

# S5800-8TF12S Switch FSOS

## Software Release Notes

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Model: S5800-8TF12S

## Contents

<b>1. Introduction</b> .....	<b>1</b>
<b>2. Version Information</b> .....	<b>2</b>
2.1 Basic Information .....	2
2.2 Release History .....	2
2.3 Hardware History .....	5
2.4 Version Compatibility .....	5
2.5 Upgrade Precaution .....	5
<b>3. New Features Specification</b> .....	<b>6</b>
3.1 FSOS-V5.3.12 .....	6
3.2 FSOS-V5.3.11.r5 .....	6
3.3 FSOS-V5.3.11.r3 .....	6
3.4 FSOS-V5.3.10 .....	6
3.5 FSOS-V5.3.9 .....	7
3.6 FSOS-V5.3.8 .....	8
3.7 FSOS-V5.3.7 .....	9
3.8 FSOS-V5.3.6 .....	9
3.9 FSOS-V5.3.5 .....	9
3.10 FSOS-V5.3.4 .....	10
3.11 FSOS-V5.3.3 .....	10
3.12 FSOS-V5.3.2 .....	10
3.13 FSOS-V5.3.1 .....	10
3.14 FSOS-V5.2.36.15 .....	11
3.15 FSOS-V5.2.36.14 .....	11
3.16 FSOS-V5.2.36.13 .....	11
3.17 FSOS-V5.2.36.12 .....	11
3.18 FSOS-V5.2.36.10 .....	11
<b>4. CLI Changes Specification</b> .....	<b>12</b>
4.1 FSOS-V5.3.12 .....	12
4.2 FSOS-V5.3.11.r5 .....	12

<b>4.3 FSOS-V5.3.11.r3</b> .....	<b>12</b>
<b>4.4 FSOS-V5.3.10</b> .....	<b>12</b>
<b>4.5 FSOS-V5.3.9</b> .....	<b>12</b>
<b>4.6 FSOS-V5.3.8</b> .....	<b>12</b>
<b>4.7 FSOS-V5.3.7</b> .....	<b>13</b>
<b>4.8 FSOS-V5.3.6</b> .....	<b>13</b>
<b>4.9 FSOS-V5.3.5</b> .....	<b>14</b>
<b>4.10 FSOS-V5.3.4</b> .....	<b>14</b>
<b>4.11 FSOS-V5.3.3</b> .....	<b>14</b>
<b>4.12 FSOS-V5.3.2</b> .....	<b>14</b>
<b>4.13 FSOS-V5.3.1</b> .....	<b>14</b>
<b>4.14 FSOS-V5.2.36.15</b> .....	<b>14</b>
<b>4.15 FSOS-V5.2.36.14</b> .....	<b>14</b>
<b>4.16 FSOS-V5.2.36.13</b> .....	<b>14</b>
<b>4.17 FSOS-V5.2.36.12</b> .....	<b>14</b>
<b>4.18 FSOS-V5.2.36.10</b> .....	<b>14</b>
<b>5. WEB Changes Specification</b> .....	<b>15</b>
<b>5.1 FSOS-V5.3.12</b> .....	<b>15</b>
<b>5.2 FSOS-V5.3.11.r5</b> .....	<b>15</b>
<b>5.3 FSOS-V5.3.11.r3</b> .....	<b>15</b>
<b>5.4 FSOS-V5.3.11.r2</b> .....	<b>15</b>
<b>5.5 FSOS-V5.3.10</b> .....	<b>18</b>
<b>5.6 FSOS-V5.3.9</b> .....	<b>18</b>
<b>5.7 FSOS-V5.3.8</b> .....	<b>18</b>
<b>5.8 FSOS-V5.3.7</b> .....	<b>18</b>
<b>5.9 FSOS-V5.3.6</b> .....	<b>18</b>
<b>5.10 FSOS-V5.3.5</b> .....	<b>18</b>
<b>5.11 FSOS-V5.3.4</b> .....	<b>18</b>
<b>5.12 FSOS-V5.3.4</b> .....	<b>19</b>
<b>5.13 FSOS-V5.3.2</b> .....	<b>19</b>
<b>5.14 FSOS-V5.3.1</b> .....	<b>19</b>
<b>5.15 FSOS-V5.2.36.15</b> .....	<b>19</b>
<b>5.16 FSOS-V5.2.36.14</b> .....	<b>19</b>

5.17 FSOS-V5.2.36.13 .....19

5.18 FSOS-V5.2.36.12 .....19

5.19 FSOS-V5.2.36.10 .....19

**6. New Behaviors Specification ..... 20**

6.1 FSOS-V5.3.12 ..... 20

6.2 FSOS-V5.3.11.r5 ..... 20

6.3 FSOS-V5.3.11.r3 ..... 20

6.4 FSOS-V5.3.10 ..... 20

6.5 FSOS-V5.3.9 ..... 20

6.6 FSOS-V5.3.8 ..... 20

6.7 FSOS-V5.3.7 ..... 20

6.8 FSOS-V5.3.6 ..... 21

6.9 FSOS-V5.3.5 ..... 21

6.10 FSOS-V5.3.4 ..... 21

6.11 FSOS-V5.3.3 ..... 21

6.12 FSOS-V5.3.2 ..... 22

6.13 FSOS-V5.3.1 ..... 22

6.14 FSOS-V5.2.36.15 .....22

6.15 FSOS-V5.2.36.14 .....22

6.16 FSOS-V5.2.36.13 .....22

6.17 FSOS-V5.2.36.12 .....23

6.18 FSOS-V5.2.36.10 .....23

**7. Fixed Problems ..... 24**

7.1 FSOS-V5.3.12 ..... 24

7.2 FSOS-V5.3.11.r5 ..... 24

7.3 FSOS-V5.3.11.r3 ..... 24

7.4 FSOS-V5.3.10 ..... 24

7.5 FSOS-V5.3.9 ..... 25

7.6 FSOS-V5.3.8 ..... 25

7.7 FSOS-V5.3.7 ..... 25

7.8 FSOS-V5.3.6 ..... 25

7.9 FSOS-V5.3.5 ..... 26

7.10 FSOS-V5.3.4 ..... 26



<b>7.11 FSOS-V5.3.3</b> .....	<b>26</b>
<b>7.12 FSOS-V5.3.2</b> .....	<b>27</b>
<b>7.13 FSOS-V5.3.1</b> .....	<b>27</b>
<b>7.14 FSOS-V5.2.36.15</b> .....	<b>27</b>
<b>7.15 FSOS-V5.2.36.14</b> .....	<b>27</b>
<b>7.16 FSOS-V5.2.36.13</b> .....	<b>28</b>
<b>7.17 FSOS-V5.2.36.12</b> .....	<b>28</b>
<b>7.18 FSOS-V5.2.36.10</b> .....	<b>28</b>
<b>8. Version Restrictions and Cautions</b> .....	<b>29</b>
<b>9. Operating System Upgrade</b> .....	<b>30</b>

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## 1. Introduction

This document describes the release information about FSOS-8tf12s-v5.3.12.r.bin, such as new features, command line changes, behavior changes, fixed problems, etc.;

Remind you, before loading FS FSOS-8tf12s-v5.3.12.r.bin firmware, please backup configuration file to avoid potential risks.

