



Hewlett Packard
Enterprise

HPE 5120v3-CMW710-R6352P02 Release Notes

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Introduction

This document describes the features, restrictions and guidelines, open problems, and workarounds for version HPE 5120v3-CMW710-R6352P02. Before you use this version on a live network, back up the configuration and test the version to avoid software upgrade affecting your live network.

Use this document in conjunction with the documents listed in "[Related documents](#)."

Version information

Version number

HPE Comware Software, Version 7.1.070, Release 6352P02

Note: You can see the version number with the command **display version** in any view. Please see [Note①](#).

Version history

Table 1 Version history

Version number	Last version	Release date	Release type	Remarks
5120v3-CMW710-R6352P02	First release	2023-05-18	Release version	First release

Hardware and software compatibility matrix

CAUTION:

To avoid an upgrade failure, use [Table 2](#) to verify the hardware and software compatibility before performing an upgrade.

Table 2 Hardware and software compatibility matrix

Item	Specifications
Product family	5120v3 Series
Hardware platform	HPE NW CW 5120v3 8G PoE+ 2 SFP Sw S0F79A
Memory	512M
Flash	256M
Boot ROM version	Version 151 or higher (Note: Use the display version command in any view to view the version information. Please see Note②)
Software images and their MD5 checksums	5120v3-CMW710-R6352P02.ipe(See the MD5 file)
Remarks	N/A

Display the system software and Boot ROM versions of 5120v3

```

<HPE>display version
HPE Comware Software, Version 7.1.070, Release 6352P02  -----Note①
Copyright (c) 2010-2023 Hewlett Packard Enterprise Development LP
HPE NW CW 5120v3 8G PoE+ 2 SFP Sw uptime is 0 weeks, 0 days, 0 hours, 2 minutes
Last reboot reason : Cold reboot

Boot image: flash:/5120v3-cmw710-boot-r6352p02.bin
Boot image version: 7.1.070, Release 6352P02
  Compiled May 11 2023 11:00:00
System image: flash:/5120v3-cmw710-system-r6352p02.bin
System image version: 7.1.070, Release 6352P02
  Compiled May 11 2023 11:00:00

Slot 1:
Uptime is 0 weeks,0 days,0 hours,2 minutes
NW CW 5120v3 8G PoE+ 2 SFP Sw with 1 Processor
BOARD TYPE:      NW CW 5120v3 8G PoE+ 2 SFP Sw
DRAM:            512M bytes
FLASH:           256M bytes
PCB 1 Version:   VER.A
Bootrom Version: 151  -----Note②
CPLD 1 Version:  001
Release Version: HPE NW CW 5120v3 8G PoE+ 2 SFP Sw S0F79A-6352P02
Patch Version   : None
Reboot Cause    : ColdReboot
[SubSlot 0] 8GE+2SFP

```

Upgrade restrictions and guidelines

Before performing a software upgrade, it is important to refer to the *Software Feature Changes* document for any feature changes in the new version. Also check the most recent version of the related documents (see "[Related documents](#)") available on the HPE website for more information about feature configuration and commands.

Hardware feature updates

5120v3-CMW710-R6352P02

First release.

Software feature and command updates

None.

MIB updates

Table 3 MIB updates

Item	MIB file	Module	Description
5120v3-CMW710-R6352P02			
New	First release	First release	First release
Modified	First release	First release	First release

Operation changes

Operation changes in R6352P02

First release.

Restrictions and cautions

Before performing a software upgrade, it is important to refer to the *Software Feature Changes* document for any feature changes in the new version. Also check the most recent version of the related documents (see "[Related documents](#)") available on the HPE website for more information about feature configuration and commands.

When you use this version of software, make sure you fully understand the restrictions and cautions described in this section.

Restrictions

Release 6352P02 must use BootROM 151 or a later version.

If data packets are assigned to queue 7 and the scheduling algorithm is SP, all packets sent from the CPU are affected.

To avoid false alarms, make sure the statistics collection and comparison interval for CRC error packets configured in the **ifmonitor crc-error** command is greater than 15 seconds.

Cautions

None.

Open problems and workarounds

None.

List of resolved problems

Resolved problems in R6352P02

First release.

Support and other resources

Accessing Hewlett Packard Enterprise Support

- For live assistance, go to the Contact Hewlett Packard Enterprise Worldwide website:
www.hpe.com/assistance
- To access documentation and support services, go to the Hewlett Packard Enterprise Support Center website:
www.hpe.com/support/hpesc

Information to collect:

- Technical support registration number (if applicable).
- Product name, model or version, and serial number.
- Operating system name and version.
- Firmware version.
- Error messages.
- Product-specific reports and logs.
- Add-on products or components.
- Third-party products or components.

Documents

To find related documents, see the Hewlett Packard Enterprise Support Center website at <http://www.hpe.com/support/hpesc>.

- Enter your product name or number and click **Go**. If necessary, select your product from the resulting list.
- For a complete list of acronyms and their definitions, see HPE FlexNetwork technology acronyms.

Related documents

The following documents provide related information:

- HPE Networking Comware 5120v3 Switch Series Configuration Guides-R63xx
- HPE Networking Comware 5120v3 Switch Series Command References-R63xx
- HPE Networking Comware 5120v3 Switch Series Installation Guide

Documentation feedback

Hewlett Packard Enterprise is committed to providing documentation that meets your needs. To help us improve the documentation, send any errors, suggestions, or comments to Documentation Feedback (docsfeedback@hpe.com). When submitting your feedback, include the document title, part number, edition, and publication date located on the front cover of the document. For online help content, include the product name, product version, help edition, and publication date located on the legal notices page.

Appendix A Feature list

Hardware features

Table 4 5120v3 series hardware features

Item	NW CW 5120v3 8G PoE+ 2 SFP Sw
Dimensions (H × W × D)	43.6 × 330 × 230 mm (1.72 × 12.99 × 9.06 in)
Weight	≤ 3 kg (6.61 lb)
Console port	1 × serial console port
10/100/1000B ASE-T autosensing Ethernet port	8
SFP port	2
Input voltage	Rated voltage: 100 VAC to 240 VAC @ 50 or 60 Hz Max voltage: 90 VAC to 264 VAC @ 47 to 63 Hz
Maximum PoE power per port	30 W
Total PoE power	125 W
Minimum power consumption	10W
Maximum power consumption	155W
Chassis leakage current compliance	UL60950-1/EN60950-1/IEC60950-1/GB4943
Melting current of power module fuse	6.3 A/250 V
Cooling system	Natural cooling without fan trays
Operating temperature	-5° C ~ 45° C (23°F to 113°F)
Operating humidity	5% to 95%, noncondensing
Fire resistance compliance	UL60950-1/EN60950-1/IEC60950-1/GB4943

Software features

Table 5 Software features of the 5120v3 series

Feature	5120v3 series switch
IRF	<ul style="list-style-type: none"> • Ring topology • Daisy chain topology • LACP MAD • ARP MAD
Link aggregation	<ul style="list-style-type: none"> • Aggregation of 1-GE ports • Static link aggregation • Dynamic link aggregation • Inter-device aggregation • A maximum of 14 aggregation groups on a device • A maximum of 124 inter-device aggregation groups • A maximum of 8 ports for each aggregation group
Flow control	<ul style="list-style-type: none"> • IEEE 802.3x flow control
Jumbo Frame	<ul style="list-style-type: none"> • Supports maximum frame size of 10000
MAC address table	<ul style="list-style-type: none"> • 16K MAC addresses • 1K static MAC addresses • Blackhole MAC addresses • MAC address learning limit on a port
VLAN	<ul style="list-style-type: none"> • Port-based VLANs (4094 VLANs) • QinQ • VLAN mapping
ARP	<ul style="list-style-type: none"> • 1K entries • 512 static entries • Gratuitous ARP • ARP black hole • ARP detection (based on DHCP snooping entries/802.1X security entries/static IP-to-MAC bindings) • ARP source suppression
ND	<ul style="list-style-type: none"> • 240 entries • 128 static entries
VLAN virtual interface	<ul style="list-style-type: none"> • 32
DHCP	<ul style="list-style-type: none"> • DHCP client • DHCP snooping • DHCP relay • DHCP server • DHCPv6 Server • DHCPv6 relay • DHCPv6 snooping
UDP Helper	<ul style="list-style-type: none"> • UDP Helper
DNS	<ul style="list-style-type: none"> • Static DNS • Dynamic DNS • IPv4 and IPv6 DNS
unicast route	<ul style="list-style-type: none"> • IPv4 and IPv6 static routes • RIP/RIPng

