



Cisco Head-to Head Comparisons

Cisco SG300 vs Ubiquiti EdgeSwitch

This document compares the Cisco SG300 series switch with the Ubiquiti Edgeswitch Series. The Cisco SG300 series are Layer 3, Managed switches that are available in PoE and non-PoE flavors and a range of ports from 8 to as many as 52. The Ubiquiti Edgeswitch Series consists of four Managed L3 Gigabit Ethernet edge switches. They are available with either 24 or 48 ports consisting of two different PoE power budgets levels.

When comparing features, the Ubiquiti EdgeSwitch switch is lacking several important areas.

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 1GBase-T interfaces, cable length detection, plus the 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.

Ubiquiti 48 ports switch model comes with two 10GE SFP and two 1GE SFP uplinks while Cisco's 48 ports switch offers four GE uplinks (2 x GE, 2 x GE combo). Cisco's models with 10 Gigabit uplinks (SG500X) are fully stackable with dynamic routing and scale far beyond what Ubiquiti has to offer.

Ubiquiti 24 ports switches has two 1GE SFP uplinks as compared to Cisco's four uplinks (2 x GE, 2 x GE combo).

The Ubiquiti products are lacking in a number of very key areas:

- SCALABILITY/CAPACITY – Ubiquiti models are lightweight compared to the Cisco SG300 Series:
 - 255 VLANs vs 4094
 - 8K MAC vs 16K
 - 100 ACLs vs 512
 - 4 Multiple Spanning Tree Instances vs 8
 - 6 Link Aggregation Groups (LAG) vs 8
 - Cisco 300 Series offers 2 additional Gigabit Ethernet ports
 - Switching Capacity (in Gbps) and Forwarding performance (in millions pps) is superior with the SG300 (see table)
- Cisco Security Features (lacking in Ubiquiti switches):
 - Private VLANs with Communities
 - Control Plane Policing (CoPP) policies that restricts management access from a specific interface, IP host or IP subnet. Additionally, this Cisco function rate limits to prevent DoS attacks to the switch management interface.
 - First Hop Security – Dynamic ARP Inspection and IP Source Guard

- Web based Authentication
- Rich .1x support such as time-based, and monitor mode
- Cisco IPv6 Features (lacking in Ubiquiti)
 - IPv6 First Hop Security such as RA Guard, ND inspection, Destination Guard, etc.
 - Numerous tunneling mechanisms such as ISATAP or 6-to-4 tunneling
- Additional unique capability only Cisco has to offer – Auto Smartports, CDP, Network-wide Auto Voice (patent pending)
- A few additional - Q-in-Q, TCP Congestion Avoidance, MVR, Bonjour, and a whole lot more not present in UBNT

In terms of warranty, Cisco offers lifetime warranty and next business day advanced hardware replacement. Ubiquiti offers a one year warranty and return-to-factory hardware replacement. Additionally, Cisco has a proven quality track record, built up over more than 10 years of delivering products to the market, in all geographies, verticals, and customer types.

Cisco provides 8 x 5 live telephone support for twelve months while Ubiquiti offers community support on its support forum or via email. Cisco also offers a 3 year contract that provides 24x7 support and advance replacement RMA's.

