FS S3910 Series and S3900 Series Switches Competitive Comparison

S3910 Series Switches

S3900 Series Switches

Product Comparison Models

- S3910 Series Switches:

  S3910-24TS; S3910-48TS
- S3900 Series Switches:

  S3900-24T4S; S3900-48T4S

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- Product Software Function
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Product Software Function

Compared with S3900 series switches, the S3910 series have a great improvement in function. The Layer 3 equipment network will be more flexible, which can do more strategies, software control and software linkage, etc. At the same time, the DHCP Sever[1] increases the scope of use of the equipment, allowing customers to reduce the cost of reinvesting another set of DHCP Sever. And they can adapt to more scenarios.

S3910 Series Switches Features

- Support diversified security features to ensure network stable and meet more choices for users.
- The operation and maintenance methods are more abundant to meet the various operation and maintenance requirements of technical experts and technical novices.
- The Stacking[2] method is more intelligent, and different models of the same series can be stacked. For example, S3910-24TS and S3910-48TS can be stacked.
- Green and energy-saving, it supports EEE (Efficient Energy-Efficient Ethernet) protocol, which can help customers reduce expenses while extending the service life of equipment.

Models	S3910-24TS/S3910-48TS	S3900-24T4S/S3900-48T4S
Security	• Port security, IP Source Guard, Dynamic Arp Inspection; • Support IP+MAC data binding using DHCP SNOOPING[3]; • Support IP+MAC data binding using IP SOURCE GUARD; • Hardware CPP, DHCP anti-attack, ICMP anti-attack, anti-IP anti-scanning attack, DHCP V6 anti-attack, trusted ARP; • Support VRRP dual-core environment deployment; • Support IP+MAC data binding using port security; • Support the use of 1X IP+MAC data binding; • Web Portal V2.0; • Support setting the IP range of network resources without authentication; • Support setting the IP range of authentication-free users; • Support IPV6 certification; • Support HTTPS access	• Port security • IP Source Guard • Dynamic ARP Inspection
DHCP Server	Yes	No
Operation and Maintenance Method	SNMP[4], RMON, HTTPS, Telnet, SSH, Syslog/Debug	SNMP, RMON, HTTP, Telnet, SSH
Layer 3 Feature	Support IPv4/IPv6 RIP/OSPF[5]	RIP
Stackability	4 Units (Can be same series but the rate of stacking ports must be consistent.)	6 Units (Must be same models.)

Product Performance

Compared with S3900 series switches, the S3910 series's flash has been improved. The routing table capacity has been increased to 500, and it supports rich IPv4 and IPv6 routing attributes. So it is more cost-effective when the S3910 series are deployed as a small core for small and medium-sized enterprises

Models	S3910-24TS vs S3900-24T4S		S3910-48TS vs S3900-48T4S	
1G RJ45 Port	24	24	48	48
10G SFP+ Port	4	4	4	4
Layer Type	Layer 2+	Layer 2+	Layer 2+	Layer 2+
Switch Chip	BCM56150	BCM56150	BCM56150	BCM56150
Switching Capacity	128 Gbps	128 Gbps	176 Gbps	176 Gbps
Forwarding Rate	96 Mpps	95 Mpps	132 Mpps	130 Mpps
Routing Table	500	256	500	256
Packet Buffer	1.5MB	1.5MB	1.5MB	1.5MB
SDRAM	DDRIII 512MB	DDRIII 512MB	DDRIII 512MB	DDRIII 512MB
MAC Address	16K	16K	16K	16K

Product Reliability

Compared with S3900 series switches, the S3910 series have greatly improved reliability. It can ensure the normal operation of services in the event of equipment failure by supporting functions such as VRRP, RLDP and REUP, etc.

