

A5800_5820X-CMW520-R1808P08 Release Notes

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This document describes the features, restrictions and guidelines, open problems, and workarounds for version A5800_5820X-CMW520-R1808P08. Before you use this version in 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 A5800_5820X-CMW520-R1808P08 Release Notes (Software Feature Changes) and the documents listed in "[Related documentation](#)."

Version information

Version number

Comware software, Version 5.20, Release 1808P08

Note: You can see the version number with the command **display version** in any view. See **Note** ①.

Version history

Table 1 Version history

Version number	Last version	Release date	Release type	Remarks
A5800_5820X-CMW520-R1808P08	A5800_5820 X-CMW520-R 1808P06	2013-06-20	Release version	Fixes bugs New feature: Enabling MAC authentication multi-VLAN mode
A5800_5820X-CMW520-R1808P06	A5800_5820 X-CMW520-R 1808P02	2013-04-22	Release version	Fixes bugs New features: Supporting multicast routing and forwarding based on secondary IP addresses
A5800_5820X-CMW520-R1808P02	A5800_5820 X-CMW520-R 1807P02	2013-03-22	Release version	Fixes bugs New features: Configuring a criterion to match the packet length Configuring LLDP to advertise a specific voice VLAN Modified feature: Executing a batch file
A5800_5820X-CMW520-R1807P02	A5800_5820 X-CMW520-F1 807P01	2013-01-27	Release version	Adds features Fixes bugs

Version number	Last version	Release date	Release type	Remarks
A5800_5820X-CM W520-F1807P01	A5800_5820 X-CMW520-F1 805P02	2012-12-17	Feature version	New feature: Disabling MAC entry aging timer refresh based on destination MAC address Modified feature: Support for MD5 authentication key rollover Offline detect timer Configuring the frequency with which the log file is saved
A5800_5820X-CM W520-F1805P02	A5800_5820 X-CMW520-F1 805P01	2012-10-12	Feature version	Operation changes
A5800_5820X-CM W520-F1805P01	A5800_5820 X-CMW520-F1 803L03	2012-09-24	Feature version	Adds features: bidirectional MPLS TE tunnel DM static VPLS user-defined ACL ECN for a queue IPv6 portal MVRP Fixes bugs
A5800_5820X-CM W520-F1803L03	A5800_5820 X-CMW520- F1803L01	2012-06-18	Feature version	Adds features Fixes bugs
A5800_5820X-CM W520-F1803L01	A5800_5820 X-CMW520- F1305P01	2012-04-16	Feature version	Adds features Fixes bugs
A5800_5820X-CM W520-F1305P01	A5800_5820 X-CMW520-R 1211P04	2011-12-15	Feature version	Adds features Fixes bugs
A5800_5820X-CM W520-R1211P04	A5800_5820 X-CMW520-R 1211P02	2012-02-10	Release version	Fixes bugs
A5800_5820X-CM W520-R1211P02	A5800_5820 X-CMW520-R 1211	2011-08-02	Release version	Adds features Fixes bugs
A5800_5820X-CM W520-R1211	None	2011-05-04	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	5800/5820X Series
Hardware platform	HP 5800-24G-PoE+ Switch
	HP 5800-24G Switch
	HP 5800-48G-PoE+ Switch with 2 Interface Slots
	HP 5800-24G-SFP Switch with 1 Interface Slot
	HP 5800-48G-PoE+ Switch with 1 Interface Slot
	HP 5800-48G Switch with 1 Interface Slot
	HP 5820X-14XG-SFP+ Switch with 2 Interface Slots
	HP 5820X-24XG-SFP+ Switch
	HP 5800AF-48G Switch
	HP 5820AF-24XG Switch
	HP 5800-24G-PoE+ TAA Switch
	HP 5800-24G TAA Switch
	HP 5800-48G-PoE+ TAA Switch with 2 Interface Slots
	HP 5800-24G-SFP TAA Switch with 1 Interface Slot
HP 5800-48G-PoE+ TAA Switch with 1 Interface Slot	
HP 5800-48G TAA Switch with 1 Interface Slot	
HP 5820X-14XG-SFP+ TAA Switch with 2 Interface Slots	
HP 5820X-24XG-SFP+ TAA Switch	
Memory	512 MB/1GB
Flash	512 MB
Boot ROM version	Version 220 or higher (Note: Perform the command <code>display version</code> in any view to view the version information. See Note 2)
Host software	A5800_5820X-CMW520-R1808P08.bin

Item	Specifications
iMC version	iMC PLAT 5.2 (E0401P05) iMC UAM 5.2 (E0402P05) iMC EAD 5.2(E0402P05) iMC NTA 5.2 (E0401P03) iMC QoS 5.2 (E0401) iMC TAM 5.2(E0401) iMC UBA 5.2(E0401P03) iMC BIMS 5.2(E0401L03) iMC SHM 5.2(E0401) iMC MVM 5.2(E0401H01)
iNode version	iNode PC 5.2(E0408)
OAA version	Fiber Channel Card: 9.0.6.15.0 IPS/AV Card: ESS2113P03 Fire Wall Card: F3171P17 High Performance Wireless AC Card: R3308P11 Wireless AC Card: R2308P11

Sample: To display the host software and Boot ROM version of the 5800/5820X, perform the following:

```
<HP> display version
```

```
HP Comware Platform Software
```

```
Comware Software, Version 5.20, Release 1808P08 ----- Note①
```

```
Copyright (c) 2010-2013 Hewlett-Packard Development Company, L.P.
```

```
HP A5800-48G Switch with 1 Interface Slot uptime is 0 week, 0 day, 0 hour, 4 minutes
```

```
HP A5800-48G Switch with 1 Interface Slot with 2 Processors
```

```
1024M bytes SDRAM
```

```
4M bytes Nor Flash Memory
```

```
512M bytes Nand Flash Memory
```

```
Config Register points to Nand Flash
```

```
Hardware Version is Ver.B
```

```
CPLD Version is 003
```

```
BootRom Version is 220 ----- Note②
```

```
[SubSlot 0] 48GE+4SFP Plus Hardware Version is Ver.B
```

```
[SubSlot 1] No Module
```


ISSU compatibility list

Table 3 ISSU compatibility list

Current version	Earlier version	Compatibility
S5800_5820X-CMW520-R1808P08	S5800_5820X-CMW520-R1808P06	Yes
	S5800_5820X-CMW520-R1808P02	Yes
	S5800_5820X-CMW520-R1807P02	Yes
	S5800_5820X-CMW520-F1807P01	Yes
	S5800_5820X-CMW520-R1805P02	Yes
	S5800_5820X-CMW520-R1211P08 and earlier versions	No

Upgrading restrictions and guidelines

The version F1803L01 or later adopts a new password encryption algorithm. The password saved in the configuration file has been processed by the new algorithm. If you roll back the software from the version F1803L01 or later to a version before F1803L01, the password cannot be restored, and login will fail.

Not support using the ISSU compatible mode to upgrade the software from the version before F1807P01 to the version F1807P01 or later.

Hardware feature updates

A5800_5820X-CMW520-R1808P08

None

A5800_5820X-CMW520-R1808P06

1. Added support for 10GBASE-ZR SFP Plus fiber modules.

A5800_5820X-CMW520-R1808P02

1. Added two new 10GBASE-T cards: LSW1XGT4P0 and LSW1XGT2P0.

A5800_5820X-CMW520-R1807P02

None

A5800_5820X-CMW520-F1807P01

None

A5800_5820X-CMW520-F1805P02

None

A5800_5820X-CMW520-F1805P01

1. Support for the cable for SFF-8472 11.0.

A5800_5820X-CMW520-F1803L03

None

A5800_5820X-CMW520-F1803L01

None

A5800_5820X-CMW520-F1305P01

None

A5800_5820X-CMW520-R1211P04

None

A5800_5820X-CMW520-R1211P02

None

A5800_5820X-CMW520-R1211

First release

Software feature and command updates

For more information about the software feature and command update history, see A5800_5820X-CMW520-R1808P08 Release Notes (Software Feature Changes).

MIB updates

Table 4 MIB updates

Item	MIB file	Module	Description
A5800_5820X-CMW520-R1808P08			
New	rfc4133-entity.mib hh3c-splat-mix.mib	ENTITY-MIB HH3C-LswMix-MIB	Added nodes: hh3cLswMpuSwitchsNum hh3cLswLastSwitchDate entPhysicalModelName support for modules' J number
Modified	None	None	None
A5800_5820X-CMW520-R1808P06			
New	None	None	None
Modified	None	None	None
A5800_5820X-CMW520-R1808P02			
New	None	None	None
Modified	rfc1213.mib rfc3418-snmpv2.mib	RFC1213-MIB	The maximum character string length allowed by the sysLocation and sysContact nodes was changed from 200 to 255.
A5800_5820X-CMW520-R1807P02			
New	None	None	None
Modified	None	None	None
A5800_5820X-CMW520-F1807P01			
New	None	None	None
Modified	None	None	None
A5800_5820X-CMW520-F1805P02			
New	None	None	None
Modified	None	None	None

Item	MIB file	Module	Description
A5800_5820X-CMW520-F1805P01			
New	hh3c-transceiver-info.mib	HH3C-TRANSCEIVER-INFO-MIB	Added nodes in hh3cTransceiverInfoTable as below: hh3cTransceiverTempHiAlarm hh3cTransceiverTempLoAlarm hh3cTransceiverTempHiWarn hh3cTransceiverTempLoWarn hh3cTransceiverVccHiAlarm hh3cTransceiverVccLoAlarm hh3cTransceiverVccHiWarn hh3cTransceiverVccLoWarn hh3cTransceiverBiasHiAlarm hh3cTransceiverBiasLoAlarm hh3cTransceiverBiasHiWarn hh3cTransceiverBiasLoWarn hh3cTransceiverPwrOutHiAlarm hh3cTransceiverPwrOutLoAlarm hh3cTransceiverPwrOutHiWarn hh3cTransceiverPwrOutLoWarn hh3cTransceiverRcvPwrHiAlarm hh3cTransceiverRcvPwrLoAlarm hh3cTransceiverRcvPwrHiWarn hh3cTransceiverRcvPwrLoWarn hh3cTransceiverErrors
	hh3c-syslog.mib	HH3C-SYSLOG-MIB	Added hh3cSyslogLogbufContTable
	Hh3c-common-system.mib	HH3C-COMMON-SYSTEM-MIB	Added hh3cSysBannerMOTD
	hh3c-lsw-dev-adm.mib	HH3C-LSW-DEV-ADM-MIB	Add nodes in hh3cLswSlotTable as below: hh3cLswSlotPktBufFree hh3cLswSlotPktBufInit hh3cLswSlotPktBufMin hh3cLswSlotPktBufMiss
	hh3c-evc.mib	HH3C-EVC-MIB	Added: hh3cEvcSrvInstTable hh3cEvcSrvInstCarTable hh3cEvcSrvInstStatInfoTable
rfc5602-pw-mpls-std.mib	PW-MPLS-STD-MIB	Added: pwMplsOutboundTable pwMplsTable	

Item	MIB file	Module	Description
	rfc5601-pw-std.mib	PW-STD-MIB	Added: pwPerfCurrentTable pwPeerMappingTable pwTable
	hh3c-te-tunnel.mib	HH3C-TE-TUNNEL-MIB	Added: hh3cTeTunnelMaxTunnelIndex hh3cTeTunnelStaticCrlspTable hh3cTeTunnelCoTable hh3cTeTunnelPsTable
	rfc4292-ip-forward.mib	IP-FORWARD-MIB	Added ipCidrRouteTable
	hh3c-cbqos2.mib	HH3C-CBQOS2-MIB	Added hh3cCBQoSPolicyClassCfgInfoTable
	hh3c-enitty-ext.mib	HH3C-ENTITY-EXT-MIB	Modify hh3cEntityExtTemperature in hh3cEntityExtStateTable
Modified	hh3c-radius.mib	HH3C-RADIUS-MIB	Changed the value returned by the following MIBs from a plaintext or ciphertext password to empty or "*****". hh3cUserPassword hh3cRdKey hh3cRdSecKey hh3cRdAccKey hh3cRdSecAccKey hh3cRadiusSchAuthPrimKey hh3cRadiusSchAuthSecKey hh3cRadiusSchAccPrimKey hh3cRadiusSchAccSecKey hh3cDot11SrvSecurityPskKeyString hh3cSecureRalmAuthPassword hh3cDot11SecurityPskKeyString
A5800_5820X-CMW520-F1803L03			
New	None	None	None
Modified	None	None	None
A5800_5820X-CMW520-F1803L01			
New	None	None	None
Modified	None	None	None
A5800_5820X-CMW520-F1305P01			
New	Rfc5240-pim-bsr.mib	PIM-BSR-MIB	Added PIM-BSR-MIB
	Rfc5060-pim-std.mib	PIM-STD-MIB	Added PIM-STD-MIB

Item	MIB file	Module	Description
	savi-mib.mib	SAVI-MID	Added SAVI-MIB.
	hh3c-config-man.mib	HH3C-CONFIG-MAN-MIB	Modified hh3cCfgLogTable in HH3C-CONFIG-MAN-MIB. Modified hh3cCfgOperateTable in HH3C-CONFIG-MAN-MIB.
	hh3c-flash-man.mib	HH3C-FLASH-MAN-MIB	Modified hh3cFlhOpTable in HH3C-FLASH-MAN-MIB.
Modified	rfc2011-ip-icmp.mib	IP-MIB	Modified ipRouteTable in IP- MIB. Modified ipCidrRouteNumber in IP-MIB. Modified ipCidrRouteTable in IP-MIB.
	rfc2465-ipv6.mib	IPV6-MIB	Modified ipv6RouteNumber in IPV6-MIB. Modified ipv6DiscardedRoutes in IPV6-MIB. Modified ipv6RouteTable in IPV6-MIB.
A5800_5820X-CMW520-R1211P04			
	hh3c-if-ext.mib	HH3C-IF-EXT-MIB	Added hh3cIfIsPoe.
New	hh3c-ntp.mib	HH3C-NTP-MIB	Added hh3cNTPSysPollSec. Added hh3cNTPSysClockSec. Added hh3cNTPServerIP.
Modified	None	None	None
A5800_5820X-CMW520-R1211P02			
New	None	None	None
Modified	None	None	None
A5800_5820X-CMW520-R1211			
New	None	None	None
Modified	None	None	None

Operation changes

Operation changes in R1808P08

1. Static multicast MAC address
From this version, multicast MAC addresses starting with 01005e can be configured.
2. Loop detection log
VLAN ID information is added into the log information that is generated when a loop occurs on a port enabled with loop detection.