## 2. Version Information

### 2.1 Basic Information

Current Release	FSOS-8tf12s-v5.3.12.r.bin
Applicable Product	S5800-8TF12S
Applicable Customer	General
Category	Official release
MD5	e3798257ffde1cb3f853af9e0f911d45

### 2.2 Release History

Current Release	Baseline Release	Release Date	Category	Important Changes Based on Baseline Version
FSOS-V5.3.12	FSOS-V5.3.11.r5	2022-07-28	Official release	<ul style="list-style-type: none"> <li>--WEB UI optimized</li> <li>--Bug fixes for higher stability</li> </ul>
FSOS-V5.3.11.r5	FSOS-V5.3.10	2021-1-20	Official release	<ul style="list-style-type: none"> <li>--When S5800-8TF12S configures the default route, other nodes' devices use the traceroute command to trace to S5800-8TF12S.</li> </ul>
FSOS-V5.3.11.r3	FSOS-V5.3.10	2020-07-24	Official release	N/A
FSOS-V5.3.10	FSOS-V5.3.9	2019-11-12	Official release	<ul style="list-style-type: none"> <li>--Support IS-IS v4 &amp; v6</li> <li>--IPv6 Ping optimized</li> <li>--Support to configure IPv6 ACL on Line VTY</li> <li>--Support IPv6 black hole route</li> <li>--Support new network types for OSPFv3</li> <li>--Support option 252 for DHCP Server</li> <li>--Support Telnet\SSH ACL</li> <li>--Support Port Cross Connect</li> <li>--Telnet\SSH port number</li> <li>--WEB-UI optimized for security</li> <li>--OSPF optimized for security</li> <li>--Support NTP via out-band port</li> <li>--BHM (beat-heart monitor) optimized</li> </ul>
FSOS-V5.3.9	FSOS-V5.3.8	2019-06-04	Official release	<ul style="list-style-type: none"> <li>--OSPF optimized</li> <li>--Support IPv4 black hole routings</li> <li>--Support AAA</li> <li>--DHCP relay optimized</li> <li>--Support black hole ARP</li> <li>--Support IP BFD</li> <li>--Support NvGRE</li> <li>--Support SNMP node for cpuUsage</li> <li>--BGP optimized</li> <li>--Support Debian system</li> </ul>

				<ul style="list-style-type: none"> <li>--Support HTTPS for RPC-API</li> <li>--System log for power alarm optimized</li> <li>--System fault message optimized</li> </ul>
FSOS-V5.3.8	FSOS-V5.3.7	2018-08-16	Official release	<ul style="list-style-type: none"> <li>--Summer time optimized</li> <li>--MLAG optimized</li> <li>--WEB service optimized</li> <li>--Loopback-detection optimized</li> <li>--Enlarge the valid range of the ipv4 address's mask length</li> <li>--Enlarge the valid range BGP AS number. (2 Byte 4 Byte)</li> <li>--Adjust the parameters for the hash algorithm of linkagg load balance</li> <li>--RPC-API optimized</li> <li>--Interface rate statistics function optimized</li> <li>--VARP function optimized</li> </ul>
FSOS-V5.3.7	FSOS-V5.3.6	2018-05-29	Official release	<ul style="list-style-type: none"> <li>--ACL optimized</li> <li>--RPC-API performance optimized and function extended</li> <li>--VRF function extended</li> <li>--Support to specify account type</li> </ul>
FSOS-V5.3.6	FSOS-V5.3.5	2018-01-31	Official release	<ul style="list-style-type: none"> <li>--Sflow upgraded to Version 5.0</li> <li>--Support ICMP debug</li> <li>--WebUI optimized</li> <li>--BGP optimized</li> </ul>
FSOS-V5.3.5	FSOS-V5.3.4	2017-09-31	Official release	<ul style="list-style-type: none"> <li>--Support OSPF multi network models</li> <li>--Support OSPF neighbor establishing based on GRE Tunnel Interface</li> <li>--Support to record MAC flapping in syslog</li> <li>--Telnet/SSH support to configure Client source IP</li> <li>--Support to configure errdisable via WebUI</li> <li>--IP SLA optimized</li> <li>--Syslog optimized</li> </ul>



Current Release	Baseline Release	Release Date	Category	Important Changes Based on Baseline Version
FSOS-V5.3.4	FSOS-V5.3.3	2017-08-15	Official release	<ul style="list-style-type: none"> <li>--Support mirror packets to CPU</li> <li>--Support to display packets received/sent by CPU</li> <li>--Support OSFP secondary IP address</li> <li>--Support to display management port detail</li> <li>--Support LLDP Configuration MIB node</li> <li>--PBR function optimized</li> <li>--Multi-link function optimized</li> <li>--PRC-API function optimized</li> </ul>
FSOS-V5.3.3	FSOS-V5.3.2	2017-04-26	Official release	<ul style="list-style-type: none"> <li>--Syslog optimized</li> <li>--Support HTTP/HTTPS independent switch</li> <li>--Vlan name description optimized</li> <li>--WebUI optimized</li> <li>--Agg interface optimized</li> <li>--ERPS optimized</li> <li>--Fix some process issues</li> </ul>
FSOS-V5.3.2	FSOS-V5.3.1	2016-12-26	Official release	<ul style="list-style-type: none"> <li>--Syslog optimized</li> <li>--Support MLAG orphan port</li> <li>--Support Fast PING</li> <li>--Support 10G port auto-negotiation speed</li> <li>--ERPS optimized</li> <li>--GRE tunnel optimized</li> <li>--Storm control optimized</li> </ul>
FSOS-V5.3.1	FSOS-V5.2.36.15	2016-10-17	Official release	<ul style="list-style-type: none"> <li>--Support to modify Telnet\SSH port number</li> <li>--Fix start-config file generating issue</li> <li>--Flowcontrol optimized</li> <li>--Fan operation mode optimized</li> <li>--RPC-API optimized</li> <li>--MLAG optimized</li> </ul>
FSOS-V5.2.36.15	FSOS-V5.2.36.14	2016-07-25	Official release	<ul style="list-style-type: none"> <li>--Memory management optimized</li> </ul>
FSOS-V5.2.36.14	FSOS-V5.2.36.13	2015-07-12	Official release	<ul style="list-style-type: none"> <li>--DHCP server function optimized</li> </ul>
FSOS-V5.2.36.13	FSOS-V5.2.36.12	2015-05-12	Official release	<ul style="list-style-type: none"> <li>--Fix memory leak issue</li> <li>--Fix ports shutdown, reopen issue</li> <li>--core file optimized</li> </ul>
FSOS-V5.2.36.12	FSOS-V5.2.36.10	2015-11-30	Official release	<ul style="list-style-type: none"> <li>--ACL support 512 cmap</li> <li>--Fix console port connection issue</li> <li>--Fix Mac-learning display issue</li> <li>--Fix PIPE FD issue</li> </ul>
FSOS-V5.2.36.10	/	2015-10-12	Official release	<ul style="list-style-type: none"> <li>--Support flow redirection</li> <li>--Support mirror port in transmission</li> <li>--LACP optimized</li> </ul>

