

S5860-24XB-U Switch Software Upgrade Guide

Model: S5860-24XB-U

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1. Upgrade Instruction

When new features are added or the original performance needs to be optimized and the current running version is lagging behind, the device needs to be upgraded. At this time, you need to load the higher version of the system software, upgrade through the CLI interface, WEB interface, and restart the device to achieve.

2. Upgrade Files

To upgrade the device to this version or downgrade to this version, you need to use the following upgrade file.

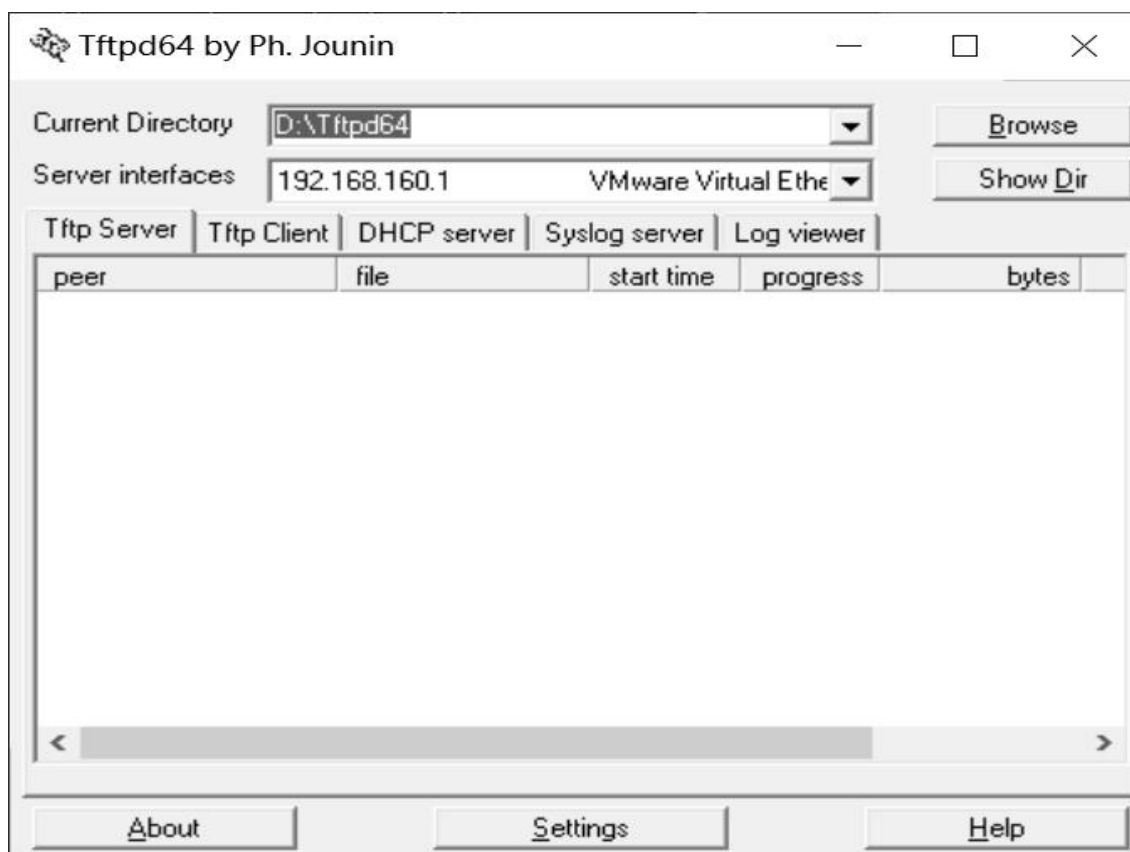
Applicable Products	Upgrade Files	
S5860-24XB-U	【Upgrade Files】	S5860-24XB-U_FSOS12.1(2)B0102_install.bin
	【File Description】	Installation package
	【File Size】	152733259 byte
	【MD5 Value】	ebfedc8c3870ac26dc1685d5982dea43

3. TFTP Server Setup

Download the software TFTP64 on the local PC.



Specify the folder where the version file is located and the IP address of the TFTP server.