	<ul style="list-style-type: none"> • OSPF/OSPFv3 • Routing policies • Policy-based routing • IPv6 policy-based routing
Multicast	<ul style="list-style-type: none"> • IGMP snooping • PIM Snooping • MLD snooping • IPv4 and IPv6 multicast VLAN • IPv6 PIM Snooping
Broadcast/multicast/unicast storm control	<ul style="list-style-type: none"> • Storm control based on port rate percentage • PPS-based storm control • Bps-based storm control
MSTP	<ul style="list-style-type: none"> • STP/RSTP/MSTP protocol • STP Root Guard • BPDU Guard • 128 PVST instances
QoS/ACL	<ul style="list-style-type: none"> • Remarking of 802.1p and DSCP priorities • Packet filtering at L2 (Layer 2) through L4 (Layer 4) • Eight output queues for each port • SP/WRR/SP+WRR queue scheduling algorithms • Port-based rate limiting • Flow-based redirection • Time range
Mirroring	<ul style="list-style-type: none"> • Stream mirroring • Port mirroring
Security	<ul style="list-style-type: none"> • Hierarchical management and password protection of users • AAA authentication • RADIUS authentication • HWTACACS • LDAP • SSH 2.0 • Port isolation • 802.1X • Portal • Port security • MAC-address-based authentication • IP Source Guard • HTTPS • PKI • IPsec • EAD • Public key management
802.1X	<ul style="list-style-type: none"> • Up to 2K users • Port-based and MAC address-based authentication • Trunk port authentication • Dynamic 802.1X-based QoS/ACL/VLAN assignment
Loading and upgrading	<ul style="list-style-type: none"> • Loading and upgrading through XModem protocol • Loading and upgrading through FTP • Loading and upgrading through the trivial file transfer protocol (TFTP)

Management	<ul style="list-style-type: none"> • Configuration at the command line interface • Remote configuration through Telnet • Configuration through Console port • Simple network management protocol (SNMP) • Remote Monitoring(RMON) • IMC NMS • System log • Hierarchical alarms • NTP • Power supply alarm function • Fan and temperature alarms
Maintenance	<ul style="list-style-type: none"> • Debugging information output • Ping and Tracert • Remote maintenance through Telnet • NQA • 802.1ag • 802.3ah • DLDP • Virtual Cable Test

Appendix B Upgrading software

This chapter describes types of software used on the switch and how to upgrade software while the switch is operating normally or when the switch cannot correctly start up.

System software file types

Software required for starting up the switch includes:

- **Boot ROM image**—A .bin file that comprises a basic section and an extended section. The basic section is the minimum code that bootstraps the system. The extended section enables hardware initialization and provides system management menus. You can use these menus to load software and the startup configuration file or manage files when the switch cannot correctly start up.
- **Software images**—Includes boot images and system images.
 - **Boot image**—A .bin file that contains the operating system kernel. It provides process management, memory management, file system management, and the emergency shell.
 - **System image**—A .bin file that contains the minimum modules required for device operation and some basic features, including device management, interface management, configuration management, and routing management.

The software images that have been loaded are called “current software images.” The software images specified to load at next startup are called “startup software images.”

These images might be released separately or as a whole in one .ipe package file. If an .ipe file is used, the system automatically decompresses the file, loads the .bin boot and system images in the file and sets them as startup software images. Typically, the Boot ROM and software images for this switch series are released in an .ipe file named **main.ipe**.

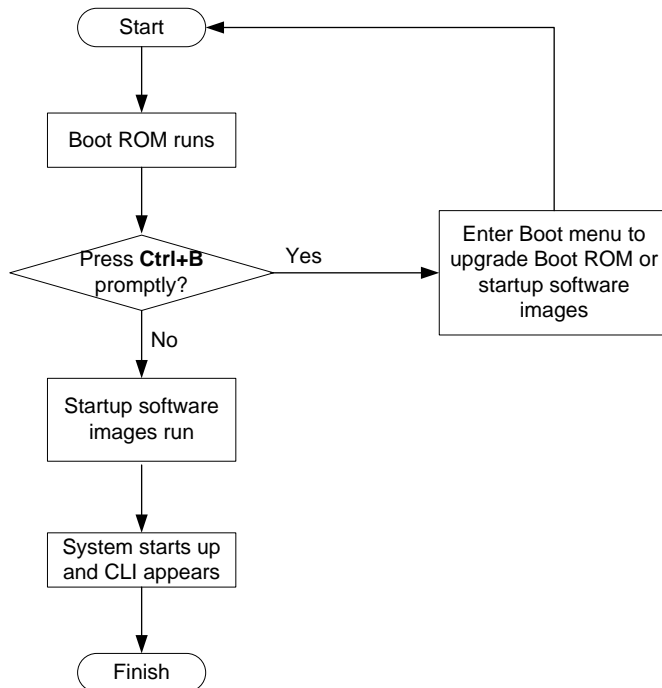
NOTE:

Boot ROM images are not released along with the boot images and system images. To get a version of Boot ROM image, contact the H3C technical support.

System startup process

Upon power-on, the Boot ROM image runs to initialize hardware and then the software images run to start up the entire system, as shown in [Figure 1](#).

Figure 1 System startup process



Upgrade methods

You can upgrade system software by using one of the following methods:

Upgrading method	Software types	Remarks
Upgrading from the CLI	<ul style="list-style-type: none"> Boot ROM image Software images 	<ul style="list-style-type: none"> You must reboot the switch to complete the upgrade. This method can interrupt ongoing network services.
Upgrading from the Boot menu	<ul style="list-style-type: none"> Boot ROM image Software images 	<p>Use this method when the switch cannot correctly start up.</p> <p>CAUTION:</p> <p>Upgrading an IRF fabric from the CLI instead of the Boot menu.</p> <p>The Boot menu method increases the service downtime, because it requires that you upgrade the member switches one by one.</p>

The output in this document is for illustration only and might vary with software releases. This document uses boot.bin and system.bin to represent boot and system image names. The actual software image name format is *chassis-model_Comware-version_image-type_release*, for example, 5120v3-CMW710-BOOT-R6352P02.bin and 5120v3-CMW710-SYSM-R6352P02.bin.

Preparing for the upgrade

Verifying device status

1. Verify that the system state, redundancy state, and state of each slot are stable.

```
<Sysname> display system stable state
```

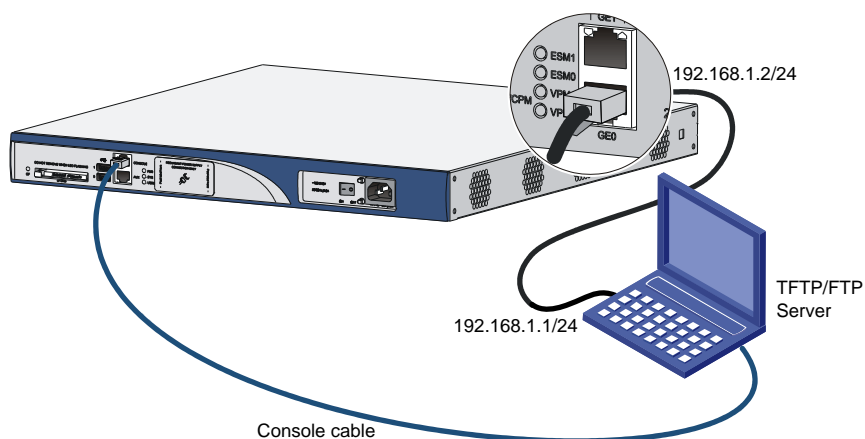
System state	:	Stable	
Redundancy state	:	No redundancy	
Slot	CPU	Role	State
1	0	Active	Stable
2. If the device is unstable, use the following commands to troubleshoot the issue:
 - Use the **display device** command to verify that the device is operating correctly.
 - Use the **display ha service-group** command to verify that bulk backup has been finished for all modules.
 - Use the **display system internal process state** command in probe view to verify that services are running correctly.
3. If a slot persists in unstable state or there are other unrecoverable issues, contact the technical support.

Setting up the upgrade environment

Before you upgrade system software, complete the following tasks:

- Set up the upgrade environment as shown in [Figure 2](#).
- Configure routes to make sure that the router and the file server can reach each other.
- Run a TFTP or FTP server on the file server.
- Log in to the CLI of the router through the console port.
- Copy the upgrade file to the file server and correctly set the working directory on the TFTP or FTP server.
- Make sure that the upgrade has minimal impact on the network services. During the upgrade, the router cannot provide any services.

Figure 2 Setting up the upgrade environment



Upgrading from the CLI

This section uses a two-member IRF fabric as an example to describe how to upgrade software from the CLI. If you have more than two subordinate switches, repeat the steps for the subordinate switch to upgrade their software. If you are upgrading a standalone switch, ignore the steps for upgrading the subordinate switch. For more information about setting up and configuring an IRF fabric, see the installation guide and IRF configuration guide for the HPE 5120v3 switch series.

Preparing for the upgrade

Before you upgrade software, complete the following tasks:

1. Log in to the IRF fabric through Telnet or the console port. (Details not shown.)
2. Identify the number of IRF members, each member switch's role, and IRF member ID.

```
<Sysname> display irf
```

MemberID	Role	Priority	CPU-Mac	Description
*+1	Master	5	0023-8927-afdc	---
2	Standby	1	0023-8927-af43	---

* indicates the device is the master.
+ indicates the device through which the user logs in.

The Bridge MAC of the IRF is: 0023-8927-afdb

Auto upgrade : no
Mac persistent : 6 min
Domain ID : 0

3. Verify that each IRF member switch has sufficient storage space for the upgrade images.

IMPORTANT:

Each IRF member switch must have free storage space that is at least two times the size of the upgrade image file.

