

Confidentiality Controlled

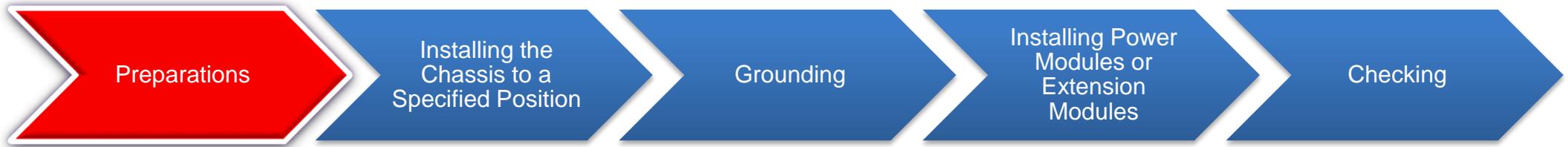
RG-S6220-H Series Data Center Switches Installation and Initialization



Contents

- **Hardware Installation**
- **Switch Management**
- **Software Upgrade**

Hardware Installation



Tip: Read the *RG-S6220-H Series Switches Hardware Installation Manual* if you install the switch for the first time.

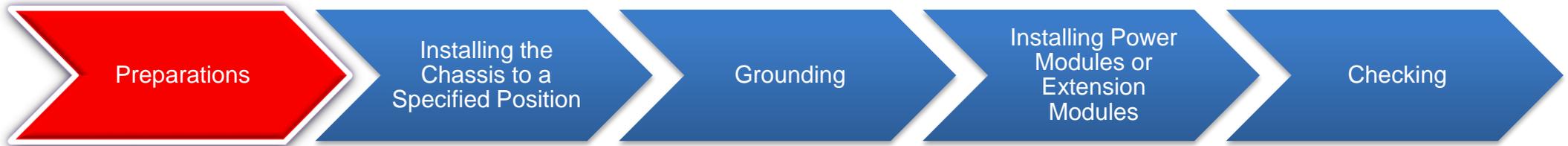
Safety Notes

- Do not install the switch in a wet place and keep it away from liquid.
- Do not wear loose clothes during installation to avoid hooking components and causing damage. Therefore, fasten clothes ribbons, scarves, and sleeves.
- Place tools and components away from passageways to prevent collision.
- Check for potential risks in the working area, for example, ungrounded power supplies, unreliable grounding of power supplies, or wet floor.

Ambient Requirements

- Temperature: 0°C to 50°C [As **RG-S6220-48XT6QXS-H** generates more heats than the other models, its operating temperature should in the range of 0°C to **45°C**.]
- Relative humidity: 10% to 90%
- Cleanness: $\leq 3 \times 10^4$ (particle diameter $\geq 5 \mu\text{m}$)
- Ventilation: at least **20 cm** clearance around the chassis for efficient heat dissipation
- Anti-interference: far away from high-power (radar or radio transmitting station), high-frequency, or large-current devices

Hardware Installation

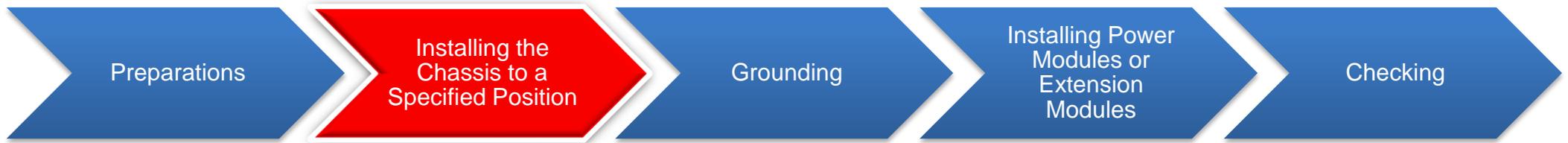


Tip: Read the *RG-S6220-H Series Switches Hardware Installation Manual* if you install the switch for the first time.

Make sure the following before the installation:

- The installation position meets the ventilation requirement, with at least **20 cm** clearance around the chassis.
- The ambient temperature is in the range of 0°C to 50°C. [As **RG-S6220-48XT6QXS-H** generates more heats than the other models, its operating temperature should in the range of 0°C to **45°C**.] The relative humidity is in the range of 10% to 90%.
- The external power supply system is ready and meets the following requirements:
 - Rated voltage range: 100-240 V AC, 50-60 Hz
 - Maximum voltage range: 90-264 V AC, 50-60 Hz
 - 10 A** standard power cable used
- Network cables can be deployed properly at the installation site.

Hardware Installation

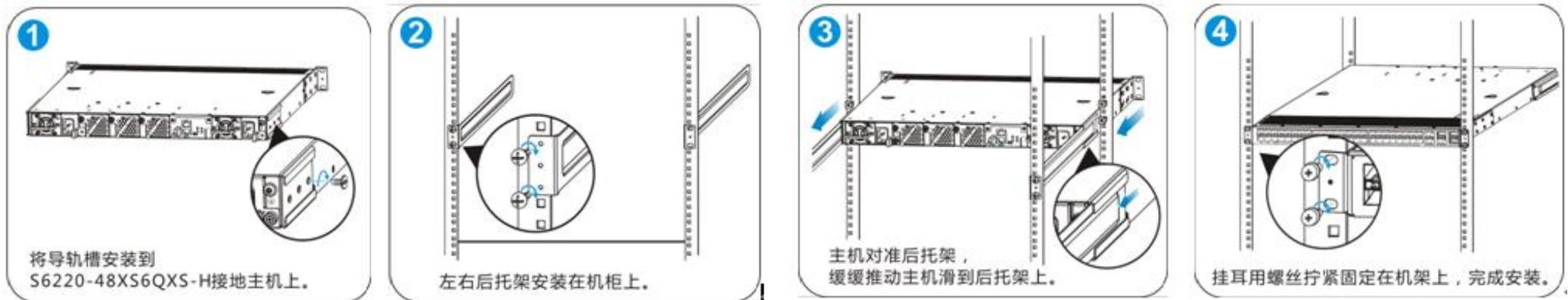


Installing the Switch in a Standard 19-inch Cabinet Using Supports (Recommended)

The RG-S6220-H chassis is heavy (about 11 kg). Use either of the following methods to install the chassis:

Method 1: Fix a tray on the cabinet and place the chassis on the tray.