## 2.3 Hardware History

**NOTICE:** Before upgrade, please double-check the version is compatible with hardware.

Table 2-2 Hardware supported

Series	Name
Hardware model (T means 1G port, F means 1G optical port, S means 10G optical port)	S5800-8TF12S
BOOTROM version	Switch pre-installed version (version can be displayed by CLI 'show version')
EPLD version	Switch pre-installed version (version can be displayed by CLI 'show version')
Remark	N/A

### NOTE:

Example to check firmware version, hardware model, BootRom and EPLD version. Some earlier switch's BootRom, EPLD version may be different, but will not impact upgrade.

```
S5800# show version
NetworkOS Software, Switch, Version 5.3.12
Copyright (C) 2009-2022 FS.COM Inc. All rights reserved.
The current running image is flash:/boot/FSOS-8tf12s-v5.3.12.r.bin
```

```
S5800 uptime is 0 days, 21 hours, 12 minutes
Hardware Type is 8TF12S
Hardware Version is 2.0
SDRAM size 1024M
Flash size 2048M
EPLD Version is 1.2
BootRom Version is 7.1.4
System serial number is CG1908020298N0021
```

## 2.4 Version Compatibility

Table 2-3 Upgrade compatibility table

Current Version	Historical Version	Compatibility
V5.3.12	All previous versions	YES
V5.3.11.r5	All previous versions	YES

## 2.5 Upgrade Precaution

- Not unless special notice, UBOOT and EPLD version do not need to upgrade.
- Please double check MD5 value is identical with the value provided by FS, to prevent file damaged during transmission.
- Please carefully check the firmware version is compatible with hardware model.
- Please backup configuration file before upgrade.
- Please keep previous firmware until all procedures finished, if need to rollback.

### 3. New Features Specification

New features added to baseline version

#### 3.1 FSOS-V5.3.12

New features	Specification
WEB UI optimized	Support to display DDM information of the optical module

#### 3.2 FSOS-V5.3.11.r5

N/A

#### 3.3 FSOS-V5.3.11.r3

N/A

#### 3.4 FSOS-V5.3.10

New Features	Specification
Support IS-IS v4 & v6	N/A
IPv6 Ping optimized	Support to specify the source IP address, packet count, packet interval, packet size, timeout, hop limit, etc. Support to specify the QoS options in the packet Support to ping host name
Support to configure IPv6 ACL on Line VTY	Support to configure IPv6 ACL on Line VTY to enhance the security of user login
Support IPv6 black hole route	N/A
Support new network types for OSPFv3	Support Broadcast/ NMBA/P2P /P2MP
Support option 252 for DHCP Server	N/A
Telnet\SSH ACL	Support to configure ACL rules to control Telnet/SSH user login. Only the users login via in-band ports are supported.
Support Port Cross Connect	N/A
WEB-UI optimized for security	Support AAA for web UI users
OSPF optimized for security	Support to display OSPF key with cipher text
Support NTP via out-band port	Support to NTP connect to the server and synchronous the time via out-band port

### 3.5 FSOS-V5.3.9

New Features	Specification
OSPF optimized	Support NSSA area
IPv6 optimized	Support IPV6 for VRF (Static Routing/NDP/ping/traceroute)
Support IPv4 black hole routings	N/A
Support AAA	N/A
DHCP relay optimized	Support DHCP relay cycle function. When more than one DHCP server is configured, system should relay the packet to different server if the current server does not reply
Support black hole ARP	N/A
Support IP BFD	N/A
Support NvRGE	N/A
Support SNMP Node 1.3.6.1.4.1.27975.1.9 (cpuUsage)	Support a private SNMP node to get CPU usage
BGP optimized	Enlarge the valid range BGP AS number: change from 2 Byte AS number to 4 Byte AS number. Support to co-work with BFD
Support Debian system	N/A
Support HTTPS for RPC-API	N/A
System log for power alarm optimized	Support detailed information for power alarm.
System fault message optimized	Support separated information for BGP/OSPF modules.

### 3.6 FSOS-V5.3.8

New Features	Specification
Summer time optimized	Support to switch the summer time with the rules such as "month/ week-number/ weekday". For example: Begin to use summer time at last SUNDAY of March, and finish using summer time at first MONDAY of October.
MLAG optimized	Optimize the "reload-delay" function of MLAG: In the previous version, System blocks all interfaces after the MLAG device rebooting, and it should wait for a certain time (5 minutes by default) before turn on these interfaces. Now it supports to recover the interface automatically. When the system detected that MLAG neighbor is established, the states of the interfaces can be recovered immediately.
WEB service optimized	Support to specified ip source address for WEB service.
Loopback-detection optimized	Support the block action: after loopback is detected, system should block the interface Support auto recovery: a timer can be configured; the blocked interfaces will be turned on after the timer is expired. Support a delay timer: After loopback is detected, system will wait for some time before it takes action, in order to prevent flapping. If the delay timer is not configured, system should take action immediately when loopback is detected.
Support to display ARP information of the management interface	N/A
Enlarge the valid range of the ipv4 address's mask length	Support to configure 31 bits mask length for IPv4 address
Enlarge the valid range BGP AS number.	2 Byte AS number to 4 Byte AS number
Adjust the parameters for the hash algorithm of linkagg load balance	Support to use source interface as hash key for linkagg load balance
RPC-API optimized	In the Previous versions, the commands which need to confirm "yes or no" are not supported by RPC-API. This feature is optimized as below: Confirm "yes" by default for the commands via RPC-API Confirm "no" by default when system asks if need to write configurations before reboot
Interface statistics optimized	Interface statistics function support to included or exclude IPG (inter packet gap): -- Include IPG by default. -- Support a command line for user to choose include or exclude IPG
VARP function optimized	Support multiple Virtual subnets for VARP. The virtual subnets are different with primary IP.

