

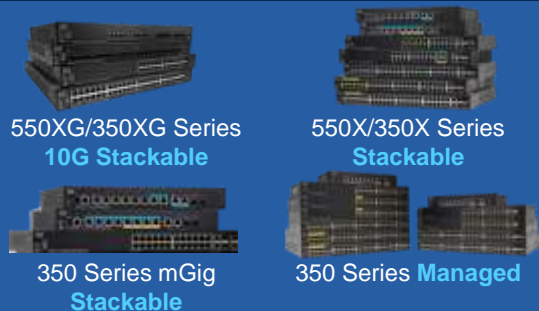


Cisco Small Business 100 – 500 Series Switches



Cisco SMB Portfolio

Advanced Layer 2/ Basic Layer 3 (Managed/Stackable) Portfolio



Affordable price, performance, and functionality
LLW, Cisco Smart Net Total Care™

Basic Layer 2 (Unmanaged/Smart) Portfolio



Easy to deploy, easy to configure,
easy to monitor, LLW, Smart Net Total Care

Routing Portfolio



Basic business connectivity,
high performance and security,
LLW, Smart Net Total Care

Wireless Portfolio

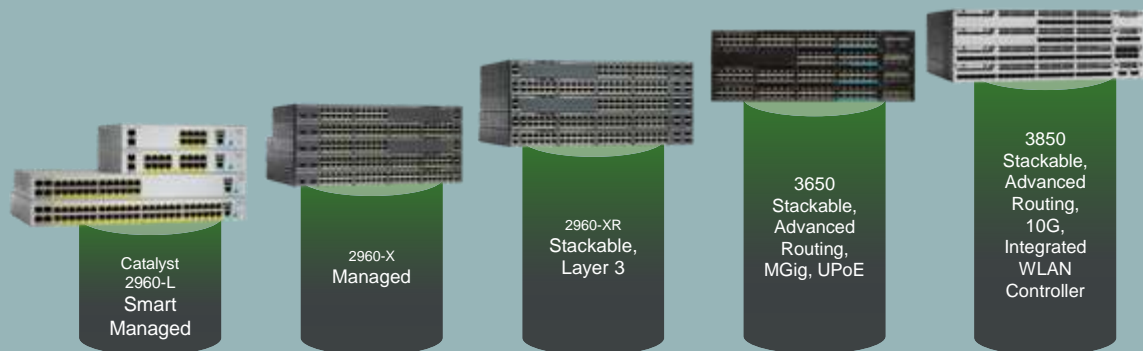
Single Point Setup with clustering,
Captive Portal,* LLW,
Smart Net Total Care



* Select models. For more information, please check the product data sheet.

Cisco Switching Portfolio

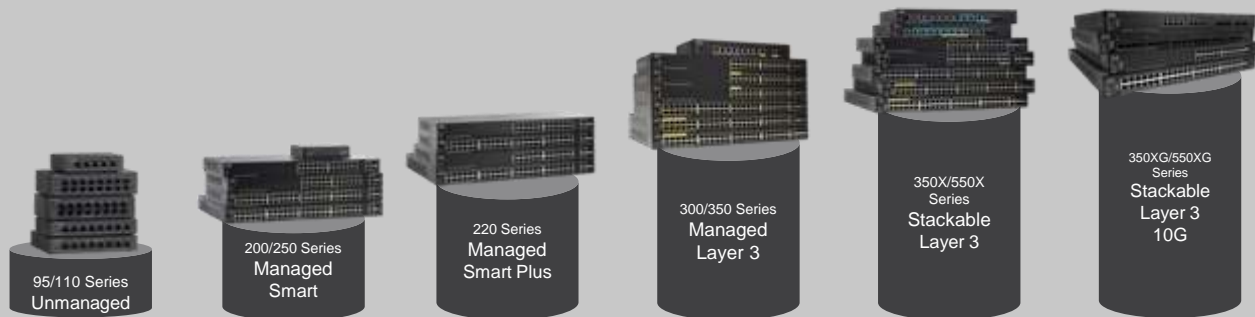
Performance



Enterprise Class
(DNA Architecture)



