Avaya Ethernet Routing Switch 5500 Series

Highlights of the Ethernet Routing Switch 5500 Series

• **Always-on** – Best in class end-to-end resiliency, with switch clustering and hot-swappable unit replacement within a Stack Chassis.

• **Convergence-ready** – Support for PoE, true plug and play capabilities for IP phone deployments, advanced QoS capabilities.

• **Powerful** – Wire-speed performance, true pay-as-you-grow Stack Chassis capacity, delivering up to 400 ports and up to 640 Gbps of virtual backplane throughput.

• **Comprehensive Layer 3 services** – Advanced routing features enable traffic segregation ideal for data center and network core applications.

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

• **Flexible** – Mix-and-match “hybrid” stacking with the Avaya ERS 5600 Series enables versatile deployment and investment protection.¹

The Ethernet Routing Switch 5500 Series is 100% stack-compatible with Avaya’s ERS 5600 Series.¹ Its unique “hybrid-stacking” capability provides great versatility and investment protection across the ERS 5000 Series family. Any combination of 5500 and 5600 models can be stacked together up to eight units high, to a maximum of 400 ports. Total stacking bandwidth is 80 Gbps per switch, and 640 Gbps when eight switches are combined.

The ERS 5500 Series also delivers highly-scalable and flexible Ethernet and Power-over-Ethernet, with medium and high-density models to simplify deployment in high-intensity convergence-centric networks.

¹“Hybrid-Stacking” refers to the unique configuration capability of the ERS 5500 Series, allowing for both 5500 and 5600 models to be stacked together in a single chassis configuration.
An external redundant power solution ensures both power redundancy and full PoE power.

**Summary**

The ERS 5500 is a flexible solution suited to address the various demands of today’s high-end wiring centers, high-capacity data centers and network core environments. The ERS 5500, along with other Avaya products, can increase profitability and productivity, streamline business operations, lower costs and help your business gain a competitive edge.

1 Mixed ERS 5500/5600 stacking supported up through Release 6.3 only.

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### Avaya Ethernet Routing Switch 5500 Series

<table>
<thead>
<tr>
<th>Model</th>
<th>Link and Uplink Ports</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERS 5510-24T</td>
<td>24 x 1000BASE-T, including 2 x combo 1000BASE-T/SFP</td>
</tr>
<tr>
<td>ERS 5510-48T</td>
<td>48 x 1000BASE-T, including 2 x combo 1000BASE-T/SFP</td>
</tr>
<tr>
<td>ERS 5520-24T-PWR</td>
<td>24 x 1000BASE-T with Power-over-Ethernet, including 4 x combo 1000BASE-T/SFP</td>
</tr>
<tr>
<td>ERS 5520-48T-PWR</td>
<td>48 x 1000BASE-T with Power-over-Ethernet, including 4 x combo 1000BASE-T/SFP</td>
</tr>
<tr>
<td>ERS 5530-24TFD</td>
<td>24 x 1000BASE-T, including 12 x combo 1000BASE-T/SFP, plus 2 x 10GBASE-XFP Slots</td>
</tr>
</tbody>
</table>

All Switches include built-in high-speed stacking connections that can scale up to 640Gbps of total throughput and are fully compatible with the new ERS 5600 series models. A full stack can include up to 8 switches or up to 384 ports; enabling a highly-versatile solution able to meet port count and port type combinations for every application.

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### Specifications

#### General & Performance

- Switch Fabric performance: 80 – 192 Gbps
- Frame Forwarding rate: 35.7 – 71.4 Mpps
- Latency: 9 µsec
- Jitter: 12-14 µsec
- Frame length: 64 – 1518 Bytes (802.1Q Untagged), 64 – 1522 bytes (802.1Q Tagged)
- Jumbo Frame support: up to 9,000 Bytes (802.1Q Tagged)
- Multi-Link Trunks: up to 32 Groups, with 8 Links per Group
- VLANs: up to 1,024 Port/Protocol/802.1Q-based
- Multiple Spanning Tree Groups: 8
- MAC Address: up to 16k
- DHCP Snooping: up to 1,024 table entries
- ARP Entries: up to 1,792
- IP Interfaces: up to 64
- IPv4 Routes: up to 4k
- OSPF Instances: up to 4
- OSPF Adjacencies: up to 16
- Auto-MDIX

#### Pluggable Interfaces

- 1000BASE-T up to 100m over CAT5E or better UTP Cable (RJ-45)
- 1000BASE-SX up to 550m reach on MMF (Duplex LC)
- 1000BASE-LX up to 550m reach on MMF, and up to 10 km on SMF (Duplex LC)
- 1000BASE-XD CDWM up to 40 km reach on SMF (Duplex LC)
- 1000BASE-EX CDWM up to 70 km reach on SMF (Duplex LC)
- 1000BASE-EX up to 120 km reach on SMF (Duplex LC)
- 1000BASE-BX up to 10 and 40 km reach variants on SMF (LC)
- Ethernet-over-T1 up to 2,874m reach over 22AWG Cable (RJ-48C)
- 10GBASE-SR up to 300m reach over MMF (Duplex LC)
- 10GBASE-LRM up to 220m over FDDI-grade MMF (Duplex LC)
- 10GBASE-LR/LW up to 10km reach over SMF (Duplex LC)
- 10GBASE-ER/EW up to 40km reach over SMF (Duplex LC)
- 10GBASE-ZR/ZW up to 80km reach over SMF (Duplex LC)
### IEEE & IETF Standards Compatibility