4. Upgrade Steps

4.1 Upgrade Under the Main Program

Run the cli command, x.x.x.x is the IP address of the PC

```
Switch# upgrade download tftp://x.x.x.x/ S5860-24XB-U_FSOS12.1(2)B0102_install.bin
*Nov 30 14:46:56: %UPGRADE-6-INFO: Start upgrade
*Nov 30 14:46:57: %UPGRADE-6-INFO: Copy to /tmp/vsd/0/upgrade_rep/
*Nov 30 14:46:57: %UPGRADE-6-INFO: Please wait for a moment.....
Press Ctrl+C to quit
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
*Nov 30 15:10:53: %UPGRADE-6-INFO: Upgrade disable reload device
*Nov 30 15:10:53: %UPGRADE-6-INFO: Upgrade disable redundancy forceswitch
Switch#*Nov 30 15:10:55: %UPGRADE-6-INFO: Upgrade processing is 10%
*Nov 30 15:10:57: %UPGRADE-6-INFO: Upgrade processing is 30%
*Nov 30 15:10:59: %UPGRADE-6-INFO: Upgrade check package md5 value, wait a moment
*Nov 30 15:11:09: %UPGRADE-6-INFO: Upgrade processing is 60%
*Nov 30 15:12:15: %UPGRADE-6-INFO: Upgrade info [OK]
*Nov 30 15:12:15: %UPGRADE-6-INFO: Rootfs version[1.0.0.5c2a6a43->1.0.0.4ec8341a]
*Nov 30 15:12:15: %UPGRADE-6-INFO: Reload system to take effect !
*Nov 30 15:12:32: %UPGRADE-6-INFO: Upgrade enable redundancy forceswitch
*Nov 30 15:12:32: %UPGRADE-6-INFO: Upgrade enable reload device
*Nov 30 15:12:32: %UPGRADE-6-INFO: Upgrade processing is 100%
*Nov 30 15:12:32: %UPGRADE-6-INFO: Upgrade finish
```

After the upgrade is complete, restart the device to make the version take effect :

```
Switch#reload
Reload system?(Y/N)y
*Nov 30 15:16:32: %DP-3-RESET_DEV: All devices are ready to be reloaded.
*Nov 30 15:16:32: %DP-3-RESET_DEV: Reset device 1 due to reload command.
*Nov 30 15:16:32: %DP-3-MACHINE_RESTART: MACHINE_RESTART.
{startup} stop
[ 2101.368051] sysrq: SysRq :
Upgrade Rootfs Success.
Upgrade Success
The system is going down NOW!
Sent SIGTERM to all processes
Sent SIGKILL to all processes
Requesting system reboot
[ 252.140595] reboot: Restarting system
U-Boot 1.4.2--gf4b0786 (Nov 01 2018 - 09:52:06 +0800)
l2C: ready
DRAM: 1 GiB
NAND: 1024 MiB
```

Check the version number under cli show version to confirm the successful upgrade:

```

System description      : FS 10G Ethernet Switch(S5860-24XB-U) By FS Networks ←The device model is the actual model
System start time      : 2019-08-27 10:39:38
System uptime          : 0:00:10:45
System hardware version : 1.00
System software version : S5860-24XB-U_FSOS12.1(2)B0102
System patch number    : NA
System serial number    : 1234942570031
System boot version     : 1.4.3(Master) N/A(Slave)
System rboot version    : 1.1.5
Module information:
  Slot 0: S5860-24XB-U
    Hardware version    : 1.00
    Boot version        : 1.4.3(Master) N/A(Slave)
    Rboot version       : 1.1.5
    Software version    : S5860-24XB-U_FSOS12.1(2)B0102
    Serial number       : 1234942570031
Remarks: Check the last 8 digits of the software version number, which is the date of the upgraded version

```

4.2 Usb Upgrade

Enter the command under cli: upgrade usb0: S5860-24XB-U_FSOS12.1(2)B0102_install.bin

```

Switch# upgrade usb0: S5860-24XB-U_FSOS12.1(2)B0102_install.bin
*Nov 30 17:25:36: %UPGRADE-6-INFO: Start upgrade
Switch#*Nov 30 17:25:37: %UPGRADE-6-INFO: Upgrade disable reload device
*Nov 30 17:25:37: %UPGRADE-6-INFO: Upgrade disable redundancy forceswitch
*Nov 30 17:25:39: %UPGRADE-6-INFO: Upgrade processing is 10%
*Nov 30 17:25:41: %UPGRADE-6-INFO: Upgrade processing is 30%
*Nov 30 17:25:43: %UPGRADE-6-INFO: Upgrade check package md5 value, wait a moment
*Nov 30 17:26:02: %UPGRADE-6-INFO: Upgrade processing is 60%
*Nov 30 17:26:57: %UPGRADE-6-INFO: Reload system to take effect !
Switch#*Nov 30 17:27:37: %UPGRADE-6-INFO: Upgrade enable redundancy forceswitch
*Nov 30 17:27:37: %UPGRADE-6-INFO: Upgrade enable reload device
*Nov 30 17:27:37: %UPGRADE-6-INFO: Upgrade processing is 100%
*Nov 30 17:27:37: %UPGRADE-6-INFO: Upgrade finish ← When you see the Upgrade finish prompt, the upgrade is complete