Identify the free flash space of the master switch.

```
<Sysname> dir
```

Directory of flash:

0	drw-		-	Jan 01 2013 00:17:27	diagfile
1	drw-		-	Jan 01 2013 00:17:28	license
2	drw-		-	Jan 01 2013 00:17:27	logfile
3	drw-		-	Jan 01 2013 00:17:41	pki
4	-rw-	6161408	Jan 01 2013 00:17:27	boot.bin	
5	-rw-	50729984	Jan 01 2013 00:17:27	system.bin	
6	drw-		-	Jan 01 2013 00:17:27	seclog
7	drw-		-	Jan 01 2013 00:17:49	versionInfo

251904 KB total (192736 KB free)

Identify the free flash space of each subordinate switch, for example, switch 2.

```
<Sysname> dir slot2#flash:/
```

Directory of slot2#flash:/

0	drw-		-	Jan 01 2013 00:17:27	diagfile
1	drw-		-	Jan 01 2013 00:17:28	license

```

2 drw-          - Jan 01 2013 00:17:27  logfile
3 drw-          - Jan 01 2013 00:17:41  pki
4 -rw-      6161408 Jan 01 2013 00:17:27  boot.bin
5 -rw-      50729984 Jan 01 2013 00:17:27  system.bin
6 drw-          - Jan 01 2013 00:17:27  seclog
7 drw-          - Jan 01 2013 00:17:49  versionInfo

```

```
251904 KB total (192736 KB free)
```

4. Compare the free flash space of each member switch with the size of the software file to load. If the space is sufficient, start the upgrade process. If not, go to the next step.
5. Delete unused files in the flash memory to free space:

CAUTION:

- To avoid data loss, do not delete the current configuration file. For information about the current configuration file, use the **display startup** command.
 - The **delete /unreserved file-url** command deletes a file permanently and the action cannot be undone.
 - The **delete file-url** command moves a file to the recycle bin and the file still occupies storage space. To free the storage space, first execute the **undelete** command to restore the file, and then execute the **delete /unreserved file-url** command.
-

Delete unused files from the flash memory of the master switch.

```

<Sysname> delete /unreserved flash:/backup.bin
The file cannot be restored. Delete flash:/backup.bin?[Y/N]:y
Deleting the file permanently will take a long time. Please wait...
Deleting file flash:/backup.bin...Done.

```

Delete unused files from the flash memory of the subordinate switch.

```

<Sysname> delete /unreserved slot2#flash:/backup.bin
The file cannot be restored. Delete slot2#flash:/backup.bin?[Y/N]:y
Deleting the file permanently will take a long time. Please wait...
Deleting file slot2#flash:/backup.bin...Done.

```

Downloading software images to the master switch

Before you start upgrading software images packages, make sure you have downloaded the upgrading software files to the root directory in flash memory. This section describes downloading an .ipe software file as an example.

The following are ways to download, upload, or copy files to the master switch:

- [FTP download from a server](#)
- [FTP upload from a client](#)
- [TFTP download from a server](#)

Prerequisites

If FTP or TFTP is used, the IRF fabric and the PC working as the FTP/TFTP server or FTP client can reach each other.

Prepare the FTP server or TFTP server program yourself for the PC. The switch series does not come with these software programs.

FTP download from a server

You can use the switch as an FTP client to download files from an FTP server.

To download a file from an FTP server, for example, the server at 10.10.110.1:

1. Run an FTP server program on the server, configure an FTP username and password, specify the working directory and copy the file, for example, **newest.ipe**, to the directory.
2. Execute the **ftp** command in user view on the IRF fabric to access the FTP server.

```
<Sysname> ftp 10.10.110.1
Press CTRL+C to abort
Connected to 10.10.110.1(10.10.110.1).
220 FTP service ready.
User (10.10.110.1:(none)):username
331 Password required for username.
Password:
230 User logged in.
```

3. Enable the binary transfer mode.

```
ftp> binary
200 Type is Image (Binary)
```

4. Execute the **get** command in FTP client view to download the file from the FTP server.

```
ftp> get newest.ipe
227 Entering Passive Mode (10,10,110,1,17,97).
125 BINARY mode data connection already open, transfer starting for /newest.ipe
226 Transfer complete.
32133120 bytes received in 35 seconds (896. 0 kbyte/s)
ftp> bye
221 Server closing.
```

FTP upload from a client

You can use the IRF fabric as an FTP server and upload files from a client to the IRF fabric.

To FTP upload a file from a client:

On the IRF fabric:

1. Enable FTP server.

```
<Sysname> system-view
[Sysname] ftp server enable
```

2. Configure a local FTP user account:

Create the user account.

```
[Sysname] local-user abc
```

Set its password and specify the FTP service.

```
[Sysname-luser-manage-abc] password simple pwd
```

```
[Sysname-luser-manage-abc] service-type ftp
```

Assign the **network-admin** user role to the user account for uploading file to the working directory of the server.

```
[Sysname-luser-manage-abc] authorization-attribute user-role network-admin
```

```
[Sysname-luser-manage-abc] quit
```

```
[Sysname] quit
```

On the PC:

3. Log in to the IRF fabric (the FTP server) in FTP mode.

```
c:\> ftp 1.1.1.1
Connected to 1.1.1.1.
220 FTP service ready.
```

```
User(1.1.1.1:(none)):abc
331 Password required for abc.
Password:
230 User logged in.
```

4. Enable the binary file transfer mode.

```
ftp> binary
200 TYPE is now 8-bit binary.
```

5. Upload the file (for example, **newest.ipe**) to the root directory of the flash memory on the master switch.

```
ftp> put newest.ipe
200 PORT command successful
150 Connecting to port 10002
226 File successfully transferred
ftp: 32133120 bytes sent in 64.58 secs (497.60 Kbytes/sec).
```

TFTP download from a server

To download a file from a TFTP server, for example, the server at 10.10.110.1:

1. Run a TFTP server program on the server, specify the working directory, and copy the file, for example, **newest.ipe**, to the directory.
2. On the IRF fabric, execute the **tftp** command in user view to download the file to the root directory of the flash memory on the master switch.

```
<Sysname> tftp 10.10.110.1 get newest.ipe
```

Press CTRL+C to abort.

% Total	% Received	% Xferd	Average Speed	Time	Time	Time	Current
			Dload Upload	Total	Spent	Left	Speed
100 30.6M	0 30.6M	0 0	143k 0	--:--:--	0:03:38	--:--:--	142k

Upgrading the software images

To upgrade the software images:

1. Specify the upgrade image file (**newest.ipe** in this example) used at the next startup for the master switch, and assign the M attribute to the boot and system images in the file.

```
<Sysname> boot-loader file flash:/newest.ipe slot 1 main
```

Verifying the file flash:/newest.ipe on slot 1.....Done.

Images in IPE:

```
boot.bin
```

```
system.bin
```

This command will set the main startup software images. Continue? [Y/N]:y

Add images to slot 1.

Decompressing file boot.bin to flash:/boot.bin.....Done.

Decompressing file system.bin to flash:/system.bin.....Done.

Verifying the file flash:/boot.bin on slot 1...Done.

Verifying the file flash:/system.bin on slot 1.....Done.

The images that have passed all examinations will be used as the main startup software images at the next reboot on slot 1.

2. Specify the upgrade image file as the main startup image file for each subordinate switch. This example uses IRF member 2. (The subordinate switches will automatically copy the file to the root directory of their flash memories.)

```
<Sysname> boot-loader file flash:/newest.ipe slot 2 main
```

Verifying the file flash:/newest.ipe on slot 2.....Done.

Images in IPE:

```

boot.bin
system.bin
This command will set the main startup software images. Continue? [Y/N]:y
Add images to slot 2.
Decompressing file boot.bin to flash:/boot.bin.....Done.
Decompressing file system.bin to flash:/system.bin.....Done.
Verifying the file flash:/boot.bin on slot 2...Done.
Verifying the file flash:/system.bin on slot 2.....Done.
The images that have passed all examinations will be used as the main startup
software images at the next reboot on slot 2.

```

3. Enable the software auto-update function.

```

<Sysname> system-view
[Sysname] irf auto-update enable
[Sysname] quit

```

This function checks the software versions of member switches for inconsistency with the master switch. If a subordinate switch is using a different software version than the master, the function propagates the current software images of the master to the subordinate as main startup images. The function prevents software version inconsistency from causing the IRF setup failure.

4. Save the current configuration in any view to prevent data loss.

```

<Sysname> save
The current configuration will be written to the device. Are you sure? [Y/N]:y
Please input the file name(*.cfg)[flash:/startup.cfg]
(To leave the existing filename unchanged, press the enter key):
flash:/startup.cfg exists, overwrite? [Y/N]:y
Validating file. Please wait.....
Saved the current configuration to mainboard device successfully.
Slot 2:
Save next configuration file successfully.

```

5. Reboot the IRF fabric to complete the upgrade.

```

<Sysname> reboot
Start to check configuration with next startup configuration file, please wait.
.....DONE!
This command will reboot the device. Continue? [Y/N]:y
Now rebooting, please wait...