### 3.7 FSOS-V5.3.7

New Features	Specification
ACL optimized	Support to display all ACL statistics by one command
VRF function extended	Support to copy files under VRF
RPC-API function extended	--Separate RPC-API account and Telnet/SSH account --Support RPC-API under VRF --Performance highly optimized
Support to specify account type	Support to specify account service type as telnet, rpc-api, ssh, web

### 3.8 FSOS-V5.3.6

New Features	Specification
Support ICMP debug	N/A
WebUI optimized	Support to configure web timeout, and clear web users

### 3.9 FSOS-V5.3.5

New Features	Specification
Support OSPF multi network models	Support broadcast, non-broadcast, P2P, P2MP models
Support OSPF neighbor establishing by GRE Tunnel Interface	N/A
Support to record MAC flapping in syslog	Syslog will make a record, when MAC flapping detected
Telnet/SSH support to configure Client source IP	N/A
Support to configure errdisable via WebUI	Add new web page to configure errdisable parameters
IP SLA optimized	Support to configure more parameters
Syslog optimized	By using 'logging sync' command, system will save immediately the log in buffer to syslog file

### 3.10 FSOS-V5.3.4

New Features	Specification
Mirror to CPU	Support to mirror packets to CPU by port or by VLAN, and save as pcap format.
Reset factory config	Support CLI and WEBUI to reset factory config
CPU receive/send packets NUM and rate statistic	Show cpu traffic-statistics receive/transmit
Display management port detail	Show management interface
OSPF support secondary IP address	OSPF support to assert secondary IP
LLDP Configuration MIB node	Support LLDP standard SNMP node
Multi-link function optimized	N/A

### 3.11 FSOS-V5.3.3

New Features	Specification
Syslog optimized	Syslog will record aged ARP item
Telnet\SSH inside VRF	Address inside VRF can be managed by Telnet/SSH
WebUI optimized	N/A

### 3.12 FSOS-V5.3.2

New Features	Specification
MLAG orphan port	MLAG support orphan port scenario
Fast PING	Support 10ms ping

### 3.13 FSOS-V5.3.1

New Features	Specification
Support Telnet\SSH to modify port number	N/A
10G port support manual/auto speed negotiation	10G port support to configure 10G or 1G speed 10G port support auto-negotiation speed
Logging sever support to define source IP or source interface	N/A

**3.14 FSOS-V5.2.36.15**

N/A

**3.15 FSOS-V5.2.36.14**

N/A

**3.16 FSOS-V5.2.36.13**

N/A

**3.17 FSOS-V5.2.36.12**

N/A

**3.18 FSOS-V5.2.36.10**

New Features	Specification
Mirror destination port support to transmit flow	N/A
Flow redirection	N/A



## 4. CLI Changes Specification

New CLI changes based on the baseline version

### 4.1 FSOS-V5.3.12

N/A

### 4.2 FSOS-V5.3.11.r5

N/A

### 4.3 FSOS-V5.3.11.r3

N/A

### 4.4 FSOS-V5.3.10

N/A

### 4.5 FSOS-V5.3.9

Original Format	New Format	Remark
N/A	ip route A.B.C.D/M null0	Support to use interface null0 to configure static black hole route
N/A	area (A.B.C.D <0-4294967295>) nssa no area (A.B.C.D <0-4294967295>) nssa	Support NSSA area in OSPF configuration mode.
N/A	show diagnostic-information bgp/ospf	Add new command to display the diagnostic information of bgp/ospf
N/A	dhcp relay address cycle no dhcp relay address cycle	Add new command to enable or disable DHCP relay cycle function.
N/A	arp fake global enable arp fake enable arp fake timeout TIME	Add new commands for black hole ARP. Black hole ARP is disabled by default

### 4.6 FSOS-V5.3.8

Original Format	New Format	Remark
N/A	reload-delay auto	New command in MLAG configuration mode. Support to detect MLAG neighbor states automatically after system reboot, support to turn on the interfaces immediately after MLAG neighbor is established.

Original Format	New Format	Remark
N/A	http server source address/port	New command in global configuration mode. Support to specify the source address and port of WEB service.
N/A	loopback-detect action block	Support to block the interface if networkloop is detected.
N/A	loopback-detect recovery-time	Support to configure the recovery timer after the network loop finished.
N/A	loopback-detect delay-time	Support to configure the delay timer before loopback detection function take action
N/A	show management arp	New command in EXEC mode. Support the display the ARP information of management interface
N/A	port-channel load-balance hash-field-select src-interface	New command in global configuration mode. Support to use source- interface as hash key for linkagg load balance.
N/A	flow-statistics include-inter frame enable/disable	New command in interface configuration mode. Support to decide whether the statistics function include or exclude IPG (inter packet gap)
N/A	ip virtual-router address A.B.C.D   A.B.C.D/M	New command in interface configuration mode. Support to Configure the Virtual subnet for VARP

#### 4.7 FSOS-V5.3.7

Original Format	New Format	Remark
N/A	Statistics enable	New command under "Policy-map type qos"
N/A	show policy-map type qos statistics clear qos policy-map type qos statistics	New command to display 'policy-map type qos 'ACL statistics
N/A	loopback-detect action block	New command to specify account type

#### 4.8 FSOS-V5.3.6

Original Format	New Format	Remark
cpu-traffic-statistics time	cpu-traffic-statistics time	CLI moved to config mode

**4.9 FSOS-V5.3.5**

N/A

**4.10 FSOS-V5.3.4**

N/A

**4.11 FSOS-V5.3.3**

N/A

**4.12 FSOS-V5.3.2**

N/A

**4.13 FSOS-V5.3.1**

N/A

**4.14 FSOS-V5.2.36.15**

N/A

**4.15 FSOS-V5.2.36.14**

N/A

**4.16 FSOS-V5.2.36.13**

N/A

**4.17 FSOS-V5.2.36.12**

N/A

**4.18 FSOS-V5.2.36.10**

N/A

## 5. WEB Changes Specification

### 5.1 FSOS-V5.3.12

N/A

### 5.2 FSOS-V5.3.11.r5

N/A

### 5.3 FSOS-V5.3.11.r3

N/A

### 5.4 FSOS-V5.3.11.r2

- Framework Optimization
- The web network management divided four categories: Monitor, Configuration, Maintenance, Network.
- Monitor

The Web monitor page appears after login, as shown in figure 1.

