



Cisco Head-to Head Comparisons

Cisco SG300 / SF300 /SG500 vs HP 2530 switches

The Cisco 300 and 500 Series is a portfolio of affordable managed switches that provides a reliable foundation for your business network. These switches deliver the features you need to improve the availability of your critical business applications, protect your sensitive information, and optimize your network bandwidth to deliver information and applications more effectively. Easy to set up and use, the Cisco 300 and 500 Series provide the ideal combination of affordability and capabilities for small businesses, helping you create a more efficient, better-connected workforce.

The HP 2530 Switch Series consists of 16 fully managed L2 edge switches. They are designed for entry-level to midsize enterprise networks, and are available with Gigabit and Fast Ethernet downlink ports, with four Gigabit or two 10 Gigabit Ethernet uplinks on some 24- and 48-port models. The switch series can be deployed and managed via SNMP, CLI, and Web GUI. It is available in wall, table, and rack mounting options.

When comparing features, the Cisco switch is more feature-rich and offers better value.

- **Stacking:**

- Cisco's Stacking feature not only provides single address management for up to 8 switches but also offers stacking resiliency when using the stacking topology. The stack will remain intact even if there is a link breakage. For added resiliency (and more stack bandwidth), Cisco supports link-aggregated stack ports. For example, if a switch within a Cisco 500 Series stack fails, another switch immediately takes over, keeping your network up and running. You can also replace individual devices in the stack without taking your network offline or affecting employee productivity.
- Cisco's Stacking technology not only provides tolerance for one link breakage when stacking is configured in ring topology, it also allows the switches to function as a single switch with one management plane and one control plane.
- Additional fault tolerance can be delivered in the Cisco offering by performing cross-stack LAG (link aggregation) together with support for VRRP, which provides layer 3 resiliency.
- In the Cisco offering, ACLs, QoS, STP, and other items are provisioned for the entire stack, instead of each member of the stack individually. Also, port mirroring can be performed from any source port to any destination port in the stack.
- Cisco's 10 Gig platform (SG500XG-8F8T) allows stacking with other SG500X models, delivering much more flexibility and cost-effective networking by allowing POE and Gigabit Ethernet in the same stack.
- The HP 2530 switch virtual stack provides single address management only

- **Network Discovery**

- Cisco discovers and automatically applies appropriate profiles for more end devices with its support for Bonjour, CDP, and LLDP Automatic discovery mechanisms together with Auto Smartports and Auto Voice capabilities.
- Localization of GUI and documentation into multiple languages

- **VLAN's**

- The Private VLAN feature on SG300 / 500 switch allows user to host multiple individually isolated servers without having to cope with a vast quantity of subnets and complex subnet masking. It also offers a layer 2 security feature (called Community Private VLANs) where hosts belonging to the same secondary private VLAN are restricted to communication among themselves only. Again, no complicated subnet and subnet mask configuration is needed.
- Cisco offers patent-pending Network-wide auto-voice VLAN and QoS propagation.

- VLAN Mirroring - With VLAN-based SPAN (VSPAN), the user can choose to monitor traffic on all the ports belonging to a particular VLAN
 - Up to eight sources (combination of ports and/or VLANs) can be mirrored to a target port.
 - Additional VLAN support includes Q-in-Q, MAC-based VLANs, Unauthenticated VLANs, and CPE VLANs.
- **IP telephony support** with voice VLAN for automatic configuration of connected IP Phones.
- Cisco's patent-pending Network-wide Auto-Voice capability goes beyond auto-assignment of Voice VLAN but also extends it network-wide.
 - IP telephony support with voice VLAN for automatic configuration of connected IP Phones
 - Using a combination of CDP, LLDP-MED, Auto Smartports, and VSDP (Voice Services Discovery Protocol – a unique Cisco protocol), customers can deploy an end-to-end voice network dynamically. The switches in the network automatically converge around a single voice VLAN and QoS parameters without requiring any additional configuration.
- **Capacity**
- Cisco Switches offer larger table sizes, facilitating growth into larger environments. Both Cisco SG300 and SG500X support 4K active VLANs versus HP's 512 VLANs. Cisco switches also support larger numbers of ACLs
 - Cisco switches offer larger number of 10 Gigabit ports (4 versus 2 from HP).
 - An additional capability Cisco offers contributing to network scalability is support for wire-speed L3 forwarding. The HP models do not support L3 forwarding.
- **Uplink speed and flexibility**
- Cisco SG500 switches with 10 Gigabit Ethernet uplinks offer a total of four 10 Gigabit Ethernet ports (2 x 10GE, 2 x 5GE/10GE combo) versus two on the HP 2530 (2 x 10GE SFP).
 - SG500/SG300 switches with Gigabit Ethernet uplinks offer 2 x 1GE combo plus 2 x 1GE/5GE SFP versus 4 x 1GE SFP on the HP 2530.
 - Link up or down based on user-defined schedule
 - The Smartport feature simplifies QoS and security capabilities and facilitates zero touch deployment.
- **Energy Consumption**
- Cisco facilitates better Energy Consumption, thereby delivering lower Operational costs. This is done with support for EEE (Energy Efficient Ethernet - IEEE 802.3az) support on the 10GBase-T interfaces, plus capacity to turn off LEDs or ports according to a time schedule.
 - Cisco also allows you to turn off any port (POE or any other) on a schedule. This allows you to reduce your operational costs of running the network.
 - Automatic port recovery from multi-mode port err-disable state.
- **Security**
- Cisco solutions come with embedded support for Control-plane Policing (CoPP or SCT). This protects the switch CPU from being overrun in a denial-of-service attack attempt or some other network anomaly affecting the switch CPU.
 - Rich support for first-hop Security capabilities such as DHCP Snooping, IP Source Guard, Dynamic ARP Inspection thereby increasing overall network availability
 - Rich IPv6 capabilities including support for Multicast, Unicast, security, QoS, and tunneling mechanism provide customers with a means to migrate their infrastructure to IPv6 at any time and at a pace the business can sustain. The IPv6 capabilities goes way beyond what HP has to offer with support for things like IPv6 FHS (IPv6 Destination Guard, IPv6 Source Guard, ND Inspection, etc.) and support for additional