Cloud Managed

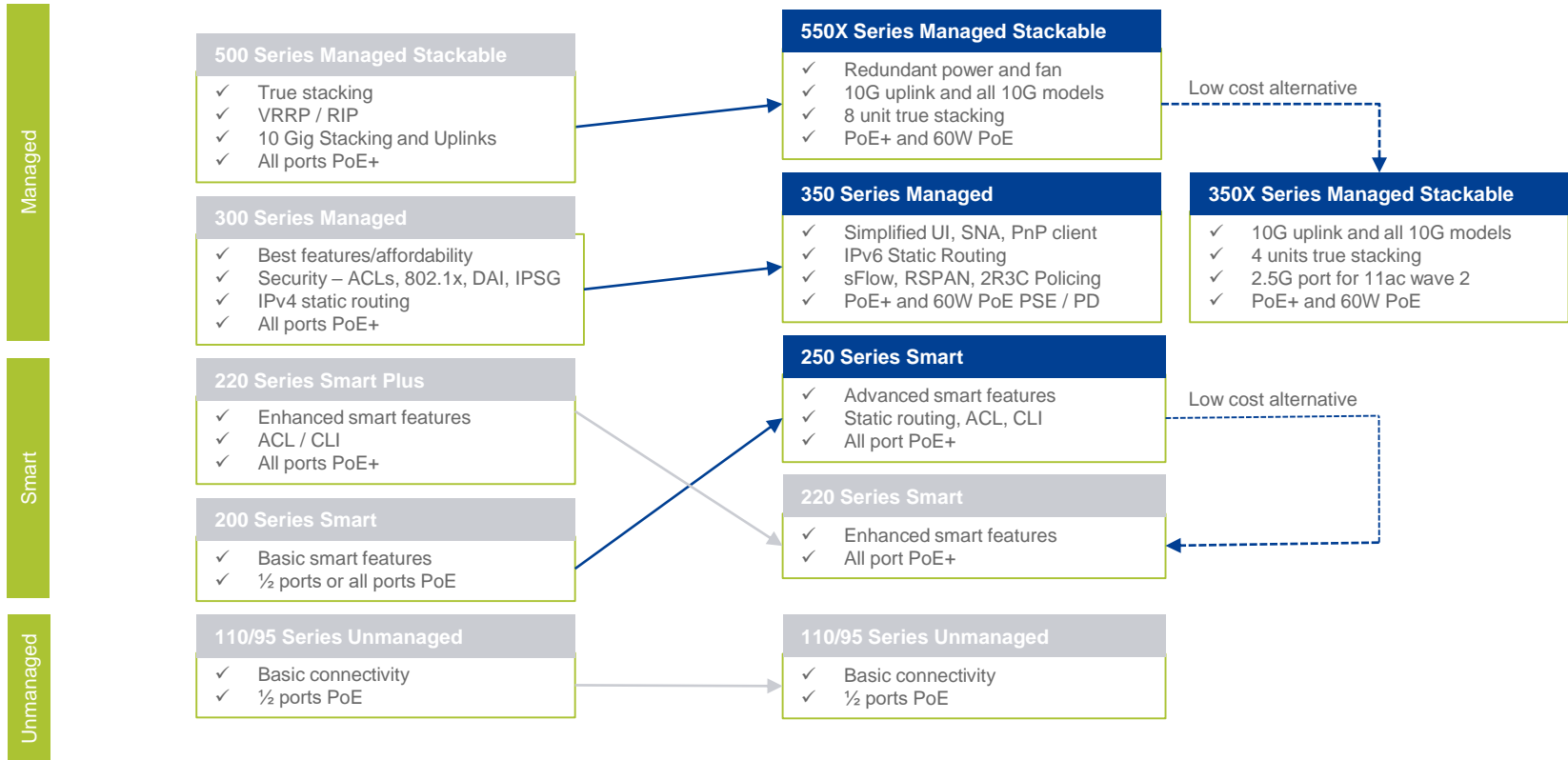


Business Class
(Simplicity & Affordability)



Function, Flexibility, Scalability

Cisco SMB Switching Portfolio Transition



Cisco 550X Stackable Managed Switches

Advanced Features for
Demanding Environments at an
Affordable Price



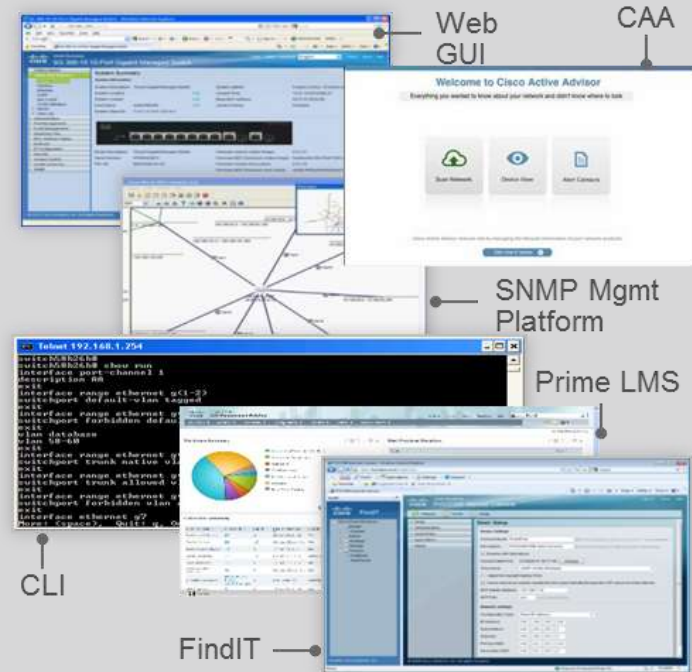
Performance

- Next-generation Cisco® stackable managed switches
- Affordable 10-Gigabit copper and fiber connectivity
- New redundant power and fan with high availability
- 60W PoE on selected ports for a compact switch and high-power wireless access point
- Advanced features like sFlow, RSPAN, and PBR, plus all existing 500X series features



Easy to Manage

- Simplified web GUI, dashboard, wizards, and search for most intuitive management
- New USB port added for easy image and configuration transfer
- Cisco® FindIT Network Discovery Utility
- Cisco Active Advisor for inventory, advisory, and lifecycle management
- Cisco Prime™ Infrastructure support
- Cisco Discovery Protocol and Auto SmartPorts
- Full CLI for text-based configuration