Operation changes in R1808P06

1. Multi-port ARP

Before modification, the packets matching a short static multi-port ARP entry cannot be forwarded.

After modification, a short static multi-port ARP entry can be used to forward the matching packets after an ARP reply is received for that short static multi-port ARP entry.

2. Auto-negotiation

Before modification, auto-negotiation cannot negotiate flow control capability.

After modification, a port that is enabled with auto-negotiation and flow control negotiates flow control capability with the peer port during auto-negotiation. Note that: If you enable flow control on an Up port that has been enabled with auto-negotiation, the port goes down and up.

Operation changes in R1808P02

1. Changed the IRF connection mistake handling method.

IRF-port 1 on one device must be connected to IRF-port 2 on another device. The system blocks incorrectly connected IRF ports and alerts the users to the mistake by settings the port LEDs in amber flashing state.

2. Looped-port status processing mechanism

Before modification: If a port's loopback protection action is shutdown, the system automatically shuts down the port when it detects a loop on the port, leaving the port in Loop down state at the physical layer. After the loop is removed, you must execute the **undo shutdown** command on the port to restore the port's forwarding capability.

After modification: The system automatically starts a port status detection timer when a port is shut down because of a loopback. After the timer expires, the system automatically brings up the port to restore its forwarding capability. The timer is 30 seconds by default. You can use the **shutdown-interval *time*** command to change the timer.

Operation changes in R1807P02

1. Changed RPS status output information for 5800-48G (1 slot)/5800-48G TAA (1 slot)/5800-24G/5800-24G TAA.

In earlier versions, when the RPS does not provide power, the RPS status is displayed as "Fault". In this version, the RPS status is displayed as "Standby".

2. Changed the maximum number of outgoing interfaces in a static multicast MAC entry from 16 to 32.

Operation changes in F1807P01

1. Changed the value range for the offline detect timer.

The value range changed from 60~65535 to 60~2147483647.

2. Disable telnet server service by default.

In earlier versions, telnet server is enabled by default. In this version, telnet server is disabled by default.

To enable telnet server, use the “telnet server enable” command.

Operation changes in F1805P02

1. Disable all the TCP/UDP port by default (For example: TCP ports including 23/7547, UDP ports including 68/1812/3318/3799).

Operation changes in F1805P01

1. Disable NDP, NTDP, Cluster and Winet protocols by default.

The cluster management feature provides a simple method to manage multiple units using a single IP address, however it does use some protocols that are not considered totally secure. In this release, the cluster management protocols, including NDP, NTDP, and Cluster, are disabled by default to avoid any possible security risks.

If cluster management is required it is necessary to re-enable the required protocols with the following commands: `ndp enable`, `ntdp enable`, and `cluster enable`. In addition, HP recommends that a separate management VLAN for the cluster should be established. Only the access ports that are used to link the cluster members should belong to this VLAN so the inter-switch protocol will not be accessible to insecure devices, including PCs and other network devices.

The Winet feature is removed in this release as it is not considered totally secure. The Winet functionality is available through other management methods.

2. Disable HTTP service by default.

In earlier versions, HTTP is enabled by default. In this version, HTTP is disabled by default.

To enable HTTP, use the “`ip http enable`” command.

3. Backup the configuration file for old version software.

If a save operation is performed on a switch where a software version of F1805P01 or later is running and the version number in the current startup configuration file is lower than F1803L01, the system first backs up the startup configuration file and then saves the current configuration. For example, suppose the startup configuration file is `a.cfg`. When a save operation is performed, the system first backs up `a.cfg` into `_a_bak.cfg` and then saves the current configuration into `a.cfg`.

4. Operation change for whether a port leaves the critical VLAN after the silent timer expires:

After a port is assigned to the critical VLAN, the RADIUS server state changes to “blocked”, and the silent timer of the RADIUS server starts (this timer is configurable and defaults to 5 minutes).

In earlier versions:

(1) If the port uses 802.1X authentication, it leaves the critical VLAN when the silent timer expires. If the port is configured with the `dot1x critical recovery-action` command, it’s leaving triggers new 802.1X authentication.

(2) If the port uses MAC authentication, it leaves the critical VLAN when the silent timer expires.

In this version:

(1) If the port uses 802.1X authentication, it remains in the critical VLAN when the silent timer expires. If the port is configured with the `dot1x critical recovery-action` command, the silent timer expiration triggers new 802.1X authentication.

(2)If the port uses MAC authentication, it remains in the critical VLAN and triggers new MAC authentication when the silent timer expires.

5. Change the maximum number of online users for RADIUS.

In earlier versions, the maximum number of online users for RADIUS is 4096; in this version the number is 6000.

6. Modified the value of node hh3cUserPassword in HH3C-USER-MIB due to security concerns.

When read, hh3cUserPassword always returns a zero-length OCTET STRING.

Operation changes in F1803L03

1. Changed the maximum number of GRE, IPv4-IPv4, or IPv6-IPv4 tunnels from 128 to 256.
2. Changed the default state for TCP port 179 and port 639 to close.
3. Changed the delay time for MAC authentication from 30 seconds to 0 seconds when both 802.1X authentication and MAC authentication are enabled. You can modify the delay time at the CLI.
4. This release returns a reason for an 802.1X authentication failure to iNode, which is not available in earlier releases F1305P01.
5. Changed the value range for the irf link-delay from 20-2000 ms to 0-30000 ms. The default value is 4 seconds. To minimize the IRF link switchover and master/subordinate switchover delay or guarantee BFD or GR performance, HP recommends setting the IRF link down report delay to 0.

Operation changes in F1803L01

None

Operation changes in F1305P01

1. DHCP snooping table changed

Modify DHCP snooping table from 8K to 12K.

2. Voice vlan oui mac address specification changed

Modify "voice vlan oui mac address" specification to 128

3. Passing packets deal with method changed.

Modify passing ARP packets solved method from limited speed to non-limited speed.

4. The command that applies an IPsec policy to the OSPFv3 area changed.

In this version, the command changed from **ipsec-policy** to **enable ipsec-policy**.

5. Hardware support of IPv6 routes with mask longer than 64bits

In previous versions: IPv6 routes with mask longer than 64bits exists only in software.

In this version: maximum of 128 routes with mask longer than 64bits can be issued into hardware.

6. Synchronizing Voice VLAN mac-addresses automatically within all IRF members.
7. Upgrading software for the IRF fabric by iMC

In this version, distributed file system is supported. Software upgrading of IRF fabric through iMC is supported.

Operation changes in R1211P04

None

Operation changes in R1211P02

None

Operation changes in R1211

First release

Restrictions and cautions

1. A5820X works at IPS mirror mode. If the IPS applies “any” rule, the PC connected to the device cannot communicate to its gateway.
2. IRF connection restrictions:
 - One IRF port can have only one peer port. All physical ports of an IRF port must be connected to the physical ports of the same remote IRF port.
 - If there is a connection mistake between a newly-installed member device and a stack, you must power off the newly-installed member device, reconnect the physical ports, and then power on the newly-installed device.

Open problems and workarounds

LSD50925

- Symptom: The MTU displayed the **display interface Tunnel** command is 1460, which is different from the actual value.
- Condition: This symptom exists in the output of the **display interface Tunnel** command.
- Workaround: None.

LSD60159

- Symptom: IMC fails to display a hybrid port.
- Condition: This symptom might occur if you configure the hybrid port to remove the VLAN tag of traffic from VLANs other than VLAN 1.
- Workaround: None.

LSD67705

- Symptom: If a unit is downgraded to earlier code, it may no longer be possible to login and manage the device.

- Condition: In this version of code, the password encryption within configuration files has been enhanced and cannot be interpreted by earlier revisions of the agent code.
- Workaround:
 - Before upgrading to the new code, it is necessary to ensure password control is disabled. Execute the *"undo password-control enable"* and then save this configuration file as a backup in case you need to downgrade the software again. If it is later necessary to downgrade to earlier software, force the switch to use this backup configuration file by executing a *"startup saved-configuration (filename)"* command before rebooting to the old code. Then, after the code has been downgraded, the device can be logged in from the console or by Telnet, but not SSH. The SSH authentication details will need to be reset.
 - If no backup configuration has been saved but it is still possible to access the device management via some method while running the old code (e.g. Console, Telnet or SSH), then you can redefine all the device management passwords as required.
 - If after a downgrade it is impossible to login to the device via any method, then there are two ways to recover the switch:
 - From the BOOT menu, set the new code to run again and reboot the device. Disable Telnet authentication:


```
User-interface vty 0 4
Authentication mode none
```

 Then save the configuration and downgrade the code again, login via Telnet and reset all the passwords as required.
 - From the BOOT menu. On boot-up, use Ctrl+B to enter the Boot menu and then force the unit to use the factory default configuration (bypassing the user configuration). The unit will then need to be fully reconfigured.

LSD072808

- Symptom: Disabling and enabling MPLS operation after a master/subordinate switchover, MPLS function fails.
- Condition: This symptom occurs by disabling and enabling MPLS operation after a master/subordinate switchover.
- Workaround: None.

LSD072882

- Symptom: Traffic passing IPS card cannot be forwarded.
- Condition: This symptom occurs if the mirroring mode is configured for IPS card on A5820X device.
- Workaround: None.

List of resolved problems

Resolved problems in R1808P08

LSD075006

- Symptom: The switch fails to start up if the NAND flash's area that stores runtime information is corrupted.

- Condition: This symptom occurs if the NAND flash's area that stores runtime information is corrupted.

LSD074507

- Symptom: The switch fails to communicate with a device from another vendor through IPv6 VRRPv3.
- Condition: This symptom occurs because the IPv6 VRRPv3 packet format used by the switch contains a redundant authentication field, which does not comply with RFC 5798.

LSD074987

- Symptom: After an IRF master/subordinate switchover, OSPF fails to learn routes although OSPF neighbor relationships have been established.
- Condition: This symptom occurs if the following conditions exist before the master/subordinate switchover:
OSPF neighbor relationships are established on the subordinate switch.
The **undo irf mac-address persistent** command is configured on the IRF fabric.

LSD075013

- Symptom: When a VRRP backup device is rebooted, it becomes the VRRP master within a short time.
- Condition: This symptom occurs if the VRRP backup device's interface that is enabled with VRRP is a Layer 3 interface.

ZDD06135

- Symptom: A switch connected to a device from another vendor unexpectedly reboots during IKE negotiation.
- Condition: This symptom occurs if the IKE proposal adopts RSA signature authentication and a domain is referenced for the IKE peer.

LSD075095/LSD075382

- Symptom: An IRF fabric continually reboots if a member switch sends incorrect IRF packets because of a packet buffer hardware fault.
- Condition: This symptom occurs if a member switch sends incorrect IRF packets because of a packet buffer hardware fault.