```

The system automatically loads the .bin boot and system images in the .ipe file and sets them as the startup software images.

6. Execute the **display version command in any view to verify that the current main software images have been updated (details not shown).**

NOTE:

The system automatically checks the compatibility of the Boot ROM image and the boot and system images during the reboot. If you are prompted that the Boot ROM image in the upgrade image file is different than the current Boot ROM image, upgrade both the basic and extended sections of the Boot ROM image for compatibility. If you choose to not upgrade the Boot ROM image, the system will ask for an upgrade at the next reboot performed by powering on the switch or rebooting from the CLI (promptly or as scheduled). If you fail to make any choice in the required time, the system upgrades the entire Boot ROM image.

Upgrading from the Boot menu

In this approach, you must access the Boot menu of each member switch to upgrade their software one by one. If you are upgrading software images for an IRF fabric, using the CLI is a better choice.

TIP:

Upgrading through the Ethernet port is faster than through the console port.

Prerequisites

Make sure the prerequisites are met before you start upgrading software from the Boot menu.

Setting up the upgrade environment

1. Use a console cable to connect the console terminal (for example, a PC) to the console port on the switch.
2. Connect the Ethernet port on the switch to the file server.

NOTE:

The file server and the configuration terminal can be co-located.

3. Run a terminal emulator program on the console terminal and set the following terminal settings:
 - **Bits per second**—9,600
 - **Data bits**—8
 - **Parity**—None
 - **Stop bits**—1
 - **Flow control**—None
 - **Emulation**—VT100

Preparing for the TFTP or FTP transfer

To use TFTP or FTP:

- Run a TFTP or FTP server program on the file server or the console terminal.
- Copy the upgrade file to the file server.
- Correctly set the working directory on the TFTP or FTP server.
- Make sure the file server and the switch can reach each other.

Verifying that sufficient storage space is available

IMPORTANT:

For the switch to start up correctly, do not delete the main startup software images when you free storage space before upgrading Boot ROM. On the Boot menu, the main startup software images are marked with an asterisk (*).

When you upgrade software, make sure each member switch has sufficient free storage space for the upgrade file, as shown in [Table 6](#).

Table 6 Minimum free storage space requirements

Upgraded images	Minimum free storage space requirements
Comware images	Two times the size of the Comware upgrade package file.

Upgraded images	Minimum free storage space requirements
Boot ROM	Same size as the Boot ROM upgrade image file.

If no sufficient space is available, delete unused files as described in [“Managing files from the Boot menu.”](#)

Scheduling the upgrade time

During the upgrade, the switch cannot provide any services. You must make sure the upgrade has a minimal impact on the network services.

Accessing the Boot menu

```
Starting.....
Press Ctrl+D to access BASIC BOOT MENU
Booting Normal Extend BootWare....

*****
*
*          HPE NW CW 5120v3 8G PoE+ 2 SFP Sw BOOTROM, Version 151
*
*****

Copyright (c) 2010-2023 Hewlett Packard Enterprise Development LP

Creation Date       : Mar 13 2023, 17:35:17
CPU Clock Speed    : 800MHz
Memory Size        : 512MB
Flash Size         : 256MB
CPLD Version       : 001
PCB Version        : Ver.A
Mac Address        : aa1122334455
Press Ctrl+B to access EXTENDED BOOT MENU...1
```

Press one of the shortcut key combinations at prompt.

Table 7 Shortcut keys

Shortcut keys	Prompt message	Function	Remarks
Ctrl+B	Press Ctrl+B to enter Extended Boot menu...	Accesses the extended Boot menu.	Press the keys within 1 second (in fast startup mode) or 5 seconds (in full startup mode) after the message appears. You can upgrade and manage system software and Boot ROM from this menu.

Accessing the extended Boot menu

Press **Ctrl+B** within 1 second (in fast startup mode) or 5 seconds (in full startup mode) after the "Press Ctrl-B to enter Extended Boot menu..." prompt message appears. If you fail to do this, the system starts decompressing the system software.

Alternatively, you can enter **4** in the basic Boot menu to access the extended Boot menu.

The "Password recovery capability is enabled." or "Password recovery capability is disabled." message appears, followed by the extended Boot menu. Availability of some menu options depends on the state of password recovery capability (see [Table 8](#)). For more information about password recovery capability, see *Fundamentals Configuration Guide* in *HPE Networking Comware 5120v3 Switch Series Configuration Guides-R63xx*.

Password recovery capability is enabled.

```
EXTENDED BOOT MENU

1. Download image to flash
2. Select image to boot
3. Display all files in flash
4. Delete file from flash
5. Restore to factory default configuration
6. Enter BootRom upgrade menu
7. Skip current system configuration
8. Set switch startup mode
0. Reboot

Ctrl+Z: Access EXTENDED ASSISTANT MENU
Ctrl+F: Format file system
Ctrl+P: Change authentication for console login
Ctrl+R: Download image to SDRAM and run
Ctrl+Y: Change Work Mode
Ctrl+C: Display Copyright

Enter your choice(0-8):
```

Table 8 Extended Boot ROM menu options

Option	Tasks
1. Download image to flash	Download a software image file to the flash.
2. Select image to boot	<ul style="list-style-type: none">Specify the main and backup software image file for the next startup.Specify the main and backup configuration files for the next startup. This task can be performed only if password recovery capability is enabled.
3. Display all files in flash	Display files on the flash.
4. Delete file from flash	Delete files to free storage space.
5. Restore to factory default configuration	Delete the current next-startup configuration files and restore the factory-default configuration. This option is available only if password recovery capability is disabled.

Option	Tasks
6. Enter BootRom upgrade menu	Access the Boot ROM upgrade menu.
7. Skip current system configuration	Start the switch without loading any configuration file. This is a one-time operation and takes effect only for the first system boot or reboot after you choose this option. This option is available only if password recovery capability is enabled.
8. Set switch startup mode	Set the startup mode to fast startup mode or full startup mode.
0. Reboot	Reboot the switch.
Ctrl+F: Format file system	Format the current storage medium.
Ctrl+P: Change authentication for console login	Skip the authentication for console login. This is a one-time operation and takes effect only for the first system boot or reboot after you choose this option. This option is available only if password recovery capability is enabled.
Ctrl+R: Download image to SDRAM and run	Download a system software image and start the switch with the image. This option is available only if password recovery capability is enabled.
Ctrl+Z: Access EXTENDED ASSISTANT MENU	Access the EXTENDED ASSISTANT MENU. For options in the menu, see Table 9 .
Ctrl+Y: Change Work Mode	Change Work Mode.
Ctrl+C: Display Copyright	Display the copyright statement.

Table 9 EXTENDED ASSISTANT menu options

Option	Task
1. Display Memory	Display data in the memory.
2. Search Memory	Search the memory for a specific data segment.
0. Return to boot menu	Return to the extended Boot ROM menu.

Upgrading Comware images from the Boot menu

You can use the following methods to upgrade Comware images:

- [Using TFTP to upgrade software images through the Ethernet port](#)
- [Using FTP to upgrade software images through the Ethernet port](#)
- [Using XMODEM to upgrade software through the console port](#)

Using TFTP to upgrade software images through the Ethernet port

1. Enter **1** in the Boot menu to access the file transfer protocol submenu.
 1. Set TFTP protocol parameters
 2. Set FTP protocol parameters
 3. Set XMODEM protocol parameters
 0. Return to boot menu

Enter your choice(0-3):

2. Enter **1** to set the TFTP parameters.

```
Load File Name      :update.ipe
Server IP Address   :192.168.0.3
Local IP Address    :192.168.0.2
Subnet Mask         :255.255.255.0
Gateway IP Address  :0.0.0.0
```

Table 10 TFTP parameter description

Item	Description
Load File Name	Name of the file to download (for example, update.ipe).
Server IP Address	IP address of the TFTP server (for example, 192.168.0.3).
Local IP Address	IP address of the switch (for example, 192.168.0.2).
Subnet Mask	Subnet mask of the switch (for example, 255.255.255.0).
Gateway IP Address	IP address of the gateway (in this example, no gateway is required because the server and the switch are on the same subnet).

NOTE:

- To use the default setting for a field, press **Enter** without entering any value.
- If the switch and the server are on different subnets, you must specify a gateway address for the switch.