Advanced Features for Demanding Environment

- Static and dynamic layer-3 routing
- Policy-based routing
- Stackable to 8 units
- sFlow
- Remote Switch Port Analyzer
- Ingress and egress access control list and quality of service
- Flow-based mirroring, redirection, and quality of service



Built-In Security



802.1X and Web
Authentication



Virtual LANs and
Private VLAN



Management Data
Encryption



Advanced Threat
Protection

...to name a few

True Stacking, Not Clustering



Buyer beware

Energy Savings Technologies

Reduce energy costs by up to 50 percent*

Cable Length	EEE	Load	Power Consumption	% Power Savings
Long (100m)	Disable	100%	142.9W	0%
Short (<30m)	Disable	100%	128.2W	10%
Short (<30m)	Enable	10%	123.2W	14%
Short (<30m)	Enable	0%	105.3W	26%
Short (<30m)	Enable	Link down	72.2W	50%

* Cisco test results on SG550XG-24T

Cisco 550X Stackable Managed Switches

Model Overview

Fast Ethernet



SF550X-24
24 10/100 ports
2 10G combo + 2 SFP+



SF550X-24P, 24MP
24 10/100 PoE+ ports
2 10G combo + 2 SFP+



SF550X-48
48 10/100 ports
2 10G combo + 2 SFP+



SF550X-48P, 48MP
48 10/100 PoE+ ports
2 10G combo + 2 SFP+

Gigabit Ethernet



SG550X-24
24 Gigabit ports
2 10G combo + 2 SFP+



SG550X-24P, 24MP, 24MPP
24 Gigabit PoE+ ports
2 10G combo + 2 SFP+



SG550X-48
48 Gigabit ports
2 10G combo + 2 SFP+



SG550X-48P, 48MP
48 Gigabit PoE+ ports
2 10G combo + 2 SFP+

Cisco 550X Stackable Managed Switches

Model Overview

10 Gigabit Ethernet



SG550XG-8F8T
8 10G copper port
8 10G SFP+



SG550XG-24F
22 10G SFP+
2 10G combo



SG550XG-24T
22 10G copper ports
2 10G combo



SG550XG-48T
46 10G copper ports
2 10G combo

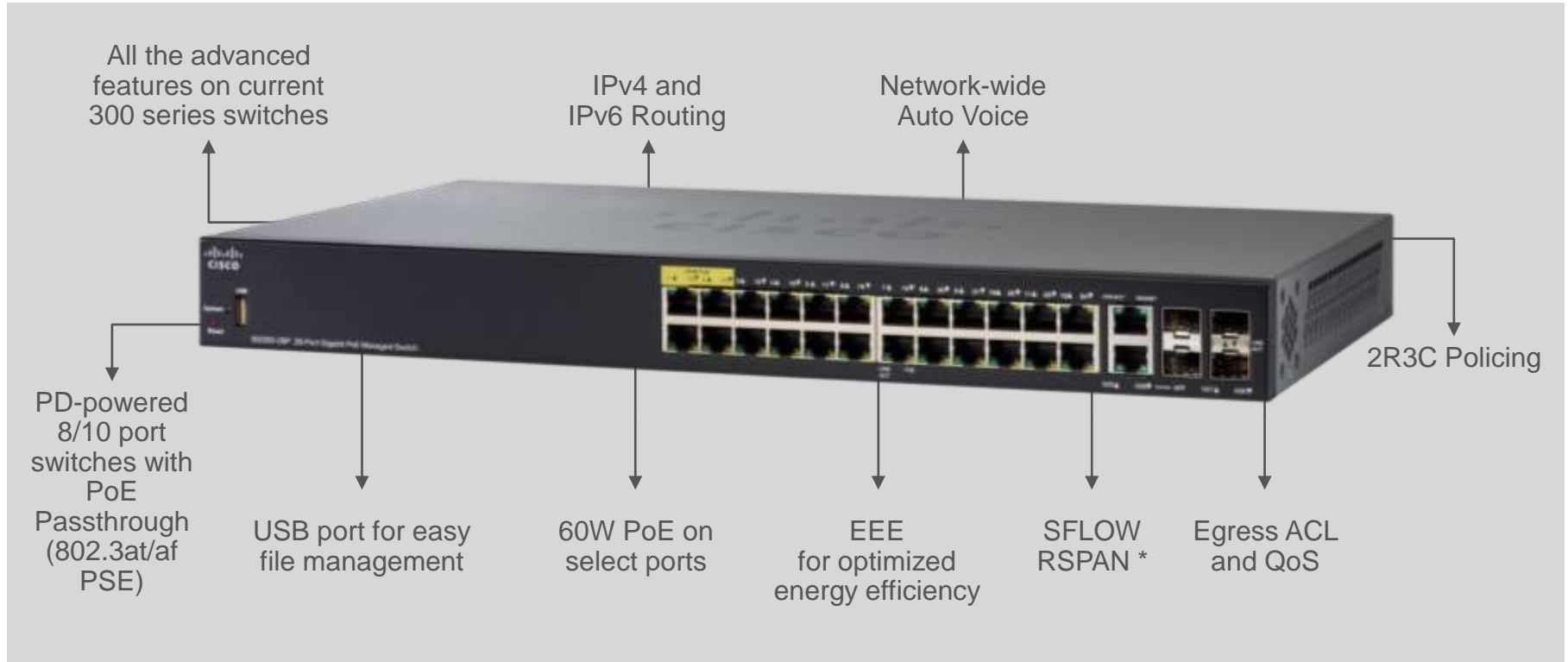
Cisco 350 Series Managed Switches

Reliable, Easy-to-Use Basic
Business Network at an
Affordable Price



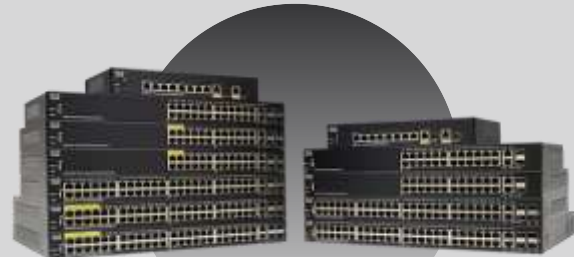
350 Series

New Features Deliver More Performance



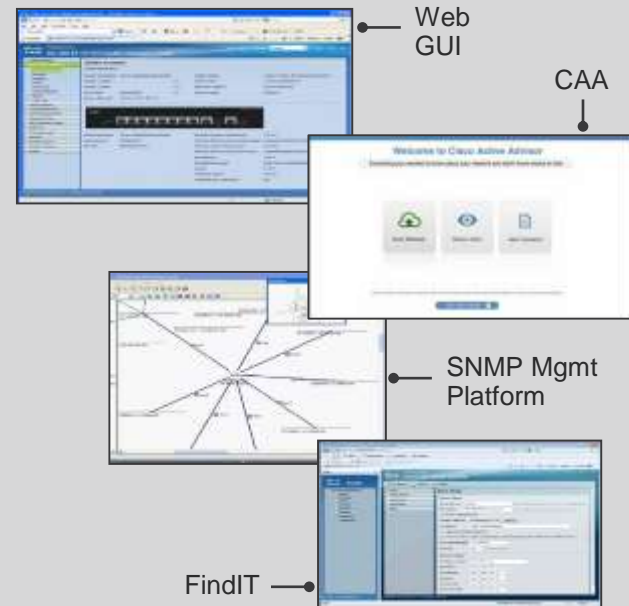
Price/Performance

- Next-generation Cisco Managed Switches with best features and performance
- Latest ASIC technology for lower energy consumption
- New 60W PoE to power compact switch, high-power wireless AP, thin/zero client, and connected lighting.
- New capability to be powered by PoE and PoE pass-through
- Advanced features for a solid business network



Easy to Manage

- New simple mode web GUI and configuration wizards for most intuitive management
- New USB port added for easy image and configuration transfer
- New MSTP support for flexible spanning tree deployment
