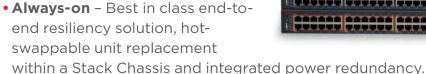AVAYA

Engage **The Power of We**™

The Avaya Ethernet Routing Switch 4800 Series is a Stackable Chassis system providing high-performance, convergence-ready, more secure and resilient Ethernet switching connectivity. It also uniquely delivers virtual fabric services to the network edge/wiring closet environment through its support of Avaya Fabric Connect. Available in 4 model variants supporting 10/100/1000 switching and routing, Power-over-Ethernet/Power-over-Ethernet+ and 1 and 10 Gigabit Ethernet SFP+ uplink options, the Ethernet Routing Switch 4800 Series is ideally suited for your next-generation network edge deployments.

Avaya Ethernet Routing Switch 4800 Series

Highlights Of The Ethernet Routing Switch 4800 Series

- **Always-on** – Best in class end-to-end resiliency solution, hot-swappable unit replacement within a Stack Chassis and integrated power redundancy.

- **Convergence-ready** – Support for PoE and PoE+, optimized for high-definition video surveillance, true plug and play capabilities for IP Phone deployments, advanced QoS capabilities.

- **Energy efficient** – On average 36% more energy efficient than competitive solutions,* energy saver functionality further reduces power consumption for both Switch and IP Phone without losing telephony connectivity.

- **Powerful** – Wire-speed performance, true pay-as-you-grow Stackable Chassis capabilities, delivering up to 400 ports and 384 Gbps of virtual backplane throughput.

- **Greater Security** – Standards-based 802.1x with integration with Avaya's Identity Engines portfolio for centralized, policy-based authenticated network access.

- **Flexible** – Mix-and-match best-in-class stacking capabilities with support for PoE/PoE+ and optional 1GbE / 10GbE SFP+ uplinks.

- **Fabric-ready** – Support for Avaya Fabric Connect that extends virtual fabric services from the data center all the way to the wiring closet.

The Ethernet Routing Switch 4800 Series provide high bandwidth, resilient Stackable Chassis capabilities, high performance Layer 2 switching and Layer 3 routing, advanced convergence features and a suite of security, QoS and management capabilities. The ERS 4800 hardware is based on a next-generation ASIC technology that combines wire-speed performance and non-blocking throughput with sophisticated QoS capabilities to support even the most demanding suite of applications.

Positioned for customers who are looking for Gigabit Ethernet to the desktop, PoE

closet. It allows enterprises to deploy new services with far greater ease and agility by eliminating complex hop-by-hop provisioning. Fabric Connect is available on all ERS 4800 platforms as part of each ERS 4800 base license at no additional charge.

To ensure full interoperability across the complete ERS 4000 portfolio, the rear-mounted Stackable Chassis interfaces used on the ERS 4800 are consistent with those used on the other ERS 4000 models. Each ERS 4000 Stackable Chassis delivers up to 384 Gbps when eight units are combined.

Requirement	ERS 4500 Models	ERS 4500 PoE+ Models	ERS 4800 Models
Fast Ethernet to the desktop	Yes	Yes	Yes
Gigabit Ethernet to the desktop	Yes	No	Yes
IEEE 802.3 af PoE	Yes	Yes	Yes
IEEE 802.3 at PoE+	No	Yes	Yes
10 Gig Uplink sockets	XFP	No	SFP+
Redundant power	Yes - available through external RPS 15)	Yes – internal field-replaceable PSUs	Yes – internal field-replaceable PSUs
PIM-SM support	No	No	Yes
Avaya Fabric Connect support	No	No	Yes

With 17 different models, the ERS 4000 Series offers a wide range of capabilities that meet a diverse range of edge requirements.

Summary

The ERS 4800 Series is a future-ready solution well suited for the next-generation wiring closet. Along with other Avaya products, the Ethernet Routing Switch 4800 Series can increase profitability and productivity, streamline business operations, lower costs and help your business gain a competitive edge.

Avaya Ethernet Routing Switch 4800 Series	
ERS 4826GTS	24 10/100/1000BASE-T ports, including 2 shared SFP Uplink ports, plus 2 additional SFP+ Uplink ports
ERS 4826GTS-PWR+	24 10/100/1000BASE-T ports supporting 802.3at PoE+, including 2 shared SFP Uplink ports, plus 2 additional SFP+ Uplink ports
ERS 4850GTS	48 10/100/1000BASE-T ports, including 2 shared SFP Uplink ports, plus 2 additional SFP+ Uplink ports
ERS 4850GTS-PWR+	48 10/100/1000BASE-T ports supporting 802.3at PoE+, including 2 shared SFP Uplink ports, plus 2 additional SFP+ Uplink ports

and PoE+, SFP+ connectivity and field replaceable redundant AC power supplies, the ERS 4800 provides a flexible high-performance platform to meet the demands of the converged edge. The integrated field replaceable AC power supplies further save cost and rack space.

