

# Wi-Fi 6 Access Point FSOS Software Upgrade Guide

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Models: AC-224AP; AP-W6D1775C; AP-W6D2400C; AP-W6T3267C; AP-W6Q4134C;  
AP-W6T6817C; AP-W6T10000C

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## 1. Upgrade Instructions

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 or downgrade a device to this version, the following upgrade files are required

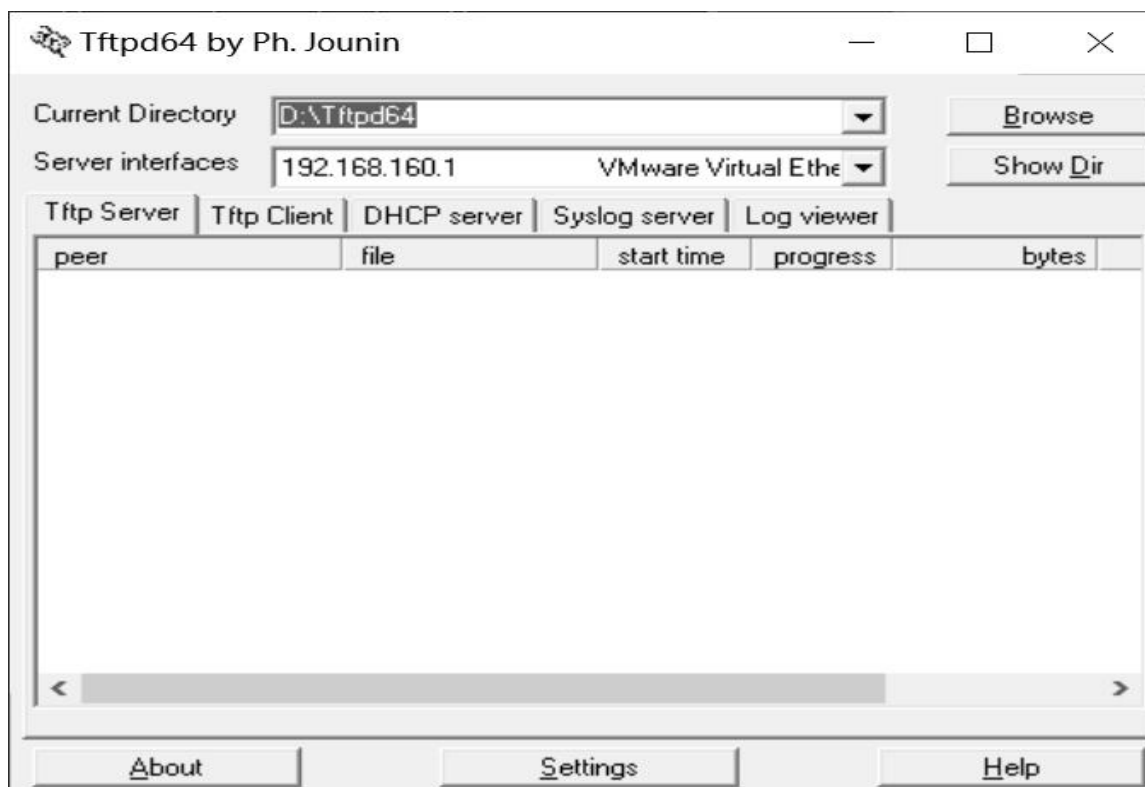
Applicable Products	Upgrade Files	
AC-224AP	【Upgrade Files】	AC_FSOS11.9(2)B2P5_G2C6-01_07151603_install.bin
	【File Description】	System upgrade installation package
	【File Size】	53413668 byte
	【MD5 Value】	7b2c3eac830dcc5052d1f0838a01bd36

## 3. TFTP Server Setup

Use software Tftp64 on local PC



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



## 4. AC Upgrade Steps

### 4.1 Command Line Upgrade

Log in to the device, confirm the device version and back up related files.

**AC#copy flash:config.text tftp://192.168.1.100/config.text** --->Backup the AC configuration file to the computer with IP address 192.168.100

**AC#copy flash:ap-config.text tftp://192.168.1.100/ap-config.text** ---> Back up the configuration of the AP on the AC to a computer with an IP address of 192.168.100

View device version

AC#show version detail

System description : FS 10G Wireless Switch(WSXX) By FS Networks.