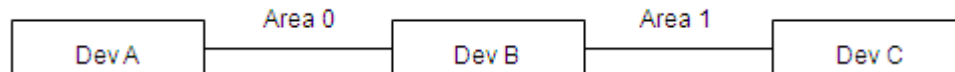
LSD074644

- Symptom: A switch unexpectedly reboots when a user logs in to the Web interface.
- Condition: This symptom occurs if the character string specified in the **snmp-agent sys-info location** or **snmp-agent sys-info contact** command exceeds 200 characters.

Resolved problems in R1808P06

LSD074198

- Symptom: As shown in the following figure, if the import-route static and undo import-route static commands are repeatedly executed on Dev C where multiple static routes exist, Dev B might reboot.
- Condition: This symptom might occur if the import-route static and undo import-route static commands are repeatedly executed on Dev C where multiple static routes exist.



LSD074638

- Symptom: A configuration file larger than 17K bytes fails to be uploaded to IMC BIMS when the authentication method is username and password.
- Condition: This symptom might occur when a configuration file larger than 17K bytes is uploaded to IMC BIMS and the authentication method is username and password.

LSD074434/LSD074711

- Symptom: When an IRF fabric that has a dynamic link aggregation group with multiple member ports splits, LACP MAD cannot quickly detect the IRF split, resulting in 10-second packet loss.
- Condition: This symptom might occur during an IRF split because a large number of LACP packets are sent when the IRF fabric splits, which disables LACP MAD from quickly detecting the failure.

LSD074354

- Symptom: The output from the display ipv6 dhcp snooping user-binding dynamic command does not show DHCP snooping entries for users that have obtained IP addresses in a VLAN if DHCP relay is enabled on the VLAN interface and DHCP snooping is enabled on the VLAN.
- Condition: This symptom occurs in a VLAN if DHCP relay is enabled on the VLAN interface and DHCP snooping is enabled on the VLAN.

LSD073944

- Symptom: After the ip https enable command and then the undo ip https enable command are executed, TCP port 443 is not shut down.
- Condition: This symptom occurs after the ip https enable command and then the undo ip https enable command are executed.

LSD073683

- Symptom: No prompt information is given upon failure of executing the ip https enable command.
- Condition: This symptom occurs if you first execute the portal local-server https server-policy sslsvr command and then execute the ip https enable command. The ip https enable command fails to be executed because the server policy needed by HTTP has been used by portal.

LSD074749

- Symptom: In the output from the display current-configuration command, the snmp-agent sys-info contact and location fields only have four characters.
- Condition: This symptom occurs if the contact and location information is configured in the Web interface.

LSD074745/LSD074888

- Symptom: After a blackhole MAC entry in a VLAN where a static MAC entry also exists is deleted with the undo mac-address blackhole vlan <vid> command, the display mac-address command shows that the blackhole MAC entry has been deleted, but when the blackhole MAC entry is reconfigured, the system prompts " Error: This MAC Address already exists."
- Condition: This symptom occurs after a blackhole MAC entry in a VLAN where a static MAC entry exists is deleted with the undo mac-address blackhole vlan <vid> command.

LSD074950

- Symptom: On an IRF fabric, a smart link group has member ports on different IRF member switches. If the CPU of the member switch, where the active port in the smart link group resides, stops working, the member switch will be rebooted. Before the member switch reboots, both of the two ports in the smart link group become active, resulting in a transient loop.
- Condition: This symptom occurs before the IRF member switch where the active port in the smart link group resides is rebooted.

Resolved problems in R1808P02

LSD074224

- Symptom: The 3Com 3CNJ2000 device that is attached to the switch fails to supply power to PDs.
- Condition: This symptom might occur if the switch runs R1805P02 and the 3Com 3CNJ2000 PD device is attached to the switch as a PD.

LSD074325

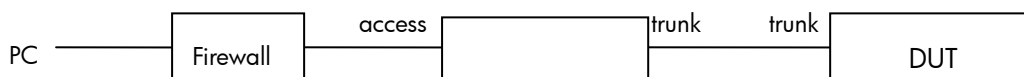
- Symptom: After the software is upgraded from R1211P04 to Feature 1805P02, ping operations fail.
- Condition: This symptom occurs when the following conditions exist:
 - S5800 is connected to a Cisco device, which does not use split horizon.
 - The Cisco device assigns labels for direct routes, and S5800 assigns Swap attribute for the LSPs.

LSD074473

- Symptom: LDP packets not destined for the switch are delivered to the CPU. If large numbers of such LDP packets are delivered to the CPU, the CPU usage is high, affecting normal LDP sessions especially when link down/up events occur.
- Condition: This symptom occurs when the switch resides between two other devices and receives LDP packets destined for one of those two devices.

LSD074048

- Symptom: ARP reply messages with Trailer field error are blocked by some firewalls when VLAN-tagged ARP replies are sent out of the trunk port of the DUT.
- Condition: This symptom occurs when the VLAN-tagged ARP replies are sent out of the trunk port of the DUT. The following figure shows the network diagram.



ZDD05904

- Symptom: The configuration file cannot be uploaded to the ACS through CWMP.
- Condition: This symptom occurs if CWMP uploads the configuration file by using the HTTP put or HTTPS put method, and the ACS requires file transfer authentication in addition to the authentication performed during CWMP connection setup.

NOTE:

If IMC is used as the ACS, you must also update IMC to the BIMS 5.2 (E0401) version to solve the problem.

LSD070383

- Symptom: An SNMP walk on the dot3OamUniqueEventNotificationTx and dot3OamDuplicateEventNotificationTx nodes returns a value of 0.
- Condition: This symptom might occur if you use MIB Browser or other network management tools to access the dot3OamUniqueEventNotificationTx and dot3OamDuplicateEventNotificationTx nodes.

LSD072339

- Symptom: The STP status of the link is wrong on the MSTIs except CIST.
- Condition: This symptom occurs when you perform the following operations:
 - Connect the neighboring MSTP devices through an aggregate link that allows packets from multiple VLANs to pass through.
 - Delete all VLANs that are mapped to MSTIs on the aggregate link, and configure the VLANs again.

ZDD05659

- Symptom: MSDP peers cannot go up.
- Condition: This symptom might be seen when route flapping frequently occurs on the network and CPUs of the MSDP peers are busy.

ZDD05804

- Symptom: If the egress interface cost of the IS-IS route that is optimal among IS-IS routes destined for the same network is modified twice, route calculation error occurs, and the optimal route is not selected.
- Condition: This symptom occurs if the egress interface cost of the IS-IS route that is optimal among IS-IS routes destined for the same network is modified twice..

ZDD05830

- Symptom: If the switch receives Type-4 LSAs from multiple areas, it advertises the most recently received Type-4 LSA to other area, rather than the optimal one.
- Condition: This symptom occurs if the switch receives Type-4 LSAs from multiple areas.

LSD073884

- Symptom: The configuration of the **esp encryption-algorithm aes-cbc-192** command is changed to the **esp encryption-algorithm aes-cbc-128** command.
- Condition: This symptom occurs when you perform the following operation:

In FIPS mode, execute the **esp encryption-algorithm aes-cbc-192** command, and then the **transform ah-esp** command in IPsec transform set view. In the current-configuration, the **esp encryption-algorithm aes-cbc-192** command is changed to the **esp encryption-algorithm aes-cbc-192 aes-cbc-128** command.

Save the configuration and reboot the device.

LSD073943

- Symptom: In FIPS mode, if you execute the **authorization-attribute work-directory** command that includes an invalid parameter in local user view, the following messages that appear still include FTP information, although FTP is not supported in FIPS mode:

```
Warning:Wrong FTP path or nonexistent directory.
Warning:The directory for FTP must be an absolute path!
```

- Condition: This symptom can be seen if you execute the **authorization-attribute work-directory** command that includes an invalid parameter in local user view in FIPS mode.

LSD074084

- Symptom: Memory leaks occur when the **public-key local create dsa** command or the **public-key local create rsa** command is used in FIPS mode to generate key pairs.
- Condition: This symptom occurs when the **public-key local create dsa** command or the **public-key local create rsa** command is used in FIPS mode to generate key pairs.

LSD073993

- Symptom: When the log file is full, if you do not enter **y** at the prompt "Warning: All port will be shutdown when the logfile is full. Are you sure? [Y/N]:" that appears after you execute the **info-center logfile overwrite-protection all-port-powerdown** command, all service ports are shut down.
- Condition: This symptom occurs if you do not enter **y** at the prompt "Warning: All port will be shutdown when the logfile is full. Are you sure? [Y/N]:" that appears after you execute the **info-center logfile overwrite-protection all-port-powerdown** command when the log file is full.

LSD074012

- Symptom: The log host records two identical logs for each command executed on the switch.
- Condition: This symptom occurs when the following conditions exist:
 - The log host is specified using the **info-center loghost vpn-instance vpn1 ip address** command on the switch.
 - The VPN instance **vpn1** does not exist and the specified IP address is a public address.

LSD074011

- Symptom: The **display current-configuration** command displays the default SNMP configurations while SNMP is disabled.
- Condition: This symptom might occur if you specify SNMPv1 and SNMPv2c on the Web interface and then disable SNMP while the device is operating in FIPS mode and SNMP is not configured for the device.

LSD074104

- Symptom: If you enter **n**, or do not enter **y** before the confirmation timeout timer expires at the prompt that appears after you execute the **info-center logfile overwrite-protection all-port-powerdown** command, the system displays incorrect messages. It displays "Log file directory cannot be more than 19 characters" after the confirmation timeout timer expires, or "Nonsupport language mode" after you enter **n**.
- Condition: This symptom occurs if you enter **n**, or do not enter **y** before the confirmation timeout timer expires at the prompt that appears after you execute the **info-center logfile overwrite-protection all-port-powerdown** command.

ZDD05611

- Symptom: When an IRF fabric in an L3VPN network can't create BGP peer successfully, BGP GR process will takes four minutes. Under that condition, ping operations to a device connected to the IRF fabric fail.
- Condition: This symptom can be seen if a ping operation is performed to a device connected to an IRF fabric when the IRF fabric is performing BGP GR. The master device is rebooting.

LSD074037

- Symptom: Traffic that matches a deny-mode routing policy node might be handled by a permit-mode routing policy node.
- Condition: This symptom might occur if the following conditions exist:
 - Too many ACL resources are used.
 - Both a deny-mode node and a permit-mode node are configured for a routing policy, and the deny-mode node has a higher priority.

The following configuration is for reference:

```
policy-based-route proxy deny node 5
  if-match acl 3001
policy-based-route proxy permit node 10
  if-match acl 3002
apply ip-address next-hop 192.168.3.2
```

ZDD05791

- Symptom: LDP fails to establish a session with a device if the packets received from that device contain a non-zero label.
- Condition: This symptom occurs if the packets received from a device contain a non-zero label.

LSD074015

- Symptom: The **shutdown** command executed for the log file overwrite protection function (configured by **info-center logfile overwrite-protection all-port-powerdown**) that is triggered by log saving failure is not saved into the running configuration file.
- Condition: This symptom can be seen when the switch performs the log file overwrite protection function (configured by **info-center logfile overwrite-protection all-port-powerdown**).

LSD073914

- Symptom: A user cannot change the login password and the following error message appears:
Failed to write the password records to file.
Error: Something wrong in writing the password history records. Failed to set password.
- Condition: This symptom might occur if a user with the security-audit user role logs in for the first time while the device is operating in FIPS mode.

LSD074301

- Symptom: The switch reboots after it receives an incorrect DHCP packet.
- Condition: This symptom might occur if the length of Option 82 in the DHCP packet exceeds the agent information field length.

LSD074266

- Symptom: The numbers in the packet statistics are random and cannot be cleared by using the **reset counters** command.
- Condition: This symptom might occur when you use the **display interface** command to display the statistics of a Layer 3 aggregate interface.

LSD073946

- Symptom: A high CPU usage (even nearly 100%) occurs.
- Condition: This symptom might occur if there are multiple PVST instances on the device and TC snooping is enabled. With TC snooping enabled, the device actively updates the MAC address

table entries and ARP entries upon receiving TC-BPDUs. Because multiple PVST instances have abundant MAC address table entries and ARP entries, TC snooping may overburden the system.

LSD074438

- Symptom: The MAC address of a user is not removed from the Auth-Fail VLAN after a successful 802.1X re-authentication.
- Condition: This symptom occurs when the following conditions exist:
 - The same VLAN is specified as the critical VLAN and the PVID of the hybrid port.
 - The auth-fail VLAN is assigned to the user who fails the 802.1X authentication on the MAC-based access control port. Then, the user passes the 802.1X authentication at the second try.

LSD074514

- Symptom: A MIB node returns wrong value.
- Condition: This symptom might occur if you use MIB Browser or other network management tools to access the hh3cDevMSlotEnvironmentValue, hh3cDevMSlotEnvironmentUpperLimit, and hh3cDevMSlotEnvironmentLowerLimit nodes.