tunneling mechanisms such as ISATAP and automatic 6-to-4 tunnels. Additionally Cisco supports the more stringent USGv6 certification over and above the IPv6 Gold Logo certification.

- Superior support for 802.1x with capabilities such as time-based dot1x, dynamic VLAN assignment, and Web-based Authentication.
- Cisco's ACL support is more advanced with support for protocol, TCP/UDP port, EtherType, time-based
- Additional Security capabilities include STP Root Guard, BPDU Guard, and DOS attack prevention.

- **Miscellaneous**

- Additional Cisco advantages include MVR, TCP Congestion Avoidance, IGMP Querier functions, TACACS, DHCP Relay, and more.

- **Pricing**

- Model for model, feature for feature, the Cisco switch is typically hundreds of dollars less than the HP equivalent.

	HP	Cisco
	ALL 2530 Series	ALL SF300 / SG300 Series
DoS Prevention	No	Secure Core Technology (SCT) rate-limits TCP traffic to the CPU, ensuring CPU always receives management and protocol traffic.
Management	Virtual stacking, CLI, SNMP	FindIt web browser plug-in, CLI, SNMP / . All features are supported using the Web, CLI, or SNMP interface. By contrast, not all features configurable through the CLI can be configured through the Web or SNMP interface
# of active VLAN	512	4096
VLAN type supported	Port-based, 802.1Q tag-based, voice VLAN	Port-based, 802.1Q tag-based, , MAC-based, private VLAN, voice VLAN, unauthenticated VLAN, guest VLAN, dynamic VLAN, CPE VLAN, Multicast TV VLAN, Q-in-Q VLAN
Voice VLAN setup	Manual	Automatic
Access control list	Supports source/destination port, source/destination IPv4 IP address, IPv4 protocol, VLAN ID, ICMP and IGMP ACL	512 rules. Supports source/destination MAC, source/destination ports, VLAN ID, IPv4/IPv6 IP address, DSCP/IP Precedence, 802.1p, Ethernet type, ICMP, IGMP, TCP flag and time-based ACL
802.1X support	Supports 802.1X supplicant on the client. Provides authentication of up to eight 802.1X users per port	Supports 802.1X as an authenticator. Provides single/multiple host mode, single/multiple sessions, time-based 802.1X dynamic VLAN assignment support
Mirroring	Source ports only	Up to a combination of eight source ports/VLANs can be mirrored to one destination port
IPv4 routing support	No	Wire-speed routing, 512 static routes, 128 IP interfaces
IPv6 support	IPv6 neighbor and router discovery (ND), multicast listener discovery, ACL, IPv6 applications	First Hop Security, IPv6 neighbor and router discovery (ND), stateless address configuration, ISATAP, QoS, ACL, multicast listener discovery, IPv6 applications. USGv6 and IPv6 Gold Logo certified
Save power mode	Support 802.3az	Support 802.3az, schedule-based port shutdown
Spanning-tree support	IEEE 802.1s, 802.1d and 802.1w	IEEE 802.1s, 802.1d and 802.1w
Warranty	Life time warranty, NBD hardware replacement	Limited life time warranty, RTF hardware replacement
Technical support	24x7 phone support for the first 3 years**	Live technical support 8x5 for the first year