- Cisco Discovery Protocol and Cisco SmartPorts
- Cisco Active Advisor for inventory, advisory, and lifecycle management



And Of Course - Built-In Security



802.1X
Authentication



Virtual LANs



Port Security



DoS Prevention

...to name a few

Cisco 350 Series Managed Switches

Model Overview

Fast Ethernet



SF350-48

- 48 10/100 ports
- 4 x Gigabit (2 SFP + 2 combo)



SF350-48P

- 48 10/100 ports
- 4 x Gigabit (2 SFP + 2 combo)
- PoE+



SF350-48MP

- 48 10/100 ports
- 4 x Gigabit (2 SFP + 2 combo)
- PoE+

Gigabit Ethernet



SG350-10/10P/10MP, SG355-10P

- 8 Gigabit ports with PoE+
- 2 Gigabit combo ports
- PoE PD



SG350-28

- 24 Gigabit ports
- 4 x Gigabit (2 SFP + 2 combo)



SG350-28P

- 24 Gigabit ports
- 4 x Gigabit (2 SFP + 2 combo)



SG350-28MP

- 24 Gigabit ports with PoE+
- 4 x Gigabit (2 SFP + 2 combo)

Cisco 250 Series Smart Switches

Reliable, easy-to-use
business network at
an affordable price



Performance

- Next-generation Cisco® smart switches with best-ever performance
- Layer 3 static routing
- PoE+ support supplies 30W of power to end devices
- PoE input and PoE pass-through
- Multiple management options
- Rich security capabilities
- All with the same affordability you love



All the features
on the current 200
Series Switches

IPv4/IPv6
static routing

Command-line
interface

Access control list

USB port for easy
file management

Simplified GUI

Smart Network
Application

PoE+
(30W per port)

60W PD-powered and
PoE pass-through
(select models)



Fast Ethernet



SF250-24
24 10/100 ports
2 Gigabit combo + 2 SFP



SF250-24P
24 10/100 PoE+ ports
2 Gigabit combo + 2 SFP



SF250-48
48 10/100 ports
2 Gigabit combo + 2 SFP



SF250-48HP
48 10/100 PoE+ ports
2 Gigabit combo + 2 SFP

Gigabit Ethernet



SG250-08/08HP/10P
8 Gigabit ports/PoE+ ports
2 Gigabit combo ports | PoE PD



SG250-18
16 Gigabit ports
2 Gigabit combo ports



SG250-26/26HP/26P
24 Gigabit ports/PoE+ ports
2 Gigabit combo ports



SG250-50/50HP/50P
48 Gigabit ports/PoE+ ports
2 Gigabit combo ports

Gigabit Ethernet with 10 GE uplinks



SG250X-24
24 Gigabit ports
2 10GBASE-T + 2 SFP+



SG250X-24P
24 Gigabit PoE+ ports
2 10GBASE-T + 2 SFP+



SG250X-48
48 Gigabit ports
2 10GBASE-T + 2 SFP+



SG250X-48P
48 Gigabit PoE+ ports
2 10GBASE-T + 2 SFP+

Extended PoE Features

- 60W of Power (Select Ports)
- PoE PassThrough (Select Models)
- PoE, PoE+, and Legacy PoE support
 - PoE Scheduling
 - Static PoE Power Assignment
 - Priority Level