LSD072197

- Symptom: A secondary IP address can be assigned to the network management port that does not allow any secondary IP address configuration.
- Condition: This symptom occurs when the secondary IP address is assigned to the network management port M-GigabitEthernet 0/0/0 through IMC.

LSD074440/LSD074455

- Symptom: The switch drops IGMP reports.
- Condition: This symptom might be seen when the following conditions exist:
 - The switch is enabled with 802.1X authentication and MAC authentication.
 - The source MAC address of the IGMP report has passed MAC authentication.

Resolved problems in R1807P02

LSD074034

- Symptom: The switch fails to learn new ARP entries when some ARP entries have errors.
- Condition: This symptom might be seen when the following conditions exist:
 - Inter-VPN traffic exists.
 - Multiple ARP entries contain the same MAC address, and the egress port to the MAC address of one ARP entry is changed.

LSD073959

- Symptom: Roll back the software from the version F1807P01 or later to a version before F1807P01 using ISSU compatible mode, the operation will fail.
- Condition: Roll back the software from the version F1807P01 or later to a version before F1807P01 using ISSU compatible mode.

Resolved problems in F1807P01

None

Resolved problems in F1805P02

None

Resolved problems in F1805P01

LSD72321

- Symptom: When access the hh3cUserPassword node of hh3cUserInfoTable by SNMP, the device returns the user's password.
- Condition: Access the hh3cUserPassword node of hh3cUserInfoTable by SNMP.

LSD50222

- Symptom: A CE connected to a subordinate switch in an IRF fabric cannot communicate with the remote CE over a CCC connection.
- Condition: This symptom might occur if the CE connects to a subordinate switch in an IRF fabric that acts as a PE.

LSD62489

- Symptom: The **Summary** -> **Network** -> **VLAN** -> **Select VLAN** Web page displays incorrect information about VLAN members.
- Condition: This symptom might occur if VLAN member ports are configured on the switch.

LSD65783

- Symptom: Packet loss occurs during Layer 2 forwarding over a cross-chassis aggregate link.
- Condition: This symptom might occur if the following conditions exist:
 - The link-aggregation traffic redirection is enabled.
 - All traffic forwarding occurs on the master device.
 - The master device is rebooted.

LSD68838

- Symptom: An aggregate group port on an IRF member switch is down after the member switch is rebooted.
- Condition: This symptom might occur if the aggregate group comprises ports on different IRF member switches, and the port is a PVLAN promiscuous port.

LSD68704

- Symptom: MAC addresses that should be added to SVLAN are added to PVLAN when packets whose PVID is SVLAN are received.
- Condition: This symptom might occur if you configure **isolater-user-vlan**, and then cancel the PVLAN and SVLAN mapping.

ZDD04834

- Symptom: Software loading during an incompatible ISSU on a subordinate switch has multiple errors.
- Condition: This symptom might occur if the **issu rollback slot 1** command is executed repeatedly when an incompatible ISSU is loading software on a subordinate switch.

LSD071681

- Symptom: The fans of the 5820AF-24XG or 5800AF-48G run at the highest speed continuously.
- Condition: This symptom occurs after the switch has started for five minutes.

LSD071159

- Symptom: BFD flapping occurs on a sub card and BFD fails to establish a session over the sub card.
- Condition: This symptom might occur if you configure BFD and then insert the sub card.

LSD070899

- Symptom: The undo silent-interface configuration on the master gets lost after a master/subordinate switchover.
- Condition: This symptom occurs after a master/subordinate switchover is performed.

LSD68981

- Symptom: Memory leaks occur to the CWMP module, resulting in a system reboot.
- Condition: This symptom might occur if saving configuration fails because of insufficient Flash space when CWMP is running.

LSD071085

- Symptom: ACL description information gets lost after a master/subordinate switchover.
- Condition: This symptom occurs after a master/subordinate switchover is performed.

LSD69468

- Symptom: The switch reboots after long-time routing flapping.
- Condition: This symptom might occur if route flapping occurs for a long time then MPLS LDP is running.

LSD69541

- Symptom: A Cisco IP phone connected to the switch switches between voice VLAN and data VLAN.
- Condition: This symptom occurs when the device is connected to a Cisco IP phone that runs DHCP.

LSD67870

- Symptom: The CPU usage of the master switch in an IRF fabric is 100%.
- Condition: This symptom might occur after the subordinate switch has an ACFP policy assigned and then gets rebooted.

LSD68952

- Symptom: The console port is unresponsive.
- Condition: This symptom might occur when diagnosis information is saved to the subordinate switch.

LSD070280

- Symptom: The switch cannot respond to Tracert requests.
- Condition: This symptom occurs when the switch is running VRRP and is in backup state.

LSD071657

- Symptom: An error occurs to the MAC address table, resulting in a system reboot.
- Condition: This symptom might occur after a long-time operation.

LSD071662

- Symptom: IPv6 ACLs in hardware cannot be deleted.
- Condition: This symptom occurs if you assign IPv6 ACLs to a VLAN interface and then delete the ACLs.

LSD071306

- Symptom: CPU resources cannot be released, resulting in a system reboot.
- Condition: This symptom might be seen on a specific switch if overtime PCIE access occurs.

LSD071184

- Symptom: The switch cannot transparently transmit LSP echo packets.
- Condition: This symptom occurs when the switch is performing Layer 2 forwarding.

LSD071871

- Symptom: The port Ten-GigabitEthernet1/0/52 of 5800AF-48G goes up and down.
- Condition: This symptom might occur when the port is connected to a transceiver module that has digital diagnostic function.

Resolved problems in F1803L03

LSD69494

- Symptom: Some protocols on the switch cannot run properly.
- Condition: This symptom might occur when the CPU receives a large number of IP multicast packets within a short time.

LSD070281

- Symptom: FTP/TFTP download speeds on the S5800 switch are slow.
- Condition: This symptom might occur during FTP/TFTP file downloads.

LSTB005616

- Symptom: A system reboot occurs when a copy operation is performed through a specific U disk.
- Condition: This symptom might occur during a copy operation through a specific U disk.

Resolved problems in F1803L01

LSD69190

- Symptom: The GMT time zone offset value of Caracas (capital of Venezuela) is not correct on the **System Time** page.
- Condition: None.

LSD69697

- Symptom: The IMC fails to perform topology calculation for a switch.
- Condition: This symptom might occur if the network management interface of the switch is connected to the IMC.

LSD69259

- Symptom: An SNMP walk on hh3cSysBootType MIB returns no values.
- Condition: This symptom might occur if the walk operation is performed after the switch reboots.

LSD070470

- Symptom: IRF protocols fail to exchange messages and CLI configurations fail.
- Condition: An IRF fabric runs multiple protocols simultaneously for a long time.

Resolved problems in F1305P01

LSD66095

- Symptom: A port inserted with a non-HP transceiver module cannot come up.
- Condition: This symptom might occur if the port connects to a non-HP transceiver module with a fiber cable.

LSD63957

- Symptom: A switch that runs LLDP fails to display information about an LLDP neighbor after receiving an LLDP packet that contains an unknown organizationally-defined TLV longer than 500 bytes from the neighbor.
- Condition: This symptom occurs if the switch receives from an LLDP neighbor an LLDP packet that contains an unknown organizationally-defined TLV longer than 500 bytes.

LSD63958

- Symptom: A switch that runs LLDP fails to display information about an LLDP neighbor after receiving an LLDP packet in which the Location Identification TLV has an LCI value of 0.
- Condition: This symptom occurs if the switch receives from a neighbor an LLDP packet in which the Location Identification TLV has an LCI value of 0.

LSD65589

- Symptom: Memory leaks occur to the HTTP module, and the switch reboots.
- Condition: This symptom might occur if the switch receives non-standard HTTP packets (for example, the HTTP packets have the same domain).

LSD64596

- Symptom: The switch reboots when a user Telnets to the switch.
- Condition: This symptom might occur if the following conditions exist:
 - VTY debugging is enabled on the switch.
 - The Telnet Binary option is negotiated.

LSD64756

- Symptom: Result in DISMAN-PING-MIB::pingResultsOperStatus Failed and cannot be restore, the device reboot occasionally.
- Condition: Get or set RPINGMib to operate NQA through SNMP.

LPD12677

- Symptom: RX alarm information is incorrect in transceiver alarm information.
- Condition: This symptom might occur when both TX and RX power alarms exist on the same port.

LSD64709

- Symptom: 10G port in sub card cannot go up after it comes down normally.
- Condition: For the first time, 10G port in sub card is up, use 'dis device manuinfo slot 1 subslot' command to get the series number of sub card.

LSD64788

- Symptom: Outbound BPDU packets on a source port cannot be mirrored.
- Condition: This symptom might occur if the source port is configured with bidirectional mirroring and enabled with BPDU tunneling.

Resolved problems in R1211P04

LSD65853

- Symptom: The switch reboots when you configure a very log password for a Web user by using the **cluster** command.
- Condition: This symptom might occur when you configure a very log password for a Web user by using the **cluster** command.

ZDD04769

- Symptom: The switch reboots when it acts as the source DR.
- Condition: This symptom might occur when a downstream switch is enabled and disabled with PIM-SM continuously.

ZDD04754

- Symptom: The CPU usage is high when the switch acts as the DHCP server.
- Condition: This symptom might occur if many clients use conflict addresses.

ZDD04724

- Symptom: The switch reboots when LDP flapping occurs on a port.
- Condition: This symptom might occur when LDP flapping occurs on an unstable port.

LSD64220

- Symptom: The sFlow ifInOctet and ifOutOctet values should be 64-bit long, but the values displayed are 32-bit long.
- Condition: This symptom exists in displayed sFlow port statistics.

LSD65092

- S Symptom: The switch reboots if fast and continuous NQA ping operations are performed.
- Condition: This symptom might occur if fast and continuous NQA ping operations are performed.

ZDD04358

- Symptom: LDP flapping occurs when the switch has established Martini MPLS L2VPN with a Cisco device.
- Condition: This symptom might be seen if a primary PW/backup PW switchover occurs on the Cisco device.

LSD64598

- Symptom: The switch reboots if you execute the **free user vty** command when VTY debugging is enabled.
- Condition: This symptom might occur if you execute the **free user vty** command when VTY debugging is enabled.

LSD66815

- Symptom: An error message appears after 24 ACL rules for matching TCP/UDP ports are assigned.
- Condition: This symptom might occur if more than 25 ACL rules for matching TCP/UDP ports are assigned.

LSD66490

- Symptom: Loopback detection logs show information different from the actual configuration.
- Condition: This symptom might occur if you change the loopback detection action from shutdown to semi-block when a loop has been detected.

LSD65841

- Symptom: A 1-second interruption occurs to Layer 2 forwarding during an IRF master/subordinate switchover.
- Condition: This symptom might occur if an IRF master/subordinate switchover is performed when enable link aggregation traffic redirection to the master.

LSD68572

- Symptom: The wireless card LSWM1WCM10 or IPS card LSDM1IPS10 might be identified as the firewall card LSWM1FW10.
- Condition: Upgrade the system software to R1211L01, R1211P02, R1211P03, F1305, or F1305P01.

LSD65758

- Symptom: A checksum error message appears when an SFP transceiver module is inserted.
- Condition: This symptom occurs if you insert an old 3Com SFP transceiver.

LSD65746

- Symptom: A BFD session on a port is not removed after the port goes down.

- Condition: This symptom might occur if you configure IRF member ID 10 for the switch.

HWD35697

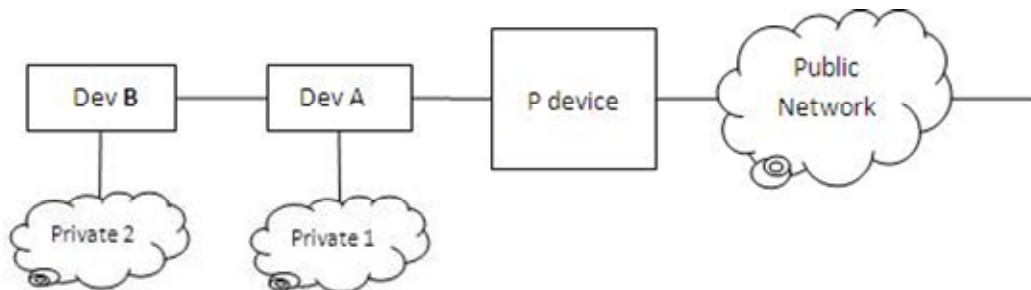
- Symptom: POE function fails.
- Condition: When the switch of HP TAA power up, insert the POE sub-card without firmware.

LSD68690

- Symptom: The link state of a 10GE port on the front panel is not stable.
- Condition: This symptom might occur if a voltage dip occurs and results in input clock noise on the 10GE port on the front panel.

