

S3900 Series Software Release Note

Models: S3900-24T4S/S3900-24F4S/3900-48T4S

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Notice

Due to command changes, upgrading will result in the loss of the modified command. Please pay attention to save the configuration and modify it according to the changed command.

1. Introduction

Current Release

V1.7.0

[S3900-48T4S-MR-V0170.bin](#)

[S3900-24T4S-MR-V0170.bin](#)

[S3900-24F4S-MR-V0170.bin](#)

Runtime: V0.1.7.0

Loader: V1.4

V1.6.9R2

[S3900-48T4S-MR-V0169R2.bin](#)

[S3900-24T4S-MR-V0169R2.bin](#)

[S3900-24F4S-MR-V0169R2.bin](#)

Runtime: V0.1.6.9R2

Loader: V1.4

V1.6.9

[S3900-24T4S-MR-V0169.bin](#)

[S3900-48T4S-MR-V0169.bin](#)

[S3900-24F4S-MR-V0169.bin](#)

Runtime: V0.1.6.9

Loader: V1.4

V1.6.7

[S3900-24T4S-MR-V0167.bin](#)

[S3900-48T4S-MR-V0167.bin](#)

[S3900-24F4S-MR-V0167.bin](#)

Runtime: V0.1.6.7

Loader: V1.1

V1.6.4

[S3900-24T4S-MR-V0164.bin](#)

[S3900-48T4S-MR-V0164.bin](#)[S3900-24F4S-MR-V0164.bin](#)

Runtime: V0.1.6.4

Loader: V1.1

V1.6.2[S3900-24T4S-MR-V0162.bin](#)[S3900-48T4S-MR-V0162.bin](#)

Runtime: V0.1.6.2

Loader: V1.1

Note: MR: master runtime

2. New Changes

2.1 V1.7.0

Existing Functions Optimization

1) SSH Module Optimization

- a. SSH module adds RSA2.0 key: users can upload RSA2.0 public key, and the maximum length is 2048.
- b. SSH module adds hellman group 14 exchange protocol.

2) VLAN Optimization

The hybrid port can set the pvid to tagged. The packets sent through pvid will carry vlan tags with pvid.

The command is *switchport hybrid allowed vlan add XXX tagged*.

3) WEB Optimization

The account number in the login page is changed to username.

4) Stacking optimization

Optimize the stacking processing mechanism to improve the stability.

5) Upgrade

Encrypted and unencrypted images can be upgraded.

Bug Fixes

- a. IGMPSNP: The multicast stream cannot be received after sending the report packet directly. Only after receiving a query packet and replying to a report packet can the multicast stream be received.
- b. Stacking: In the stacking state, the boot system conifg crashes directly, the master device does not respond, but the backup device restarts, and the stacking is split.
- c. Stacking: When there are a large number of packets with different source MAC addresses, the stacking connection is broke. The CPU utilization is low, and the switch is deadlocked directly.

2.2 V1.6.9R2

Existing Functions Optimization

1) ingress-filtering Optimization

Change the default setting from Disable to Enable.

2) VLAN Optimization

- a. When the port is in the trunk mode, after the command *switchport trunk allowed vlan all* is executed, the newly added VLAN can be automatically added to the port.
- b. When the command *no switchport mode* is executed, *show run* displays that the port mode will change to hybrid instead of the default configuration, which is now changed to the default configuration.
- c. The port receives a VLAN that is not allowed to pass, and the ARP does not record.

3) CLI Optimization

- a. Delete the command *ip source-guard binding filter-source*, which is an invalid instruction.
- b. Modify the *logging lever* command error.
- c. Fix the automated upgrade configuration file script.

4) WEB Optimization

- a. Modify the interface configure page. The current value can be obtained when setting a single port.
- b. Modify the vlan membersetting page, cancel the setting of the ingress filter and the acceptable frame, and add a page to set them.
- c. The "FS" logo in the Login interface changed to the latest.

5) LLDP Optimization

Modify the form of *lldp port id*, changed it from mac address to port.

6) Stacking Optimization

During the startup negotiation, all the non-stacking ports are shut down to prevent network turbulence, which affects the stack negotiation efficiency.

7) Add the Timed Restart Function

- a. By CLI, add the restart command in config terminal mode, and add the show restart command in exec mode.
- b. By Web, add an option configuration page for timed restart on the system reboot page.

Bug Fixes

- a. The switch will be stuck when execute the command *show spanning-tree interface*.
- b. The BPDU MAC address is not defined by FS, changed to 649d99.
- c. When the 10G optical ports 27, 28 of S3900-24T4S and S3900-24F4S connected to some DACs, there is no linkup.
It is recommended that the length of the connected DAC does not exceed 4 meters, otherwise error code may occur due to signal attenuation.
- d. When the 10G optical ports 51, 52 of S3900-48T4S connected to some DACs, there is no linkup.
It is recommended that the length of the connected DAC does not exceed 1 meter, otherwise error code may occur due to signal

attenuation.