Method 2: Install the chassis on the rear supports delivered with the switch.



Notes:

Fix the rack-mounting brackets and slide rails through the tapped holes on two ends of the side panels. Install the rear support fastening screws and rack-mounting brackets on the front or rear side of the chassis depending on which side the front panel is facing.

The rear supports delivered with the switch are only applicable to an 800-1200 mm deep cabinet.

Hardware Installation

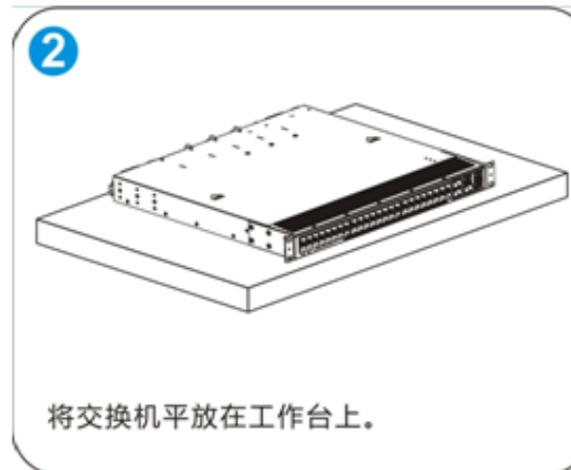
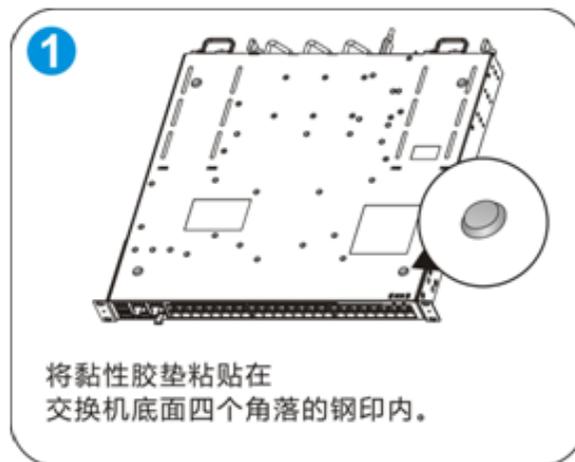


Installing the Switch on a Desk (When Cabinet Mounting Cannot Be Implemented)

- ① Attach the four adhesive rubber pads delivered in the carton to the recessed areas at the four corners of the chassis bottom.
- ② Place the switch on the desk. Ensure steadiness of the desk and leave sufficient clearance around the switch for ventilation.

Caution: Do not place heavy objects on the switch.

Note: When the three fans in an RG-S6220-H switch fan run at full speed, they produce noise of 80 db (complying with the noise standard for an unattended equipment room). The fan speed will be automatically adjusted based on ambient temperature after startup of the switch. Installing the switch in an office is not recommended. When the ambient temperature is around 25 °C, the noise is 50-55 db. The fan rotates faster when the temperature is higher.



Hardware Installation



There Is a Ground Bar in the Installation Environment (Recommended)

- ① Remove the ground screw from the rear panel of the chassis.
- ② Put the OT terminal of the ground cable delivered with the switch on the ground screw of the chassis.
- ③ Install the ground screw with the OT terminal to the ground hole, fasten it with a screwdriver, and connect the other end of the ground cable to the ground bar of the equipment room. (Adjust the length of the ground cable based on the distance with the ground bar.)

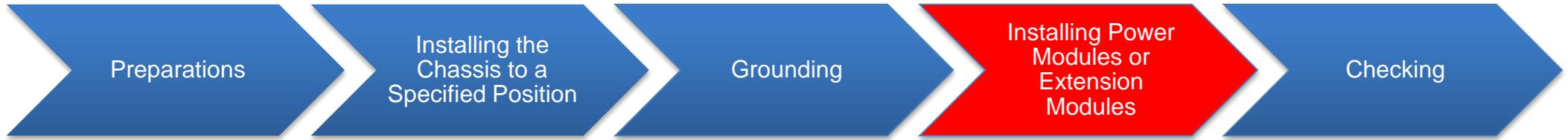
There Is No Ground Bar in the Installation Environment

If the switch adopts AC power supply, the PE cable of the AC power supply needs to be grounded. Check whether the PE cable of the AC power supply is properly grounded in the power distribution room or on the AC transformer side.



1	Rear panel
2	OT terminal of the ground cable and ground screw
3	Grounding tag
4	Ground cable
5	Tapped hole for the filler panel fastening screw (not for grounding)

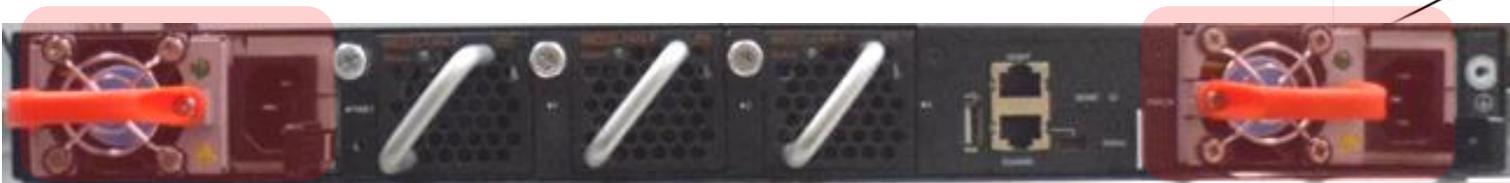
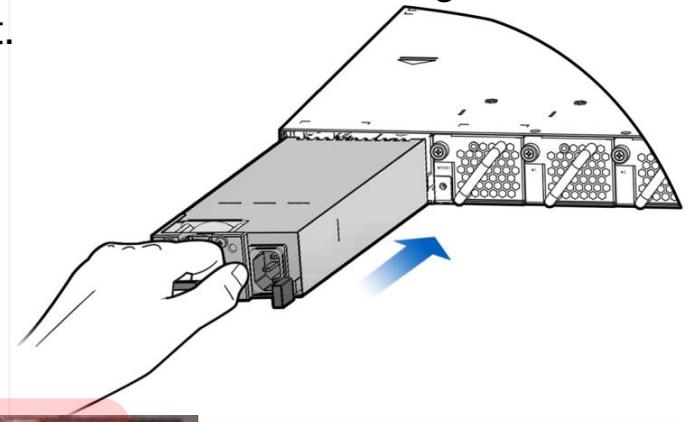
Hardware Installation



