Head to head comparisons
Cisco SF/SG300 vs Netgear M4100

The Cisco 300 Series, part of the Cisco Small Business line of network solutions, 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 Series provides the ideal combination of affordability and capabilities for small businesses, and helps you create a more efficient, better-connected workforce.

The Cisco 300 Series is broad portfolio of fixed-configuration managed Ethernet switches. Models are available with 8 to 48 ports of Fast Ethernet and 10 to 52 ports of Gigabit Ethernet connectivity, providing optimal flexibility to create exactly the right network foundation for your business. However, unlike other small business switching solutions that provide managed network capabilities only in the costliest models, all Cisco 300 Series Switches support the advanced security management capabilities and network features you need to support business-class data, voice, security, and wireless technologies. At the same time, these switches are simple to deploy and configure, allowing you to take advantage of the managed network services your business needs.

The Netgear Intelligent Edge M4100 series consists of 12 fully managed switches, ranging from 8-port Fast Ethernet to 50-port Gigabit Ethernet. They offer simple access layer switching with CLI, scripting capabilities and Layer 3 routing. They are recommended as a component of converged voice, video and data networking solutions.

The Cisco 300 Series have numerous advantages over Netgear M4100. A subset of these are listed below:

- **VLAN's**
    - Cisco offers patented (US Pat: 8867405) Network-wide auto-voice VLAN and QoS propagation.
    - Cisco supports additional VLAN types including Unauthenticated VLANs, CPE VLANs and Multicast TV VLANs

- **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.
    - Cisco offers localization of GUI and documentation into multiple languages

- **Energy Efficiency**
    - In addition to the capacities offered by Netgear, the Cisco switches also offer the ability to scale the output power based on the length of the cable connecting from the switch to the endpoint, thereby optimizing energy consumption.
    - Cisco also offers the capacity to power off the LEDs in order to lower the power consumption even further.

- **Capacity**
  - Cisco Switches offer larger table sizes, facilitating growth into larger environments. Cisco SF300 / SG300 support 4K active VLANs versus Netgear's 1K VLANs.
  - 512 static routes and 128 IP interfaces versus Netgear's 64 static routes and 64 IP interfaces.
  - Cisco has 512 ACL rules versus Netgear's 50 ACLs.

- **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 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 Netgear 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.
  - Cisco's ACL support is more advanced with support for protocol, TCP/UDP port, Ethertype, time-based.
  - Cisco supports Web-based Authentication in addition to the other authentication techniques offered by Netgear.
  - Cisco supports Secure Sensitive Data (SSD), which is a mechanism to manage sensitive data (such as passwords, keys, etc) securely on the switch, populating this data to other devices and secure autoconfiguration. Access to view the sensitive data as plaintext or encrypted is provided according to the user-configured access level and the access method of the user.

	NETGEAR	CISCO
	M4100	SF300/SG300
Control-plane Policing	Not available	Secure Core Technology (SCT) rate-limits TCP traffic to the CPU, ensuring CPU always receives management and protocol traffic.
Management	Web GUI, CLI, SNMP	FindIt web browser plug-in, web gui, CLI, SNMP
# of active VLAN	1024	4096
VLAN type supported	Static, dynamic, voice, MAC-based, private VLAN, protocol-based, subnet-based, QoQ, Dynamic	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	Automatic though local to the switch only	Network-wide automatic setup using Cisco's patented VSDP technology (US Pat: 8867405)
ACL	50 ACLs, 512 rules (ingress)	512 ACLs. 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 as authenticator. Provides single/multiple hosts mode	Supports 802.1X as an authenticator. Provides single/multiple host mode, single/multiple sessions, time-based 802.1X dynamic VLAN assignment support

	NETGEAR	CISCO
Discovery	LLDP and ISDP	CDP, LLDP, and Bonjour discovery
Auto Smartports	No	Supported
Web-based authentication	No	Yes
Secure Sensitive Data (SSD)	No	Yes
Mirroring	Source ports only, max source ports equals to total switchport count	Up to a combination of eight source ports/VLANs can be mirrored to one destination port
MAC address table	16K	16 K
IPv4 static routing	Port-based, VLAN-based, subnet-based static routing	Layer 3 routing - Port-based, VLAN-based, subnet-based static routing
Layer 3 IPv4 routing	64 static routes, 64 IP interfaces	Wire-speed routing, 512 static routes, 128 IP interfaces
IPv6 support	Basic - ACL, QoS and multicast listener discovery	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
PD PoE as power option	Limited to two desktop versions only	No
PoE passthrough	Limited to desktop version M4100-D12G-POE+	No
Save power mode	Support 802.3az, schedule-based port shutdown	Support 802.3az, schedule-based port shutdown, Cable length detection, LED shutdown
Spanning-tree	IEEE 802.1s, 802.1d and 802.1w	IEEE 802.1s, 802.1d and 802.1w
Warranty	Limited life time warranty, 3-years NBD hardware replacement	Limited life time warranty, NBD hardware replacement
Technical support	24 x 7 technical support via chat & email / phone support first 90 days: chargeable thereafter	Phone / chat / email technical support 8x5 for the first year 24x7 - 3 year contract available