System start time : 2015-06-30 14:34:17

System uptime: 0:00:00:33System hardware version : 1.01

System software version : AC\_FSOS 11.1(5)B3, Release(02160405)

System patch number : NA

System software number : M05230204042015

System serial number : XXXXXXXXXXXXXXX

System boot version : 2.0.1.b4a5441(141210)

System core version : 2.6.32.6f09b60938f524

System cpu partition : 1-3

Ensure the connectivity between the computer and the device, and put the bin file and tftp software in the same folder, and then open the tftp software.

After upgrading AC.Use the file named "fsos.bin" on the computer 192.168.1.100 as the main program of the AC and check whether it has been upgraded to the target version after a successful restart.

**Switch#upgrade download tftp://192.168.1.100/fsos.bin**

The device will restart automatically after successful import.

AC#show version detail

System description : FS Gigabit Wireless Switch(WSXX) By FS Networks.

System start time : 2019-11-15 15:49:44

System uptime : 4:00:08:47

System hardware version : 1.01System software version : AC\_FSOS 11.9(2)B2P4, Release(06221901)

System patch number : NA

System software number : M01285410192019

System serial number : XXXXXXXXXXXXXXX

System boot version : 1.2.5.e4bf935(140925)

System core version : 2.6.32.7f12c8def5c97b

System cpu partition : 1-3

### 4.2 Uboot Upgrade

Restart the device

**Switch#reload**

**Reload system?(Y/N)y**

DRAM: 2 GiB

NAND: 512 MiB

Flash: 8 MiB

SETMAC: Setmac operation was performed at 2020-04-21 13:03:39 (version: 11.0)

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

Press Ctrl+C to enter Boot Menu

```
===== BootLoader Menu("Ctrl+Z" to upper level) =====
```

TOP menu items.

```
*****
```

- 0. Tftp utilities.
- 1. XModem utilities.
- 2. Run main.
- 3. SetMac utilities.
- 4. Scattered utilit

```
*****
```

Press a key to run the command: 0

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

```
===== BootLoader Menu("Ctrl+Z" to upper level) =====
```

TOP menu items.

```
*****
```

- 0. Tftp utilities.**
- 1. XModem utilities.
- 2. Run main.
- 3. SetMac utilities.
- 4. Scattered utilit

```
*****
```

Press a key to run the command: 0

```
===== BootLoader Menu("Ctrl+Z" to upper level) =====
```

Tftp utilities.

```
*****
```

- 0. Upgrade bootloader.**
- 1. Upgrade kernel and rootfs by install package.
- 2. Down to memory and jump to run.

```
*****
```

Press a key to run the command: 0

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

```
*****
```

Plz enter the Local IP:[192.168.64.7]: 192.168.1.1

Plz enter the Remote IP:[192.168.64.1]: 192.168.1.2

Plz enter the Filename:[<NULL>]: AC\_FSOS11.9(2)B2P5\_G2C6-01\_07151603\_install.bin

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

. done

Un-Protected 1 sectors

Erasing Flash...

. done

```
Erased 1 sectors
Writing to Flash... done
. done
Protected 1 sectors
Use default updatefile...
Auto-update from TFTP: trying update file 'AC_FSOS11.9(2)B2P5_G2C6-01_07151603_install.bin'
Interface 0 has 4 ports (SGMII)
Interface 1 has 4 ports (SGMII)
Interface 2 has 4 ports (NPI)
Interface 3 has 4 ports (LOOP)
Using octeth3 device
TFTP from server 192.168.1.2; our IP address is 192.168.1.1
Filename 'AC_FSOS11.9(2)B2P5_G2C6-01_07151603_install.bin'.
Load address: 0x20000000
Loading: octeth3: Up 1000 Mbps Full duplex (port 3) (SGMII)
#####
done
Bytes transferred = 53413668 (32f0724 hex)
Uncompressing 0x32eff3e@0x200007e6 to 0x44ed50c@0x232f0724
Uncompressed 0x44ed50c bytes
Get boot addr 0x0,len 0x0; kernel addr 0x233dcec8,len 0x460000; rootfs addr 0x2383cf44, len 0x3d80000
Get install package information failed with -4
```

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)

```
===== BootLoader Menu("Ctrl+Z" to upper level) =====
Tftp utilities.
*****
0. Upgrade bootloader.
1. Upgrade kernel and rootfs by install package.
2. Down to memory and jump to run.
*****
Press a key to run the command:
===== BootLoader Menu("Ctrl+Z" to upper level) =====
TOP menu items.
*****
0. Tftp utilities.
1. XModem utilities.
2. Run main.
3. SetMac utilities.
4. Scattered utilities.
5. Set backplane info
*****
Press a key to run the command: 2
Wait for the device to restart
```

Bootloader: Done loading app on coremask: 0xf

Starting Devices Initializations... [ OK ]

\*Jul 13 15:18:13: %SWITCH-6-INSTALL: Install chassis AC-224AP on switch 1

\*Jul 13 15:18:13: %LOCAL\_DP-5-LC\_PROB: Board information in this chassis has been collected.