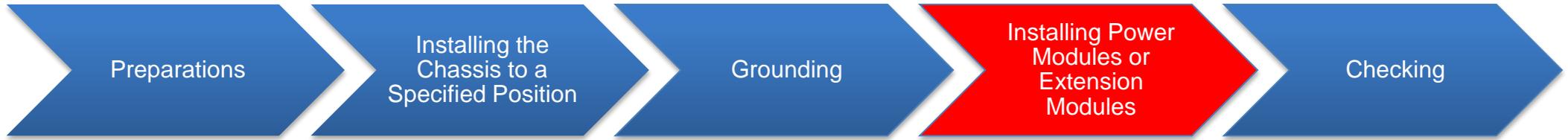
Installing Power Modules

- ① Wear an ESD wrist strap. Ensure that the strap is in good contact with your wrist and is reliably grounded.
- ② Take out a power module from the package and verify that it is the required model.
- ③ Determine in which slot to install the power module. Face the power module slot during the operation.
- ④ Hold the power module with the top side facing up. (Because of the structural design of the power module slot and the power module, the power module will not be inserted into the slot when it is upside down.) Hold the handle of the power module with one hand and support its bottom with the other hand. Push the power module into the slot along the slide rails, as shown in the figure. When you hear a click, the power module is securely seated in the slot.

Note: Power modules are hot swappable. The switch can operate normally with a single power module.



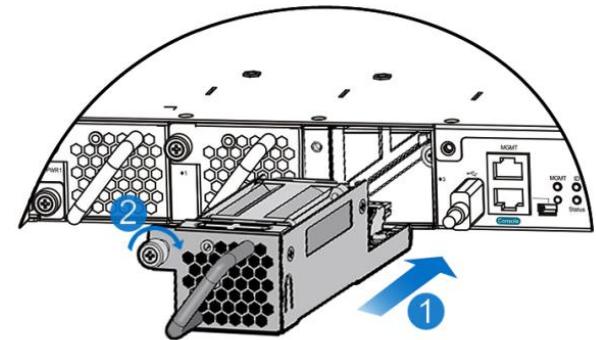
Hardware Installation



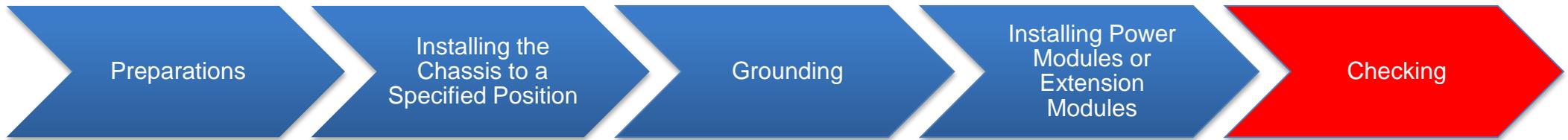
Installing Fan Modules

- ① Wear an ESD wrist strap. Ensure that the strap is in good contact with your wrist and is reliably grounded.
- ② Take out a fan module from the package and verify that it is the required model.
- ③ Determine in which slot (numbered 1, 2, or 3) to install the fan module. Face the fan slot during the operation.
- ④ Hold the fan module with the top side facing up. (Because of the structural design of the fan slot and the fan module, the fan module will not be inserted into the slot when it is upside down.) Hold the handle of the fan module with one hand and support its bottom with the other hand. Push the fan module into the slot along the slide rails, as shown in the figure. When you hear a click, the fan module is securely seated in the slot.
- ⑤ Tighten the captive screw on the fan module to fix the fan module in the chassis.

Note: Fan modules work in 2+1 redundancy mode. A switch must have at least two fan modules installed to ensure that it can start normally.



Hardware Installation



Checking the Cabinet

Ensure that the external power supply system matches the power distribution panel of the cabinet.

Ensure that the front and rear doors of the cabinet can be closed with the switch in the cabinet.

Ensure that the cabinet is securely fixed and will not move or fall down.

Ensure that the switch is securely fixed in the cabinet and that all cables are bundled on the cabinet.

Ensure that sufficient space is reserved around the switch for heat dissipation, especially at the front and rear of the switch (at least 20 cm).

Checking Cable Connections

Ensure that optical fibers and twisted pair cables match the connected interfaces.

Ensure that all cables are bundled properly.

Ensure that ground cable specifications and connection are correct.

Check whether all the cables are routed indoors. If any cables are routed outdoors, check whether AC power supply surge protection bars and network interface surge protectors are used.

Checking the Power Supply System

Ensure that all power cables are properly connected and meet security requirements.

Contents

- Hardware Installation
- **Switch Management**
- Software Upgrade

Common Switch Management Modes

1. Console Management

Used when the switch is powered on for the first time or during **onsite** commissioning (Most common management mode.)

2. Telnet/SSH Remote Management

Used after initial CLI configurations are completed (This management mode is recommended for **remote** routine maintenance.)

3. SNMP Management

Used after initial CLI configurations are completed (This mode supports automatic and smart management, and implements graphical management and proactive alarm function.)

Console Management

Building the
configuration
environment

Starting the device

Managing the device

Upon the first login to a switch, you must use the Console port to manage the switch. One 8-pin shielded cable is required. One end of the cable is an RJ-45 connector, which is inserted to the **Console** port on the primary supervisor engine of the switch. The other end of the cable is a DB-9 connector, which can be inserted to a 9-pin serial port on the configuration terminal or the COM port of a laptop computer. (If the laptop computer does not have a USB port, use a USB-RS232 cable.)