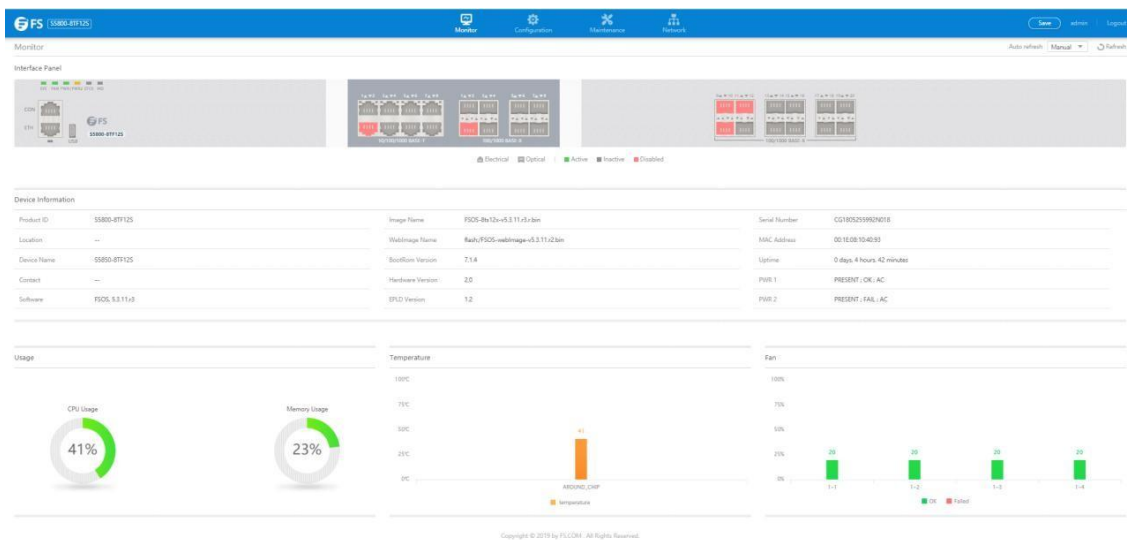


Figure 1 Web monitor page

The whole monitor page consists of the top control bar, the configuration display area and the bottom area.

- Configuration

If you click "Configuration" in the top control bar, as shown in figure 2.

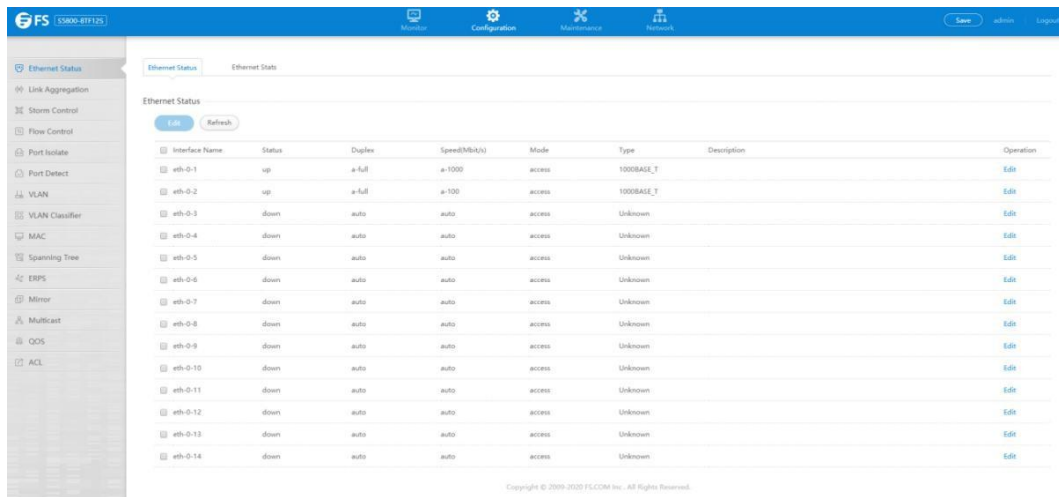


Figure 2 Web configuration page

The whole configuration page consists of the top control bar, the navigation bar, the configuration area and the bottom area.

#### e. Maintenance

If you click "Maintenance" in the top control bar, as shown in figure 3.

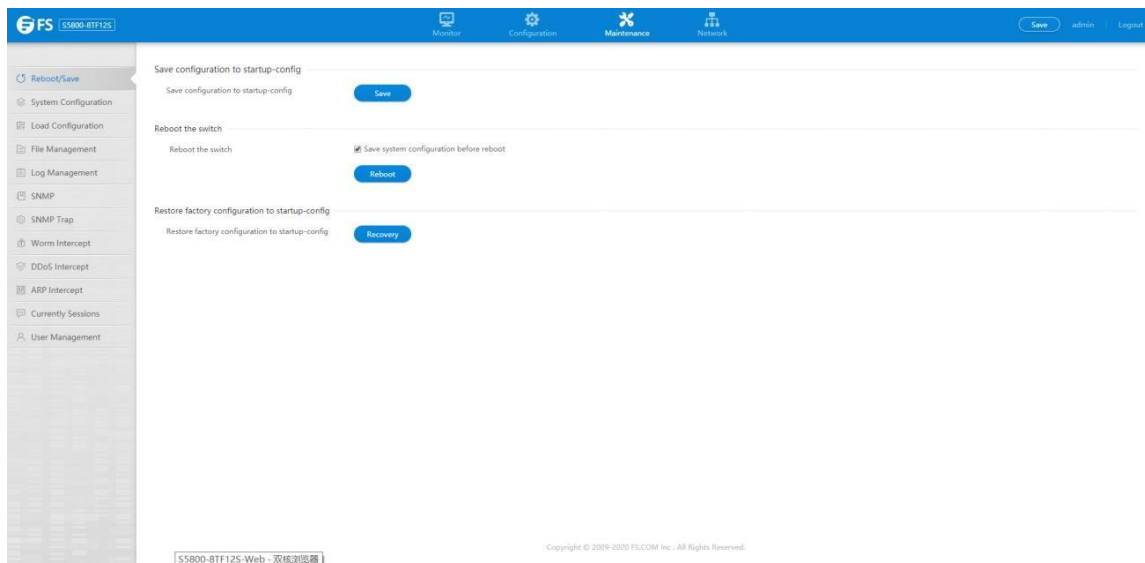


Figure 3 Web maintenance page

The whole maintenance page consists of the top control bar, the navigation bar, the configuration area and the bottom area.

