

S5850 Series: Q&A

Product Overview

What is the FS.COM S5850 Series?

The FS.COM S5850 Series Routing Switches are high performance Ethernet switches to meet next generation Metro, Data Center and Enterprise network requirements, which support L2/L3/Data Center/Metro features. The S5850 come with complete system software with comprehensive protocols and applications to facilitate rapid service deployment and management for both traditional L2/L3 networks and Data Center networks.

The S5850 Series are cost-effective Ethernet access and aggregation platform to Enterprise, Data Center and Metro application.

What are the focus features of the S5850 Series?

The FS.COM S5850 Series support 10G/40G/100G ports with large capacity and high density port. Compared to other switch products on the market, the S5850 Series Switch have the following characteristics:

- 1).Data Center Grade Hardware Design
 - a).Pluggable redundant power supply.
 - b).Pluggable redundant fans.
 - c).Use high quality electronic components.
 - d).Power consumption is much lower than the similar products on the market.
- 2).Open System Design
 - a).Open RPC API.
 - b).Open Debian Linux environment. Users can run all kinds of scripts in it.
- 3).Traffic Visibility and Trouble-shooting Oriented Design
 - a).CPU can capture any forwarding packets.

So users can analyze the network flow without external mirror tools and the capture can be based on filter rules.
 - b).ACL can match VxLAN/NvGRE inner header.

So that it can realize the VM end-to-end monitoring and trouble-shooting under the overlay network environment.
 - c).Support IP fast Ping and L2 Ping.

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d).Support elephant flow detection.

It can be used to monitor the exceptional huge flows in the network timely. Then some actions can be taken based on the capture, including redirect, drop, rate-limit, send BGP black-hole route and adjust the flow path dynamically.

e).ASIC level telemetry support, including each packet latency, latency watermark, packet buffer timely utilization, buffer micro burst.

4).Data Center Scenario Oriented Design

a).Support VxLAN/NvGRE, including Routing/Bridging

b).Support ECN and PFC, etc.

c).Support up to 64 ways ECMP.

d).Support MLAG and VARP.

e).Support static load balancing and dynamic load balancing.

Vxlan/Nvgre inner header can participate in hash calculation.

How many ports does each of the switches have?

This table below summarizes the interface combinations.

	S5850 -48S6Q	S5850-48S2Q4C	S5850 -32S2Q
Total SFP+ Ports	48	48	32
Total QSFP+ Ports	6	2	2
Total QSFP28 Ports	-	4	-
Max 10GbE Ports	72	72	40
Max 40GbE Ports	6	6	2
Max 100GbE Ports	-	4	-

Do these run a 3rd party software or is the switching/routing engines in them developed in-house?

Yes, it developed in-house.

Q&A

What is the CPU of the S5850 Series?

Freescale PowerPC P1010 533MHz.

What OS is running on them, and how support coverage can work?

FS.COM OS is based on the development of linux, and the overall architecture is similar to Arista EOS. Hardware platform compatible with x86 architecture and PowerPC architecture, and supports Enterprise/Data Center/Metro Ethernet features, including L2/L3/ACL/QoS/Security, NVGRE/VXLAN, RPC API.

Whether the S5850 Series have the function of MPLS?

No, the S5850 Series don't have the function of MPLS. But the S5800 Series has the function.

What is the temperature under the operating load?

55° C~65° C

Can the S5850 Series Switch be stacked?

The S5850 Series Switch doesn't support stacking, but it supports MLAG. Two devices can achieve cross device port aggregation.

Do the S5850 Series switches support the Network Plug and Play (PnP) agent?

No, the S5850 Series don't support PnP.

Do FS.COM S5850 Series support IEEE802.1 Audio Video Bridging standard?

No, FS.COM S5850 Series don't support it.

Q&A

What licensing model do the FS.COM S5850 Series use? And, are there a software license cost?

The FS.COM S5850 Series use permanent license model. In order to facilitate the management, now we combine all licenses into two: IP Base and IP Service. There're no additional charges for upgrading to IP Base and IP Service.

If the switches can be compatible with various modules?

In principle, as long as the module standard, we can achieve compatibility. But, We recommend using our certified modules. Our switches have no special requirements for the module, and there are no limit.