Configurations required for login through the Console port:

- Use the HyperTerminal or the CRT tool. (Recommended software: SecureCRT)
- Terminal settings: Baud rate: **9600**; Data bit: **8**; Stop bit: **1**; **No** parity check; **No** flow control (taking the HyperTerminal as an example)

Console Management

Building the
configuration
environment

Starting the device

Managing the device

Check the following items before you power on the switch:

- ① Power cables are correctly connected.
- ② The input voltage complies with the requirement of the switch.
- ③ The serial cable is connected correctly, the terminal (for example, a PC) has started, and parameter settings are completed.

Power on the switch:

Note 1: When the switch is powered on for the first time, fans run at full speed. After the system enters the main program, **the fan speed will automatically decrease** based on the ambient temperature and the noise will be significantly reduced.

Note 2: If a power module has been installed but is not supplying power (for example, the power cable is not connected to a power socket, or the power socket has no power input), the **alarm indicator on the power module will be solid red**.

Console Management

Building the
configuration
environment

Starting the device

Managing the device

During startup of the switch, the following information is displayed on the HyperTerminal or the CRT software:

```
Boot 1.2.18-0e9b7b7 (Build time: Dec 23 2015 - 19:33:09)
DRAM: 2 GiB
Init PHY complete!
NAND: 1024 MiB
Flash: 8 MiB
SETMAC: Setmac operation was performed at 2016-01-19 15:43:45 (version: 11.0)
Press Ctrl+C to enter Boot Menu
Bootloader: Done loading app on coremask: 0xf
Starting Devices Initializations... [ ok ]
```

press CTRL+C to enter boot mode

Wait around 3 minutes without performing any operation. After a successful start, the message "**Press RETURN to get started**" is displayed.

Press **Enter** to display the CLI. **In VSU mode, the startup time increases because extra time is needed for VSU convergence.** The startup time is about 6 minutes if a chain VSU topology is used, and the startup time is shorter when a ring VSU topology is used.

Console Management

Building the
configuration
environment

Starting the device

Managing the device

Upon the first startup, the switch supports CLI management only through the Console port. After the subsequent basic configurations are performed, the switch supports Telnet/SSH remote login.

The command line interface (CLI) is a text command interaction interface between users and the switch. You can configure and manage the switch or display the outputs to verify the configurations by typing in text commands and pressing **Enter** to execute the commands.

Introduction to the CLI EXEC mode:

Ruijie> //User EXEC mode: Use limited commands to display related configurations.

Ruijie>en

Ruijie# //Privileged EXEC mode: Use commands to display system information, manage files, restart the device, debug the device, and so on.

Ruijie#config

Enter configuration commands, one per line. End with CNTL/Z.

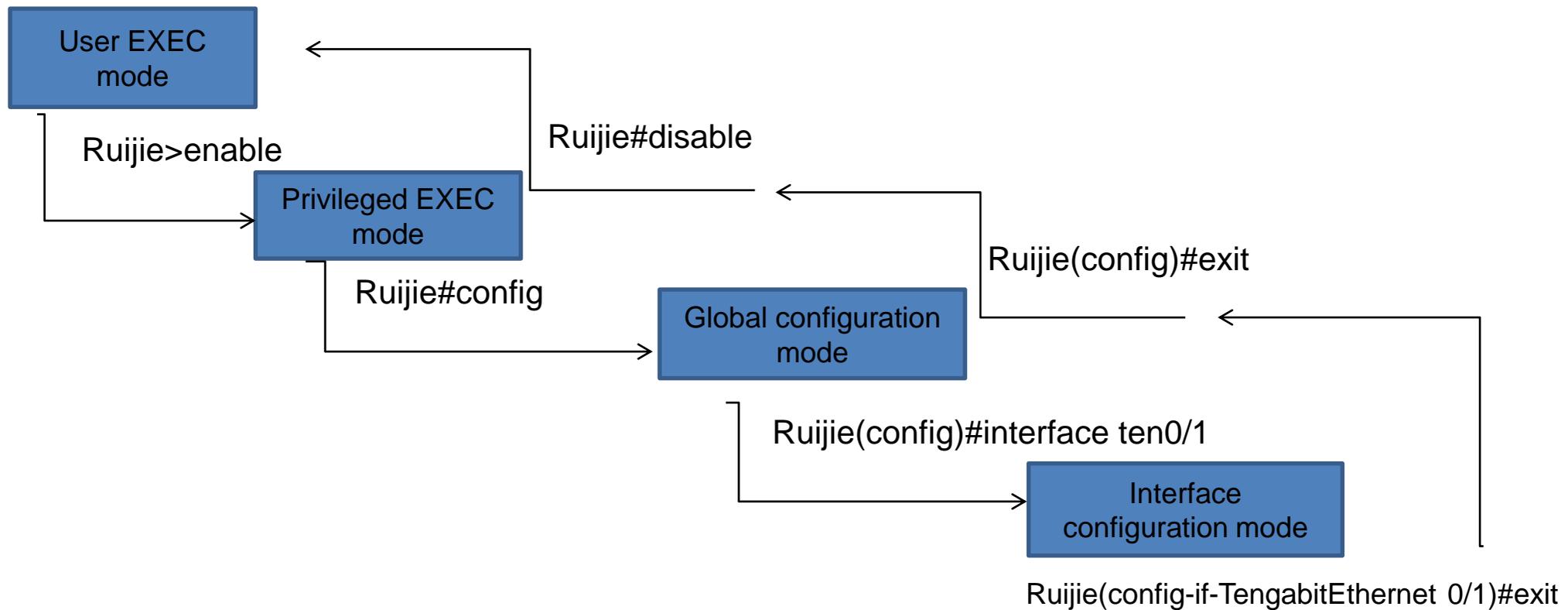
Ruijie(config)# //Global configuration mode: Use commands to configure various parameters.

At the command prompt, you can enter a question mark (?) to list the commands available for each command mode.