Network Plug and Play for Day 0 Deployments

- Network Simplification with Cisco PnP



- PnP agent embedded enabling Zero-Touch-Deployment and provisioning on 250/350/550 series switches.

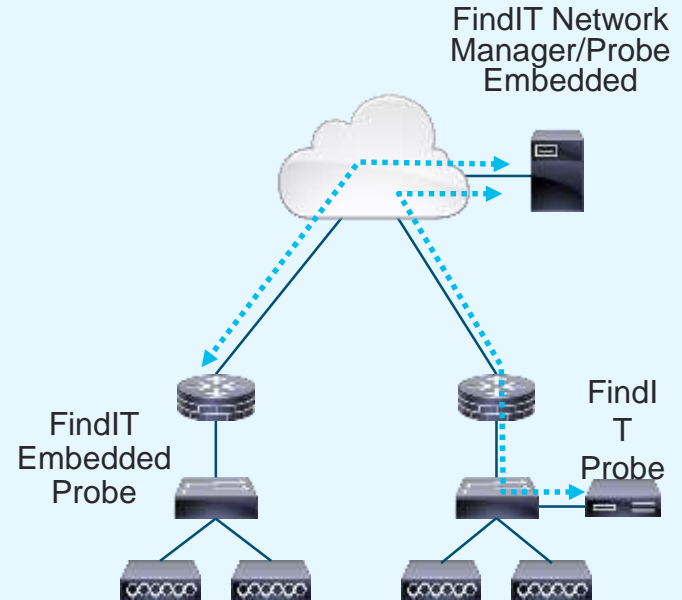
- DHCP Auto configuration

- Auto Image update
- Auto configuration update



Embedded FindIT Probe

- FindIT Network Manager-capable devices
 - Most Cisco® 100 to 500 Series devices
- Onsite FindIT Probes
 - Virtual machine image (VMware, VirtualBox, Hyper-V)
 - Linux application for PC or Raspberry Pi
 - Embedded on select devices 250/350/550 series switches and 160/260/340 series routers
 - One per site; may be co-hosted with Network Manager
- Network FindIT Manager
 - Runs on local server or on IaaS platform
 - AWS based deployment



SG350XG/SG550XG – Components

SKU Name	NAND Flash	DDR3
SG350XG-2F10	256MB	128MB*16 *2
SG550XG-8F8T	256MB	128MB*16 *2
SG350XG-24F	256MB	128MB*16 *2
SG550XG-24F	256MB	128MB*16 *2
SG350XG-24T	256MB	128MB*16 *2
SG550XG-24T	256MB	128MB*16 *2
SG350XG-48T	256MB	128MB*16 *2
SG550XG-48T	256MB	128MB*16 *2

Fans and Temperature Sensors

- ALL SKUs support fans with auto speed setting
 - Based on measured temperature by temperature sensors
- SG550XG SKUs also support redundant fan functionality.

Model name	Fan quantity	Redundant Fan quantity	Temp sense quantity
SG350XG-2F10	3	0	4
SG550XG-8F8T	3	1	4
SG550XG-24F	4	1	4
SG350XG-24T	4	0	4
SG550XG-24T	4	1	4
SG350XG-48T	5	0	5
SG550XG-48T	5	1	5

USB port

- Located on the on the left side of the switch front panel.
 - USB v2.0
 - USB port type-A - male
 - FAT 32 support
- Allows to connect to a portable storage device
 - Such as flash stick/Disk on Key
- Connected flash storage can be controlled via device file system.
- Example for usage:
 - Backing up configuration/image/localization files
 - Loading new configuration/image/localization files
 - Copying log files
 - Other file copy operations



OOB Port

- Located on the on the right side of the switch panel.
- RJ45 1000BASE-T (Copper) port used as a management interface
- Does not support routing/bridging with in-band ports
- IP stack (Host) is always running on the OOB port
 - Static or DHCP IP address
 - Cannot be on same subnet as in-band interface IP addresses
- Supports partial bridging, port configuration and L2 configurations
 - Port speed and duplex, 802.1x, CDB, LLDP



Tesla New Features / Capabilities

- HW related
 - Board components - USB port/OOB port
 - Fan resiliency (SG550XG)
 - RPS 2300 support (SG550XG)
- New features
 - Full file system support
 - Advance stacking + Auto download of image/language files to stack members
 - IS VLAN mode + default port mode is access mode.
 - Protocol based VLAN (for SG350XG)
 - SNTP default servers
 - Advance storm control
 - OLH on flash + OpenSSL version upgrade
 - Policy based Flow Redirection
 - QOS Marking for traffic from CPU