2.3 V1.6.9

New Functions

- The S3900-24F4S switch is compatible with 100M optical transceiver module
- NTP/SNTP support domain name configuration on CLI
- Image version is upgraded, and the configuration files upgrade automatically
- IP routing isolation between Craft port and vlan port
- Add Settings for console/vty on CLI
- Formatting file system under u-boot is supported

Existing Functions Optimization

1) CLI Optimization

- a. The partial command and behavior of the VLAN are changed to Cisco mode:

There are three different modes: access, trunk, hybrid.

In Access mode:

pvid: switchport access vlan

In Trunk mode:

pvid: switchport trunk native vlan

tagged vlan: switchport trunk allowed vlan add/remove

In Hybrid mode:

pvid: switchport hybrid pvid

vlan: switchport hybrid allowed vlan add/remove [tagged/untagged]

- b. The STP CLI command is modified in cisco format.

The original "host name" is changed to "system-name", and "prompt" is changed to "host name".

Content formats of some show command are adjusted.

Running configure commands of static trunk are complete.

SFP compatibility is optimized.

When setting port mode, error messages are optimized.

c. Add and set console and vty commands

Type	Original Format	Original Location	New format	New Location
Modify	switchport access vlan	switch(config-if)	switchport access vlan (access mode only)	
Modify	switchport allowed vlan add	switch(config-if)	switchport trunk allowed vlan add/remove xxx	
Modify	switchport access vlan	switch(config-if)	switchport trunk native vlan (trunk mode only)	
Modify	switchport allowed vlan add	switch(config-if)	switchport trunk allowed vlan all	
Modify	switchport allowed vlan add	switch(config-if)	switchport hybrid allowed vlan add xxx tagged untagged	
Modify	switchport access vlan	switch(config-if)	switchport hybrid pvid (hybrid mode only)	
Modify	switchport allowed vlan remove	switch(config)	switchport hybrid allowed vlan remove (hybrid mode only)	switch(config)
Modify	switchport allowed vlan remove	switch(config)	switchport trunk allowed vlan remove (trunk mode only)	switch(config)
Modify	no switchport access vlan	switch(config-if)	no switchport access vlan (access mode only)	
Modify	no switchport allowed vlan	switch(config-if)	no switchport trunk allowed vlan	
Modify	no switchport access vlan	switch(config-if)	no switchport trunk native vlan (trunk mode only)	
Modify	no switchport allowed vlan	switch(config-if)	no switchport hybrid allowed vlan	
Modify	no switchport access vlan	switch(config-if)	no switchport hybrid pvid (hybrid mode only)	
Modify	spanning-tree edge-port [auto]	switch(config-if)	spanning-tree portfast [auto]	
Modify	spanning-tree system-bpdu-flooding to-all	switch(config)	spanning-tree bpdu flooding	
	spanning-tree system-bpdu-flooding to-vlan	switch(config)	spanning-tree bpdu filtering	
Modify	spanning-tree port-bpdu-flooding	switch (config-if)	spanning-tree bpdu	
	no spanning-tree port-bpdu-flooding	switch(config-if)	no spanning-tree bpdu	

Type	Original Format	Original Location	New format	New Location
Modify	spanning-tree root-guard	switch(config-if)	spanning-tree guard root	
Modify	max-hops hop-count	switch(config-mstp)	spanning-tree mst max-hops hop-count	switch(config)
Modify	show spanning brief		show spanning active detail	
Modify	show spanning {ethernet <1-1>/<1-x> port-channel <1-6>}		show spanning-tree interface {ethernet <1-1> port-channel <1-6>} mst <0-4094>	
Modify	show spanning-tree mst <0-4094> {ethernet <1-1>/<1-x> port-channel <1-6>}		show spanning-tree mst <0-4094>	
Delete	ip ssh server-key size	switch(config)		
Add		switch(config-line-console)	databits	switch(config-line-console)
Add		switch(config-line-console)	exec-timeout	switch(config-line-console)
Add		switch(config-line-console)	help	switch(config-line-console)
Add		switch(config-line-console)	login	switch(config-line-console)
Add		switch(config-line-console)	parity	switch(config-line-console)
Add		switch(config-line-console)	password	switch(config-line-console)
Add		switch(config-line-console)	password-thresh	switch(config-line-console)
Add		switch(config-line-console)	show	switch(config-line-console)
Add		switch(config-line-console)	silent-time	switch(config-line-console)
Add		switch(config-line-console)	speed	switch(config-line-console)
Add		switch(config-line-console)	stopbits	switch(config-line-console)
Add		switch(config-line-console)	timeout	switch(config-line-console)
Add		switch(config-line-console)	no databits	switch(config-line-console)
Add		switch(config-line-console)	no exec-timeout	switch(config-line-console)
Add		switch(config-line-console)	no login	switch(config-line-console)