Console Management



Switching between different CLI modes



Console Management

Building the configuration environment

Starting the device

Managing the device

At the command prompt, you can enter a question mark (?) to list the commands available for each command mode.

Common commands are listed as follows:

```
Ruijie#show version /show version slots / show cpu /show memory /show interface status /show ip route /show arp /show fan / show power /show temperature....
```

```
Ruijie#show run //Display the current configurations.
```

```
Ruijie(config-if-GigabitEthernet 1/1)#show this //New function, which is used to display the configuration of the current interface.
```

```
Ruijie#wr //Save the configuration file.
```

```
Ruijie#ping 8.8.8.8 //Conduct a ping test on the device.
```

```
Ruijie#traceroute 8.8.8.8 //Conduct a traceroute test on the device.
```

```
Ruijie#telnet 192.168.3.254 //Log in to another device from the local device through Telnet.
```

```
Ruijie#debug ip icmp //Diagnose functions of the device.
```

Configuring Remote Telnet Management

Building the configuration environment

Starting the device

Managing the device

Configuring Remote Telnet Management



```
Ruijie#config terminal
Ruijie(config)#vlan 100 //Create a management VLAN based on your network plan.
Ruijie(config-vlan)#name mgt-vlan
Ruijie(config-vlan)#exit
Ruijie(config)#interface vlan 100
Ruijie(config-if-VLAN 100)#ip address 10.10.10.2 255.255.255.0 //Configure an IP address for the
management VLAN.
Ruijie(config-if-VLAN 100)#exit
Ruijie(config)#ip route 0.0.0.0 0.0.0.0 10.10.10.1 //Configure a static default route.

Ruijie(config)#enable secret ruijie //Configure the enable password.
Ruijie(config)#line vty 0 32
Ruijie(config-line)#password ruijie //Configure the Telnet login password.
Ruijie(config-line)#login
Ruijie(config-line)#exit
```

More Configurations

Building the
configuration
environment

Starting the device

Managing the device

The preceding contents are fundamentals for configuration of a switch.

For details about function configurations and application in various scenarios, see the following documents:

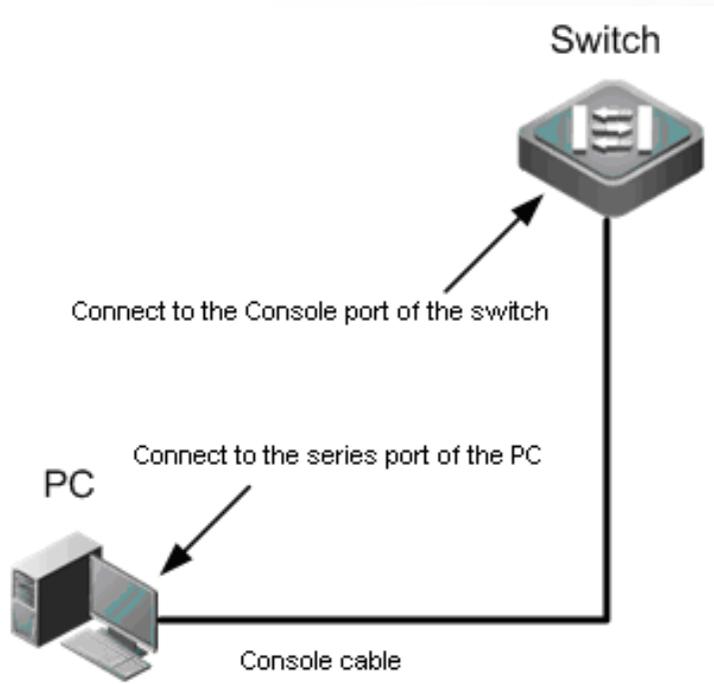
RG-S6220-H Series Switches RGOS 11.0(5)B4 Configuration Guide

RG-S6220-H Series Switches RGOS 11.0(5)B4 Command Reference

Contents

- Hardware Installation
- Switch Management
- Software Upgrade

Switch Upgrade Methods



1. **Onsite upgrade using a USB flash drive** Most common, simple, and reliable upgrade method
2. **FTP remote upgrade** Recommended when engineers cannot go to the site
3. **TFTP remote upgrade** Simple but the file transfer speed is lower than that in FTP mode
4. **U-boot maintenance upgrade** (Not commonly used and may be needed in case of an upgrade failure. This document does not describe this upgrade method. For details about this method, see the cookbook.)

Upgrade the system in any of the following cases:

1. New functions are added in the new version to meet new requirements.
2. Existing bugs need to be fixed.
3. The latest official release version for deployment should be used to implement a new project.

Caution: You are advised to enable the logging on (global configuration mode) and terminal monitor (privileged EXEC mode) functions before a remote upgrade, so that you can view log information about the entire upgrade process.

Onsite Upgrade Using a USB Flash Drive

Prepare

Upgrade

Verify

Preparations:

- Run the **show version detail** command to display the current software version (**system software number** field in the command output).
- Verify the target software package for the upgrade. (View the release notes of the software. If you have any questions, call the customer service hotline.)
- Copy the target software package from the computer to the root directory (recommended) of a USB flash drive.
- Connect the USB flash drive to the USB port of the supervisor engine of the switch. The switch will then identify the USB flash drive automatically.

Note: Before removing the USB flash drive from the switch, run the **show usb** command to view the USB ID, and then run the **usb remove xx** command to unload the USB flash drive (**applicable only to the FAT system, not to the NTFS system**).



Onsite Upgrade Using a USB Flash Drive

Prepare

Upgrade

Verify

1. On the CLI, run the upgrade command.

Ruijie#dir usb0:Check whether the upgrade file exists on the USB flash drive.

Ruijie#**upgrade** usb0:/xxxxx_install.bin (xxxx_install.bin is the upgrade file copied to the USB flash drive.)