	Ubiquiti	Cisco	Ubiquiti	Cisco
	EdgeSwitch ES-24-250W EdgeSwitch ES-24-500W	SG300-28PP SG300-28MP	EdgeSwitch ES-48-500W EdgeSwitch ES-48-750W	SG300-52P SG300-52MP
Managed switch	Yes	Yes	Yes	Yes
Control Plane Policing (CoPP)	No	Secure Core Technology (SCT) rate-limits TCP traffic to the CPU, ensuring CPU always receives management and protocol traffic.	No	Secure Core Technology (SCT) rate-limits TCP traffic to the CPU, ensuring CPU always receives management and protocol traffic.
QoS support	Yes	Yes	Yes	Yes
Active VLAN	255	4094	255	4094
VLAN type supported	Port-based, 802.1Q tag-based, voice VLAN, Guest VLAN, Unauthenticated, Dynamic VLAN assignment	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	Port-based, 802.1Q tag-based, voice VLAN, Guest VLAN, Unauthenticated, Dynamic VLAN assignment	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	Automatic but extremely limited and non-scalable	Automatic	Automatic but extremely limited and non-scalable	Automatic
Private VLAN support	Yes	Yes	Yes	Yes
Access control list	100 - 10 rules/port. Supports IPv4 standard and extended, IPv4 named, IPv6 named and extended MAC	512. Support source and destination MAC, VLAN ID, IP addresses, protocol, DSCP/IP Precedence, TCP/UDP source and destination ports, 802.1p priority, Ethernet type, ICMP, IGMP, TCP flag, time-based ACL.	100 - 10 rules/port. Supports IPv4 standard and extended, IPv4 named, IPv6 named and extended MAC	512. Support source and destination MAC, VLAN ID, IP addresses, protocol, DSCP/IP Precedence, TCP/UDP source and destination ports, 802.1p priority, Ethernet type, ICMP, IGMP, TCP flag, time-based ACL.

802.1X port-based authentication support	Supports the 802.1x authentication methods but lacks support for Web-based authentication	Supports 802.1X as an authenticator. Provides single/multiple host mode, single/multiple sessions, time-based 802.1X dynamic VLAN assignment support including Web-based Authentication	Supports the 802.1x authentication methods but lacks support for Web-based authentication	Supports 802.1X as an authenticator. Provides single/multiple host mode, single/multiple sessions, time-based 802.1X dynamic VLAN including Web-based Authentication
IPv6 support	Basic support, IPv6 neighbor and router discovery (ND), stateless address configuration, ACL.	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	Basic support, IPv6 neighbor and router discovery (ND), stateless address configuration, ACL.	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
Port Mirroring	Port and VLAN Mirroring	Up to a combination of eight source ports/VLANs can be mirrored to one destination port	Port and VLAN Mirroring	Up to a combination of eight source ports/VLANs can be mirrored to one destination port
802.3az EEE support	No	Support 802.3az, schedule-based port shutdown + disable LED option	No	Support 802.3az, schedule-based port shutdown + disable LED option
Switching Capacity	52 Gbps	56 Gbps	70 Gbps	56 Gbps (SG300) and 176 Gbps in SG500X
Spanning-tree support	IEEE 802.1s, 802.1d and 802.1w	IEEE 802.1s, 802.1d and 802.1w	IEEE 802.1s, 802.1d and 802.1w	IEEE 802.1s, 802.1d and 802.1w
Management	Web GUI, CLI, SNMP	FindIt web browser plug-in, CLI, SNMP	Web GUI, CLI, SNMP	FindIt web browser plug-in, CLI, SNMP
PoE support	802.3af/802.3at, 24V passive PoE	802.3af/802.3at	802.3af/802.3at, 24V passive PoE	802.3af/802.3at
# of PoE ports	24	24	48	48
Power budget	180W(?)/370W(?)	180W/375W	370W(?) / 570W (?)	375W / 740W
Console port	No	Yes	No	Yes
Uplink ports	2 x 1GE SFP	2 x GE, 2 x GE combo	2 x 10GE SFP, 2 x 1GE SFP	2 x GE, 2 x GE combo (SG300) 4 x 10GE SFP+ (SG500X)
Price	ES-24-250W US \$399.00 ES-24-500W US \$549.99	SG300-28PP US \$876.99 SG300-28MP US \$989.99	ES-48-500W US \$799.00 ES-48-500W US \$949.00	SG300-52P US \$1,232.00 SG300-52MP US \$1,917.00
Warranty	1 year, RTF hardware replacement	Life time warranty, NBD hardware replacement	1 year, RTF hardware replacement	Life time warranty, NBD hardware replacement
Technical support	Email, support forum	Live support, 8 x 5 for the first year - 3 year contract available for 24-7 tech support	Email, support forum	Live support, 8 x 5 for the first year - 3 year contract available for 24-7 tech support

Information in this document is accurate to the best of our knowledge based on publicly available documentation from Ubiquiti 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 October 1, 2014.