGP peers
- · 25 or more VRFs
- MACsec support
- Integrated Application Hosting\*

<sup>\*</sup> Integrated Application Hosting supported on VSP4900-24XE and VSP4900-12MXU-12XE models only.

# **Ordering Information**

# VSP 4900 Systems

| Part Number                | Product Name                                | Product Description  |
|----------------------------|---|--|
| VSP4900-48P                | VSP4900-48P                                 | VSP 4900 System with 48 x 10/100/1000Base-T Full/Half-Duplex 802.3at PoE (30W) MACsec-capable ports, includes 3 fan modules, 1 unpopulated VIM5 slot, 4 post rack mount kit, VOSS operating system (PSU must be ordered separately)                    |
| VSP4900-48P-B1             | VSP4900-48P with<br>1100W PSU Bundle        | VSP 4900 System with 48 x 10/100/1000Base-T Full/Half-Duplex 802.3at PoE (30W) MACsec-capable ports, includes 3 fan modules, 1 unpopulated VIM5 slot, 1 x 1100W PSU FB (10941), 4 post rack mount kit, VOSS operating system                           |
| VSP4900-48P-B1-4X          | VSP4900-48P,<br>VIM5-4X Bundle              | VSP 4900 System with 48 x 10/100/1000Base-T Full/Half-Duplex 802.3at PoE (30W) MACsec-capable ports, includes 3 fan modules, 1 VIM5-4X module, 1 x 1100W PSU FB (10941), 4 post rack mount kit, VOSS operating system                                  |
| VSP4900-48P-B1-4XE         | VSP4900-48P,<br>VIM5-4XE Bundle             | VSP 4900 System with 48 x 10/100/1000Base-T Full/Half-Duplex 802.3at PoE (30W) MACsec-capable ports, includes 3 fan modules, 1 VIM5-4XE module, 1 x 1100W PSU FB (10941), 4 post rack mount kit, VOSS operating system                                 |
| VSP4900-24S                | VSP4900-24S                                 | VSP 4900 System with 24 x 100/1000BASE-X ports, includes 3 fan modules, 4 post rack mount kit, VOSS operating system (PSU must be ordered separately)  |
| VSP4900-24S-B3             | VSP4900-24S with<br>350W PSU Bundle         | VSP 4900 System with 24 $\times$ 100/1000BASE-X ports, includes 3 fan modules, 1 $\times$ 350W PSU (10953), 4 post rack mount kit, VOSS operating system   |
| VSP4900-24XE               | VSP4900-24XE                                | VSP 4900 System with 24 x 1/10GBASE-X SFP+ MACsec and LRM-capable ports, includes 2 fan modules, 1 unpopulated VIM5 slot, 4 post rack mount kit, VOSS operating system (PSU must be ordered separately)  |
| VSP4900-24XE-B3            | VSP4900-24XE with<br>350W PSU Bundle        | VSP 4900 System with 24 x 1/10GBASE-X SFP+ MACsec and LRM-capable ports, includes 2 fan modules, 1 unpopulated VIM5 slot, 1 x 350W PSU (10953), 4 post rack mount kit, VOSS operating system   |
| VSP4900-12MXU-12XE         | VSP4900-12MXU-12XE                          | VSP 4900 System with 12 x 100M/1/2.5/5/10GBASE-T 802.3bt PoE (60W) ports and 12 x 1/10GBASE-XSFP+ MACsec-capable ports, includes 3 fan modules, 1 unpopulated VIM5 slot, 4 post rack mount kit, VOSS operating system (PSU must be ordered separately) |
| VSP4900-12MXU- 12XE-<br>B1 | VSP4900-12MXU-12XE<br>with 1100W PSU Bundle | VSP 4900 System with 12 x 100M/1/2.5/5/10GBASE-T 802.3bt PoE (60W) ports and 12 x 1/10GBASE-XSFP+ MACsec-capable ports, includes 3 fan modules, 1 unpopulated VIM5 slot, 1 x 1100W PSU FB (10941), 4 post rack mount kit, VOSS operating system        |

#### **VIM Modules**

| Part Number           | Product Name | Product Description   |
|-----------------------|--------------|---|
| VIM5-4X               | VIM5-4X      | 4x 1G/10G SFP+ VIM supported on VSP 4900                        |
| VIM5-4XE              | VIM5-4XE     | 4x 1G/10G SFP+ LRM and MACsec capable VIM supported on VSP 4900 |
| VIM5-4YE <sup>1</sup> | VIM5-4YE     | 4x 10G/25G SFP28 MACsec capable VIM supported on VSP 4900       |
| VIM5-2Q <sup>2</sup>  | VIM5-2Q      | 2x 10G/40G QSFP VIM supported on VSP 4900                       |