LSD67497

- Symptom: The switch cannot learn PIM RP and NBR information in a VPN when it acts as a PE.
- Condition: This symptom might occur when the switch acts as a PE that resides in the same position as Dev B in the following network. In this network, multicast VPN is enabled. For network Private 1, Dev A is a PE device. For network Private 2 and Dev B, Dev A is a P device. Dev A can receive VPN PIM RP and NBR information from the upstream device but it does not advertise the information to Dev B.



Resolved problems in R1211P02

LSD63054

- Symptom: The switch that acts as the sFlow agent sends both sampled_ipv4 and sampled_ethernet data in a sFlow packet.
- Condition: This symptom occurs when the switch sends a sFlow packet with a sampled_header.

LSD63203

- Symptom: The **remark service-vlan-id** command fails to take effect in the inbound direction on the customer-side port.
- Condition: This symptom occurs when two-to-two VLAN mapping is configured.

ZDD04235

- Symptom: The switch reboots after continuous BGP route flapping.
- Condition: This symptom might be seen if continuous BGP route flapping occurs.

LSD61915

- Symptom: The ports of the AC card LSWM1WCM20 installed on a switch cannot start up after the switch starts up. This problem is solved after the AC card is hot swapped.

- Condition: This symptom occurs when a switch installed with the AC card LSWM1WCM20 starts up.

LSD62780

- Symptom: Pack forwarding errors occur, resulting in NLB failure.
- Condition: This symptom might occur when NLB is used on MCE.

LSD62622

- Symptom: An SNMP Get operation to the sflow sampler of a port fails.
- Condition: This symptom might occur when you use SNMP to get the sflow sampler of a specific port.

LSD62416

- Symptom: The **save force** command in the configuration file obtained through auto-configuration does not take effect, and the configuration file cannot be specified as the startup configuration file.
- Condition: This symptom occurs if the configuration file obtained through auto-configuration contains the **save force** command.

LSD59864

- Symptom: The BIMS management interface shows an IRF fabric as multiple switches.
- Condition: This symptom occurs if you use BIMS to manage an IRF fabric.

ZDD04271

- Symptom: The switch fails to establish usable LSPs.
- Condition: This symptom might occur in a specific network where the switch establishes many useless LSPs and has no resources to establish usable LSPs.

ZDD04176

- Symptom: When ARP attack protection is enabled, ARP entries on an interface are changed by ARP attack packets that are sourced from the same MAC address but have a sender IP address on a subnet different from the receiving interface.
- Condition: This symptom occurs if the interface receives ARP attack packets that are sourced from the same MAC address but have a sender IP address on a different subnet from the receiving interface.

ZDD04163

- Symptom: Chassis IDs in the displayed LLDP information contain garbled characters.
- Condition: This symptom occurs when the switch is connected to a specific IP Phone.

Resolved problems in R1211

First release

Related documentation

Documentation set

- HP 5820 Switch Series Installation Guide
- HP 5800 Switch Series Installation Guide
- HP 5820 & 5800 Switch Series Command References
- HP 5820 & 5800 Switch Series Configuration Guides
- HP PSR150-A & PSR150-D Power Supplies User Guide
- HP PSR300-12A & PSR300-12D1 Power Supplies User Guide
- HP 5830/5820/5800 650W AC (JC680A) & 650W DC (JC681A) Power Supplies User Guide
- HP PSR750-A Power Supply User Guide
- HP LSW1FAN & LSW1BFAN Fan Assembly Installation
- HP LSWM1FANSC & LSWM1FANSCB Fan Assembly Installation
- HP OAP Cards User Guide
- HP LSW148POEM PoE Module User Guide
- HP 5820 & 5800 Switch Series Interface Cards User Guide
- Hot Swappable Power Supply Ordering Guide for HP 5800-48G-PoE+ Switch with 2 Interface Slots

Obtaining documentation

To find related documents, browse to the Manuals page of the HP Business Support Center website:

<http://www.hp.com/support/manuals>

Contacting HP

For worldwide technical support information, see the HP support website:

<http://www.hp.com/support>

Before contacting HP, collect the following information:

- Product model names and numbers
- Technical support registration number (if applicable)
- Product serial numbers
- Error messages
- Operating system type and revision level
- Detailed questions

Subscription service

HP recommends that you register your product at the Subscriber's Choice for Business website:

<http://www.hp.com/go/wwalerts>

After registering, you will receive email notification of product enhancements, new driver versions, firmware updates, and other product resources.

Appendix A Feature list

Hardware features

5800

Switch models and technical specifications

Table 4 lists the models in the HP 5800 Switch Series and their alias names used in this document. Table 5 describes the technical specifications.

Table 5 Models in the HP 5800 Switch Series

Product code	HP description	Alias
JC101A	5800-48G-PoE+ Switch with 2 Interface Slots	5800-48G-PoE+ (2 slots)
JG242A	5800-48G-PoE+ TAA Switch with 2 Interface Slots	5800-48G-PoE+ TAA (2 slots)
JC105A	5800-48G Switch with 1 Interface Slot	5800-48G (1 slot)
JG258A	5800-48G TAA Switch with 1 Interface Slot	5800-48G TAA (1 slot)
JC104A	5800-48G-PoE+ Switch with 1 Interface Slot	5800-48G-PoE+ (1 slot)
JG257A	5800-48G-PoE+ TAA Switch with 1 Interface Slot	5800-48G-PoE+ TAA (1 slot)
JC100A	5800-24G Switch	5800-24G
JG255A	5800-24G TAA Switch	5800-24G TAA
JC099A	5800-24G-PoE+ Switch	5800-24G-PoE+
JG254A	5800-24G-PoE+TAA Switch	5800-24G-PoE+TAA
JC103A	5800-24G-SFP Switch with 1 Interface Slot	5800-24G-SFP (1 slot)
JG256A	5800-24G-SFP TAA Switch with 1 Interface Slot	5800-24G-SFP TAA (1 slot)
JG225A	5800AF-48G Switch	5800AF-48G

Table 6 HP 5800 Switch Series technical specifications

Item	5800-48G-PoE+ (2 slots)/5800-48G-PoE+ TAA (2 slots)	5800-48G (1 slot)/5800-48G TAA (1 slot)	5800-48G-PoE+ (1 slot)/5800-48G-PoE+ TAA (1 slot)	5800AF-48G	5800-24G/5800-24G TAA	5800-24G-PoE+/5800-24G-PoE+TAA	5800-24G-SFP (1 slot)/5800-24G-SFP TAA (1 slot)
Dimensions (H x W x D)	86.1 x 440 x	43.6 x 440 x 367	43.6 x 440 x 427 mm	43.6 x 440 x	43.6 x 440 x	43.6 x 440 x 427	43.6 x 440 x

Item	5800-48 G-PoE+ (2 slots)/5800-48G-PoE+ TAA (2 slots)	5800-48 G (1 slot)/5800-48G TAA (1 slot)	5800-48G-PoE+ (1 slot)/5800-48G-PoE+ TAA (1 slot)	5800AF-48G	5800-2 4G/5800-24G TAA	5800-24 G-PoE+/5800-24G-PoE+TAA	5800-24 G-SFP (1 slot)/5800-24G-SFP TAA (1 slot)
	465 mm (3.39 × 17.32 × 18.31 in)	mm (1.72 × 17.32 × 14.45 in)	(1.72 × 17.32 × 16.81 in)	660 mm (1.72 × 17.32 × 25.98 in)	367 mm (1.72 × 17.32 × 14.45 in)	mm (1.72 × 17.32 × 16.81 in)	427 mm (1.72 × 17.32 × 16.81 in)
Weight	≤ 18 kg (39.68 lb)	≤ 6.5 kg (14.33 lb)	≤ 8.5 kg (18.74 lb)	≤ 12.2 kg (26.90 lb)	≤ 6.0 kg (13.23 lb)	≤ 8 kg (17.64 lb)	≤ 8.5 kg (18.74 lb)
Console ports	1, on the front panel	1, covered by the logo plate on the front panel	1, covered by the logo plate on the front panel	1, on the rear panel	1, on the front panel	1, on the front panel	1, covered by the logo plate on the front panel
Management Ethernet ports	N/A	N/A	N/A	1, on the rear panel	N/A	N/A	1, on the rear panel
USB ports (full speed)	1, on the front panel	1, covered by the logo plate on the front panel	1, covered by the logo plate on the front panel	1, on the rear panel	1, on the front panel	1, on the front panel	1, covered by the logo plate on the front panel
10/100/1000Base-T Ethernet ports	48, PoE	48	48, PoE	48	24	24, PoE	N/A
100/1000Base-X SFP ports	4	N/A	N/A	N/A	N/A	N/A	24
SFP+ ports	N/A	4	4	6	4	4	4
Expansion interface card slots	2, on the front panel	1, on the rear panel	1, on the rear panel	N/A	1, on the rear panel	1, on the rear panel	1, on the front panel
OAP card slots	1	N/A	N/A	N/A	N/A	N/A	N/A
Fan tray slots	1, hot swapping	N/A Fixed fans are used.	N/A Fixed fans are used.	2, hot swapping	N/A Fixed fans are	N/A Fixed fans are used.	1, hot swapping

Item	5800-48 G-PoE+ (2 slots)/58 00-48G- PoE+ TAA (2 slots)	5800-48 G (1 slot)/580 0-48G TAA (1 slot)	5800-48G- PoE+ (1 slot)/5800- 48G-PoE+ TAA (1 slot)	5800AF- 48G	5800-2 4G/580 0-24G TAA	5800-24 G-PoE+/5 800-24G- PoE+TAA	5800-24 G-SFP (1 slot)/58 00-24G- SFP TAA (1 slot)
					used.		
PoE module slots	1	N/A	N/A	N/A	N/A	N/A	N/A
Power supply slots	2, hot swapping	N/A	N/A	2, hot swapping	N/A	N/A	2, hot swapping
AC-input voltage	Rated voltage: 100 VAC to 240 VAC, 50 or 60 Hz Max voltage: 90 VAC to 264 VAC, 47 or 63 Hz						
DC-input voltage	Rated voltage: <ul style="list-style-type: none"> 300 W at -48 VDC to -60 VDC 750 W at -54 VDC to -57 VDC 	N/A	N/A	Rated voltage: -40 VDC to -60 VDC	N/A	N/A	Rated voltage: -48 VDC to -60 VDC
RPS DC-input voltage	Rated voltage: -52 VDC to -55 VDC	Rated voltage: 10.8 VDC to 13.2 VDC	Rated voltage: -52 VDC to -55 VDC	N/A	Rated voltage: 10.8 VDC to 13.2 VDC	Rated voltage: -52 VDC to -55 VDC	Rated voltage: -52 VDC to -55 VDC

Item	5800-48 G-PoE+ (2 slots)/58 00-48G- PoE+ TAA (2 slots)	5800-48 G (1 slot)/580 0-48G TAA (1 slot)	5800-48G- PoE+ (1 slot)/5800- 48G-PoE+ TAA (1 slot)	5800AF- 48G	5800-2 4G/580 0-24G TAA	5800-24 G-PoE+/5 800-24G- PoE+TAA	5800-24 G-SFP (1 slot)/58 00-24G- SFP TAA (1 slot)
Minimum power consumption	DC: 94 W AC: 96 W	102 W	DC: 107 W AC: 131 W	105 W	67 W	DC: 64 W AC: 85 W	DC: 58 W AC: 67 W
Maximum power consumption	Single DC output: 227 W Dual DC outputs: 237 W Single AC output: 714 W (425 W for PoE output) Dual AC outputs: 1147 W (740 W for PoE output)	163 W	DC: 973 W (740 W for PoE output) AC: 673 W (370 W for PoE output)	AC: 130 W DC: 130 W	105 W	DC: 870 W (740 W for PoE output) AC: 598 W (370 W for PoE output)	DC: 136 W AC: 146 W
Operating temperature	0°C to 45°C (32°F to 113°F)						
Operating humidity	10% to 90%, non condensing						

Hardware compatibility matrixes

Interface cards, OAP cards, PoE modules, power supplies, and redundant power systems (RPSs) must be purchased separately. When you purchase or install these components, check that they are compatible with the switch.

You must separately purchase two fan trays for the 5800AF-48G switch. All other 5800 switches come with fixed fans or a fan tray installed.