Through support for PoE and PoE+ customers have the ability to support any mix of end devices. Although the vast majority of IP-based end points do not require the increased power that PoE+ delivers, its support provides piece of mind that as new devices are brought onto the network they can be supported regardless of the power requirements.

Integrated SFP+ ports deliver flexibility in terms of uplink speeds – allowing either 1 Gigabit or 10 Gigabit SFP+ devices to be installed. Customers can start with 1 Gig and then migrate to 10 Gigabit uplinks, as required.

Support for Avaya's Fabric Connect services extends virtualized fabric services all the way from the data center to the campus edge and/or wiring

Product Specifications

ERS 4826GTS

Switch Details	24 10/100/1000 Gigabit Ethernet ports
	2 shared SFP ports
	Plus 2 x 1/10Gigabit SFP+ ports
	Plus 2 x rear HiStack ports delivering up to 384Gbps of Stackable Chassis throughput
	System CPU operates at 533 MHz
	Switch is configured with 1 GB RAM
	RJ-45 Console port provides industry standard serial port connectivity
	Ships with 1 x 46cm HiStack cable
	Ships with 1 set of 44mm/19" rack mount brackets (specific to the ERS 4800/ ERS 4500 POE+ models)
Dimensions:	4.4cm – 1RU (H), 44.0cm (W), 43.68cm (D)
Weight:	11.05 Kg
Power and Thermal	Supplied with 1 x 300 watt Field Replaceable AC power supply
	Supports addition of second Field Replaceable AC power supply for redundancy
Maximum PoE power	75 watts Thermal Rating 256 BTU/hr

ERS 4826GTS-PWR+

Switch Details	24 10/100/1000 Gigabit Ethernet ports
	24 ports support both IEEE 802.3af POE and IEEE 802.3at POE+
	2 shared SFP ports
	Plus 2 x 1/10Gigabit SFP+ ports
	Plus 2 x rear HiStack ports delivering up to 384Gbps of Stackable Chassis throughput
	System CPU operates at 533 MHz
	Switch is configured with 1 GB RAM
	RJ-45 Console port provides industry standard serial port connectivity
	Ships with 1 x 46cm HiStack cable
	Ships with 1 set of 44mm/19" rack mount brackets (specific to the ERS 4800/ ERS 4500 POE+ models)
Dimensions:	4.4cm – 1RU (H), 44.0cm (W), 43.68cm (D)
Weight:	11.50 Kg
Power and Thermal	Supplied with 1 x 1000 watt Field Replaceable AC power supply
	Supports addition of second Field Replaceable AC power supply for redundancy or additional PoE
	Maximum Power 88 watts (without PoE Load)
	Thermal Rating 300 BTU/hr
Maximum PoE power	855 watts when operating on one 1000w power supply
	1855 watts when operating on two 1000w power supply

ERS 4850GTS

Switch Details	48 10/100/1000 Gigabit Ethernet ports
	2 shared SFP ports
	Plus 2 x 1/10Gigabit SFP+ ports
	Plus 2 x rear HiStack ports delivering up to 384Gbps of Stackable Chassis throughput
	System CPU operates at 533 MHz
	Switch is configured with 1 GB RAM
	RJ-45 Console port provides industry standard serial port connectivity
	Ships with 1 46cm HiStack cable
	Ships with 1 set of 44mm/19" rack mount brackets (specific to the ERS 4800/ ERS 4500 POE+ models)
Dimensions:	4.4cm – 1RU (H), 44.0cm (W), 43.68cm (D)
Weight:	11.48 Kg
Power and Thermal	Supplied with 1 x 300 watt Field Replaceable AC power supply
	Supports addition of second Field Replaceable AC power supply for redundancy
	Maximum Power 95 watts
	Thermal Rating 323 BTU/hr