 $<sup>^{1}\</sup>text{VSP}$  4900-48P and VSP 4900-24S limited to 2 x uplink ports (10GbE or 25GbE) on VIM5-4YE module

 $<sup>^2</sup>$  VSP 4900-48P and VSP 4900-24S limited to 1 x 10/40GbE port on VIM5-2Q module

#### **Software Licenses**

| Part Number       | Product Name                                | Product Description   |
|-------------------|---|---|
| VSP-PRMR-L-LIC-P  | Premier License for VSP<br>4900             | VSP 4900 Premier Software License: Enables L3 VSNs, > 16 BGP peers, > 24 VRFs and Integrated Application Hosting <sup>3</sup>           |
| VSP-PRMR-LE-LIC-P | Premier License with<br>MACsec for VSP 4900 | VSP 4900 Premier Software License with MACsec; Enables LVSNs, > 16 BGP peers, > 24 VRFs and Integrated Application Hosting <sup>3</sup> |

 $<sup>^{3}</sup>$  Integrated Application Hosting supported on VSP4900-24XE and VSP4900-12MXU-12XE models only

#### **Accessories**

| Part Number                         | Product Name                        | Product Description  |
|-------------------------------------|-------------------------------------|--|
| XN-ACPWR-350W-FB <sup>4</sup>       | 350W AC PSU FB                      | 350W AC Power Supply Module - Front to Back airflow, also used on 5520 and X465  |
| XN-ACPWR-715W-FB <sup>4</sup>       | 715W AC PSU FB                      | 715W AC PoE Power Supply Module - Front to Back airflow, also used on 5520 and X465  |
| XN-ACPWR- 1100W-FB <sup>4</sup>     | 1100W AC PSU FB                     | 1100W AC PoE Power Supply Module - Front to Back airflow, also used on 5520 and X465                                       |
| XN-ACPWR- 2000W-<br>FB <sup>4</sup> | 2000W AC PSU FB                     | 2000W AC PoE Power Supply Module - Front to Back airflow, also used on 5520 and X465                                       |
| 10953                               | 350W AC PSU                         | 350W PSU for VSP 4900  |
| 10951                               | 715W AC PSU                         | 715W PSU for VSP 4900, also used on X465, X450-G2, and X460-G2   |
| 10941                               | 1100W AC PSU                        | 1100W PSU for VSP 4900, also used on X465, X450-G2, and X460-G2  |
| XN-ACPWR-2000W-F                    | 2000W AC PS FB                      | 2000W PSU for VSP 4900 also used on X465   |
| XN-FAN-002-F                        | Spare Fan Module                    | Spare Fan module for VSP 4900  |
| XN-SSD-001-120                      | 120GB SSD module                    | 120GB Solid-State Drive (SSD) module . Required for use with Extreme Integrated Application Hosting on the VSP 4900 Series |
| XN-4P-RKMT-001                      | Spare Four-Post Rack<br>Mount Kit   | Spare Four Post Rack Mount Kit for VSP 4900  |
| XN-2P-RMKIT-001                     | Optional Two Post Rack<br>Mount Kit | Optional Two Post Rack Mount Kit for VSP 4900  |

<sup>&</sup>lt;sup>4</sup> XN-ACPWR-xxx-FB power supply units cannot be used with the 10941, 10951, 10953, or XN-ACPWR-2000W-F PSUs on the same switch. Not available for Mexico, Russia, Brazil, China, Korea, South Africa, India at present, pending certification.

#### **Warranty**

VSP 4900 Series products are covered under Extreme's Universal LLW policy. For warranty details, visit: <a href="http://www.extremenetworks.com/support/policies">http://www.extremenetworks.com/support/policies</a>.

#### **Power Cords**

Power cords are not included with the VSP 4900 in support of our green initiatives but can be ordered separately.

# **Optics / Transceivers**

For a list of optics and transceivers supported on VSP 4900 Series hardware, refer to our Extreme Optics Compatibility Tool at <a href="https://optics.extremenetworks.com">https://optics.extremenetworks.com</a>.

#### **Maintenance Services**

Extreme's maintenance and support services are provided 100% by inhouse engineering experts. We have a rate of over 90% first-person resolution, ensuring efficient operation of your business-essential network.

With 24x7x365 phone support, advanced part replacement, and on-site support, we augment your staff with expert resources to help you mitigate critical network issues fast.

Visit Extreme Maintenance Services for more information.



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