			e)
Add	switch(config-line-console)	no parity	switch(config-line-consol e)
Add	switch(config-line-console)	no password	switch(config-line-consol e)
Add	switch(config-line-console)	no password-thresh	switch(config-line-consol e)
Add	switch(config-line-console)	no silent-time	switch(config-line-consol e)
Add	switch(config-line-console)	no speed	switch(config-line-consol e)
Add	switch(config-line-console)	no stopbits	switch(config-line-consol e)
Add	switch(config-line-console)	no timeout	switch(config-line-consol e)
Add	switch(config-line-vty)	timeout	switch(config-line-vty)
Add	switch(config-line-vty)	no exec-timeout	switch(config-line-vty)
Add	switch(config-line-vty)	no login	switch(config-line-vty)
Add	switch(config-line-vty)	no password	switch(config-line-vty)
Add	switch(config-line-vty)	no password-thresh	switch(config-line-vty)
Add	switch(config-line-vty)	no silent-time	switch(config-line-vty)
Add	switch(config-line-vty)	no timeout	switch(config-line-vty)

Type	Original Format	Original Location	New format	New Location
Delete	aaa accounting command ...	switch(config)		switch(config)
Modify	aaa accounting dot1x default/WORD start-stop group ...	switch(config)	aaa accounting dot1x default/WORD start-stop list ...	switch(config)
Modify	aaa accounting exec default/WORD start-stop group ...	switch(config)	aaa accounting login default/WORD start-stop list ...	switch(config)
Modify	aaa authorization exec default/WORD group ...	switch(config)	aaa authorization login default/WORD list ...	switch(config)
Modify	aaa group server ...	switch(config)	aaa list server ...	switch(config)
Delete	no aaa accounting command	switch(config)		switch(config)

Modify	no aaa accounting exec	switch(config)	no aaa accounting login	switch(config)
Modify	no aaa authorization exec	switch(config)	no aaa authorization login	switch(config)
Modify	no aaa group	switch(config)	no aaa list	switch(config)
Delete	accounting commad	switch(config-line_console)		switch(config-line_console)
Modify	accounting exec	switch(config-line_console)	accounting login	switch(config-line_console)
Modify	authorization exec	switch(config-line_console)	authorization login	switch(config-line_console)
Delete	no accounting command	switch(config-line_console)		switch(config-line_console)
Modify	no accounting exec	switch(config-line_console)	no accounting login	switch(config-line_console)
Modify	no authorization exec	switch(config-line_console)	no authorization login	switch(config-line_console)
Delete	accounting commad	switch(config-line_vty)		switch(config-line_vty)
Modify	accounting exec	switch(config-line_vty)	accounting login	switch(config-line_vty)
Modify	authorization exec	switch(config-line_vty)	authorization login	switch(config-line_vty)
Delete	no accounting command	switch(config-line_vty)		switch(config-line_vty)
Modify	no accounting exec	switch(config-line_vty)	no accounting login	switch(config-line_vty)
Modify	no authorization exec	switch(config-line_vty)	no authorization login	switch(config-line_vty)
Delete	show accounting command	switch		switch
Modify	show accounting exec	switch	show accounting login	switch
Modify	bridge-ext gvrp	switch(config)	gvrp enable	switch(config)
Delete	auto-traffic-control	switch		
Delete	auto-traffic-control	switch(config-if)		

2) Web Optimization

- a. Configuration optimization
- b. Data display optimization
- c. Web frame construction optimization

3) SSH Optimization

SSH, the maximum length of secret key is 1024.

Bug Fixes

- a. The web NTP project cannot be deleted.
- b. LACP of S3900-24F4S equipment, firstly one optical port is added to LACP, then multiple electronic ports are added to the same LACP, and the electronic ports continuously linkup and linkdown.
- c. The byte order of IP address in the message is wrong.
- d. Computer crashed while telnet executes time-zone command.
- e. Internet explorer compatibility problem.
- f. In stacking mode, port error while setting 802.1x attribute via CLI.
- g. In stacking mode, port error while setting netaccess via CLI.
- h. In stacking mode, RMON does not create default configuration for slave devices.
- i. RMON creates the default configuration, which cannot be created on the port-channel.
- j. The packet length problem of LACP.
- k. CLI command tree error in AAA mode.
- l. Each time the SSH reboots, it will regenerate the host key.
- m. Some vlans are not effective due to big endian and little endian.
- n. The 1G module cannot link up on port 49 and 50 of S3900-48T4S.
- o. Info error of Show CPU.
- p. Access port should not allow to add vlan.
- q. Error messages in hybrid mode while setting vlan.
- r. Error while setting the maximum QinQ entries.
- s. OUI inspection of voice vlan has bug.
- t. The maximum entries of vlan translate has bug.
- u. Web page configuration OAM problem.
- v. Check setting of ACL entry has bug.