ERS 4850GTS-PWR+

Switch Details	48 10/100/1000 Gigabit Ethernet ports
	48ports support both IEEE 802.3af POE and IEEE 802.3at POE+
	2 shared SFP ports
	Plus 2 1/10Gigabit SFP+ ports
	Plus 2 rear HiStack ports delivering up to 384Gbps of Stackable Chassis throughput
	Ships with 1 46cm HiStack cable
	System CPU operates at 533 MHz
	Switch is configured with 1GB RAM
	RJ-45 Console port provides industry standard serial port connectivity
	Ships with 1 set of 44mm/19" rack mount brackets (specific to the ERS 4800/ ERS 4500 POE+ models)
Dimensions:	4.4cm – 1RU (H), 44.0cm (W), 43.68cm (D)
Weight:	11.98 Kg
Power and Thermal	Supplied with 1 x 1000 watt Field Replaceable AC power supply
	Supports addition of second Field Replaceable AC power supply for redundancy or additional PoE
	Maximum Power 112 watts (without PoE Load)
	Thermal Rating 383 BTU/hr
Maximum PoE power	855 watts when operating on one 1000w power supply
	1855 watts when operating on two 1000w power supply

General and Performance

Switch Fabric performance: 128Gbps to 184Gbps	802.1X Clients: up to 768
Frame forwarding rate: 66 to 102Mpps	LLDP Neighbors: up to 800
Stack Throughput: 384Gbps (8-unit stack)	ARP Entries: up to 1,792
Latency (64 byte packet): 3.5 microseconds	IP Interfaces: up to 64
Jitter (64 byte packet): 0.84 microseconds	IPv4 Routes: up to 512
Frame length: 64 to 1518 Bytes (untagged), 64 to 1522 bytes (tagged)	OSPF Instances: up to 4
Jumbo Frame support: up to 9216 Bytes (untagged)	OSPF Adjacencies: up to 16
Multi-Link/LAG Trunks: up to 32 Groups, with 8 Links per Group	ECMP Paths: up to 4
VLANs: up to 1,024 Port/Protocol	VRRP Instances: up to 256
Multiple Spanning Tree Groups: 8	IPFIX Sampled Flows: up to 100,000
MAC Address: up to 8k	Auto-MDIX
DHCP Snooping: up to 1,024 table entries	QoS Priority Queues: 8
	Enterprise Device Manager GUI, on-box & off-box

Pluggable Interfaces

1000BASE-T SFP up to 100m over CAT5E or better UTP Cable (RJ-45)	100BASE-FX SFP up to 2km reach over MMF (Duplex LC)
1000BASE-SX SFP up to 550m reach on MMF (Duplex LC)	Ethernet-over-T1 SFP up to 2,874m reach over 22AWG Cable (RJ-48C)
1000-BASE-LX SFP up to 550m reach on MMF, and up to 10 km on SMF (Duplex LC)	10GBASE-SR SFP+ up to 300m reach over MMF (Duplex LC)
1000BASE-XD CDWM SFP up to 40 km reach on SMF (Duplex LC)	10GBASE-LRM SFP+ up to 220m over FDDI-grade MMF (Duplex LC)
1000BASE-ZX CDWM SFP up to 70 km reach on SMF (Duplex LC)	10GBASE-LR SFP+ up to 10km reach over SMF (Duplex LC)
1000BASE-EX SFP up to 120 km reach on SMF (Duplex LC)	10GBASE-ER SFP+ up to 40km reach over SMF (Duplex LC)
1000BASE-BX SFP up to 10 and 40 km reach variants on SMF (LC)	10GBASE-X SFP+ Direct Attach Cables, in 3, 5, & 10m lengths

ERS 4800 Standards Compatibility

IEEE 802.1D Spanning Tree Protocol	RFC 854 Telnet
IEEE 802.1w Rapid Spanning Tree	RFC 894 IP over Ethernet
IEEE 802.1s Multiple Spanning Tree	RFC 903 Reverse ARP
IEEE 802.1t 802.1D Maintenance	RFC 950 / RFC 791 IP
IEEE 802.1p Prioritizing	RFC 951 BootP
IEEE 802.1Q VLAN Tagging	RFC 958 NTP
IEEE 802.1X Ethernet Authentication Protocol	RFC 1058 RIPv1
IEEE 802.1AB Link Layer Discovery Protocol	RFC 1112 IGMPv1
IEEE 802.1AX Link Aggregation Control Protocol (LACP)	RFC 1122 Requirements for Internet hosts
IEEE 802.1ag Connectivity and Fault Management	RFC 1155 SMI
IEEE 802.1aq Shortest Path Bridging MAC	RFC 1156 MIB for management of TCP/IP
IEEE 802.3 Ethernet	RFC 1157 SNMP
IEEE 802.3af Power over Ethernet	RFC 1212 Concise MIB definitions
IEEE 802.3at Power over Ethernet Plus	RFC 1213 MIB-II
IEEE 802.3ad / 802.1AX Link Aggregation Control Protocol - LACP	RFC 1215 SNMP Traps Definition
IEEE 802.3ab Gigabit Ethernet over Copper	RFC 1340 Assigned Numbers
IEEE 802.3ae 10Gbps Ethernet	RFC 1350 TFTP
IEEE 802.3ak 10GBase-CX4	RFC 1354 IP Forwarding Table MIB
IEEE 802.3i 10Base-T	RFC 1398 Ethernet MIB
IEEE 802.3u Fast Ethernet	RFC 1442 SMI for SNMPv2
IEEE 802.3x Flow Control	RFC 1450 MIB for SNMPv2
IEEE 802.3z Gigabit Ethernet	RFC 1493 Bridge MIB
RFC 768 UDP	RFC 1519 Classless Inter-Domain Routing (CIDR)
RFC 783 TFTP	RFC 1591 DNS Client
RFC 792 ICMP	RFC 1650 Definitions of Managed Objects for Ethernet-like Interfaces
RFC 793 TCP	RFC 1724 / RFC 1389 RIPv2 MIB extensions
RFC 826 ARP	