```

During the upgrade process, you can check the upgrade status through show upgrade status

```

Switch#show upgrade status
upgrade global status: UPGRADING
[Slot 0]
  Device type      : S5860
  Status           : upgrading ←After the upgrade is complete, here is a prompt for success

```

Restart the device to take effect

```
Switch#reload
```

```

Reload system?(Y/N)y
*Nov 30 15:16:32: %DP-3-RESET_DEV: All devices are ready to be reloaded.
*Nov 30 15:16:32: %DP-3-RESET_DEV: Reset device 1 due to reload command.
*Nov 30 15:16:32: %DP-3-MACHINE_RESTART: MACHINE_RESTART.
{startup} stop
[ 2101.368051] sysrq: SysRq :
Upgrade Rootfs Success.
Upgrade Success
The system is going down NOW!
Sent SIGTERM to all processes
Sent SIGKILL to all processes
Requesting system reboot
[ 252.140595] reboot: Restarting system
U-Boot 1.4.2--gf4b0786 (Nov 01 2018 - 09:52:06 +0800)
l2C: ready
DRAM: 1 GiB
NAND: 1024 MiB
Loading Environment from SPI Flash... SF: Detected s25fl128s_64k with page size 256 Bytes, erase size 64 KiB, total 16 MiB

```

Restart the device to take effect

```

System description      : FS 10G Ethernet Switch(S5860-24XB-U) By FS Networks ←The device model is the actual model
System start time      : 2019-08-27 10:39:38
System uptime          : 0:00:10:45
System hardware version : 1.00
System software version : S5860-24XB-U_FSOS12.1(2)B0102
System patch number    : NA
System serial number    : 1234942570031
System boot version     : 1.4.3(Master) N/A(Slave)
System rboot version    : 1.1.5
Module information:
  Slot 0 : S5860-24XB-U
    Hardware version    : 1.00
    Boot version        : 1.4.3(Master) N/A(Slave)
    Rboot version       : 1.1.5
    Software version     : S5860-24XB-U_FSOS12.1(2)B0102
    Serial number        : 1234942570031
Remarks: Check the last 8 digits of the software version number, which is the date of the upgraded version

```

4.3 Uboot Upgrade

carried out @@@@b

Switch#@@@@b

```

[ 645.397118] IRQ RESPONSES
[ 645.397141] Please change 5@ to
U-Boot 1.4.2--gf4b0786 (Nov 01 2018 - 09:52:06 +0800)

```

```
I2C:  ready
DRAM:  1 GiB
NAND:  1024 MiB
Loading Environment from SPI Flash... SF: Detected s25fl128s_64k with page size 256 Bytes, erase size 64 KiB, total 16 MiB
OK
```

When you see the prompt line during the restart process, immediately press ctrl+c to enter the Rboot interface

Press Ctrl+B to enter Boot Menu, Press Ctrl+C to enter Rboot 0

```
[ 0.000164] timer_base:0x18006020 gpio_base:01800a000 irq:0x12 clk:ef010580 apb_clk_rate:0x2540be40.
[ 0.106514] genirq: Flags mismatch irq 39. 00000400 (IDM) vs. 00000400 (IDM)
[ 1.967311] TIPC: Activated (version 2.0.0)
[ 2.018661] TIPC: Started in single node mode
starting pid 509, tty ": '-/etc/sysinit'
Save product info success.
UBI device number 0, total 4000 LEBs (507904000 bytes, 484.4 MiB), available 0 LEBs (0 bytes), LEB size 126976 bytes (124.0 KiB)
UBI device number 1, total 3887 LEBs (493555712 bytes, 470.7 MiB), available 0 LEBs (0 bytes), LEB size 126976 bytes (124.0 KiB)
starting pid 818, tty ": '/etc/upgrade'
starting pid 830, tty ": '-/etc/menu/menu_init'
===== Rboot Menu(Ctrl+Z to upper level) =====
  TOP menu items.
*****
  0. Tftp utilities.
  1. XModem utilities.
  2. Run main.
  3. SetMac utilities.
  4. Scattered utilities.
*****
```