3. Enter all required parameters, and enter **Y** to confirm the settings. The following prompt appears:

```
Are you sure to download file to flash? Yes or No (Y/N):Y
```

4. Enter **Y** to start downloading the image file. To return to the Boot menu without downloading the upgrade file, enter **N**.

```
Loading.....
.....
.....
.....Done!
```

5. Enter the **M** (main), **B** (backup), or **N** (none) attribute for the images. In this example, assign the main attribute to the images.

```
Please input the file attribute (Main/Backup/None) M
Image file boot.bin is self-decompressing...
Free space: 534980608 bytes
Writing flash.....
.....Done!
Image file system.bin is self-decompressing...
Free space: 525981696 bytes
Writing flash.....
.....
.....
.....
.....Done!
```

NOTE:

- The switch always attempts to boot with the main images first. If the attempt fails, for example, because the main images are not available, the switch tries to boot with the backup images. An image with the none attribute is only stored in flash memory for backup. To use it at reboot, you must change its attribute to main or backup.
 - If an image with the same attribute as the image you are loading is already in the flash memory, the attribute of the old image changes to none after the new image becomes valid.
-

6. Enter 0 in the Boot menu to reboot the switch with the new software images.

EXTENDED BOOT MENU

```
1. Download image to flash
2. Select image to boot
3. Display all files in flash
4. Delete file from flash
5. Restore to factory default configuration
6. Enter BootRom upgrade menu
7. Skip current system configuration
8. Set switch startup mode
0. Reboot
Ctrl+Z: Access EXTENDED ASSISTANT MENU
Ctrl+F: Format file system
Ctrl+P: Change authentication for console login
Ctrl+R: Download image to SDRAM and run
Ctrl+Y: Change Work Mode
Ctrl+C: Display Copyright
```

Enter your choice(0-8): 0

Using FTP to upgrade software images through the Ethernet port**1. Enter 1 in the Boot menu to access the file transfer protocol submenu.**

```
1. Set TFTP protocol parameters
2. Set FTP protocol parameters
3. Set XMODEM protocol parameters
0. Return to boot menu
```

Enter your choice(0-3):

2. Enter 2 to set the FTP parameters.

```
Load File Name      :update.ipe
Server IP Address   :192.168.0.3
Local IP Address    :192.168.0.2
Subnet Mask         :255.255.255.0
Gateway IP Address  :0.0.0.0
FTP User Name       :switch
FTP User Password   :***
```

Table 11 FTP parameter description

Item	Description
Load File Name	Name of the file to download (for example, update.ipe).
Server IP Address	IP address of the FTP server (for example, 192.168.0.3).
Local IP Address	IP address of the switch (for example, 192.168.0.2).
Subnet Mask	Subnet mask of the switch (for example, 255.255.255.0).
Gateway IP Address	IP address of the gateway (in this example, no gateway is required because the server and the switch are on the same subnet).
FTP User Name	Username for accessing the FTP server, which must be the same as configured on the FTP server.
FTP User Password	Password for accessing the FTP server, which must be the same as configured on the FTP server.

NOTE:

- To use the default setting for a field, press **Enter** without entering any value.
- If the switch and the server are on different subnets, you must specify a gateway address for the switch.

3. Enter all required parameters, and enter **Y** to confirm the settings. The following prompt appears:

```
Are you sure to download file to flash? Yes or No (Y/N):Y
```

4. Enter **Y** to start downloading the image file. To return to the Boot menu without downloading the upgrade file, enter **N**.

```
Loading.....
.....
.....
.....Done!
```

5. Enter the **M** (main), **B** (backup), or **N** (none) attribute for the images. In this example, assign the main attribute to the images.

```
Please input the file attribute (Main/Backup/None) M
Image file boot.bin is self-decompressing...
Free space: 534980608 bytes
Writing flash.....
.....Done!
Image file system.bin is self-decompressing...
Free space: 525981696 bytes
Writing flash.....
.....
.....
.....
.....Done!
```

EXTENDED BOOT MENU

```
1. Download image to flash
2. Select image to boot
3. Display all files in flash
4. Delete file from flash
5. Restore to factory default configuration
6. Enter BootRom upgrade menu
7. Skip current system configuration
8. Set switch startup mode
0. Reboot

Ctrl+Z: Access EXTENDED ASSISTANT MENU
Ctrl+F: Format file system
Ctrl+P: Change authentication for console login
Ctrl+R: Download image to SDRAM and run
Ctrl+Y: Change Work Mode
Ctrl+C: Display Copyright
```

```
Enter your choice(0-8):0
```

NOTE:

- The switch always attempts to boot with the main images first. If the attempt fails, for example, because the main images not available, the switch tries to boot with the backup images. An image with the none attribute is only stored in flash memory for backup. To use it at reboot, you must change its attribute to main or backup.
 - If an image with the same attribute as the image you are loading is already in the flash memory, the attribute of the old image changes to none after the new image becomes valid.
-

6. Enter **0** in the Boot menu to reboot the switch with the new software images.

Using XMODEM to upgrade software through the console port

XMODEM download through the console port is slower than TFTP or FTP download through the Ethernet port. To save time, use the Ethernet port as long as possible.

1. Enter **1** in the Boot menu to access the file transfer protocol submenu.

```
1. Set TFTP protocol parameters
2. Set FTP protocol parameters
3. Set XMODEM protocol parameters
0. Return to boot menu
```

```
Enter your choice(0-3):
```

2. Enter **3** to set the XMODEM download baud rate.

```
Please select your download baudrate:
```

```
1.* 9600
2. 19200
3. 38400
4. 57600
5. 115200
0. Return to boot menu
```

```
Enter your choice(0-5):5
```

3. Select an appropriate download rate, for example, enter **5** to select 115200 bps.

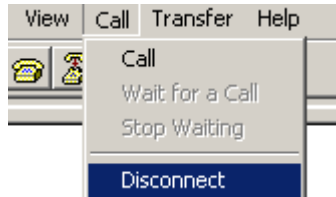
Download baudrate is 115200 bps

Please change the terminal's baudrate to 115200 bps and select XMODEM protocol

Press enter key when ready

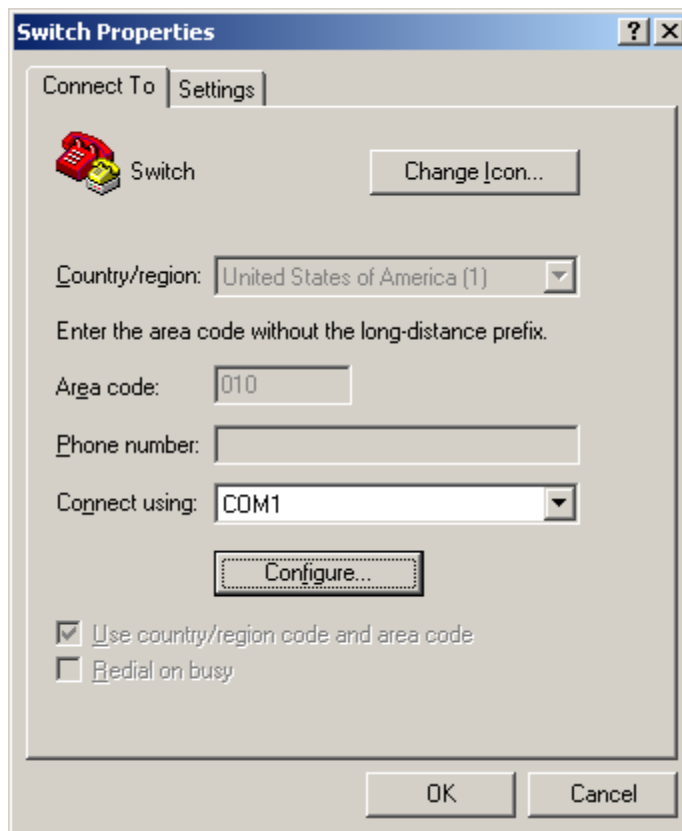
4. Set the serial port on the terminal to use the same baud rate and protocol as the console port. If you select 9600 bps as the download rate for the console port, skip this task.
 - a. Select **Call > Disconnect** in the HyperTerminal window to disconnect the terminal from the switch.

Figure 3 Disconnecting the terminal from the switch



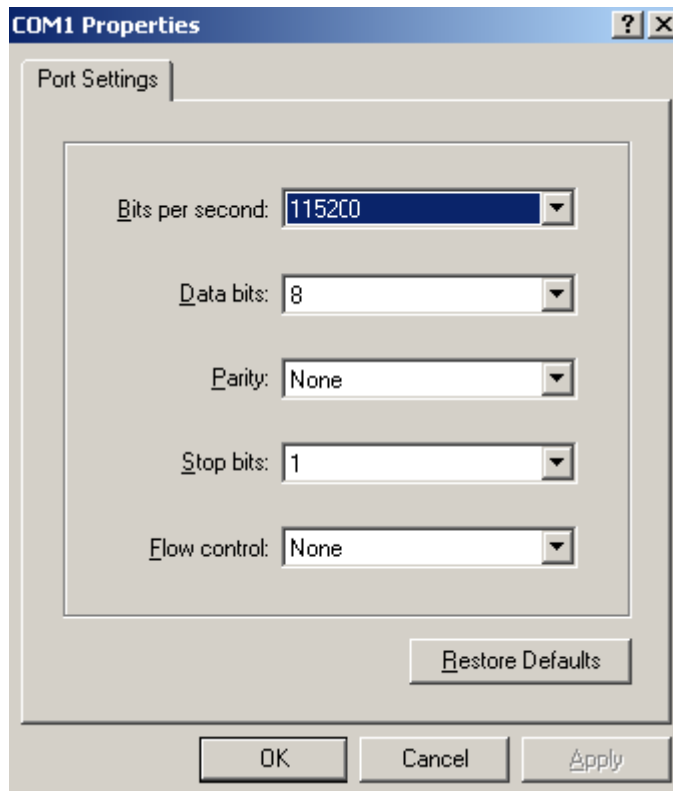
- b. Select **File > Properties**, and in the **Properties** dialog box, click **Configure**.