ERS 4800 Standards Compatibility (cont.)

RFC 1769 / RFC 1361 SNTP

RFC 1886 DNS extensions to support IPv6

RFC 1908 Coexistence between SNMPv1 & v2

RFC 1945 HTTP v1.0

RFC 1981 Path MTU Discovery for IPv6

RFC 2011 SNMP v2 MIB for IP

RFC 2012 SNMP v2 MIB for TDP

RFC 2013 SNMP v2 MIB for UDP

RFC 2096 IP Forwarding Table MIB

RFC 2131 / RFC 1541 Dynamic Host Configuration Protocol (DHCP)

RFC 2138 RADIUS Authentication

RFC 2139 RADIUS Accounting

RFC 2236 IGMPv2

RFC 2328 / RFC 2178 / RFC 1583 OSPFv2

RFC 2453 RIPv2

RFC 2454 IPv6 UDP MIB

RFC 2460 IPv6 Specification

RFC 2461 IPv6 Neighbor Discovery

RFC 2464 Transmission of IPv6 packets over Ethernet

RFC 2474 Differentiated Services (DiffServ)

RFC 2541 Secure Shell protocol architecture

RFC 2597 Assured Forwarding PHB Group

RFC 2598 Expedited Forwarding PHB Group

RFC 2616 / RFC 2068 HTTP 1.1

RFC 2660 HTTPS - Secure Web

RFC 2665 / RFC 1643 Ethernet MIB

RFC 2674 Q-BRIDGE-MIB

RFC 2710 Multicast Listener Discovery version 1 (MLDv1)

RFC 2715 Interoperability Rules for Multicast Routing Protocols

RFC 2787 Definitions of Managed Objects for VRRP

RFC 2819 / RFC 1757 / RFC 1271 RMON

RFC 2851 Textual Conventions for Internet network addresses

RFC 2863 / RFC 2233 / RFC 1573 Interfaces Group MIB

RFC 2865 RADIUS

RFC 2866 / RFC 2138 RADIUS Accounting

RFC 2869 RADIUS Extensions - Interim updates

RFC 2933 IGMP MIB

RFC 3058 RADIUS Authentication

RFC 3140 / RFC 2836 Per-Hop Behavior Identification codes

RFC 3162 RADIUS and IPv6

RFC 3246 Expedited Forwarding Per-Hop Behavior

RFC 3260 / RFC 2475 Architecture for Differentiated Services

RFC 3289 DiffServ MIBs

RFC 3410 / RFC 2570 SNMPv3

RFC 3411 / RFC 2571 SNMP Frameworks

RFC 3412 / RFC 2572 SNMP Message Processing

RFC 3413 / RFC 2573 SNMPv3 Applications

RFC 3414 / RFC 2574 SNMPv3 USM

RFC 3415 / RFC 2575 SNMPv3 VACM

RFC 3416 / RFC 1905 SNMP

RFC 3417 / RFC 1906 SNMP Transport Mappings

RFC 3418 / RFC 1907 SNMPv2 MIB

RFC 3484 Default Address Selection for IPv6

RFC 3513 IPv6 Addressing Architecture

RFC 3569 Overview of Source Specific Multicast (SSM)