- **IEEE 802.1D Spanning Tree Protocol**
- **IEEE 802.1p Prioritizing**
- **IEEE 802.1Q VLAN Tagging**
- **IEEE 802.1x EAPoL**
- **IEEE 802.3 Ethernet**
- **IEEE 802.3ad Link Aggregation**
- **IEEE 802.3af Power over Ethernet**
- **RFC 768 UDP**
- **RFC 791 IP**
- **RFC 792 ICMP**
- **RFC 793 TCP**
- **RFC 951 BootP**
- **RFC 1058 RIP v1**
- **RFC 1112 IGMPv1**
- **RFC 1157 SNMP**
- **RFC 1213 MIB-II**
- **RFC 1215 SNMP Traps Definition**
- **RFC 1271/1757/2819 RMON**
- **RFC 1350 TFTP**
- **RFC 1361/1769 Simple Network Time Protocol (SNTP)**
- **RFC 1493 Bridge MIB**
- **RFC 1573/2863 Interfaces Group MIB**
- **RFC 1583 OSPF v2**
- **RFC 1643/2665 Ethernet MIB**
- **RFC 1757 RMON**
- **RFC 1850 OSPF v2 MIB**
- **RFC 1900/3416 SNMP**
- **RFC 1906/3417 SNMP Transport Mappings**
- **RFC 1907/3418 SNMP MIB**
- **RFC 1945 HTTP v1.0**
- **RFC 1981 Path MTU Discovery for IPv6**
- **RFC 2011 SNMPv3 MIB**
- **RFC 2012 SNMPv3 MIB for TCP**
- **RFC 2013 SNMPv3 MIB for UDP**
- **RFC 2328 OSPF v2**
- **RFC 2453 RIPv2**
- **RFC 2454 IPv6 Specification**
- **RFC 2461 Neighbor Discovery for IPv6**
- **RFC 2462 IPv6 Auto-configuration of link local addresses**
- **RFC 2474 DiffServ**
- **RFC 2475 DiffServ**
- **RFC 2576/3584 Co-existence of SNMP v1/v2/v3**
- **RFC 2660 HTTPS (Secure Web Server)**
- **RFC 2674 Q-BRIDGE-MIB**
- **RFC 2737 Entity MIBv2**
- **RFC 2819 RMON MIB**
- **RFC 2865 RADIUS**
- **RFC 2866 RADIUS Accounting**
- **RFC 2869 RADIUS Extensions**
- **RFC 3046 DHCP Relay Agent Information Option**
- **RFC 3164 BSD Syslog Protocol**
- **RFC 3315 DHCP for IPv6**
- **RFC 3410 SNMPv3**
- **RFC 3411 SNMP Frameworks**
- **RFC 3413 SNMPv3 Applications**
- **RFC 3414 SNMPv3 USM**
- **RFC 3415 SNMPv3 VACM**
- **RFC 3576 RADIUS**
- **RFC 3917 IP Flow Information Export**
- **RFC 3993 DHCP for IPv6**
- **RFC 4007 Scoped Address Architecture**
- **RFC 4022 TCP MIB**
- **RFC 4113 UDP MIB**
- **RFC 4193 Unique Local IPv6 Unicast Addresses**
- **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**
- **RFC 4443 Internet Control Message Protocol (ICMPv6)**
- **RFC 4673 RADIUS Dynamic Authorization Server MIB**
- **RFC 4675 RADIUS Attributes for VLAN and Priority Support**

### Weights & Dimensions

- **Height:** 4.45 cm – 1RU
- **Width:** 43.82 cm
- **Depth:** 38.74 cm

### Power Specifications

- **Input Voltage:** 100-240 VAC
- **Input Current**
  - 1.3 – 6.5A @ 100-120 VAC
  - 0.65 – 3.25A @ 200-240 VAC

### Environmental Specifications

- **Operating temperature:** 0°C – 50°C
- **Storage temperature:** -40 to 85°C
- **Operating humidity:** 0 to 85% maximum relative humidity, non-condensing
- **Storage humidity:** 10 to 90% maximum relative humidity, non-condensing
- **Operating altitude:** 0 to 3,024 maximum
- **Storage altitude:** 0 to 12,192 m maximum
- **Acoustic Noise:** less than 56dB at 35°C

### Safety Agency Approvals

- **Global basis for certification:** EN 60950 current edition with CB national member deviations
- **Mexico:** complies with NOM

### Electromagnetic Emissions & Immunity

- **Global basis for certification:** CISPR 22 Class A & CISPR 24, IEC 60950 with CB member national deviations
- **US:** complies with FCC CFR47 Part 15
- **Canada:** complies with ICES Class A
- **Europe:** complies with EN 55022 Class A; EN 55024; EN 30038 V1.3.3 Class A
- **European Union & EFTA:** complies with EN 55022; EN 55024; EN 61000-3-2; EN 61000-3-3
- **Japan/Nippon:** complies with VCCI
- **Taiwan:** complies with BSMI CNS 13428 & 14336, Class A
- **Korea:** complies with MIC Class A
### Specifications (cont.)

#### Redundant Power
- Redundant Power Supply 15 Chassis
- Redundant Power Supply 15 600W Power Supplies
- DC-to-DC Converter & Non-PoE Connecting Cable for use with 5510 Switches
- PoE Connecting Cable for use with 5520/5530 Switches

#### MTBF Values
- 161,379 – 210,361 hours (18.4 – 24.0 years)

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

#### Country of Origin
- China (PRC)