Figure 4 Properties dialog box



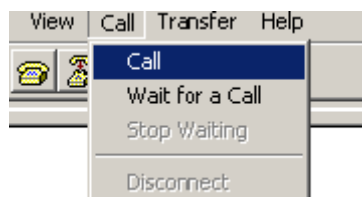
- c. Select **115200** from the **Bits per second** list and click **OK**.

Figure 5 Modifying the baud rate



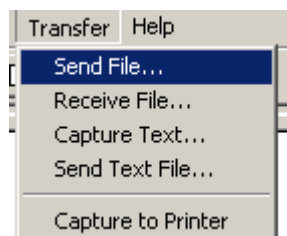
- d. Select **Call > Call** to reestablish the connection.

Figure 6 Reestablishing the connection



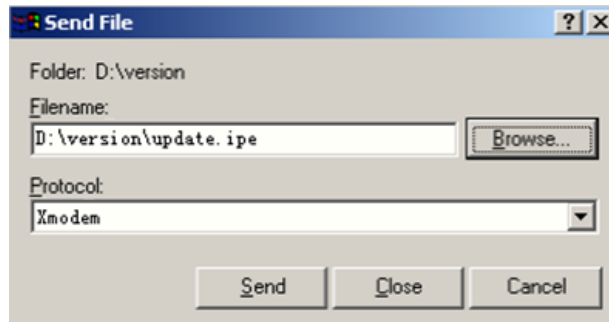
5. Press **Enter**. The following prompt appears:
`Are you sure to download file to flash? Yes or No (Y/N):Y`
6. Enter **Y** to start downloading the file. (To return to the Boot menu, enter **N**.)
`Now please start transfer file with XMODEM protocol`
`If you want to exit, Press <Ctrl+X>`
`Loading ...CCCCCCCCCCCCCCCCCCCCCCCCCCCC`
7. Select **Transfer > Send File** in the HyperTerminal window.

Figure 7 Transfer menu



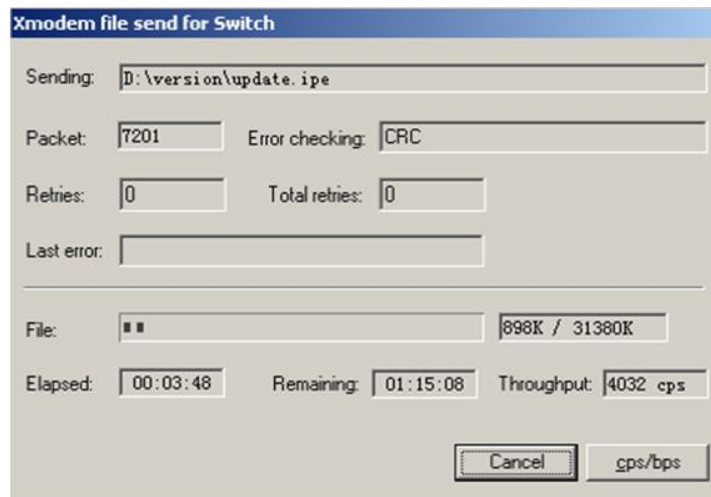
8. In the dialog box that appears, click **Browse** to select the source file, and select **Xmodem** from the **Protocol** list.

Figure 8 File transmission dialog box



9. Click **Send**. The following dialog box appears:

Figure 9 File transfer progress



10. Enter the **M** (main), **B** (backup), or **N** (none) attribute for the images. In this example, assign the main attribute to the images.

Please input the file attribute (Main/Backup/None) m

The boot.bin image is self-decompressing...

At the **Load File name** prompt, enter a name for the boot image to be saved to flash memory.

Load File name : default_file boot-update.bin (At the prompt,

Free space: 470519808 bytes

Writing flash.....
.....Done!

The system-update.bin image is self-decompressing...

At the **Load File name** prompt, enter a name for the system image to be saved to flash memory.

Load File name : default_file system-update.bin

Free space: 461522944 bytes

Writing flash.....
.....Done!

Your baudrate should be set to 9600 bps again!

Press enter key when ready

NOTE:

- The switch always attempts to boot with the main images first. If the attempt fails, for example, because the main images are not available, the switch tries to boot with the backup images. An image with the none attribute is only stored in the flash memory for backup. To use it at reboot, you must change its attribute to main or backup.
 - If an image with the same attribute as the image you are loading is already in flash memory, the attribute of the old image changes to none after the new image becomes valid.
-

11. If the baud rate of the HyperTerminal is not 9600 bps, restore it to 9600 bps as described in step 5.a. If the baud rate is 9600 bps, skip this step.
-

NOTE:

The console port rate reverts to 9600 bps at a reboot. If you have changed the baud rate, you must perform this step so you can access the switch through the console port after a reboot.

EXTENDED BOOT MENU

```
1. Download image to flash
2. Select image to boot
3. Display all files in flash
4. Delete file from flash
5. Restore to factory default configuration
6. Enter BootRom upgrade menu
7. Skip current system configuration
8. Set switch startup mode
0. Reboot

Ctrl+Z: Access EXTENDED ASSISTANT MENU
Ctrl+F: Format file system
Ctrl+P: Change authentication for console login
Ctrl+R: Download image to SDRAM and run
Ctrl+Y: Change Work Mode
Ctrl+C: Display Copyright
```

```
Enter your choice(0-8): 0
```

12. Enter **0** in the Boot menu to reboot the system with the new software images.

Upgrading Boot ROM from the Boot menu

You can use the following methods to upgrade the Boot ROM image:

- [Using TFTP to upgrade Boot ROM through the Ethernet port](#)
- [Using FTP to upgrade Boot ROM through the Ethernet port](#)
- [Using XMODEM to upgrade Boot ROM through the console port](#)

Using TFTP to upgrade Boot ROM through the Ethernet port

1. Enter **6** in the Boot menu to access the Boot ROM update menu.

```
1. Update full BootRom
2. Update extended BootRom
3. Update basic BootRom
0. Return to boot menu
```

Enter your choice(0-3):

2. Enter 1 in the Boot ROM update menu to upgrade the full Boot ROM.

The file transfer protocol submenu appears:

1. Set TFTP protocol parameters
2. Set FTP protocol parameters
3. Set XMODEM protocol parameters
0. Return to boot menu

Enter your choice(0-3):

3. Enter 1 to set the TFTP parameters.

```
Load File Name      :update.btm
Server IP Address   :192.168.0.3
Local IP Address    :192.168.0.2
Subnet Mask         :255.255.255.0
Gateway IP Address  :0.0.0.0
```

Table 12 TFTP parameter description

Item	Description
Load File Name	Name of the file to download (for example, update.btm).
Server IP Address	IP address of the TFTP server (for example, 192.168.0.3).
Local IP Address	IP address of the switch (for example, 192.168.0.2).
Subnet Mask	Subnet mask of the switch (for example, 255.255.255.0).
Gateway IP Address	IP address of the gateway (in this example, no gateway is required because the server and the switch are on the same subnet).

NOTE:

- To use the default setting for a field, press **Enter** without entering any value.
- If the switch and the server are on different subnets, you must specify a gateway address for the switch.

4. Enter all required parameters and press **Enter** to start downloading the file.

```
Loading.....Done!
```

5. Enter **Y** at the prompt to upgrade the basic Boot ROM section.

```
Will you Update Basic BootRom? (Y/N):Y
Updating Basic BootRom.....Done.
```

6. Enter **Y** at the prompt to upgrade the extended Boot ROM section.

```
Updating extended BootRom? (Y/N):Y
Updating extended BootRom.....Done.
```

7. Enter **0** in the Boot ROM update menu to return to the Boot menu.

1. Update full BootRom
2. Update extended BootRom
3. Update basic BootRom
0. Return to boot menu

Enter your choice(0-3):

8. Enter **0** in the Boot menu to reboot the switch with the new Boot ROM image.

Using FTP to upgrade Boot ROM through the Ethernet port

1. Enter **6** in the Boot menu to access the Boot ROM update menu.

```
1. Update full BootRom
2. Update extended BootRom
3. Update basic BootRom
0. Return to boot menu
```

Enter your choice(0-3):

2. Enter **1** in the Boot ROM update menu to upgrade the full Boot ROM.

The file transfer protocol submenu appears:

```
1. Set TFTP protocol parameters
2. Set FTP protocol parameters
3. Set XMODEM protocol parameters
0. Return to boot menu
```

Enter your choice(0-3):

3. Enter **2** to set the FTP parameters.

```
Load File Name      :update.btm
Server IP Address   :192.168.0.3
Local IP Address    :192.168.0.2
Subnet Mask         :255.255.255.0
Gateway IP Address  :0.0.0.0
FTP User Name       :switch
FTP User Password   :123
```

Table 13 FTP parameter description

Item	Description
Load File Name	Name of the file to download (for example, update.btm).
Server IP Address	IP address of the FTP server (for example, 192.168.0.3).
Local IP Address	IP address of the switch (for example, 192.168.0.2).
Subnet Mask	Subnet mask of the switch (for example, 255.255.255.0).
Gateway IP Address	IP address of the gateway (in this example, no gateway is required because the server and the switch are on the same subnet).
FTP User Name	Username for accessing the FTP server, which must be the same as configured on the FTP server.
FTP User Password	Password for accessing the FTP server, which must be the same as configured on the FTP server.