RFC 3579 RADIUS support for EAP

RFC 3584 / RFC 2576 Co-existence of SNMP v1/v2/v3

RFC 3587 IPv6 Global Unicast Format

RFC 3596 DNS extensions to support IPv6

RFC 3621 Power over Ethernet MIB

RFC 3635 Definitions of Managed Objects for the Ethernet-like Interface Types

RFC 3768 / RFC 2338 VRRP

RFC 3810 MLDv2 for IPv6

RFC 3826 AES for the SNMP User-based Security Model

RFC 3917 Requirements for IPFIX

RFC 3954 Netflow Services Export v9

RFC 3993 DHCP Subscriber-ID sub-option

RFC 4007 Scoped Address Architecture

RFC 4022 / RFC 2452 TCP MIB

RFC 4113 UDP MIB

RFC 4133 / RFC 2737 / RFC 2037 Entity MIB

RFC 4193 Unique Local IPv6 Unicast Addresses

RFC 4213 Transition Mechanisms for IPv6 Hosts & Routers

RFC 4250 SSH Protocol Assigned Numbers

RFC 4251 SSH Protocol Architecture

RFC 4252 SSH Authentication Protocol

RFC 4253 SSH Transport Layer Protocol

RFC 4254 SSH Connection Protocol

RFC 4291 IPv6 Addressing Architecture

RFC 4293 IPv6 MIB

RFC 4344 SSH Transport layer Encryption Modes

RFC 4345 Improved Arcfour Modes for SSH

RFC 4429 Optimistic Duplicate Address Detection (DAD) for IPv6

RFC 4432 SSHv2 RSA

RFC 4443 / RFC 2463 ICMPv6 for IPv6

RFC 4541 Considerations for IGMP and MLD snooping switches

RFC 4601 Protocol Independent Multicast – Sparse Mode (PIM-SM) Protocol Specification

RFC 4604 / RFC 3376 IGMPv3

RFC 4673 RADIUS Dynamic Authorization Server MIB

RFC 4675 RADIUS Attributes for VLAN and Priority Support

RFC 4716 SSH Public Key File Format

RFC 4750 / RFC 1850 / RFC 1253 OSPF v2 MIB

RFC 4789 SNMP over IEEE 802 Networks

RFC 4861 Neighbor Discovery for IPv6

RFC 4862 / RFC 2462 IPv6 Stateless Address Auto-Configuration

RFC 5010 / RFC 3046 DHCP Relay Agent Information Option 82

RFC 5095 Deprecation of Type 0 Routing Headers in IPv6

RFC 5101 Specification of the IP Flow Information Export (IPFIX) Protocol for Exchange of IP Traffic

RFC 5176 / RFC 3576 Dynamic Authorization Extensions to RADIUS

RFC 5186 IGMPv3/MLDv2 and Multicast Routing Interaction

RFC 5905 / RFC 4330 / RFC 1305 NTPv4

RFC 6329 IS-IS Extensions Supporting Shortest Path Bridging

Power Specifications

up to 8.5A @ 100-120VAC	up to 4.3A @ 200-240VAC

Environmental Specifications

Operating temperature: 0°C to 50°C (32°F to 122°F)	Operating altitude: 0 to 3,048m (0 to 10,000ft) maximum
Storage temperature: -40°C to 85°C (-40°F to 185°F)	Storage altitude: 0 to 12,192m (0 to 40,000ft) maximum
Operating humidity: 0 to 95% maximum relative humidity, non-condensing	Acoustic Noise:
	less than 50dbA at 35°C
Storage humidity: 10 to 90% maximum relative humidity, non-condensing	less than 57dbA at 50°C

Safety Agency Approvals

Global basis for certification: IEC 60950 current edition with all CB member deviations

CB Scheme Certification with Member Deviations

EN60950 Europe Safety (CE)

UL60950 United States of America Safety

CSA22.2, #60950 Canada Safety

NOM Mexico Safety

S-mark Argentine Safety

Anatel Brazilian Safety

Electromagnetic Emissions & Immunity

CISPR22 International EMC Emissions	ICES-003 Canadian EMC Emissions
CIRPR24 International EMC Immunity	VCCI Japan EMC Emissions
EN55022:2006 European EMC Emissions (CE)	AN/NZS 3548 Australia/New Zealand EMC Emissions
EN55024 European EMC Immunity (CE)	CNS13438 Taiwan EMC Emissions
EN61000	MIC Korean EMC Certification
Additional European EMC Specifications (CE)	Anatel Brazilian EMC Certification
FCC Part 15 US EMC Emissions	

MTBF Values

214,542 to 311,104 hours (24.49 to 35.31 years)

Warranty

Lifetime Next Business Day advanced hardware replacement	Optional Software Release Service also available: GW5300ASG / GW6300ASG
Lifetime Basic Technical Support	
90-Day Advanced Technical Support	

Country of Origin

China (PRC)

About Avaya

Avaya is a leading, global provider of customer and team engagement solutions and services available in a variety of flexible on-premise and cloud deployment options. Avaya's fabric-based networking solutions help simplify and accelerate the deployment of business critical applications and services. For more information, please visit **www.avaya.com.**

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