TCAM Table size (extract)

MAC table size	64K
VLAN table size	4K
Number of Multicast groups (static and dynamic)	4092
ACL TCAM size	2K
Router IPv4 TCAM entries	Min/Default/Max: 8 /3536/8192
Router IPv4 Multicast TCAM entries	Min/Default/Max: 8 /512/8096
Router IPv6 TCAM entries	Min/Default/Max: 8 /3536/8192
Router IPv6 Multicast TCAM entries	Min/Default/Max: 8 /512/8096
Onlink IPv6 Prefix	Min/Default/Max: 32/256/256

Cisco 220 Series Switches

Product Overview

- Cisco® Small Business **Smart Plus** Switches – raising the bar for Smart switches by offering enhanced security and management at slight premium
- 24 to 50 port models for Fast Ethernet and Gigabit Ethernet switches with rich PoE options
- Enhanced Security - Access Control List, Guest VLAN
- Enhanced Quality of Service - Flow-based QoS, Egress Shaping
- Enhanced Management - Command Line, Dual Image, Prime LMS Integration, MSTP
- 802.3af PoE support on all ports, 802.3at PoE+ support for port 1 to port 4
- EEE energy-efficient technology
- Limited lifetime warranty



Cisco 220 Series
Switches

Cisco 220 Series Switch

Value Proposition

Price / Performance

- Higher level of security and management for Smart – ACL, CLI, flow-based QoS, etc.
- Enhanced PoE for flexible deployment
- Granular offering to fit customer need

Ease of Use

- Consistent interface across all Cisco® Small Business products
- Multiple management options – Web GUI, CLI, SNMP, Cisco Prime LMS
- Ease deployments with Cisco Discovery Protocol (CDP) / LLDP-MED and FindIT toolbar

Peace of Mind Support Service

- Industry Leading Cisco Small Business Support Center
- Limited lifetime warranty
- Free firmware updates

Cisco 220 Series Switch

Purchase Decision

Build solid business network under restricted budget

- More than basic network features
 - Access Control List
 - Flow-Based QoS
 - CLI
 - Dual Image
- Investment protection
 - PoE+ for 802.11ac wireless access point
 - MSTP for future expansion into larger networks
- Cisco User Experience
 - Cisco quality, solution and limited lifetime warranty



Cisco 220 Series Switches

Model Overview

Fast Ethernet



SF220-24

24 10/100
2 Gigabit Combo



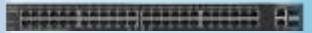
SF220-24P

24 10/100 PoE
2 Gigabit Combo



SF220-48

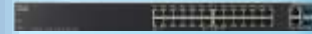
48 10/100
2 Gigabit Combo



SF220-48P

48 10/100 PoE
2 Gigabit Combo

Gigabit Ethernet



SG220-26

24 10/100/1000
2 Gigabit Combo



SG220-26P

24 10/100/1000 PoE
2 Gigabit Combo



SG220-50

48 10/100/1000
2 Gigabit Combo



SG220-50P

48 10/100/1000 PoE
2 Gigabit Combo

Feature-Rich Switches Offer Best Value

Performance

- Wire-speed performance on Fast Ethernet and Gigabit Ethernet switches
- Nonblocking switch fabric
- PoE+ with up to 30 watts per port on selected ports

Layer 2 Switching and Layer 3

- VLANs
- Spanning tree
- Link aggregation
- 802.1Q trunking
- Port and VLAN mirroring (SPAN)
- Multicast
- Basic QinQ

Security

- MAC-based port security
- IEEE 802.1x
- Storm control
- Access Control List
- Guest VLAN
- DDoS protection

Quality of Service

- Classification
- 802.1P
- DSCP/CoS
- WRR/Strict Priority (SP)
- Port and flow based policing
- Egress shaping

Management and General

- Intuitive Web GUI
- Command Line interface
- IPv6 Host
- Port and VLAN mirroring
- LLDP-MED and Cisco® Discovery Protocol
- Cisco Prime™ LMS

Cisco® Additional Value Add

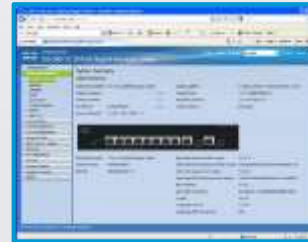
- Cisco Discovery Protocol
- Auto Voice VLAN
- FindIT browser toolbar
- PoE Intelligent Power Management

Designed for SMB

Simplified Configuration and Common Management

- Cisco® FindIT Network Management Platform
- Standalone configuration using the embedded Web GUI
- Cisco Classical-like CLI for text-based configuration in mass deployment
- Cisco Discovery Protocol
- Remote monitoring support using SNMP
- Cisco Prime LMS support