#### f. Network

If you click "Network" in the top control bar, as shown in figure 4.

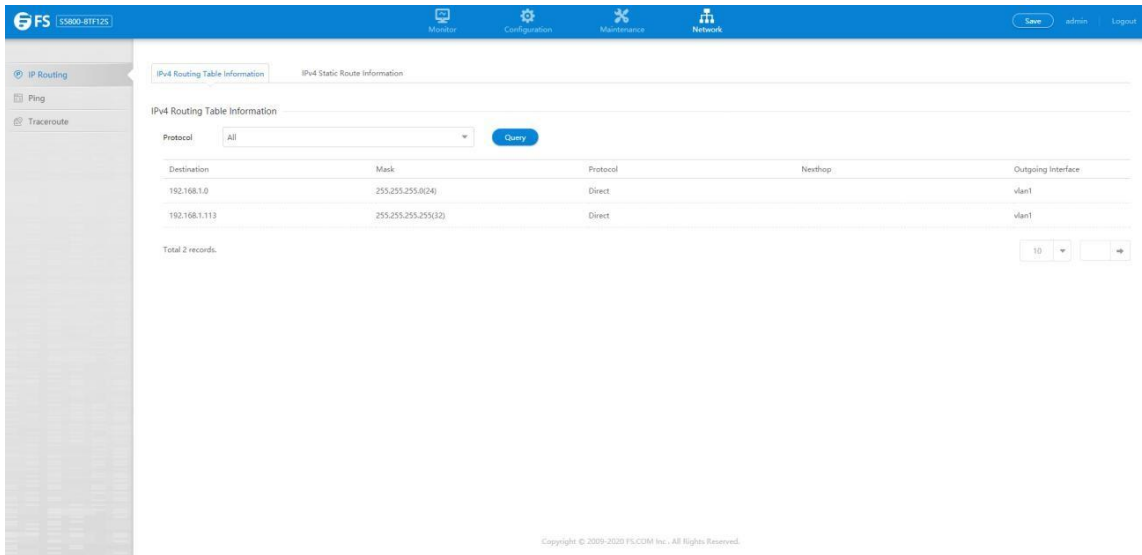


Figure 4 Web network page

The whole network page consists of the top control bar, the navigation bar, the configuration area and the bottom area.

1) Component Optimization

- a. Buttons are divided into primary and secondary styles, the primary button is blue, and the secondary button is filled with light gray, as shown in figure 5.

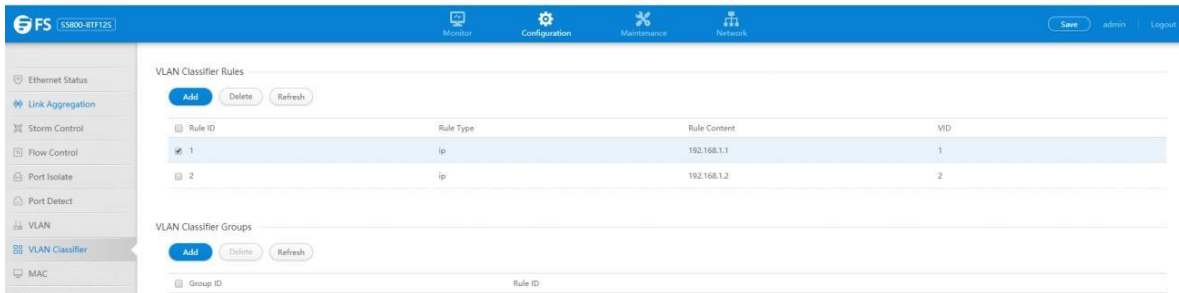


Figure 5 Web button display

- b. Buttons are divided into primary and secondary styles, the primary button is blue, and the secondary button is filled with light gray, as shown in figure 6.



Figure 6 Page turning components display

- c. Optimization of marquee, options, pop-up window and Hover effect, as shown in figure 7.

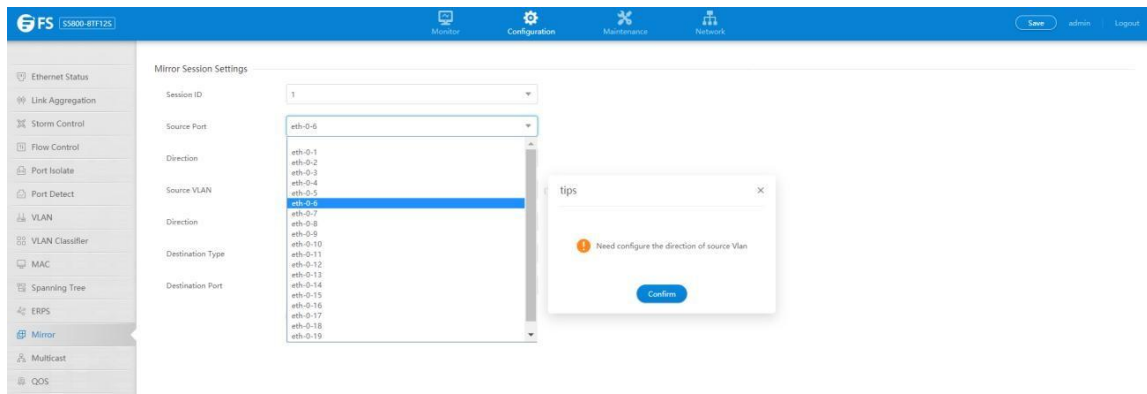


Figure 7 Pop-up and marquee display

**5.5 FSOS-V5.3.10**

N/A

**5.6 FSOS-V5.3.9**

N/A

**5.7 FSOS-V5.3.8**

N/A

**5.8 FSOS-V5.3.7**

N/A

**5.9 FSOS-V5.3.6**

N/A

**5.10 FSOS-V5.3.5**

N/A

**5.11 FSOS-V5.3.4**

N/A

**5.12 FSOS-V5.3.4**

N/A

**5.13 FSOS-V5.3.2**

N/A

**5.14 FSOS-V5.3.1**

N/A

**5.15 FSOS-V5.2.36.15**

N/A

**5.16 FSOS-V5.2.36.14**

N/A

**5.17 FSOS-V5.2.36.13**

N/A

**5.18 FSOS-V5.2.36.12**

N/A

**5.19 FSOS-V5.2.36.10**

N/A



## 6. New Behaviors Specification

New behaviors based on the baseline version

### 6.1 FSOS-V5.3.12

N/A

### 6.2 FSOS-V5.3.11.r5

N/A

### 6.3 FSOS-V5.3.11.r3

N/A

### 6.4 FSOS-V5.3.10

Item	Earlier Behavior	New Behavior
BHM (beat-heart monitor) optimized	Message buffer for BHM is too small and might lead message loose. BHM will restart the system when some process (for example: DHCP) out of response.	The message buffer is enlarged to improve the reliability of BHM. BHM will restart the process when it out of response.