	HP	Cisco
PoE	2530-48G-POE+ (48 port) 2530-24G-POE+ (24 port)	SG300-52P (52 port) SG300-28P (28 port)
# of GE ports	48/24	50/26
Support Pre-standard POE	Yes	Yes
# of ports that support POE	48/24	48/24
# of ports that support POE+	48/24	48/24
POE power	370W/190W	375W/180W
Uplink ports	4 x GE SFP	2 x GE combo
Price	2530-48G-POE+ US \$2362.99 2530-24G-POE+ US \$1226.99	SG300-52P US \$1,232.99 SG300-28P US \$656.99

	HP	Cisco
Non-PoE	2530-48G/2530-24G	SG300-52/ SG300-28
# of GE ports	48/24	50/26
Uplink ports	4 x GE SFP	2 x GE combo
Price	2530-48G US \$1,181.00 2530-24GUS US \$723.99	SG300-52 US \$828.99 SG300-28 US \$478.99

	HP	Cisco
PoE	2530-48-POE+ 2530-24-POE+	SF300-48P SF300-24P
# of FE ports	48/24	48/24
Support Pre-POE	Yes	Yes
# of ports that supports POE	48/24	48/24
# of ports that supports POE+	48/24	48/24
POE power	370W/190W	375W/180W
Uplink ports	2 x GE, 2 x SFP	2 x GE combo
Price	2530-48-POE+ US \$1,375.99 2530-24-POE+ US \$1,309.99	SF500-48P US \$889.99 SF500-24P US \$479.99

	HP	Cisco
Non-PoE	2530-48 2530-24	SF300-48 SF300-24
# of FE ports	48/24	48/24
Uplink ports	2 x GE, 2 x SFP	2 x GE combo
Price	2530-48 US \$657.99 2530-24 US \$364.99	SF500-48 US \$579.99 SF500-24 US \$239.99

	HP	Cisco	HP	Cisco
PoE / non PoE	2530-8G-POE+/2530-8G	SG300-10PP/ SG300-10	2530-8-POE+/2530-8	SF302-08PP/ SF300-10
# of GE ports	8	8	n/a	n/a
# of FE ports	n/a	n/a	8	8
Support Pre-standard POE	Yes/na	Yes/na	Yes/na	Yes/na
# of ports that support POE	8/na	8/na	8/na	8/na
# of ports that support POE+	8/na	8/na	8	8/na
POE power	67W/na	62W/na	62W/na	62W/na
Uplink ports	2 x GE combo	2 x GE combo	2 x GE combo	2 x GE combo
Price	2530-8G-POE+/2530-8G US\$567.99/ US\$498.99	SG300-10PP/ SG300-10 US\$419.99/ US\$209.99	2530-8-POE+ /2530-8 US \$516.99 / US \$299.99	SF302-08PP/ SF300-10 US\$314.99/ US\$165.00

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	2530 Series	SG500 Series
DoS Prevention	No	Secure Core Technology (SCT) rate-limits TCP traffic to the CPU, ensuring CPU always receives management and protocol traffic.
Stacking	No	Yes. Provides single IP address management for up to 8 switches. Allows the switches to function as a single switch with one management and one control plane. It also offers stack link resiliency when using ring stacking topology.
Management	Virtual stacking, CLI, SNMP	FindIt web browser plug-in, CLI, SNMP / All features are supported using the Web, CLI, or SNMP interface. By contrast, not all features configurable through the CLI can be configured through the Web or SNMP interface
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Support Pre-standard POE	Yes	Yes
# of ports that support POE	48/24	48/24
# of ports that support POE+	48/24	48/24
POE power	370W/190W	375W/375W
Uplink ports	2 x 10GE SFP	2 x 10GE, 2 x 5GE/10GE combo
Price	2530-48G-POE+-2SFP+ US \$3,644.86 2530-24G-POE+-2SFP+ US \$2,290.25	SG500X-48P US \$3,179.99 SG500X-24P US \$1,817.99

	HP	Cisco
Non-PoE	2530-48G-2SFP+ 2530-24G-2SFP+	SG500X-48 SG500X-24
# of GE ports	48/24	48/24
Uplink ports	2 x 10GE SFP	2 x 10GE, 2 x 5GE/10GE combo
Price	2530-48G-2SFP+ US \$2,623.99 2530-24G-2SFP+ US \$1,721.99	SG500X-48 US \$1,825.00 SG500X-24 US \$1,363.99

Information in this document is accurate to the best of our knowledge based on publicly available documentation from HP on this date. You are encouraged to validate this content and notify us if discrepancies are found. We will make corrections. Pricing was obtained at CDW.com on August 30, 2014.