NOTE:

- To use the default setting for a field, press **Enter** without entering any value.
- If the switch and the server are on different subnets, you must specify a gateway address for the switch.

4. Enter all required parameters and press **Enter** to start downloading the file.

```
Loading.....Done!
```

5. Enter **Y** at the prompt to upgrade the basic Boot ROM section.

```
Will you Update Basic BootRom? (Y/N):Y
```

Updating Basic BootRom.....Done.

6. Enter **Y** at the prompt to upgrade the extended Boot ROM section.

Updating extended BootRom? (Y/N):Y

Updating extended BootRom.....Done.

7. Enter **0** in the Boot ROM update menu to return to the Boot menu.

1. Update full BootRom
2. Update extended BootRom
3. Update basic BootRom
0. Return to boot menu

Enter your choice(0-3):

8. Enter **0** in the Boot menu to reboot the switch with the new Boot ROM image.

Using XMODEM to upgrade Boot ROM through the console port

XMODEM download through the console port is slower than TFTP or FTP download through the Ethernet port. To save time, use the Ethernet port as long as possible.

1. Enter **6** in the Boot menu to access the Boot ROM update menu.

1. Update full BootRom
2. Update extended BootRom
3. Update basic BootRom
0. Return to boot menu

Enter your choice(0-3):

2. Enter **1** in the Boot ROM update menu to upgrade the full Boot ROM.

The file transfer protocol submenu appears:

1. Set TFTP protocol parameters
2. Set FTP protocol parameters
3. Set XMODEM protocol parameters
0. Return to boot menu

Enter your choice(0-3):

3. Enter **3** to set the XMODEM download baud rate.

Please select your download baudrate:

- 1.* 9600
2. 19200
3. 38400
4. 57600
5. 115200
0. Return to boot menu

Enter your choice(0-5):5

4. Select an appropriate download rate, for example, enter **5** to select 115200 bps.

Download baudrate is 115200 bps

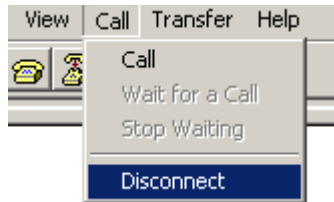
Please change the terminal's baudrate to 115200 bps and select XMODEM protocol

Press enter key when ready

5. Set the serial port on the terminal to use the same baud rate and protocol as the console port. If you select 9600 bps as the download rate for the console port, skip this task.

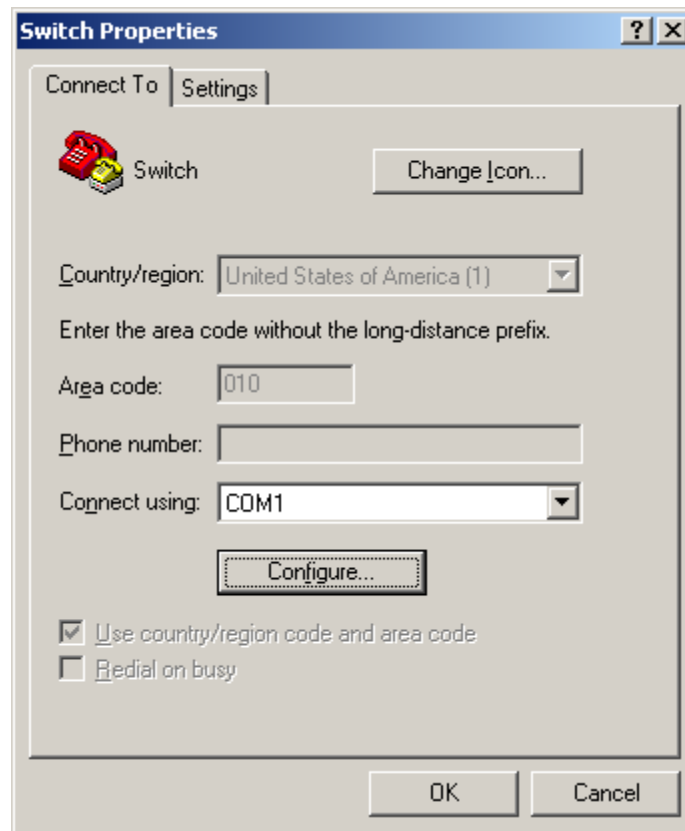
- a. Select **Call > Disconnect** in the HyperTerminal window to disconnect the terminal from the switch.

Figure 10 Disconnecting the terminal from the switch



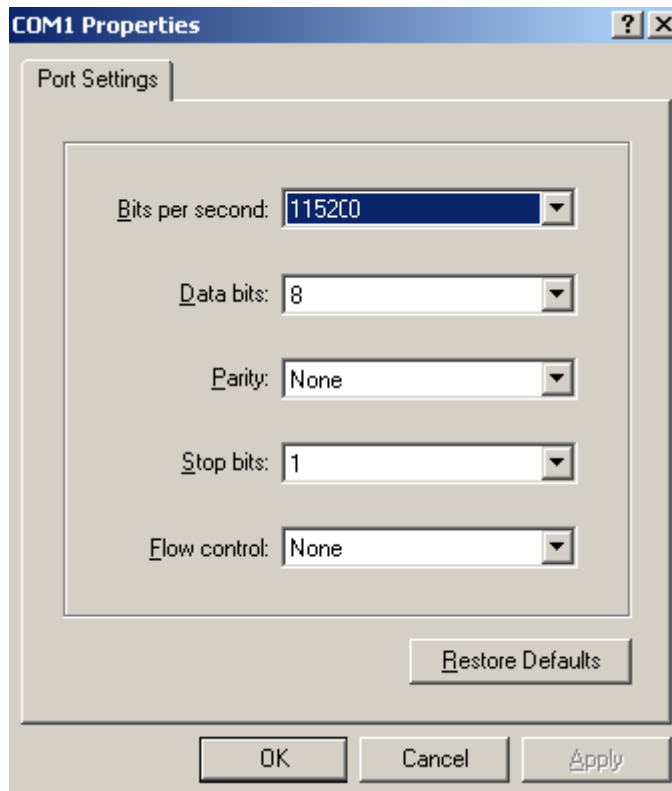
- b. Select **File > Properties**, and in the **Properties** dialog box, click **Configure**.

Figure 11 Properties dialog box



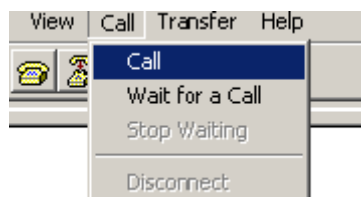
- c. Select **115200** from the **Bits per second** list and click **OK**.

Figure 12 Modifying the baud rate



- d. Select **Call > Call** to reestablish the connection.

Figure 13 Reestablishing the connection

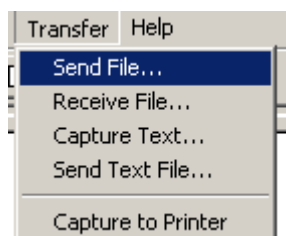


6. Press **Enter** to start downloading the file.

```
Now please start transfer file with XMODEM protocol  
If you want to exit, Press <Ctrl+X>  
Loading ...CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
```

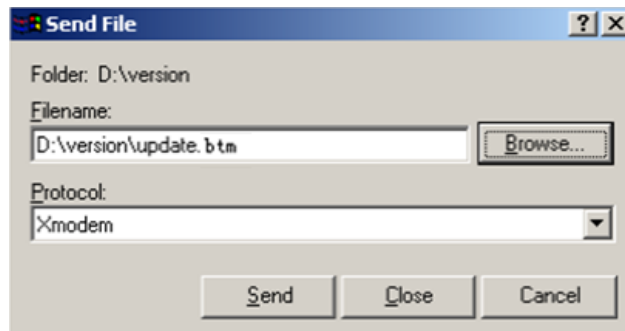
7. Select **Transfer > Send File** in the HyperTerminal window.