### 6.5 FSOS-V5.3.9

Item	Earlier Behavior	New Behavior
Enlarge SNMP-server view number	Support 26 views	Support 256 views

### 6.6 FSOS-V5.3.8

Item	Earlier Behavior	New Behavior
Support "vlan dot1q tag native" on the trunk port only	There's no limitation. But this command is not recommended to use on access ports	This command can only be used on the trunk ports.
VARP function optimized	to use on access ports Support one VARP virtual IP address without network mask. The virtual IP address should be in the same network with the Primary IP	Support 15 virtual IP address or virtual network.

### 6.7 FSOS-V5.3.7

Item	Earlier Behavior	New Behavior
L3 MTU range	<68-9000>	Support 256 views

Item	Earlier Behavior	New Behavior
Port description	Don't support special character	support special character
FDB-LOOP default action	Set port to errdisable status	Record to syslog
Telnet and SSH packets	DSCP default value is 0	DSCP default value is 48

### 6.8 FSOS-V5.3.6

Item	Earlier Behavior	New Behavior
Hostname name rules	Need to start with letters and stop with numbers or letters	Without limitation
BGP optimized	AS number support only 2 bits	AS number extended to 4 bits, support BGP authentication

### 6.9 FSOS-V5.3.5

Item	Earlier Behavior	New Behavior
Multi destination mirror group	Do not support mirror by source vlan	Support mirror by source vlan
Showdiagnostic-information	Without 'show memory-threshold, show hal message buffer'	Include 'show memory-threshold, show hal message buffer'

### 6.10 FSOS-V5.3.4

Item	Earlier Behavior	New Behavior
IS-IS packets	Packets drop by default	Packets transmit by default
RPC-API	100 CLI per command	1024 CLI per command
Show diagnostic-information	N/A	It will display the core file in sys-diag folder
ACL statistic	Count the packets dropped by policer rules	Users can decide to count the dropped packets or not (refer to CLI doc for details)

### 6.11 FSOS-V5.3.3

Item	Earlier Behavior	New Behavior
Vlan name description	Character limit is 16	Character limit is up to 31
Syslog optimized	Do not record aged ARP item	Record aged ARP item
Syslog optimized	Record only the log in config mode	Record the log in all mode

Item	Earlier Behavior	New Behavior
WebUI optimized	Mac ACL do not support to configure untag-vlan parameter	Mac ACL support untag-vlan configuration
HTTP/HTTPS independent switch	Only one switch for HTTP/HTTPS	Two independents switches for HTTP and HTTPS
Agg interface optimized	Agg max group is 31	MLAG max group is 55

### 6.12 FSOS-V5.3.2

Item	Earlier Behavior	New Behavior
Tunnel interface IP address	Allow to configure IPv4 32 bits mask, IPv6 128 bits mask	Don't allow to configure IPv4 32 bits mask, IPv6 128 bits mask
GRE tunnel mac address	GRE tunnel with mac address	GRE tunnel has without mac address
Storm control	N/A	Support to configure pps 1000
Tunnel port recording	Syslog recording condition depends on tunnel port status	Syslog recording condition not depends on tunnel port status
Indicator light flicker frequency	N/A	flicker frequency improved

### 6.13 FSOS-V5.3.1

Item	Earlier Behavior	New Behavior
Fan operating mode	Temperature $\geq$ 50°C: working Temperature $<$ 50°C: Stop	Temperature $\geq$ 50°C: working Temperature $<$ 50°C: 20% speed working
Flowcontrol on agg member port	N/A	Support to configure flow control on agg member port
Optical port switching time optimized	N/A	N/A

### 6.14 FSOS-V5.2.36.15

N/A

### 6.15 FSOS-V5.2.36.14

N/A

### 6.16 FSOS-V5.2.36.13

Item	Earlier Behavior	New Behavior
core file	core file is under flash folder	core file is under sys-diag folder

**6.17 FSOS-V5.2.36.12**

Item	Earlier Behavior	New Behavior
ACL class-map	62 cmap max	512 cmap max

**6.18 FSOS-V5.2.36.10**

N/A

## 7. Fixed Problems

### 7.1 FSOS-V5.3.12

Problem Description	Occurred Condition
Fail to configure remote mirror on WEB UI. The error message says that other users occupy the configure mode	N/A
There is one entry lost when display ip igmp snooping group on WEB UI	N/A

### 7.2 FSOS-V5.3.11.r5

Problem Description	Occurred Condition
When S5800-8TF12S configures the default route, other nodes' devices use the traceroute command to trace to S5800-8TF12S.	N/A

### 7.3 FSOS-V5.3.11.r3

N/A

### 7.4 FSOS-V5.3.10

Problem Description	Occurred Condition
Only support DHCP relay in default VRF	N/A
When use username and password to login SSH, and AAA authentication lose effectiveness, the next level authentication cannot take effective	Use username and password to login SSH, AAA authentication lose effectiveness because of server out of service, the next level authentication such as "local" or "none" cannot take effective
Login banner cannot be displayed when user login via SSH	N/A
SNMP trap may lead memory leak in some case	Enable SNMP trap and operate the port statuses (up/down) frequently for a long time
After the port statuses (up/down) changed, dot1x does not start to re-authentication	N/A
DHCP works abnormal over a long period of time	DHCP client works over a long period of time might lead system reboot with a low probability.
SSH works abnormal over a long period of time	SSH works abnormal after login and logout via SSH repeatedly more than 700,000(approximate number) times.