\*Jul 13 15:18:13: %DP-6-MASTER: Module in slot 0 has translated to master.

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

Switch>enable

Switch#show version

System description : FS Gigabit Wireless Switch(AC-224AP) By FS Networks.

System start time : 2020-07-13 15:17:45

System uptime : 0:00:01:38

System hardware version : 1.22

System software version : AC\_FSOS 11.9(2)B2P3, Release(06190500)

System patch number : NA

System serial number : G1P21J0002344

System boot version : 1.2.11

Module information:

Slot 0 : AC-224AP

Hardware version : 1.22

Boot version : 1.2.11

Software version : AC\_FSOS 11.9(2)B2P3, Release(06190500)

Serial number : G1P21J0002344

## 5. AP Upgrade Steps

### 5.1 Command Line Upgrade

Configuration points

- 1) Turn off the computer's anti-virus software and firewall
- 2) Ensure that the computer's tftp port is not occupied by other processes
- 3) Ensure that the communication between the computer and the wireless device is normal

Configuration steps

Confirm that the current configuration of the device allows all APs to be normally associated with the AC, and verify the command: Use on the AC

show capwap state Check whether the AP's working mode is in the "run" state.

After logging in to the AC, use show version detail to view the AC version and make sure that the AC and upgraded AP versions are the same. If they are inconsistent, upgrade the AC according to the AC upgrade chapter.

Switch#show version detail

System description: FS 10G Wireless Switch(WSEX) By FS Networks.

System start time: 2015-07-07 10:50:28

System uptime: 1:00:21:11

System hardware version : 1.01

System software version : AC\_FSOS 11.1(5)B5, Release(02182519)

System patch number : NA

System software number : M19545306252015

System serial number: 8652DHC460004

System boot version : 2.0.1.b4a5441(141210)

System core version : 2.6.32.80355ac1a03d63System cpu partition: 4-11

Use sho version all or telnet to log in to the AP. Use show version to confirm the AP model,

For hardware and software versions, select different software versions according to different models and hardware versions.

Switch#show version detail

System description : FS Indoor AP-W5T2600C (802.11a/n and 802.11b/g/n) By FS Networks.

System start time : 1969-12-31 23:59:59

System uptime: 0:00:01:09

System hardware version : 1.10

System software version : AP\_FSOS 11.1(5)B3, Release(02160403)

System patch number : NA

System software number : M03112104042015

System serial number: G1GDB16019485

System boot version : 1.1.1.6822c2a(140920)

System core version : 2.6.32.ab930e7d22374b



Open the Tftp64.exe software, specify the AP version and Tftpserver ip address.

Log in to the AC and use the following command to transfer the AP version from the computer to the AC flash.

Remarks: Suppose the computer's address is 192.168.1.100, the software version of AP-W5T2600C is W5T2600C

**AC#copy tftp://192.168.1.100/W5T2600C.bin flash:W5T2600C**

Press Ctrl+C to quit!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

Copy success

Configure the upgrade command on the AC to prepare for the upgrade.

**AC>enable**

**AC#configure terminal**

**AC(config)#ac-controller**

**AC(config-ac)#active-bin-file W5T2600C.bin**

**AC(config-ac)#ap-image auto-upgrade**

The AP will be upgraded after it is connected (if the AP is online, it will be upgraded immediately, which will cause the AP to restart the service and interrupt the version upgrade during the low peak period of the service) (use show ap-config updating-list to view the progress of each AP upgrade) AP upgrade When prompted on the AC:

\*Jul 8 11:10:19: %CAPWAP-6-UPGRADE: AP(1414.4b6d.e0a5)'s image

version will be updated from [1.0.0.495fc0c6] to [1.0.0.40ed0096].

After confirming the AP upgrade and restart and re-establishing the tunnel, and save the configuration

**AC(config-ac)#show version all**

**AC(config-ac)#end**

**AC#write**

Check the AP version on AC

AC#show version all

AP(1414.4b6d.e0a5)'s version:

Product ID: W5T2600C

System uptime : 0:0:1:17

Hardware version : 1.10



Software version : AP\_FSOS 11.1(5)B5, Release(02182520)

Patch number : NA

Software number : M20085306252015

Serial number : G1GDB16019485

MAC address: 1414.4b6d.e0a5

View AP version on AP

FS>show version

System description : FS Indoor W5T2600C(802.11a/n and 802.11b/g/n) By  
FS Networks.