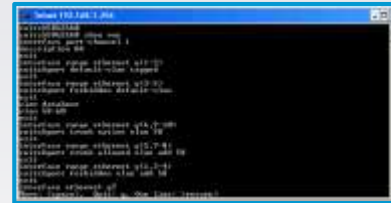
Web GUI



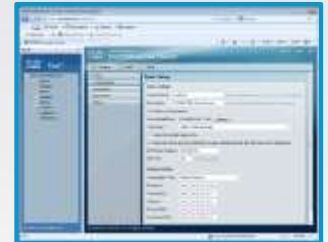
SNMP Mgmt Platform



CLI



FindIT



Prime LMS



Cisco 220 Series Switches

Power over Ethernet

- All PoE models feature 802.3af PoE on all RJ45 ports
- 802.3at PoE+ on selected ports
 - High power budgets enable up to 30W consumption per port
 - Backward compatible with 802.3af
 - Cisco Legacy POE also supported
- Supports Power Hungry Devices:
 - 802.11ac access points
 - Video-based IP Phones
 - PoE Powered Switch
- Need for rewiring eliminated
- More device placement options



Energy-Efficient Technology

Auto Power-Down

- Across the board EEE (802.3az) support - lowers power during low traffic periods
- Automatically turns off power on Ethernet RJ-45 port when the switch detects a link down
 - If there is no link on a port (when there is no connection or the device connected is turned off), the port(s) enter a “sleep mode”
- Resumes active mode when the switch detects the link is up or a device is connected
 - Switch sends out electrical pulses at frequent intervals



Cisco 110 Series Switches

- Cisco's entry level switches for the most simple and user friendly networks
 - Truly “plug-n-play” – no IT knowledge required
- Ideal for small networks
- Unmanaged Layer 2 switches



* Select models

Cisco 110 Series Switches Sizes



- 16 models ranging from 5, 8, 16, and 24 ports
- 8 x 10/100 FE and 8 x 10/100/1000 GE
- 5 (of 16) models with PoE
- 4 (of 16) have additional mini-GBIC ports
- Desktop and rack mount placement
- Metal casing

* Select models

Cisco 110 Series Switches

- All models have no fans i.e. are fan-less except one (the SG110-24HP)
- Cable management in front
- Integrated in the hardware:
 - Quality of Service (QoS)
 - **Cable Diagnostics (NEW)**
 - **Loop Detection (NEW)**
- Power efficiency support (EEE) for both FE and GE
- Limited lifetime warranty



* Select models

Quality of Service

- Integrated Quality of Service (QoS)
 - Zero configuration is required by the user
 - Switch is able to read 802.1p tags and prioritize traffic accordingly
 - Automatically prioritizes traffic based on priority mapping
- Uses standard 802.1p class of service (CoS) settings
 - Set with the same default QoS settings as the Cisco IP phones
Simply connect Cisco IP phones and cameras to 110 Series switches
 - No configuration required based on default QoS settings

Cable Diagnostics

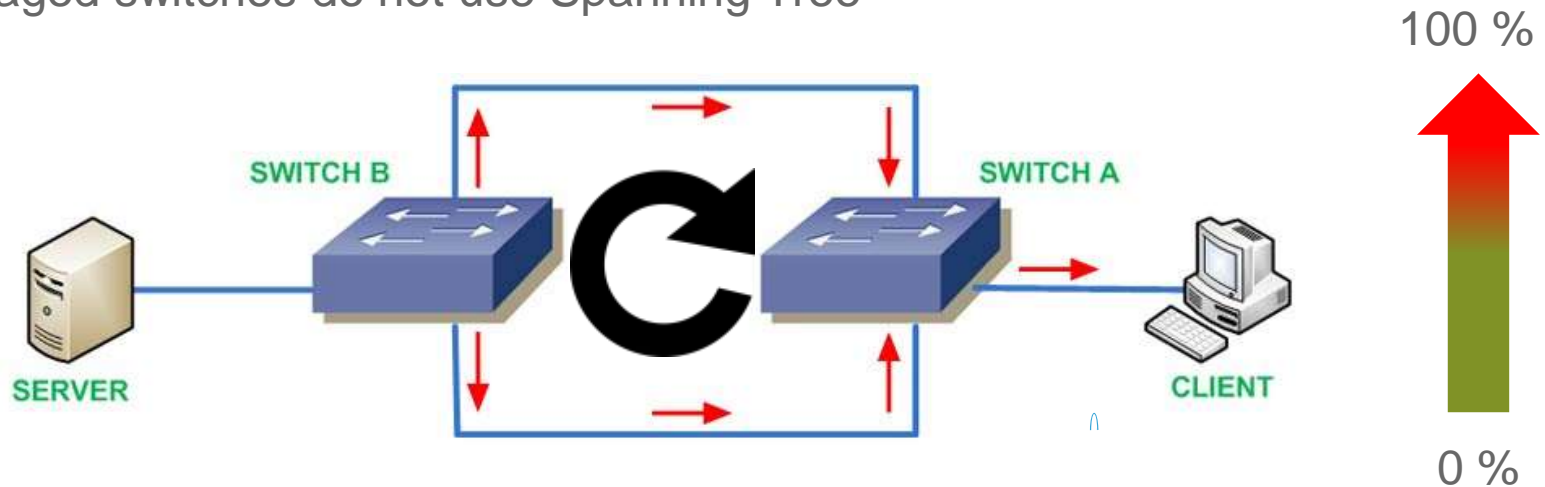
- Quickly identify and easily troubleshoot network cabling faults
- When cable issue or short is detected: LED will light solid Amber
- When NO device on the other end of the cable and an “Open Cable” is detected: LED will light solid Amber



GE models during operation. FE models will perform cable diagnostics at boot time only.