Table 7 Pluggable component (except the OAP cards) compatibility matrix

Card/module	5800-4 8G-PoE + (2 slots)/5 800-48 G-PoE+ TAA (2 slots)	5800-48 G (1 slot)/58 00-48G TAA (1 slot)	5800-4 8G-PoE + (1 slot)/58 00-48G- PoE+ TAA (1 slot)	5800AF- 48G	5800-2 4G/580 0-24G TAA	5800-2 4G-PoE +/5800- 24G-Po E+TAA	5800-24G- SFP (1 slot)/5800- 24G-SFP TAA (1 slot)
Hot swappable power supply options							
PSR300-12A (JC087A)	Yes	No	No	No	No	No	No
PSR300-12D1 (JC090A)	Yes	No	No	No	No	No	No
PSR750-A (JC089A)	Yes	No	No	No	No	No	No
HP 5830/5820/58 00 650W AC power supply (JC680A)	No	No	No	Yes	No	No	No
HP 5830/5820/58 00 650W DC power supply (JC681A)	No	No	No	Yes	No	No	No
PSR150-A (JD362A)	No	No	No	No	No	No	Yes
PSR150-D (JD366A)	No	No	No	No	No	No	Yes
Hot swappable fan tray options							
LSW1FAN (JC096A)	Yes	No	No	No	No	No	No
LSWM1FANSC (JC682A)	No	No	No	Yes	No	No	No
LSWM1FANSCB (JC683A)	No	No	No	Yes	No	No	No
LSW1BFAN (JC098A)	No	No	No	No	No	No	Yes
Interface card options							
LSW1SP4P0 (JC091A)	Yes	Yes	Yes	No	Yes	Yes	Yes
LSW1SP2P0 (JC092B)	Yes	Yes	Yes	No	Yes	Yes	Yes
LSW1GP16P0 (JC095A)	Yes	Yes	Yes	No	Yes	Yes	Yes

Card/module	5800-4 8G-PoE + (2 slots)/5 800-48 G-PoE+ TAA (2 slots)	5800-48 G (1 slot)/58 00-48G TAA (1 slot)	5800-4 8G-PoE + (1 slot)/58 00-48G- PoE+ TAA (1 slot)	5800AF- 48G	5800-2 4G/580 0-24G TAA	5800-2 4G-PoE +/5800- 24G-Po E+TAA	5800-24G- SFP (1 slot)/5800- 24G-SFP TAA (1 slot)
LSW1GT16P (JC094A)	Yes	Yes	Yes	No	Yes	Yes	Yes
Hot swappable PoE module options							
LSW148POEM (JC097B)	Yes only for the 5800-48 G-PoE+ (2 slots)	No	No	No	No	No	No
LSW148POEM (JG260A)	Yes only for the 5800-48 G-PoE+ TAA (2 slots)	No	No	No	No	No	No

NOTE:

The HP 5830/5820/5800 650W AC power supply and the HP 5830/5820/5800 650W DC power supply are referred to as the 650W AC power supply and the 650W DC power supply throughout this installation guide.

Table 8 OAP card compatibility matrix

Switch	LSWM1FW1 0 (JD255A)	LSWM1WCM1 0 (JD441A)	LSWM1WCM1 0 (JG261A)	LSWM1WCM2 0 (JD443A)	LSWM1WCM2 0 (JG262A)
5800-48G (1 slot)	No	No	No	Yes	No
5800-48G-Po E+ (1 slot)	No	No	No	Yes	No
5800-48G-Po E+ (2 slots)	Yes	Yes	No	Yes	No
5800AF- 48G	No	No	No	No	No
5800-24G	No	No	No	Yes	No
5800-24G-Po E+	No	No	No	Yes	No
5800-24G-SF P (1 slot)	No	No	No	Yes	No

Switch	LSWM1FW1 0 (JD255A)	LSWM1WCM1 0 (JD441A)	LSWM1WCM1 0 (JG261A)	LSWM1WCM2 0 (JD443A)	LSWM1WCM2 0 (JG262A)
5800-48G-PoE+ TAA (1 slot)	No	No	No	No	Yes
5800-48G-PoE+ TAA (2 slots)	No	No	Yes	No	Yes
5800-48G TAA (1 slot)	No	No	No	No	Yes
5800-24G-PoE+ TAA	No	No	No	No	Yes
5800-24G-SFP TAA (1 slot)	No	No	No	No	Yes
5800-24G TAA	No	No	No	No	Yes

NOTE:

You install the LSWM1WCM20 (JD443A, JG262A) card in the expansion interface card slot and all other OAP cards in the OAP card slot.

Table 9 RPS compatibility matrix

RPS	5800-48 G-PoE+ (2 slots)/5800-48G-PoE+ TAA (2 slots)	5800-48 G (1 slot)/5800-48G TAA (1 slot)	5800-48 G-PoE+ (1 slot)/5800-48G-PoE+ TAA (1 slot)	5800AF-48G	5800-24 G/5800-24G TAA	5800-24 G-PoE+/5800-24 G-PoE+TAA	5800-24 G-SFP (1 slot)/5800-24G-SFP TAA (1 slot)
A-RPS1600 (JG136A)	Yes	No	Yes	No	No	Yes	Yes
A-RPS800 (JD183A)	Yes	Yes	No	No	Yes	No	Yes

5820X

Switch models and technical specifications

Table 8 lists the models in the HP 5820X Switch Series and the alias that they are referred to in this document. Table 9 describes the technical specifications.

Table 10 Models in the HP 5820X Switch Series

Product code	HP description	Alias
JG219A	HP 5820AF-24XG Switch	5820AF-24XG
JC102A	HP 5820X-24XG-SFP+ Switch	5820X-24XG-SFP+

Product code	HP description	Alias
JG243A	HP 5820X-24XG-SFP+ TAA-compliant Switch	5820X-24XG-SFP+ TAA
JC106A	HP 5820X-14XG-SFP+ Switch with 2 Interface Slots	5820X-14XG-SFP+ (2 slots)
JG259A	HP 5820X-14XG-SFP+ TAA Switch with 2 Interface Slots	5820X-14XG-SFP+ TAA (2 slots)

Table 11 The HP 5820X Switch Series technical specifications

Item	5820AF-24XG	5820X-24XG-SFP+/5820X-24XG-SFP+ TAA	5820X-14XG-SFP+ (2 slots)/5820X-14XG-SFP+ TAA (2 slots)
Dimensions (H x W x D)	43.6 x 440 x 660 mm (1.72 x 17.32 x 25.98 in)	43.6 x 440 x 427 mm (1.72 x 17.32 x 16.8 in)	86 x 440 x 467 mm (3.39 x 17.32 x 18.39 in)
Weight	≤ 11.2 kg (24.69 lb)	≤ 8.5 kg (18.74 lb)	≤ 17 kg (37.48 lb)
Console ports	1	1	1
Management Ethernet ports	1	1	N/A
USB ports	1	1	1
10/100/1000Base-T Ethernet ports	2	4	4
SFP+ ports	24	24	14
Expansion interface card slots	N/A	N/A	2, front panel
OAP card slots	N/A	N/A	1, rear panel
Fan tray slots	2, rear panel	1, rear panel	1, rear panel
Power supply slots	2, rear panel	2, rear panel	2, rear panel
AC-input voltage	Rated voltage: 100 VAC to 240 VAC, 50 or 60 Hz Max voltage: 90 VAC to 264 VAC, 47 or 63 Hz		
DC-input voltage	Rated voltage: -40 VDC to -60 VDC Max voltage: -40 VDC to -72 VDC	Rated voltage: -48 VDC to -60 VDC Max voltage: -40.5 VDC to -72 VDC	Rated voltage: -48 VDC to -60 VDC Max voltage: -40.5 VDC to -72 VDC
Minimum power consumption	135 W	AC: 128 W DC: 124 W	AC: 105 W DC: 103 W
Maximum power consumption	AC: 205 W DC: 205 W	AC: 185 W DC: 176 W	AC: 245 W DC: 241 W
Operating temperature	0°C to 45°C (32°F to 113°F)		
Operating humidity	10% to 90%, noncondensing		

Hardware compatibility matrix

Interface cards, OAP cards, power supplies, and RPSs must be purchased separately. When you purchase or install these components, check that they are compatible with the switch.

You must separately purchase two fan trays for the 5820AF-24XG switch. All other 5820X switches come with a fan tray installed.

Table 12 Pluggable components (except the OAP cards) compatibility matrix

Cards/modules	5820AF-24XG	5820X-24XG-SFP+/ 5820X-24XG-SFP+ TAA	5820X-14XG-SFP+ (2 slots)/ 5820X-14XG-SFP+ TAA (2 slots)
Hot swappable power supply options			
HP 5830/5820/5800 650W AC power supply (JC680A)	Yes	No	No
HP 5830/5820/5800 650W DC power supply (JC681A)	Yes	No	No
PSR300-12A (JC087A)	No	Yes	Yes
PSR300-12D1 (JC090A)	No	Yes	Yes
Fan tray options			
LSW1BFAN (JC098A)	No	Yes	No
LSW1FAN (JC096A)	No	No	Yes
LSWM1FANSC (JC682A)	Yes	No	No
LSWM1FANSCB (JC683A)	Yes	No	No
Interface card options			
LSW1SP4P0 (JC091A)	No	No	Yes
LSW1SP2P0 (JC092B)	No	No	Yes

NOTE:

The HP 5830/5820/5800 650W AC power supply and the HP 5830/5820/5800 650W DC power supply are referred to as the 650W AC power supply and the 650W DC power supply throughout this installation guide.

Table 13 OAP card compatibility matrix

Switch	LSWM1FW1 0 (JD255A)	LSWM1WCM1 0 (JD441A)	LSWM1WCM1 0 (JG261A)	LSWM1WCM2 0 (JD443A)	LSWM1WCM2 0 (JG262A)
5820AF-24XG	No	No	No	No	No
5820X-24XG-SFP+	No	No	No	No	No
5820X-24XG-SFP+ TAA	No	No	No	No	No
5820X-14XG-SFP+ (2 slots)	Yes	Yes	No	Yes	No

Switch	LSWM1FW1 0 (JD255A)	LSWM1WCM1 0 (JD441A)	LSWM1WCM1 0 (JG261A)	LSWM1WCM2 0 (JD443A)	LSWM1WCM2 0 (JG262A)
5820X-14XG-SFP+ TAA (2 slots)	No	No	Yes	No	Yes

NOTE:

You install the LSWM1WCM20 (JD443A or JG262A) card in the expansion interface card slot and all other OAP cards in the OAP card slot.

Table 14 RPS compatibility matrix

RPS	5820AF-24XG	5820X-24XG-SFP+/ 5820X-24XG-SFP+ TAA	5820X-14XG-SFP+ (2 slots)/ 5820X-14XG-SFP+ TAA (2 slots)
A-RPS800 (JD183A)	No	Yes	Yes
A-RPS1600 (JG136A)	No	Yes	Yes

Software features

Table 15 Software features of the 5800 series

Feature	5800-48 G-PoE+ (2 slots)/58 00-48G- PoE+ TAA (2 slots)	5800-4 8G (1 slot)/58 00-48G TAA (1 slot)	5800-4 8G-PoE + (1 slot)/58 00-48G -PoE+ TAA (1 slot)	5800-24 G/5800- 24G TAA	5800-24 G-PoE+/ 5800-24 G-PoE+T AA	5800-2 4G-SFP (1 slot)/58 00-24G -SFP TAA (1 slot)	5800A F-48G
Switching capacity (full duplex)	284 Gbps	256 Gbps		208 Gbps			256 Gbps
Packet forwarding rate (whole system)	211.3 Mpps	190.5 Mpps		154.8 Mpps			190.5 Mpps
Forwarding mode	Store and forward						
IRF	Ring topology Chain topology MAD for BFD/LACP/ARP ISSU						
Link aggregation	Aggregation of GE ports Aggregation of 10 GE ports Static link aggregation Dynamic link aggregation An IRF fabric supports up to 128 aggregation groups, and each group supports up to eight GE ports or eight 10 GE ports.						