2.4 V1.6.7

Bug Fixes

- a. Fix bug: Cannot enable/disable event log remote host
- b. Fix bug: Console port will have no response after switch runs some days.

2.5 V1.6.4

Existing Functions Optimization

1) CLI Optimization

Type	Original Format	Original Location	New format	New Location
Modify	Show interfaces switchport xxx		Show interfaces configuration xxx	
Add			Channel-group xxx mode on	Switch(config-if)
Add			Channel-group xxx mode auto	Switch(config-if)
Modify	Show lacp internal	Switch	Show lacp	Switch
Delete	Show lacp neighbor	Switch		
Delete	Show lacp sysid	Switch		
Delete	Lacp	Switch(config-if)		

2) Web Modification

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Trunk group configuration page improvement.

3) Trunk Group Optimization

- a. The configuration method of static trunk group as follows:

Example: Add the eth 1/1 to group 1

Interface port-channel 1

Interface eth 1/1

Channel-group 1 mode on

- b. The configuration method of the LACP as follows:

In the port configuration mode, create the group and add the ports to the group, which is completed by one command.

Example: In the eth 1/3 mode, create the lacp group 2, add the eth 1/3 to group 2

Interface eth 1/3

Channel-group 2 mode auto

4) Fan Speed Control Optimization

Bug Fixes

When Layer 3 forwarding of the first member in the trunk group fails, the traffic is limited.

2.6 V1.6.2

Existing Functions Optimization

1) CLI Optimization

Type	Original Format	Original Location	New format	New Location
Modify	Console#		Switch#	
Modify	Config	Switch#	Config terminal	Switch#
Modify	switchport native vlan	Switch(config-if)#	switchport access vlan	Switch(config-if)#
Modify	show interfaces transceiver	Switch#	Show transceiver ethernet x/x detail	Switch#
Add			ip ssh server enable	Switch(config)#
Modify	ip http server	Switch(config)#	server http enable	Switch(config)#
Modify	ip http secure-server	Switch(config)#	server https enable	Switch(config)#
Modify	ip telnet server	Switch(config)	service telnet enable	Switch(config)
Modify	username gyt access-level	Switch(config)#	username uyt privilege	Switch(config)#
Modify	Show vlan	Switch#	Show vlan all	Switch#
Modify	Show ip inerface	Switch#	Show ip interface brief	Switch#
Modify	Ip address xx.xx.xx.xx/xxx	Switch(config-if)#	Ip add xx.xx.xx.xx/xxx	Switch(config-if)#
Modify	access-list arp	Switch (config) #	arp access-list	Switch(config)#
Modify	access-list ip	Switch (config) #	ip access-list	Switch(config)#
Modify	access-list ipv6	Switch (config) #	Ipv6 access-list	Switch(config)#
Modify	access-list mac	Switch (config) #	mac access-list	Switch(config)#

Modify	Ethernet cfm	Switch#	cfm	Switch(config)#
Modify	Process cpu	Switch(config)#	Cpu	Switch(config)#
Modify	efm	Switch#	efm	Switch(config)#
Modify	erps	Switch#	erps	Switch(config)#
Modify	Sflow	switch#	Sflow	Switch(config)#
Modify	ip access-group	Switch(config-if)	ip service-acl	Switch(config-if)
Modify	ipv6 access-group	Switch(config-if)	ipv6 service-acl	Switch(config-if)
Modify	mac access-group	Switch(config-if)	mac service-acl	Switch(config-if)
Modify	clear ethernet cfm	Switch#	clear cfm	Switch#
Modify	switch stacking	Switch#	stacking	Switch(config)#

2) Web Modification

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3) Company OID Node Modification

51134 changed to 52642.2

4) Features Modification

- a. 10G SFP+ port supports manual/auto speed negotiation(10G/1G).
- b. The default management IP address is changed to 192.168.1.1.
- c. SSH enable mode is changed to directly execute IP SSH server enable.

Bug Fixes

- a. The ARP table of the slave device is unstable in the stacking mode.
- b. Fan alarms falsely.



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