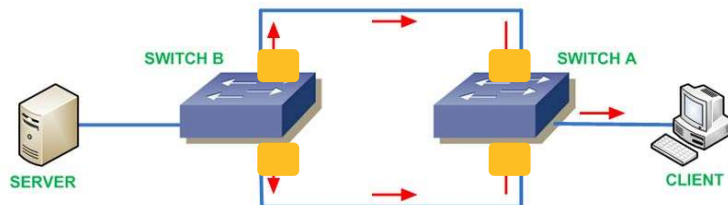
Loop

A good way to bring down a network is to create a loop. Ideally, your network is going to be running Spanning Tree, and that's going to prevent your network from looping onto itself. But on many networks, unfortunately, the network administrators, for whatever reason, have decided not to use any type of Spanning Tree Protocol, and they will be susceptible to a switch loop. Unmanaged switches do not use Spanning Tree



Loop Detection

- Quickly identify and easily troubleshoot LOOPS in the network
- Loop is created when there is more than one path between two endpoints
 - e.g. multiple connections between two [network switches](#) or two ports on the same switch connect each other
- A Loop creates [broadcast storms](#)
 - switch repeatedly rebroadcast the broadcast messages flooding the network. If the frame is sent into a looped topology, it can loop forever.
- GE models: Port LED blinks AMBER when loop is detected
- FE models: Poert LED blinks slowly Green when loop is detected



Energy-Efficient Technology

Featured in Both Gigabit and Fast Ethernet Models

1. Energy Efficient Ethernet (IEEE 802.3az)
 - Monitors link activity and powers down inactive links
2. Auto Power-Down / Sleep mode
 - Automatically turn off power on GE RJ-45 port when detecting link down
 - If there is no link on a port (when there is no connection or the device connected is turned off) the port(s) will enter a “sleep mode”
 - Resumes active mode when the switch detects the link up or device connected
3. Adjusts Power Based on Cable Length
 - Detects the length of connected Ethernet cable and adjusts power usage accordingly without affecting performance



Cisco 110 Series Switches

Model Overview

Fast Ethernet



SF112-24
24 10/100 ports
2 Combo mini-GBIC ports
2 Gigabit uplink ports



SF110-24
24 10/100 ports



SF110-16
16 10/100 ports



SF110D-16/16HP
16 10/100 ports
16 10/100 PoE ports



SF110D-08/8HP
8 10/100 ports
8 10/100 PoE ports



SF110D-05
5 10/100 ports

Gigabit Ethernet



SG112-24
Compact size
24 10/100/1000 ports
2 Combo mini-GBIC ports



SG110-24/24HP (NEW)
24 10/100/1000 ports
2 Combo mini-GBIC ports



SG110-16/16HP (NEW)
16 10/100/1000 ports



SG110D-08/8HP
8 10/100/1000 ports
8 10/100/1000 PoE ports



SG110D-05
5 10/100/1000 ports

POE Models

- All PoE models support 802.3af standard
- „HP” indicates that half the ports are PoE ports , the other half are non PoE ports

Model	Total Ports	PoE Ports	Power Budget
SF110D-08HP	8FE	4 ports	32W
SF110D-16HP	16FE	8 ports	64W
SG110D-08HP	8GE	4 ports	32W
SG110-16HP	16GE	8 ports	64W
SG110-24HP	24GE	12 ports	100W

Cisco SMB switch comparison

	110 Series	220 Series	250 Series	350/350X Series	550X Series
Management	Unmanaged	Smart managed	Smart managed	Fully managed	Fully managed
Routing/switching	Layer 2	Layer 2	Layer 3 static	Layer 3 static	Layer 3 dynamic
Network ports	5 to 24 ports GE/FE	24 to 48 ports GE/FE	8 to 48 ports GE/FE	8 to 48 ports 10 GE/2.5 GE/GE/FE	16 to 48 ports 10 GE/GE/FE
Uplink ports	No	2x GE	2x GE/4x GE/4x 10 GE	4x GE/4x 10 GE	4x 10 GE
PoE	PoE	PoE+	PoE+, PoE input, PoE pass-through	PoE+, 60W PoE, PoE input, PoE pass-through	PoE+, 60W PoE
Stacking	No	No	No	350X Series only (4 units per stack)	Yes (8 units per stack)
Redundancy	No	No	No	No	Redundant power connector and built-in redundant fan
Security	No	802.1X basic, ACL support	802.1X basic, ACL support	802.1X including DVA, web-based authentication, MAB, Private VLAN, IPv6 First Hop Security, DAI, IP Source Guard, DHCP Snooping, ACL support, SCT (CoPP), SSD, storm control, DoS prevention	802.1X including DVA, web-based authentication, MAB, Private VLAN, IPv6 First Hop Security, DAI, IP Source Guard, DHCP Snooping, ACL support, SCT (CoPP), SSD, storm control, DoS prevention
Ease of use	Loop detection, cable diagnostics	FindIT	SNA, FindIT, Network PnP, Auto Smartports, VSDP, CAA	SNA, FindIT, Network PnP, Auto Smartports, VSDP, CAA	SNA, FindIT, Network PnP, Auto Smartports, VSDP, CAA
Warranty	Limited lifetime	Limited lifetime	Limited lifetime	Enhanced limited lifetime	Enhanced limited lifetime