Feature	5800-48 G-PoE+ (2 slots)/58 00-48G- PoE+ TAA (2 slots)	5800-4 8G (1 slot)/58 00-48G TAA (1 slot)	5800-4 8G-PoE + (1 slot)/58 00-48G -PoE+ TAA (1 slot)	5800-24 G/5800- 24G TAA	5800-24 G-PoE+/ 5800-24 G-PoE+T AA	5800-2 4G-SFP (1 slot)/58 00-24G -SFP TAA (1 slot)	5800A F-48G
	NLB						
Flow control	IEEE 802.3x flow control and back pressure						
Jumbo frame	With a maximum size of 10000 bytes						
MAC address table	32K MAC addresses 1K static MAC addresses Blackhole MAC addresses Limit to the number of MAC addresses learned on a port						
VLAN	Port-based VLANs (4094 VLANs) QinQ and selective QinQ Voice VLAN Protocol-based VLANs MAC-based VLANs IP subnet-based VLANs GVRP Super VLAN						
VLAN mapping	One-to-one VLAN mapping Many-to-one VLAN mapping Two-to-two VLAN mapping						
ARP	16K entries 1K static entries Gratuitous ARP Standard proxy ARP and local proxy ARP ARP source suppression ARP detection (based on DHCP snooping entries/802.1X security entries/static IP-to-MAC bindings) Multicast ARP						
ND	8K entries 1K static entries						
VLAN virtual interface	1K						
DHCP	DHCP client DHCP snooping DHCP relay agent DHCP server DHCPv6 client DHCPv6 snooping						

Feature	5800-48 G-PoE+ (2 slots)/58 00-48G- PoE+ TAA (2 slots)	5800-4 8G (1 slot)/58 00-48G TAA (1 slot)	5800-4 8G-PoE + (1 slot)/58 00-48G -PoE+ TAA (1 slot)	5800-24 G/5800- 24G TAA	5800-24 G-PoE+/ 5800-24 G-PoE+T AA	5800-2 4G-SFP (1 slot)/58 00-24G -SFP TAA (1 slot)	5800A F-48G
	DHCPv6 relay agent						
	DHCPv6 server						
UDP helper	Supported						
DNS	Dynamic domain name resolution Dynamic domain name resolution client IPv4/IPv6 addresses						
IPv4 route	4K static routes RIP v1/2: up to 4K IPv4 routes OSPF v1/v2: up to 16K IPv4 routes BGP: up to 16K IPv4 routes ISIS: up to 16K IPv4 routes 256 equal-cost routes, each having 8 next hops at most Routing policy VRRP Policy based routing IRDP						
IPv6 route	2K static routes RIPng: up to 2K IPv6 routes OSPF v3: up to 8K IPv6 routes BGP4+ for IPV6: up to 8K IPv6 routes ISIS for IPV6: up to 8K IPv6 routes 256 equal-cost routes, each having 8 next hops Routing policy VRRP Policy routing						
URPF	Reverse route check strict mode and loose mode						
MCE	IPv4/IPv6						
BFD	OSPF/OSPFv3 BGP/BGP4 IS-IS/IS-ISv6 PIM/IPM for IPv6 Static route MAD						

Feature	5800-48 G-PoE+ (2 slots)/58 00-48G- PoE+ TAA (2 slots)	5800-4 8G (1 slot)/58 00-48G TAA (1 slot)	5800-4 8G-PoE + (1 slot)/58 00-48G -PoE+ TAA (1 slot)	5800-24 G/5800- 24G TAA	5800-24 G-PoE+/ 5800-24 G-PoE+T AA	5800-2 4G-SFP (1 slot)/58 00-24G -SFP TAA (1 slot)	5800A F-48G
Tunnel	IPv4 over IPv4 tunnel IPv4 over IPv6 tunnel IPv6 over IPv4 manual tunnel IPv6 over IPv4 6to4 tunnel IPv6 over IPv4 ISATAP tunnel IPv6 over IPv6 tunnel GRE tunnel						
MPLS	MPLS VPLS						
IPv4 multicast	IGMP snooping v1/v2/v3 Multicast VLAN Multicast VLAN+ IGMP v1/v2/v3 PIM-DM PIM-SM PIM-SSM MSDP MBGP PIM BI-DIR Multicast VPN Multicast over MCE Multicast over MCE over tunnel						
IPv6 multicast	MLD snooping v1/v2 MLD v1/v2 PIM-DM/SM/SSM/BI-DIR for IPv6 IPv6 multicast VLAN IPv6 multicast VLAN+ MBGP for IPv6						
Broadcast/multicast/ unicast storm control	in port rate percentage in pps in bps						

Feature	5800-48 G-PoE+ (2 slots)/58 00-48G- PoE+ TAA (2 slots)	5800-4 8G (1 slot)/58 00-48G TAA (1 slot)	5800-4 8G-PoE + (1 slot)/58 00-48G -PoE+ TAA (1 slot)	5800-24 G/5800- 24G TAA	5800-24 G-PoE+/ 5800-24 G-PoE+T AA	5800-2 4G-SFP (1 slot)/58 00-24G -SFP TAA (1 slot)	5800A F-48G
MSTP	STP/RSTP/MSTP STP root guard BPDU guard STP TC snooping						
RRPP	RRPP protocol Multi-instance RRPP						
Smart Link	Up to 26 groups Multi-instance Smart Link						
Monitor link	Supported						
QoS/ACL	Restriction of the rates at which a port sends and receives packets, with a granularity of 8 kbps. Packet redirection CAR, with a granularity of 8 kbps. Global CAR (including aggregation CAR and hierarchical CAR) Eight output queues for each port Per-port and per-queue Queue scheduling algorithms, including SP, WDRR, WFQ, and SP + WDRR. 802.1p and DSCP re-mark Packet filtering at Layer 2 through Layer 4; flow classification based on source MAC address, destination MAC address, source IP (IPv4/IPv6) address, destination IP (IPv4/IPv6) address, port, protocol, and VLAN. Time range WRED Traffic shaping User profile COPP HQoS						
Mirroring	Traffic mirroring Port mirroring Multiple mirror observing ports						
Remote mirroring	Remote port mirroring (RSPAN/ERSPAN)						

Feature	5800-48 G-PoE+ (2 slots)/58 00-48G- PoE+ TAA (2 slots)	5800-4 8G (1 slot)/58 00-48G TAA (1 slot)	5800-4 8G-PoE + (1 slot)/58 00-48G -PoE+ TAA (1 slot)	5800-24 G/5800- 24G TAA	5800-24 G-PoE+/ 5800-24 G-PoE+T AA	5800-2 4G-SFP (1 slot)/58 00-24G -SFP TAA (1 slot)	5800A F-48G
Security	Hierarchical management and password protection of users AAA authentication RADIUS authentication HWTACACS SSH 2.0 Port isolation Port security MAC address authentication IP-MAC-port binding IP source guard HTTPS SSL PKI Portal EAD Boot ROM access control (set Boot ROM password recovery)						
OAA	IPS Firewall Anti virus Wireless access						
802.1X	Up to 2,048 users Port-based and MAC address-based authentication Guest VLAN Trunk port authentication 802.1X-based dynamic QoS/ACL/VLAN assignment						
Traffic Management	IPFIX (NetStream) sFlow						
Software download and upgrade	XModem FTP TFTP						

Feature	5800-48 G-PoE+ (2 slots)/58 00-48G- PoE+ TAA (2 slots)	5800-4 8G (1 slot)/58 00-48G TAA (1 slot)	5800-4 8G-PoE + (1 slot)/58 00-48G -PoE+ TAA (1 slot)	5800-24 G-PoE+/ 5800-24 G-PoE+T AA	5800-2 4G-SFP (1 slot)/58 00-24G -SFP TAA (1 slot)	5800A F-48G
Management	Configuration at the command line interface Remote configuration through Telnet Configuration through Console port SNMP RMON alarm, event and history recording IMC NMS Web-based network management System log Hierarchical alarms HGMPv2 NTP PoE Power supply alarm function Fan and temperature alarms BIMS zero configuration					
Maintenance	Debug information output Ping and Tracert NQA Track Remote maintenance through Telnet Virtual cable test 802.1ag 802.3ah DLDAP File download and upload through USB port Auto power down EEE					

Table 16 Software features of the 5820X series

Feature	5820X-14XG-SFP+ (2 slots)/5820X-14XG-SFP+ TAA (2 slots)	5820X-24XG-SFP+/ 5820X-24XG-SFP+ TAA	5820AF-24XG
Switching capacity (full duplex)	488 Gbps		
Packet forwarding rate (whole system)	363 Mbps		

Feature	5820X-14XG-SFP+ (2 slots)/5820X-14XG-SFP+ TAA (2 slots)	5820X-24XG-SFP+/5820X-24XG-SFP+ TAA	5820AF-24XG
Forwarding mode	Store-forward and cut-through		
IRF	Ring topology Chain Topology MAD of BFD/LACP/ARP ISSU		
Link aggregation	Aggregation of GE ports Aggregation of 10-GE ports Static link aggregation Dynamic link aggregation An IRF fabric supports up to 128 aggregation groups, and each group supports up to eight GE ports or eight 10-GE ports NLB		
Flow control	IEEE 802.3x flow control and back pressure		
Jumbo Frame	Supports a maximum frame size of 10000 bytes		
MAC address table	32K MAC addresses 1K static MAC addresses Blackhole MAC addresses Limit to the number of MAC addresses learned on a port		
VLAN	Port-based VLANs (4094 VLANs) QinQ and selective QinQ Voice VLAN Protocol-based VLANs MAC-based VLANs IP subnet-based VLANs GVRP Super VLAN		
VLAN mapping	One-to-one VLAN mapping Many-to-one VLAN mapping Two-to-two VLAN mapping		
ARP	8K entries 1K static entries Gratuitous ARP Standard proxy ARP and local proxy ARP ARP source suppression ARP detection (based on DHCP snooping entries/802.1x security entries/static IP-to-MAC bindings) Multicast ARP		
ND	4K entries 1K static entries		

Feature	5820X-14XG-SFP+ (2 slots)/5820X-14XG-SFP+ TAA (2 slots)	5820X-24XG-SFP+/5820X-24XG-SFP+ TAA	5820AF-24XG
VLAN virtual interface	1K		
DHCP	DHCP client DHCP snooping DHCP relay agent DHCP server DHCPv6 client DHCPv6 snooping DHCPv6 relay agent DHCPv6 server		
UDP Helper	Supported		
DNS	Dynamic domain name resolution Dynamic domain name resolution client IPv4/IPv6 addresses		
IPv4 route	4K static routes RIP v1/2: up to 4K IPv4 routes OSPF v1/v2: up to 12K IPv4 routes BGP: up to 12K IPv4 routes ISIS: up to 12K IPv4 routes 256 equal-cost routes, each having 8 next hops at most Routing policy VRRP Policy based routing IRDP		
IPv6 route	2K static routes RIPng: up to 2K IPv6 routes OSPFv3: up to 6K IPv6 routes BGP4+: up to 6K IPv6 routes ISISv6: up to 6K IPv6 routes 256 equal-cost routes, each having 8 next hops at most Routing policy VRRP Policy based routing		
URPF	Strict mode and loose mode		
MCE	IPv4/IPv6		
BFD	OSPF/OSPFv3 BGP/BGP4 IS-IS/IS-ISv6 PIM/IPM for IPv6		

Feature	5820X-14XG-SFP+ (2 slots)/5820X-14XG-SFP+ TAA (2 slots)	5820X-24XG-SFP+/5820X-24XG-SFP+ TAA	5820AF-24XG
	Static route		
	MAD		
Tunnel	IPv4 over IPv4 tunnel IPv4 over IPv6 tunnel IPv6 over IPv4 manual tunnel IPv6 over IPv4 6to4 tunnel IPv6 over IPv4 ISATAP Tunnel IPv6 over IPv6 tunnel GRE tunnel		
IPv4 multicast	IGMP snooping v1/v2/v3 Multicast VLAN Multicast VLAN+ IGMP v1/v2/v3 PIM-DM PIM-SM PIM-SSM MSDP MBGP PIM BI-DIR Multicast over MCE Multicast over MCE over Tunnel		
IPv6 multicast	MLD snooping v1/v2 MLD v1/v2 PIM-DM/SM/SSM/BI-DIR for IPv6 IPv6 multicast VLAN IPv6 multicast VLAN+ MBGP for IPv6		
Broadcast/multicast/unicast storm control	In port rate percentage In pps In bps		
MSTP	STP/RSTP/MSTP STP root guard BPDU guard STP TC snooping		
RRPP	RRPP protocol Multi-instance RRPP		
Smart link	Up to 26 groups Multi-instance Smart Link		

Feature	5820X-14XG-SFP+ (2 slots)/5820X-14XG-SFP+ TAA (2 slots)	5820X-24XG-SFP+/ 5820X-24XG-SFP+ TAA	5820AF-24XG
Monitor link	Supported		
QoS/ACL	<p>Restriction of the rates at which a port sends and receives packets, with a granularity of 8 kbps.</p> <p>Packet redirection</p> <p>CAR, with a granularity of 8 kbps.</p> <p>Global CAR (including aggregation CAR and hierarchical CAR)</p> <p>Eight output queues for each port</p> <p>Per-port and per-queue queue scheduling algorithms, including SP, WDRR, WFQ, and SP + WDRR</p> <p>802.1p and DSCP re-mark</p> <p>Packet filtering at Layer 2 through Layer 4; flow classification based on source MAC address, destination MAC address, source IPv4/IPv6 address, destination IPv4/IPv6 address, port, protocol, and VLAN.</p> <p>Time range</p> <p>WRED</p> <p>Traffic shaping</p> <p>User profile</p> <p>COPP</p>		
Mirroring	<p>Traffic mirroring</p> <p>Port mirroring</p> <p>Multiple mirror observing ports</p>		
Remote mirroring	Remote port mirroring (RSPAN/ERSPAN)		
Security	<p>Hierarchical management and password protection of users</p> <p>AAA authentication</p> <p>RADIUS authentication</p> <p>HWTACACS</p> <p>SSH 2.0</p> <p>Port isolation</p> <p>Port security</p> <p>MAC address authentication</p> <p>IP-MAC-port binding</p> <p>IP source guard</p> <p>HTTPS</p> <p>SSL</p> <p>PKI</p> <p>Portal</p> <p>EAD</p> <p>Boot ROM access control (Set Boot ROM password recovery)</p>		
Data Center Feature	<p>PFC</p> <p>DCBX</p>		

Feature	5820X-14XG-SFP+ (2 slots)/5820X-14XG-SFP+ TAA (2 slots)	5820X-24XG-SFP+/5820X-24XG-SFP+ TAA	5820AF-24XG
OAA	IPS Firewall Anti virus Wireless access FC		
802.1X	Up to 2,048 users Port-based and MAC address-based authentication Guest VLAN Trunk port authentication 802.1X-based dynamic QoS/ACL/VLAN assignment		
Software download and upgrade	XModem FTP TFTP		
Management	Configuration at the command line interface Remote configuration through Telnet Configuration through Console port SNMP RMON alarm, event and history recording IMC NMS Web-based network management System log Hierarchical alarms HGMPv2 NTP Power supply alarm function Fan and temperature alarms BIMS zero configuration		
Maintenance	Debug information output Ping and Tracert NQA Track Remote maintenance through Telnet Virtual cable test 802.1ag 802.3ah DLDP File download and upload through USB port Auto power down EEE		

Appendix B Upgrading software

You can upgrade software from Boot ROM menus or the CLI.