2. Wait until the upgrade progress reaches 100%, or run the show upgrade status command to check the upgrade progress.

```
*Nov 27 19:29:03: %7: [slot 0]:Reload system to take effect!
*Nov 27 19:29:04: %7:
*Nov 27 19:29:04: %7: [slot 0]:Upgrade processing is 100%
*Nov 27 19:29:05: %7: [slot 0]
*Nov 27 19:29:05: %7:   device_name: s6k
*Nov 27 19:29:05: %7:   status:      SUCCESS

Ruijie#
Ruijie#
Ruijie#show upgrade status
[slot 0]
  dev_type: s6k
  status  : success
Ruijie#
```

3. Wait until log information shows that the upgrade process reaches 100% and the result is success, and then run the reload command to restart the switch. (The entire upgrade process generally takes 2 minutes and does not affect services. This operation upgrades the flash file, but the earlier version still runs on the memory.) After the switch restarts, the new version runs.

Onsite Upgrade Using a USB Flash Drive

Prepare

Upgrade

Verify

1. Wait until the switch restarts successfully.
2. Run the show version detail command to display the upgrade result.

```
Ruijie#show version detail
System description      : Ruijie Full 10G Routing Switch(S6220-48XS6QXS-H) By Ruijie Networks
System start time      : 2016-04-05 17:58:11
System uptime          : 0:00:05:41
System hardware version : 1.00
System software version : S6220_RGOS 11.0(5)B4
System patch number     : NA
System software number  : M23450803312016
System serial number    : 1234942570027
System boot version     : 1.2.18.0e9b7b7(151223)
System core version     : 2.6.32.655fb1f709a72a
System cpu partition    : 2-3
Module information:
  slot 0 : RG-S6220-48XS6QXS-H
    Hardware version    : 1.00
    System start time   : 2016-04-05 17:58:11
    Boot version        : 1.2.18.0e9b7b7(151223)
    Software version    : S6220_RGOS 11.0(5)B4
    Software number     : M23450803312016
    Serial number       : 1234942570027
```

Onsite Upgrade Using a USB Flash Drive

The complete upgrade procedure and associated logs are as follows:

1. Connect the USB flash drive saving the installation package to the USB port of the switch.

2. Check whether a bin file exists on the USB flash drive.

```
Ruijie#dir usb0:/
```

```
Directory of usb0:/
```

```
Number Properties Size Time Name
```

```
-----
```

```
1 -rwx 141.7M Mon Apr 18 10:10:12 2016 PJ16.bin
```

3. Run the upgrade command to upgrade the system software.

```
Ruijie#upgrade usb0:/PJ16.bin
```

```
Ruijie#*Apr 18 10:14:13:%7:
```

```
*Apr 18 10:14:13:%7:[Slot 0]:Upgrade processing is 10%
```

```
*Apr 18 10:22:16:%7:
```

```
*Apr 18 10:22:16:%7:[Slot 0]:Upgrade processing is 60%
```

```
*Apr 18 10:24:36:%7:
```

```
*Apr 18 10:24:36:%7:[Slot 0]:Upgrade processing is 90%
```

```
*Apr 18 10:24:36:%7:
```

```
*Apr 18 10:24:36:%7:[Slot 0]:
```

```
*Apr 18 10:24:36:%7:Upgrade info [OK]
```

```
*Apr 18 10:24:37:%7:Kernel version[2.6.32.41bec2049da2ca->2.6.32.8e259aa49da2ca]
```

```
*Apr 18 10:24:37:%7:Rootfs version[1.0.0.860100ec->1.0.0.cc38c30e]
```

```
*Apr 18 10:24:37:%7:
```

```
*Apr 18 10:24:37:%7:[Slot 0]:Reload system to take effect!
```

```
*Apr 18 10:24:38:%7:
```

```
*Apr 18 10:24:38:%7:[Slot 0]:Upgrade processing is 100%
```

```
*Apr 18 10:24:39:%7:%PKG_MGMT:auto-sync config synchronization, Please wait for a moment....
```

```
*Apr 18 10:24:39:%7:[Slot 0]
```

```
*Apr 18 10:24:39:%7:device_name:s6k
```

```
*Apr 18 10:24:39:%7:status:SUCCESS << The upgrade succeeded.
```

Onsite Upgrade Using a USB Flash Drive

4. Check the upgrade status.

```
Ruijie#show upgrade status  
[Slot 0]
```

```
    dev_type:s6k  
    status : success
```

5. Restart the switch.

```
Ruijie#reload  
Reload system?(Y/N)y
```

6. After the restart, verify the software version. The upgrade process is completed.

```
Ruijie#show version detail
```

```
System description   : Ruijie Full 10G Routing Switch(S6220-48XS6QXS-H) By Ruijie Networks
```

```
System start time    : 2016-04-18 10:27:06
```

```
System uptime        : 0:00:15:48
```

```
System hardware version : 1.19
```

```
System software version : S6220_RGOS 11.0(5)B6
```

```
System patch number   : NA
```

```
System software number : M05444404172016 <== The last eight digits 04172016 indicate that this version was  
released on April 17, 2016. Determine whether it is the expected version.
```

```
System serial number  : 1234942570024
```

```
System boot version   : 1.2.19.746c2aa(160408)
```

```
System core version   : 2.6.32.8e259aa49da2ca
```

```
System cpu partition  : 2-3
```

```
Module information:
```

```
Slot 0 : RG-S6220-48XS6QXS-H
```

```
Hardware version     : 1.19
```

```
System start time    : 2016-04-18 10:27:06
```

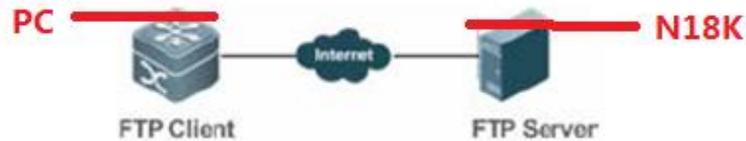
```
Boot version         : 1.2.19.746c2aa(160408)
```

```
Software version     : S6220_RGOS 11.0(5)B6
```

```
Software number      : M05444404172016
```

```
Serial number        : 1234942570024
```

FTP Upgrade



1. Enable the FTP server on the switch, and specify the USB0 root directory as the FTP root directory.

The reference commands are as follows:

```
Ruijie(config)#ftp-server username admin
```

```
Ruijie(config)#ftp-server password ruijie
```

```
Ruijie(config)#ftp-server topdir usb0:/
```

```
Ruijie(config)#ftp-server timeout 300
```

```
Ruijie(config)#ftp-server enable
```

--->> The USB flash drive must be connected to the switch in advance.