S3910 Series Switches Features

- Support VRRP[6] to effectively ensure network stability. Suitable for scenarios such as finance, retail, call center, etc.
- Support RLDP[7], which can quickly detect the on-off of the link and the unidirectionality of the optical fiber link. Support the loop detection function under the port to prevent network failures caused by loops formed by privately connecting Hub and other devices under the port. Suitable for scenarios such as retail, hospital, enterprise, etc.
- In the case of not enabling STP, REUP[8] can be used to provide a fast on-chain protection function. REUP enables users to provide basic link redundancy even when STP is turned off, while providing millisecond-level failure recovery faster than STP. Suitable for scenarios that require quick failure recovery.
- Support stacking millisecond fault recovery: Stacking devices and peripheral devices are connected through aggregated links. If one of the devices or a member link fails, it only takes 50 to 200 milliseconds to switch to another member link.

Models	S3910-24TS/S3910-48TS	S3900-24T4S/S3900-48T4S
VRRP	Yes	No
RLDP	Yes	No
REUP	Yes	No

Product Hardware

Compared with S3900 series switches, the S3910 series have higher hardware value. It is very suitable for the deployment environment of some campus switches, such as weak current wells, corridors and utility rooms, etc.

S3910 Series Switches Features

- Use modular power supply to improve equipment stability and reliability. When the power supply fails, it can be directly replaced by the continuous network.
- Larger flash memory allowes customers to save more configurations and systems, etc., to facilitate maintenance.
- Larger SDRAM makes the device run better.
- The port lightning protection index reaches 6KV, and the lightning protection ≥8KV.
- Key components such as fans and power supplies that are prone to accumulate dust are coated with three anti-corrosion to prevent corrosion by dust.
- Very suitable for the deployment environment of park switches. (weak current wells, corridors, utility rooms, etc.)

Models	S3910-24TS/S3910-48TS	S3900-24T4S/S3900-48T4S
Flash Memory	256MB	64MB
Lightning Protection	≥8KV	≤8KV
Material	Conformal Coating	OSP
Power Supply	1+1 Hot-swappable Power Supplies	Dual Power Supplies

Features Explanation

DHCP Sever[1]: Dynamic Host Configuration Protocol (DHCP) server dynamically assigns IP addresses to improve efficiency. Suitable for scenarios such as enterprise and office networks.

Stacking[2]: The switch has the ability to be connected to other switches and operate together as a single unit, which is useful for quickly increasing the capacity of a network.

DHCP SNOOPING[3]: DHCP snooping is a security feature that acts like a firewall between untrusted hosts and trusted DHCP servers. The fundamental use case for DHCP snooping is to prevent unauthorized (rogue) DHCP servers offering IP addresses to DHCP clients.

SNMP[4]: Simple Network Management Protocol (SNMP) is an Internet Standard protocol for collecting and organizing information about managed devices on IP networks and for modifying that information to change device behavior. Devices that typically support SNMP include cable modems, routers, switches, servers, workstations, printers, and more.

OSPF[5]: Open Shortest Path First (OSPF) ensures an optimal access path. Suitable for scenarios such as finance, traffic, large office network, etc.

VRRP[6]: The Virtual Router Redundancy Protocol is a computer networking protocol that provides for automatic assignment of available Internet Protocol (IP). Suitable for scenarios such as finance, retail, call center, etc.

RLDP[7]: The Rapid Link Detection Protocol is a link protocol used to quickly detect Ethernet link failures. Suitable for scenarios such as retail, hospital, enterprise, etc.

REUP[8]: Rapid Ethernet Uplink Protection provides a fast on-chain protection function. It is a solution that provides a reliable and efficient backup and switching mechanism for dual uplinks. It can provide faster convergence performance and is often used in dual-uplink networking. Suitable for scenarios that require quick failure recovery.

Online Resources

S3900 Series Switches Datasheet: https://img-en.fs.com/file/datasheet/s3900-series-switches-datasheet.pdf

S3910 Series Switches Datasheet: https://img-en.fs.com/file/datasheet/s3910-series-switches-datasheet.pdf

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