### 7.5 FSOS-V5.3.9

Problem Description	Occurred Condition
The show result of RPC API might affect each other.	Use RPC-API with multi-process.
The SNMP (sysUpTimeInstance, OID 1.3.6.1.2.1.1.3.0) rolls over.	System up for a long time and the value of "up time" rolls over.
Copper module work abnormal in special condition	Plug in a Copper module (10/100/1000 SFP Copper RJ-45) to a 10G fiber port, the output packets are discarded
Lacp member ports randomly turn to bind or non-bind status	system receives mass protocol message may cause cpu process LACP message not promptly

### 7.6 FSOS-V5.3.8

Problem Description	Occurred Condition
Error log printed in ssh server module	Error log printed when clients login to the ssh server.
Authd process crashed	N/A
Notification includes wrong spelling appeared on the terminal	N/A

### 7.7 FSOS-V5.3.7

Problem Description	Occurred Condition
CHSM process cause memory leak	In some special condition
CFM process initiation failed after reboot	Low probability after reboot

### 7.8 FSOS-V5.3.6

Problem Description	Occurred Condition
When LAG member changed, load balance may work abnormally in special condition.	LAG member changes
IP_SLA timeout	In some special condition
Password configuration failed	In some special condition
L3VPN may impact BGP	Interface ports flapping

### 7.9 FSOS-V5.3.5

Problem Description	Occurred Condition
Syslog sever IP unreachable will cause CPU usage high	Incorrect syslog sever IP
Do not support 'Openssh' tool	N/A
MLAG cannot isolate igmp query parckets	N/A
SNMP ACL do not support extend ACL	N/A

### 7.10 FSOS-V5.3.4

Problem Description	Occurred Condition
Management port up or down events will record in syslog file with better method	N/A
LLDP module crash in some special condition	Vlan nane in packets is not on standard format
Some BHM mechanism optimized	N/A
PBR do not function after reboot system	In some special condition
L2 protocol do not function	Remove vlan 1 from trunk port
PRC-API	In some special condition, CPU will be occupied 100%

### 7.11 FSOS-V5.3.3

Problem Description	Occurred Condition
ERPS secondary port is still block, when primary port is down	N/A
MLAG cannot establish neighborhood	MLAG neighborhood aborted
MLAG synchronized mac address can be aged	Peer link is not agg interface
Hsrv process issue	N/A
ERPS blocked interface can learn mac address	N/A
ERPS configuration missed	Remove control VLAN form primary or secondary interface
Agg group reduce to 1-31	Enable dynamic-load-balance

### 7.12 FSOS-V5.3.2

Problem Description	Occurred Condition
ERPS link recover cause a loop	In some special condition
After delete tunnel mode, tunnel status is still up	N/A
GRE tunnel issue	N/A
10G optical port with 100M SFP-T auto negotiation issue	N/A

### 7.13 FSOS-V5.3.1

Problem Description	Occurred Condition
Add one agg port to MLAG interface, its learned fdb will synchronize to another member port	N/A
SNMP ifAlias node getting interruption	One port has no description in continuous ports
Start-config file cannot be generated when flash is full	N/A
RPC-API cause python CPU accrued 100%	To run 'cpu-traffic-limit reason fwd-to-cpu rate'
CCM communication issue	In some special condition
Voice vlan work abnormally under IPv6 profile	N/A

### 7.14 FSOS-V5.2.36.15

Problem Description	Occurred Condition
Memory management optimized	N/A

### 7.15 FSOS-V5.2.36.14

Problem Description	Occurred Condition
DHCP server optimized	N/A



**7.16 FSOS-V5.2.36.13**

Problem Description	Occurred Condition
Some shutdown port will reopen	N/A
RPC-API cause memory leak	N/A
DHCP client receive IP address with obvious delay	N/A

**7.17 FSOS-V5.2.36.12**

Problem Description	Occurred Condition
"Show policy-map" CLI cannot display mac-learning status	Class-map statistic do not enable
Console port timeout will block user rejoin	N/A
Fork process occur pipe fd	N/A

**7.18 FSOS-V5.2.36.10**

Problem Description	Occurred Condition
Encrypt letter length will cause generate device identifier error	N/A
LACP member status is not identical with STP status	STP disable on agg port

---

## 8. Version Restrictions and Cautions

All features that asserted to support are in product Spec manual, for some features or CLI already exist in switches but not declared in Spec manual, we consider them as testing features, so its functions are not guaranteed. Please do not use these kinds of features in production network.

After enable hardware FDB learning, errdisable reason fdb-loop will not take effect. If you do not require high speed FDB learning, we suggest choosing software FDB learning by default, no need to active hardware learning. When mirror destination port is down, the port statistic will still grow, but that do not impact function.

## 9. Operating System Upgrade

**Step 1** Copy the image (.bin) to switch flash:/boot.

```
FS# copy mgmt-if ftp://admin:admin@10.10.25.33/FSOS-8tf12s-v5.3.12.r.bin flash:/boot
```

**NOTE:**

Upload the firmware provided by FS to TFTP\FTP\U, and then copy it to the switch flash:/boot from TFTP\FTP\U.

**Step 2** Set the target firmware as next boot firmware.

For example, set FSOS-8tf12s-v5.3.12.r.bin as the target version to upgrade.

```
FS# boot system flash:/boot/FSOS-8tf12s-v5.3.12.r.bin
```

Then the switch will ask to confirm the setting.

You can enter 'y' to continue, or enter 'n' to cancel it.

```
Are you sure to use flash:/boot/FSOS-8tf12s-v5.3.12.r.bin as the next boot image? [confirm]
```

**Step 3** Verify the next boot version.

Use show boot command to verify if the next boot version is correct FS# show boot

```
The current boot image version is: V5.3.11.r5
```

```
The current running image is: flash:/boot/FSOS-S5800-8TF12S-V5.3.11.r5.r.bin
```

```
The next time boot image version is: V5.3.12
```

```
The next running image is: flash:/boot/FSOS-8tf12s-v5.3.12.r.bin
```

**Step 4** Restart the switch.

**Step 5** Check if the switch has been successfully upgraded. Switch# show version

```
FSOS Software, S5800, Version 5.3.12
```

```
Copyright (C) 2009-2022 FS.COM Inc.. All rights reserved.
```

```
The current running image is flash: /boot/FSOS-8tf12s-v5.3.12.r.bin
```

```
Switch uptime is 0 days, 0 hours, 1 minutes Hardware Type is 8TF12S
```

```
Hardware Version is 2.0 SDRAM size 1024M
```

```
Flash size 2048M EPLD Version is 1.2
```

```
BootRom Version is 7.1.4
```

```
System serial number is CG1908020298N0021
```



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