2. The local PC serves as the FTP client. Start the client software (such as FlashFTP) and connect to the FTP server. (Ensure that the PC can communicate properly with the S6220-H switch).

3. Use the FTP client software on the PC to upload the upgrade file to the FTP server.

4. Run the upgrade command. (The subsequent steps and methods are the same as those in the USB upgrade mode.)

Summary:

The only difference between the FTP and USB onsite upgrade modes lies in the file transfer method. In FTP upgrade mode, the upgrade file is transferred to the remote device through FTP (remote upgrade). In USB onsite upgrade mode, the upgrade file is directly copied from a PC to the USB flash drive.

The subsequent upgrade method is the same. That is, run the upgrade command to update the file and then restart the switch to finish the upgrade.

FTP Upgrade

The complete upgrade procedure and associated logs are as follows:

1. Connect the USB flash drive to the switch.

```
Ruijie#[ 2776.314240] sd 1:0:0:0:[sda] Assuming drive cache:write through
USB-5-USB_DISK_FOUND:USB Disk [sda] has been inserted to USB port.
USB-5-USB_DISK_FOUND:USB Disk [sda1] has been inserted to USB port.
usb-5-usb_DISK_PARTITION_MOUNT:Mount usb ,size : 554.9M
```

```
Ruijie#dir usb0:/ <<== Verify that the USB flash drive has been installed.
```

```
Directory of usb0:/
```

```
Number Properties Size Time Name
```

```
-----
```

```
0 files, 0 directories
```

```
581,853,184 bytes total (581,849,088 bytes free)
```

2. Enable the FTP server on the switch, and specify the USB0 root directory as the FTP root directory.

The reference commands are as follows:

```
Ruijie(config)#int vlan 1
```

```
Ruijie(config-if-VLAN 1)#ip add 192.168.204.151 24
```

```
*Apr 18 10:55:40:%LINEPROTO-5-UPDOWN:Line protocol on Interface VLAN 1, changed state to up.
```

```
Ruijie(config-if-VLAN 1)#exit
```

```
Ruijie(config)#ftp-server username admin
```

```
Ruijie(config)#ftp-server password ruijie
```

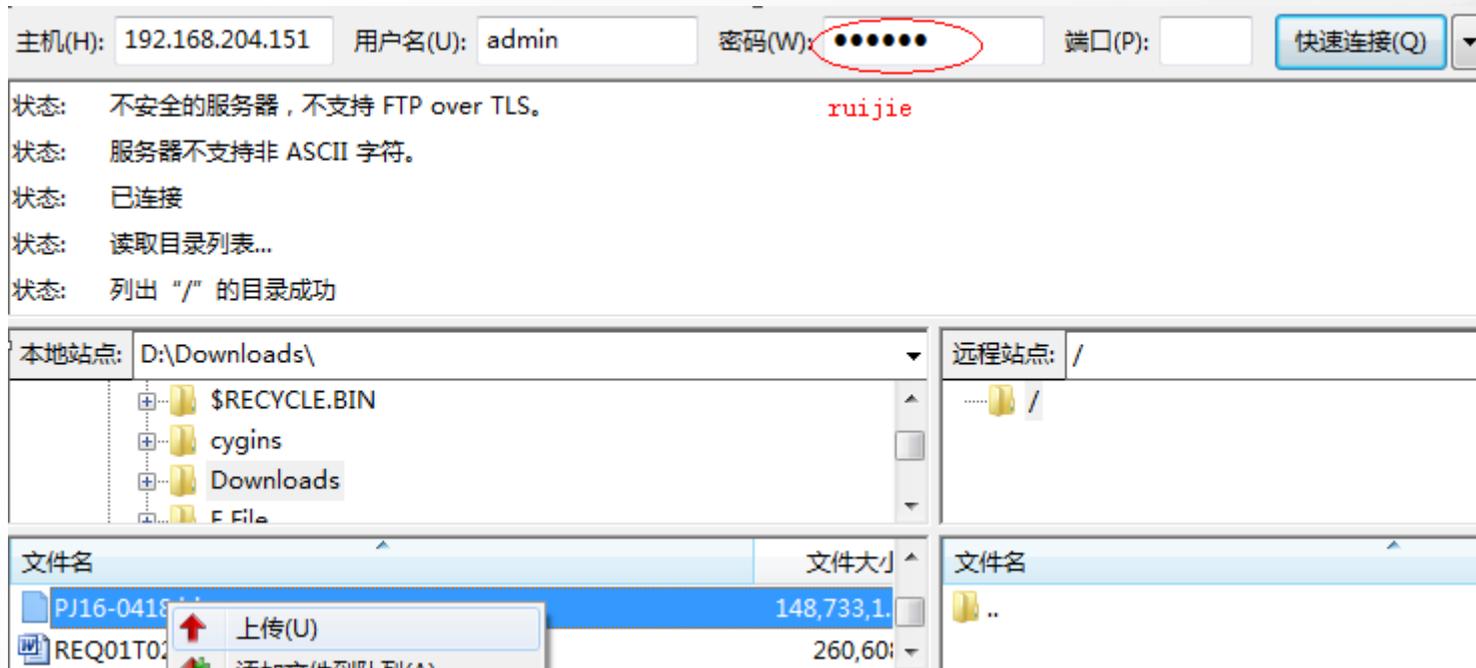
```
Ruijie(config)#ftp-server topdir usb0:/
```

```
Ruijie(config)#ftp-server timeout 300
```

```
Ruijie(config)#ftp-server enable
```

FTP Upgrade

3. The local PC serves as the FTP client. Start the client software (such as FlashFTP) and connect to the FTP server. (Ensure that the PC can communicate properly with the S6220-H switch).
4. Use the the FTP client software on the PC to upload the upgrade file to the FTP server.