What is the limits on OSPF and BGP routing, such as the number of routes?

OSPF and BGP routing supports Flexible Table Management, it can choose different profile according to different application scenarios. Default support 4K ARP Entry and 8K FIB, Arp can support up to 20K under the layer3 profile.

Are there any that can handle jumbo frames for an iSCSI environment?

Yes, there are.

What types of security layers are offered on these switches? How does FS handle security and backdoor vulnerability?

S5850 Series supports SSH, AAA, DDoS defense. In addition, it also supports Elephant Flow Detection, CPU traffic and CPU limit, ACL, Port Security, Port Isolate, Port block, vlan security, private vlan, IP source guard, etc.

Q&A

What quality-of-service (QoS) features does the S5850 Series provide to enhance traffic management?

The S5850 Series provides 1R2C and 2R3C Policing, including Port Policing and Flow Policing on both ingress and egress to help enable more flexible QoS offerings. In addition, the S5850 Series also offers scheduling and shaping, including both port shaping and queue shaping.

How to solve the connectivity problems in the test? As shown below:

- 1).eth-0-11 (QSFP28-SR4, 100G) to eth-0-14 (QSFP28-SR4, 100G): Pass
- 2).eth-0-11 (QSFP28-SR4, 100G) to Ixia (QSFP28-SR4, 100G): Fail
- 3).eth-0-11 (QSFP28-SR4, 100G) to FortiCarrier (QSFP28-SR4, 100G): Fail
- 4).Ixia (QSFP28-SR4, 100G) to FortiCarrier (QSFP28-SR4, 100G): Pass

- 1) When docking fails, you need to read the details of module on the switch. The command is `show transceiver eth-0-11 detail`.
- 2) When docking fails, you need to separately force the rate and duplex on both ends of the device. And you should observe whether the port can be up.
- 3) When docking fails, you can make sure whether the switch device and the peer device turn on the FEC function.
- 4) As for the docking two ends of the equipment, the function of FEC should be either enable or disable. This situation should be consistent, otherwise, the port can not be up. Meanwhile, this command is `fec enable/fec disable`, which is configured under a port mode.

In the MEF14 service, `Per port egress shaping and minimum 1Mbps increments up to port speed`. Were these ports shaping on the basis of each vlan, or all the vlans were shaped on one port?

We support two kinds of shaping: port shaping and queue shaping. But no matter it's port or queue shaping, it can't be per vlan. If the customer wants to perform vlan based rate limit, he can use policing instead of shaping. Policing can support both port policing and flow policing on both ingress and egress direction. Vlan rate limit can be implemented via flow policing.

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How to solve the problem that I forget the switch's serial password and password management?

The specific steps are as follows:

Step 1: Plug in the serial port, get into the interface between the serial port and the switch. In this interface you will see password authentication.

Step 2: Power off the switch and then power up, meanwhile, you should pay attention to observe the serial interface output. After appearing [Press ctrl+b to stop autoboot:5](#), press Ctrl + B to enter Uboot mode.

Step 3: Enter the command:[boot_flash_nopass](#).

Step 4: After the switch is started, you can log in directly. At this time, the authentication of the serial password and the management password has been canceled.

Why does the port fail when the MLAG device is restarted?

After the MLAG device reboots, the state of MLAG needs to be renegotiated, which may cause network loop.

After the device reboots, all Layer 2 ports will be set to error-disable state, except for peer-link port, and the state will last 3600 seconds. During this time, the port will remain in the down state. You can change the port protection time by configuring the reload-delay timer, we recommend that this configuration should not be less than 200 seconds. You can also use the "shutdown" "no shutdown" to avoid the error-disable mechanism, eventually the port can be changed directly to the UP state.

Are there price differences for the difference images? Enterprise base, vs enterprise advanced vs metro.

S5850 is currently controlling feature set through the license, rather than Image. License is bundled with the device, in other words, each switch has a license.

Does the switch system need an additional fee if it is to be upgraded?

The FS OS is updated by the official image, so it doesn't need any additional fee. If you want to customize some of the features, we will charge a fee.

Q&A

What is the warranty for the S5850 Series?

One year warranty, including the quality of any quality problems during the free maintenance. We offer the free Tech Support.

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