Under the Rboot menu, click the red reminder below to enter the address configuration menu

```
===== Rboot Menu(Ctrl+Z to upper level) =====
  TOP menu items.
*****
  0. Tftp utilities.
  1. XModem utilities.
  2. Run main.
  3. SetMac utilities.
  4. Scattered utilities.
*****
Press a key to run the command:
===== Rboot Menu(Ctrl+Z to upper level) =====
  Tftp utilities.
*****
  0. Upgrade uboot program.
  1. Upgrade rboot program.
```

2. Upgrade main program.

3. Burn the total FlashROM by this downloaded file.

Press a key to run the command:

enter the Local IP:[]:

Under the address configuration menu, follow the prompts to enter the switch device address, execute the pc address, and the file name to be upgraded

Press a key to run the command:

enter the Local IP:[]:192.12.1.1

←This address is the address of the switch device, and it can be configured to be on the same

network segment as the executing pc

enter the Remote IP:[]:192.12.1.2

←This address is the execution pc address

enter the Filename:[]: S5860-24XB-U_FSOS12.1(2)B0102_install.bin

←The file name is the upgrade file name

After setting the file name of the above address, the upgrade operation will begin.

% Total	% Received	% Xferd	Average Speed	Time	Time	Time	Current
Dload	Upload	Total	Spent	Left	Speed		
147M	100	147M	0	0	1902k	0	0:01:19 0:01:19 --:--:-- 1968k
100	147M	100	147M	0	0	0	0:01:19 0:01:19 --:--:-- 1902k

Upgrading, keep power on and wait please ...

Follow the prompts to select Y to continue to the next step, directly to prompt the upgrade was successful

Determined to upgrade? [Y/N]: Y

Mount File System ...

Copy file to Flash ...

Upgrade Rootfs Success.

Upgrade Success

After the upgrade is successful, it automatically returns to the Rboot menu interface, press ctrl+z to exit the menu item to restart (directly power off and restart)

===== Rboot Menu(Ctrl+Z to upper level) =====

Tftp utilities.

0. Upgrade uboot program.

1. Upgrade rboot program.

2. Upgrade main program.

3. Burn the total FlashROM by this downloaded file.

Press a key to run the command:

===== Rboot Menu(Ctrl+Z to upper level) =====

TOP menu items.

0. Tftp utilities.

1. XModem utilities.

2. Run main.

3. SetMac utilities.

4. Scattered utilities.

Wait for the device to restart

*Nov 30 15:16:32: %DP-3-RESET_DEV: All devices are ready to be reloaded.

*Nov 30 15:16:32: %DP-3-RESET_DEV: Reset device 1 due to reload command.

*Nov 30 15:16:32: %DP-3-MACHINE_RESTART: MACHINE_RESTART.

{startup} stop

[2101.368051] sysrq: SysRq :

Upgrade Rootfs Success.

Upgrade Success

The system is going down NOW!

Sent SIGTERM to all processes

Sent SIGKILL to all processes

Requesting system reboot

[252.140595] reboot: Restarting system

U-Boot 1.4.2--gf4b0786 (Nov 01 2018 - 09:52:06 +0800)

I2C: ready

DRAM: 1 GiB

NAND: 1024 MiB

Loading Environment from SPI Flash... SF: Detected s25fl128s_64k with page size 256 Bytes, erase size 64 KiB, total 16 MiB

OK

Boot: Master

Press Ctrl+B to enter Boot Menu, Press Ctrl+C to enter Rboot 0

ubi0: attaching mtd2

Check the version number under cli show version to confirm the successful upgrade:

System description : FS 10G Ethernet Switch(S5860-24XB-U) By FS Networks ←The device model is the actual model

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System uptime : 0:00:10:45

System hardware version : 1.00

System software version : S5860-24XB-U_FSOS12.1(2)B0102

System patch number : NA

System serial number : 1234942570031

System boot version : 1.4.3(Master) N/A(Slave)

System rboot version : 1.1.5

Module information:

Slot 0 : S5860-24XB-U

Hardware version : 1.00

Boot version : 1.4.3(Master) N/A(Slave)

Rboot version : 1.1.5

Software version : S5860-24XB-U_FSOS12.1(2)B0102

Serial number : 1234942570031

Remarks: Check the last 8 digits of the software version number, which is the date of the upgraded version

5. Precautions

- This version requires: 1024 MB of memory space and 1 GiB of Flash space.
- During the upgrade process, please pay attention to the prompt information output during the operation. If it fails, please save the log information and contact FS Network Technical Support.
- During the upgrade process, please pay attention to the prompt information output during the operation. If it fails, please save the log information and contact FS Network Technical Support.
- After the upgrade is complete, run the show version command to check the current version number of the device to confirm the upgrade is successful.



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