5. Verify that the upgrade file has been uploaded to the switch successfully.

```
Ruijie#dir usb0:/
```

```
Directory of usb0:/
```

Number	Properties	Size	Time	Name
1	-rwx	141.8M	Mon Apr 18 11:11:26 2016	PJ16-0418.bin

successfully uploaded.

1 file, 0 directories

581,853,184 bytes total (433,115,136 bytes free)

<<==The upgrade file has been

FTP Upgrade

6. Run the upgrade command to upgrade the system software.

```
Ruijie#upgrade usb0:/PJ16-0418.bin
Ruijie#*Apr 18 11:14:13:%7:
*Apr 18 11:14:13:%7:[Slot 0]:Upgrade processing is 10%
*Apr 18 11:22:16:%7:
*Apr 18 11:22:16:%7:[Slot 0]:Upgrade processing is 60%
*Apr 18 11:24:36:%7:
*Apr 18 11:24:36:%7:[Slot 0]:Upgrade processing is 90%
*Apr 18 11:24:36:%7:
*Apr 18 11:24:36:%7:[Slot 0]:
*Apr 18 11:24:36:%7:Upgrade info [OK]
*Apr 18 11:24:37:%7:Kernel version[2.6.32.46c332a49da2ca->2.6.32.41bec2049da2ca]
*Apr 18 11:24:37:%7:Rootfs version[1.0.0.7decc271->1.0.0.860100ec]
*Apr 18 11:24:37:%7:
*Apr 18 11:24:37:%7:[Slot 0]:Reload system to take effect!
*Apr 18 11:24:38:%7:
*Apr 18 11:24:38:%7:[Slot 0]:Upgrade processing is 100%
*Apr 18 11:24:39:%7:%PKG_MGMT:auto-sync config synchronization, Please wait for a moment....
*Apr 18 11:24:39:%7:[Slot 0]
*Apr 18 11:24:39:%7:device_name:s6k
*Apr 18 11:24:39:%7:status:SUCCESS << The upgrade succeeded.
```

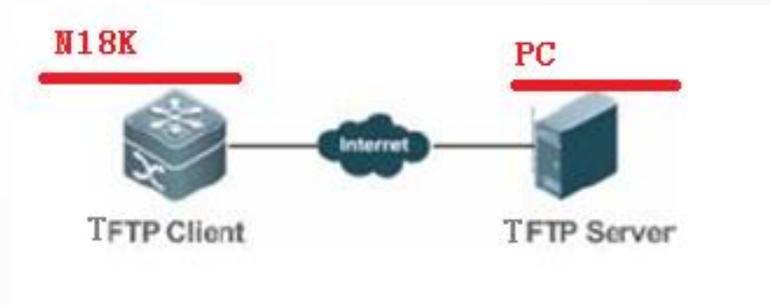
7. Check the upgrade status.

```
Ruijie#show upgrade status
[Slot 0]
  dev_type:s6k
  status : success
```

8. Restart the switch.

```
Ruijie#reload
Reload system?(Y/N)y
```

TFTP Upgrade



1. Enable the TFTP server on the PC and specify the directory of the upgrade file. Ensure that the PC can communicate properly with the S6220-H switch.
2. The S6220-H switch serves as the TFTP client. Copy the upgrade file to the USB flash drive or the **tmp** directory. (Note that file copied to the **tmp** directory will be lost after a reboot of the switch.)
Ruijie#copy tftp://192.168.1.1/S6220_RGOS11.0(5)B4_install.bin **usb0:/S6220_install.bin**
3. Run the upgrade command. (The subsequent steps and methods are the same as those in the USB upgrade mode.)

Summary:

The only difference between the TFTP and USB onsite upgrade modes lies in the file transfer method. In TFTP upgrade mode, the upgrade file is transferred to the remote device through TFTP (remote upgrade). In USB onsite upgrade mode, the upgrade file is directly copied from a PC to the USB flash drive.

The subsequent upgrade method is the same. That is, run the upgrade command to update the file and then restart the switch to finish the upgrade.

The TFTP mode transfers files slower than the FTP mode, because FTP uses the TCP protocol for file transfer whereas TFTP uses the UDP protocol. The TFTP mode is easier to use than the FTP mode.

FTP Upgrade

4. Run the upgrade command to upgrade the system software.

```
Ruijie#upgrade usb0:/PJ16-0418.bin
Ruijie#*Apr 18 11:34:13:%7:
*Apr 18 11:34:13:%7:[Slot 0]:Upgrade processing is 10%
*Apr 18 11:42:16:%7:
*Apr 18 11:42:16:%7:[Slot 0]:Upgrade processing is 60%
*Apr 18 11:44:36:%7:
*Apr 18 11:44:36:%7:[Slot 0]:Upgrade processing is 90%
*Apr 18 11:44:36:%7:
*Apr 18 11:44:36:%7:[Slot 0]:
*Apr 18 11:44:36:%7:Upgrade info [OK]
*Apr 18 11:44:37:%7:Kernel version[2.6.32.46c332a49da2ca->2.6.32.41bec2049da2ca]
*Apr 18 11:44:37:%7:Rootfs version[1.0.0.7decc271->1.0.0.860100ec]
*Apr 18 11:44:37:%7:
*Apr 18 11:44:37:%7:[Slot 0]:Reload system to take effect!
*Apr 18 11:44:38:%7:
*Apr 18 11:44:38:%7:[Slot 0]:Upgrade processing is 100%
*Apr 18 11:44:39:%7:%PKG_MGMT:auto-sync config synchronization, Please wait for a moment....
*Apr 18 11:44:39:%7:[Slot 0]
*Apr 18 11:44:39:%7:device_name:s6k
*Apr 18 11:44:39:%7:status:SUCCESS << The upgrade succeeded.
```

5. Check the upgrade status.

```
Ruijie#show upgrade status
[Slot 0]
  dev_type:s6k
  status : success
```

6. Restart the switch.

```
Ruijie#reload
Reload system?(Y/N)y
```

THANKS

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