	NETGEAR	CISCO	NETGEAR	CISCO	NETGEAR	CISCO
	M4100-D10-POE	SF302-08P	M4100-D12G	SG300-10	M4100-D12G-POE+	SG-300-10MPP
# of Ethernet ports (simultaneously active)	8 FE+2GE	8 FE+2GE	12 GE	10 GE	12 GE	10 GE
# of PoE/PoE+ ports	8 PoE	8 PoE	n/a	n/a	12 PoE+	8 PoE+
Power budget	66W	62W	n/a	n/a	120W (802.3at) - AC powered; 25W (802.3af) - powered by PoE+	124W
Uplink ports	2 combo ports (GE/SFP)	2 combo ports (GE/SFP)	2 combo ports (GE/SFP)	2 combo ports (GE/SFP)	4 shared SFP	2 combo ports (GE/SFP)
Powered by PoE/PoE+	n/a	n/a	yes - PoE	n/a	yes - PoE+	n/a
Price	$154.99	$279.99	$213.99	$209.99	$660.00	$436.99

	NETGEAR	CISCO	NETGEAR	CISCO	NETGEAR	CISCO
	M4100-26G-POE	SG300-28P	M4100-26-POE	SF300-24P	M4100-26G	SG-300-28
# of Ethernet ports (simultaneously active)	26 GE	28 GE	24 FE+2GE	24 FE+4GE	26 GE	28 GE
# of PoE/PoE+ ports	24 PoE	24 PoE	24 PoE	24 PoE	n/a	n/a
Power budget	192W; 280W w/ external power supply	180W	380W	180W	n/a	n/a
Uplink ports	4 shared SFP	4 - 2 combo ports (GE/SFP)	2 combo ports (GE/SFP)	4 uplinks (2 combo ports (GE/SFP)	4 shared ports (GE/SFP)	4 - 2 combo ports (GE/SFP)
Price	$693.99	$663.99	$295.99	$479.99	$388.04	$513.99

	NETGEAR	CISCO	NETGEAR	CISCO	NETGEAR	CISCO
	M4100-50G-POE+	SG300-52MP	M4100-50-POE	SF300-48P	M4100-50G	SG300-52
# of Ethernet ports (simultaneously active)	50 GE	52 GE	48 FE +2 GE	48 FE+4GE	50 GE	52 GE
# of PoE/PoE+ ports	48 PoE+	48 PoE+	48 PoE	48 PoE	n/a	n/a
Power budget	380W; 1440W w/ external power supply	740W	380W; 720W w/ external power supply	375W	n/a	n/a
Uplink ports	4 shared SFP	4 - 2 combo ports (GE/SFP)	2 combo ports (GE/SFP)	4 GE - 2 GE, 2 combo ports (GE/SFP)	4 combo ports (GE/SFP)	4 - 2 combo ports (GE/SFP)
Price	$1,185.00	$1,653.99	$917.99	$889.99	$650.98	$889.99

	NETGEAR	CISCO	NETGEAR	CISCO	NETGEAR	CISCO
	M4100-24G-POE+	SG300-28MP	M4100-12G-POE+	SG-300-10MPP	M4100-12GF	SG300-10SFP
# of Ethernet ports (simultaneously active)	24 GE	28 GE	12 GE	10 GE	12 shared GE	10 GE
# PoE/PoE+ ports	24 PoE+	24 PoE+	12 PoE+	8 PoE+	4 PoE+	n/a
Power budget	380W; 720W w/ external power supply	375W	380W	124W	150W	n/a
Uplink ports	4 x 100/1000 shared SFP	4 - 2 combo ports (GE/SFP)	4 shared SFP	2 combo ports (GE/SFP)	12 shared SFP	8 SFP, 2 shared SFP
Price	$819.99	$989.99	$830.00	$436.99	$760.00	$392.99

Information in this document is accurate to the best of our knowledge based on publicly available documentation from Netgear on this date. You are encouraged to validate this content and notify us if discrepancies are found. We will make corrections. *Pricing was obtained from ecommerce web sites on Nov 7, 2014.*