System start time : 1970-01-01 00:00:01

System uptime: 0:00:01:52

System hardware version : 1.10

System software version : AP\_FSOS 11.1(5)B5, Release(02182520)

System patch number : NA

System serial number: G1GDB16019485

System boot version : 1.1.1

## 5.2 Wireless Device Uboot Layer Software Upgrade Method

To upgrade the software version of wireless devices (ac or ap), it is generally used when the main program of the device is lost. Main program. In case of loss, you need to prepare the console line for processing.

Restart the wireless device, press and hold ctrl according to the prompt and press C continuously to enter the ROM layer, and then select "0".

Boot 1.1.6-00481-gfaecb93 (Sep 20 2014 - 18:39:21)

Board: FS Wireless Access Point By FS NetworkDRAM: 128 MiB

Flash: 2 MiB

NAND: 128 MiB

In:serial

Out:serial

Err:serial

SETMAC: Setmac operation was performed at 1970-01-01 00:00:00 (version:  
11.0)

Press Ctrl+C to enter Boot Menu 0

Net:eth0

Entering simple UI....

===== BootLoader 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: 0

Then select the "1" option and follow the steps below to complete the upgrade.

```
===== BootLoader Menu("Ctrl+Z" to upper level) =====
Tftp utilities.
*****
0. Upgrade bootloader.
1. Upgrade kernel and rootfs by install package.
2. Down to memory and jump to run.
*****

Press a key to run the command: 1
Plz enter the Local IP:[192.168.101.100]:192.168.101.100 ----->Temporary IP address configured for AP
Plz enter the Remote IP:[192.168.101.5]: 192.168.101.5----->IP address of the computer
Plz enter the Filename:[W5T2600C.bin]:W5T2600C.bin ----->The file name of the main program on the computer
Erasing SPI flash...Writing to SPI flash...done
Auto-update from TFTP: trying update file 'W5T2600C.bin'
Speed: 100, full duplex
Using eTSEC1 device
TFTP from server 192.168.101.5; our IP address is 192.168.101.100
Filename 'W5T2600C.bin'.
Load address: 0x1000000Loading:
#####
Done
Bytes transferred = 17946998 (111d976 hex)
Uncompressing 0x111d1b7@0x10007bf to 0x1642f70@0x211d978
Uncompressed 0x1642f70 bytes
Get boot addr 0x0,len 0x0; kernel addr 0x0,len 0x0; rootfs addr 0x21a9aa8,
len 0x14a0000
Package information:
rootfs version:1.0.0.10635701
rootfs target :W5T2600C
Determined to upgrade? [Y/N]: y
Upgrading, keep power on and wait please ...
Erasing SPI flash...Writing to SPI flash...done
upgrade kernel...
upgrade rootfs...
UBIFS: reserved for root: 0 bytes (0 KiB)SUCCESS: UPGRADING OK
===== BootLoader Menu("Ctrl+Z" to upper level) =====
Tftp utilities.
*****
0. Upgrade bootloader.
1. Upgrade kernel and rootfs by install package.
2. Down to memory and jump to run.
*****

Press a key to run the command: ----->Press ctrl z to return to the previous menu
===== BootLoader 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: 2 ----->Option 2 Load the main program

adding user rgosm...

adding user guest...adding user sslvpn...

adding user postgres...

\*Jan 1 00:00:11: %FS\_SYSMON-5-WARMSTART: System warmstart.

use software md5!

FS>

Check whether to upgrade to the target version

FS#show version detail

System description : FS Indoor W5T2600C (802.11a/n and 802.11b/g/n)

By FS Networks.

System start time : 1969-12-31 23:59:59

System uptime: 0:00:00:55

System hardware version : 1.10

System software version : AP\_FSOS 11.1(5)B4, Release(02180120)

System patch number : NA

System software number : M20105306012015

System serial number : G1GDB16019485

System boot version : 1.1.1.6822c2a(140920)

System core version : 2.6.32.720c78d6ca07bf

## 6. Precautions

- During the ascent, 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.
- In the process of ascent, there will be a prompt message not allowing restart. Once such a prompt message appears, please do not power off, do not reset the system, and do not insert or remove any modules.
- After the upgrade is complete, execute the show version command to view the current version number of the device to confirm the upgrade is successful.



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