Figure 14 Transfer menu



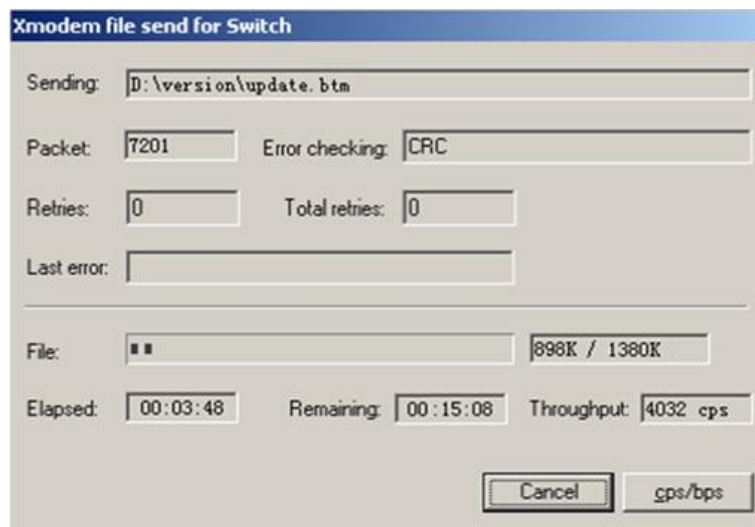
8. In the dialog box that appears, click **Browse** to select the source file, and select **Xmodem** from the **Protocol** list.

Figure 15 File transmission dialog box



9. Click **Send**. The following dialog box appears:

Figure 16 File transfer progress



10. Enter **Y** at the prompt to upgrade the basic Boot ROM section.

```
Loading ...CCCCCCCCCCCCCCC ...Done!  
Will you Update Basic BootRom? (Y/N):Y  
Updating Basic BootRom.....Done.
```

11. Enter **Y** at the prompt to upgrade the extended Boot ROM section.

```
Updating extended BootRom? (Y/N):Y  
Updating extended BootRom.....Done.
```

12. If the baud rate of the HyperTerminal is not 9600 bps, restore it to 9600 bps at the prompt, as described in step 4.a. If the baud rate is 9600 bps, skip this step.

```
Please change the terminal's baudrate to 9600 bps, press ENTER when ready.
```

NOTE:

The console port rate reverts to 9600 bps at a reboot. If you have changed the baud rate, you must perform this step so you can access the switch through the console port after a reboot.

13. Press **Enter** to access the Boot ROM update menu.

14. Enter **0** in the Boot ROM update menu to return to the Boot menu.

- ```
1. Update full BootRom
2. Update extended BootRom
3. Update basic BootRom
```

0. Return to boot menu

Enter your choice(0-3):

**15. Enter 0 in the Boot menu to reboot the switch with the new Boot ROM image.**

## Managing files from the Boot menu

From the Boot menu, you can display files in flash memory to check for obsolete files, incorrect files, or space insufficiency, delete files to release storage space, or change the attributes of software images.

### Displaying all files

Enter **3** in the Boot menu to display all files in flash memory and identify the free space size.

```
EXTENDED BOOT MENU

1. Download image to flash
2. Select image to boot
3. Display all files in flash
4. Delete file from flash
5. Restore to factory default configuration
6. Enter BootRom upgrade menu
7. Skip current system configuration
8. Set switch startup mode
0. Reboot

Ctrl+Z: Access EXTENDED ASSISTANT MENU
Ctrl+F: Format file system
Ctrl+P: Change authentication for console login
Ctrl+R: Download image to SDRAM and run
Ctrl+Y: Change Work Mode
Ctrl+C: Display Copyright
```

Enter your choice(0-8): 3

The following is a sample output:

Display all file(s) in flash:

| File Number                 | File Size(bytes) | File Name                  |
|-----------------------------|------------------|----------------------------|
| 1                           | 8177             | flash:/testbackup.cfg      |
| 2(*)                        | 53555200         | flash:/system.bin          |
| 3(*)                        | 9959424          | flash:/boot.bin            |
| 4                           | 3678             | flash:/startup.cfg_backup  |
| 5                           | 30033            | flash:/default.mdb         |
| 6                           | 42424            | flash:/startup.mdb         |
| 7                           | 18               | flash:/pathfile            |
| 8                           | 232311           | flash:/logfile/logfile.log |
| 9                           | 5981             | flash:/startup.cfg_back    |
| 10(*)                       | 6098             | flash:/startup.cfg         |
| 11                          | 20               | flash:/snmpboots           |
| Free space: 464298848 bytes |                  |                            |



The current image is boot.bin  
 (\*)-with main attribute  
 (b)-with backup attribute  
 (\*b)-with both main and backup attribute

## Deleting files

If storage space is insufficient, delete obsolete files to free up storage space.

To delete files:

### 1. Enter 4 in the Boot menu:

Deleting the file in flash:

| File Number | File Size(bytes) | File Name                  |
|-------------|------------------|----------------------------|
| =====       |                  |                            |
| 1           | 8177             | flash:/testbackup.cfg      |
| 2(*)        | 53555200         | flash:/system.bin          |
| 3(*)        | 9959424          | flash:/boot.bin            |
| 4           | 3678             | flash:/startup.cfg_backup  |
| 5           | 30033            | flash:/default.mdb         |
| 6           | 42424            | flash:/startup.mdb         |
| 7           | 18               | flash:/pathfile            |
| 8           | 232311           | flash:/logfile/logfile.log |
| 9           | 5981             | flash:/startup.cfg_back    |
| 10(*)       | 6098             | flash:/startup.cfg         |
| 11          | 20               | flash:/snmpboots           |

Free space: 464298848 bytes

The current image is boot.bin

(\*)-with main attribute  
 (b)-with backup attribute  
 (\*b)-with both main and backup attribute

### 2. Enter the number of the file to delete. For example, enter 1 to select the file **testbackup.cfg**.

Please input the file number to change: 1

### 3. Enter Y at the confirmation prompt.

The file you selected is testbackup.cfg,Delete it? (Y/N):Y

Deleting.....Done!

## Changing the attribute of software images

Software image attributes include main (M), backup (B), and none (N). System software and boot software can each have multiple none-attribute images but only one main image and one backup image on the switch. You can assign both the M and B attributes to one image. If the M or B attribute you are assigning has been assigned to another image, the assignment removes the attribute from that image. If the removed attribute is the sole attribute of the image, its attribute changes to N.

For example, the system image **system.bin** has the M attribute and the system image **system-update.bin** has the B attribute. After you assign the M attribute to **system-update.bin**, the attribute of **system-update.bin** changes to M+B and the attribute of **system.bin** changes to N.

To change the attribute of a system or boot image:

### 1. Enter 2 in the Boot menu.

EXTENDED BOOT MENU

1. Download image to flash

```

2. Select image to boot
3. Display all files in flash
4. Delete file from flash
5. Restore to factory default configuration
6. Enter BootRom upgrade menu
7. Skip current system configuration
8. Set switch startup mode
0. Reboot
Ctrl+Z: Access EXTENDED ASSISTANT MENU
Ctrl+F: Format file system
Ctrl+P: Change authentication for console login
Ctrl+R: Download image to SDRAM and run
Ctrl+Y: Change Work Mode
Ctrl+C: Display Copyright

```

Enter your choice(0-8): 2

2. **1 or 2 at the prompt to set the attribute of a software image. (The following output is based on the option 2. To set the attribute of a configuration file, enter 3.)**

```

1. Set image file
2. Set bin file
3. Set configuration file
0. Return to boot menu

```

Enter your choice(0-3): 2

| File Number | File Size(bytes) | File Name                |
|-------------|------------------|--------------------------|
| 1(*)        | 53555200         | flash:/system.bin        |
| 2(*)        | 9959424          | flash:/boot.bin          |
| 3           | 13105152         | flash:/boot-update.bin   |
| 4           | 91273216         | flash:/system-update.bin |

Free space: 417177920 bytes

(\*)-with main attribute  
 (b)-with backup attribute  
 (\*b)-with both main and backup attribute

Note:Select .bin files. One but only one boot image and system image must be included.

3. **Enter the number of the file you are working with. For example, enter 3 to select the boot image **boot-update.bin**. and enter 4 to select the system image **system-update.bin**.**

```

Enter file No.(Allows multiple selection):3
Enter another file No.(0-Finish choice):4

```

4. **Enter 0 to finish the selection.**

```

Enter another file No.(0-Finish choice):0
You have selected:
flash:/boot-update.bin
flash:/system-update.bin

```

5. Enter **M** or **B** to change its attribute to main or backup. If you change its attribute to M, the attribute of **boot.bin** changes to none.

Please input the file attribute (Main/Backup) M

This operation may take several minutes. Please wait....

Next time, boot-update.bin will become default boot file!

Next time, system-update.bin will become default boot file!

Set the file attribute success!

## Handling software upgrade failures

If a software upgrade fails, the system runs the old software version.

To handle a software upgrade failure:

1. Verify that the software release is compatible with the switch model and the correct file is used.
2. Verify that the software release and the Boot ROM release are compatible. For software and Boot ROM compatibility, see the hardware and software compatibility matrix in the correct release notes.
3. Check the physical ports for a loose or incorrect connection.
4. If you are using the console port for file transfer, check the HyperTerminal settings (including the baud rate and data bits) for any wrong setting.
5. Check the file transfer settings:
  - If XMODEM is used, you must set the same baud rate for the terminal as for the console port.
  - If TFTP is used, you must enter the same server IP addresses, file name, and working directory as set on the TFTP server.
  - If FTP is used, you must enter the same FTP server IP address, source file name, working directory, and FTP username and password as set on the FTP server.
6. Check the FTP or TFTP server for any incorrect setting.
7. Check that the storage device has sufficient space for the upgrade file.