Table 17 Software upgrade methods

Approach	Section
Upgrading at the Boot menu	Using XMODEM to upgrade software through the console port
	Using TFTP to upgrade software through an Ethernet port
	Using FTP to upgrade software through an Ethernet Port
Upgrading at the CLI	Loading software through the USB interface
	Loading software with FTP
	Loading software with TFTP

Software images include the system software image and the Boot ROM image. They are packaged in a .bin file. You can download this file to upgrade both Boot ROM and system software, or upgrade only Boot ROM.

The Boot ROM image in the .bin package file consists of a basic segment and an extended segment. The basic segment is the minimum boot image. The extended segment enables the Boot ROM to bootstrap the system and upgrade system software.

! **IMPORTANT:**

When upgrading Boot ROM, upgrade both segments to ensure the functionality of the entire system.

NOTE:

- For the A5800AF-48G, A5800-24G-SFP (1 slot), A5800-24G-SFP TAA (1 slot), A5820AF-24XG, A5820X-24XG-SFP+ and A5820X-24XG-SFP+ TAA switches, HP recommends that you use the management Ethernet port to download image files. This port can work even if all network ports have failed.
- You download files through the management Ethernet port in the same way as through a common Ethernet network port. This appendix uses a common Ethernet network port as an example.

Upgrading software from Boot ROM menus

The Boot ROM menus include a basic Boot menu and an extended Boot menu.

The basic Boot menu is provided by the basic Boot ROM segment. From this menu, you can upgrade Boot ROM and run the extended Boot ROM. For more information, see "[Accessing the basic Boot menu.](#)"

The extended Boot menu is provided by the extended Boot ROM segment. From this menu, you can perform various tasks, including upgrading Boot ROM, upgrading and managing system software images, and managing files. For more information, see "[Accessing the extended Boot menu.](#)"

Both the basic Boot menu and extended Boot menu support using Xmodem to upgrade Boot ROM through the console port.

If the extended Boot ROM segment has corrupted, you can repair or upgrade it from the basic Boot menu.

NOTE:

The procedures for upgrading Boot ROM and system software from the extended Boot menu are the same except that you must choose different options from the extended Boot menu (**1** for upgrading system software, and **6** for upgrading Boot ROM) to start the upgrade procedure. This appendix describes only the Boot ROM upgrade procedure.

To upgrade software from Boot ROM menus:

1. Connect a configuration terminal such as a PC to the console port of the switch with a console cable.
2. Run the terminal emulation program on the PC.
3. Power on the switch.

The switch starts up and displays the following message:

```
Starting.....
Press Ctrl+D to access BASIC BOOT MENU
Press Ctrl+T to start heavy memory test

*****
*
*      HP A5800-48G Switch with 1 Interface Slot BOOTROM, Version 220      *
*
*****

Copyright (c) 2010-2012 Hewlett-Packard Development Company, L.P.

Creation Date   : Dec 20 2012,15:36:45
CPU Clock Speed : 750MHz
Memory Size    : 1024MB
Flash Size     : 512MB
CPLD Version   : 003
PCB Version    : Ver.B
Mac Address    : C4CAD9D5E686

Press Ctrl-B to enter Extended Boot menu...0
```

4. Press one of the shortcut key combinations at prompt.

Table 18 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.
Ctrl+D	Press Ctrl+D to access BASIC BOOT MENU	Accesses the basic Boot menu.	Press the keys within 1 seconds after the message appears. You can upgrade Boot ROM or access the extended Boot ROM segment from this menu.
Ctrl+T	Press Ctrl+T to start heavy memory test	Performs a RAM pressure test.	Press the keys within 1 second after the message appears.

Accessing the basic Boot menu

To access the basic Boot menu:

1. Press **Ctrl+D** within 1 seconds after the "Press Ctrl+D to access BASIC BOOT MENU" prompt message appears. If you fail to do this within the time limit, the system starts to run the extended Boot ROM segment.

```
*****
*
*
*          BASIC BOOTROM, Version 220
*
*
*****

BASIC BOOT MENU

1. Update full BootRom
2. Update extended BootRom
3. Update basic BootRom
4. Boot extended BootRom
0. Reboot
Ctrl+U: Access BASIC-ASSISTANT MENU

Enter your choice(0-4):
```

Table 19 Basic Boot ROM menu options

Option	Task
1. Update full BootRom	Update the entire Boot ROM, including the basic segment and the extended segment. To do so, you must use XMODEM and the console port. For more information, see Using XMODEM to upgrade software through the console port.

Option	Task
2. Update extended BootRom	Update the extended Boot ROM segment. To do so, you must use XMODEM and the console port. For more information, see Using XMODEM to upgrade software through the console port .
3. Update basic BootRom	Update the basic Boot ROM segment. To do so, you must use XMODEM and the console port. For more information, see Using XMODEM to upgrade software through the console port .
4. Boot extended BootRom	Access the extended Boot ROM segment. For more information, see Accessing the extended Boot menu .
0. Reboot	Reboot the switch.
Ctrl+U: Access BASIC-ASSISTANT MENU	Press Ctrl + U to access the BASIC-ASSISTANT menu (see Table 19).

Table 20 BASIC-ASSISTANT menu options

Option	Task
1. RAM Test	Perform a RAM self-test.
2. Reserved	Reserved option field.
3. Reserved	Reserved option field.
4. Reserved	Reserved option field.
0. Return to boot menu	Return to the basic Boot menu.

Accessing the extended Boot menu

To access the extended Boot menu:

1. 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.

```
BootRom password: Not required. Please press Enter to continue.
```

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

2. Press **Enter** at the prompt for password.

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 3](#)). For more information about password recovery capability, see *HP 5820X & 5800 Switch Series Fundamentals Configuration Guide*.

```
Password recovery capability is enabled.
```

```
BOOT MENU
```

1. Download application file to flash
 2. Select application file 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. Reserved
 9. Set switch startup mode
 0. Reboot
- Ctrl+F: Format File System
 Ctrl+P: Skip Super Password
 Ctrl+R: Download application to SDRAM and Run
 Ctrl+Z: Access EXTEND-ASSISTANT MENU

Enter your choice(0-9):

Table 21 Extended Boot ROM menu options

Option	Tasks
1. Download application file to flash	<p>Download a .bin software package file to the flash.</p> <p>If password recovery capability is enabled, you can use any version of the system software image for upgrade.</p> <p>If password recovery capability is disabled, you can use only the R1807P02 version (or higher) for upgrade.</p>
2. Select application file to boot	<ul style="list-style-type: none"> • Specify the main and backup system software images for the next startup: <ul style="list-style-type: none"> ○ If password recovery capability is enabled, you can specify a system software image of any version. ○ If password recovery capability is disabled, the system software image version must be R1807P02 or higher. • 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	<p>Delete the current next-startup configuration files and restore the factory-default configuration.</p> <p>This option is available only if password recovery capability is disabled.</p>
6. Enter BootRom upgrade menu	<p>Access the Boot ROM upgrade menu.</p> <p>If password recovery capability is enabled, you can upgrade the Boot ROM to any version.</p> <p>If password recovery capability is disabled, you can upgrade the Boot ROM to only Version 220 or higher.</p>

Option	Tasks
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. Reserved	Reserved option field.
9. 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: Skip Super Password	Load the next-startup configuration file with all user privilege passwords configured with the super password command ignored. 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 application 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 EXTEND-ASSISTANT MENU	Access the EXTEND-ASSISTANT menu. For options in the menu, see Table 4.

Table 22 EXTEND-ASSISTANT menu options

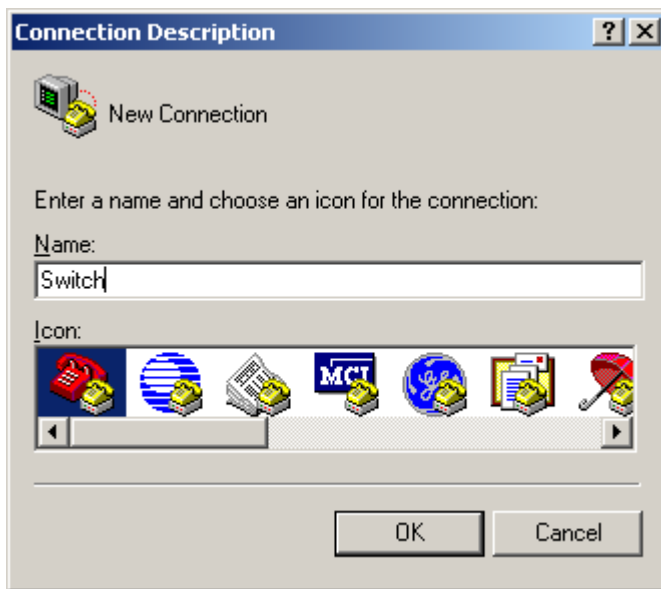
Option	Task
1. Display Memory	Display data in the memory.
2. Search Memory	Search the memory for a specific data segment.
0. Return to boot menu	Return to the extended Boot ROM menu.

Using XMODEM to upgrade software through the console port

Setting terminal parameters

1. Start the PC and run the terminal emulation program, for example, HyperTerminal.
2. Select **Start > Programs > Accessories > Communications > HyperTerminal** to enter the HyperTerminal window. The **Connection Description** dialog box appears.

Figure 1 Connection description of the HyperTerminal



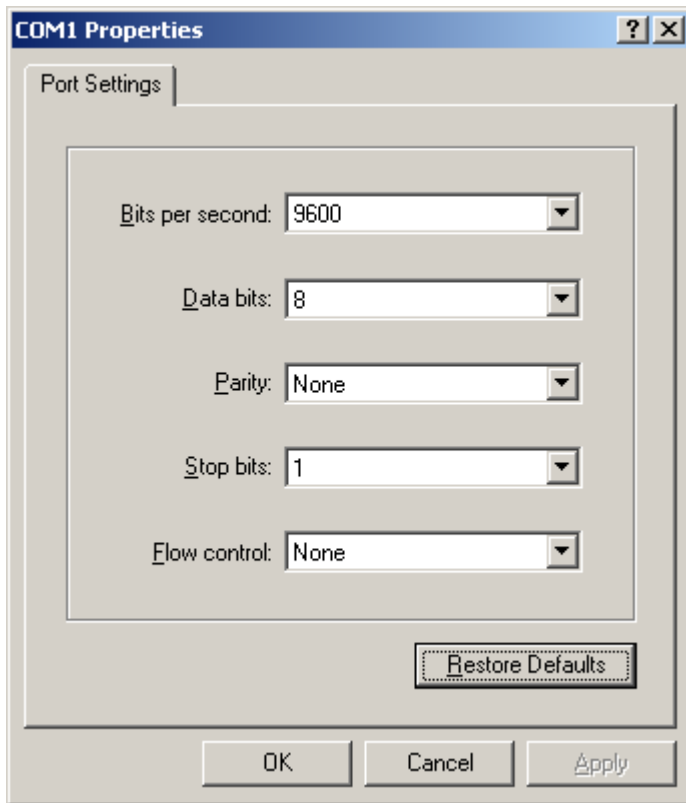
3. Type the name of the new connection in the Name text box and click OK. The following dialog box appears. Select the serial port to be used from the Connect using drop-down list.

Figure 2 Set the serial port used by the HyperTerminal connection



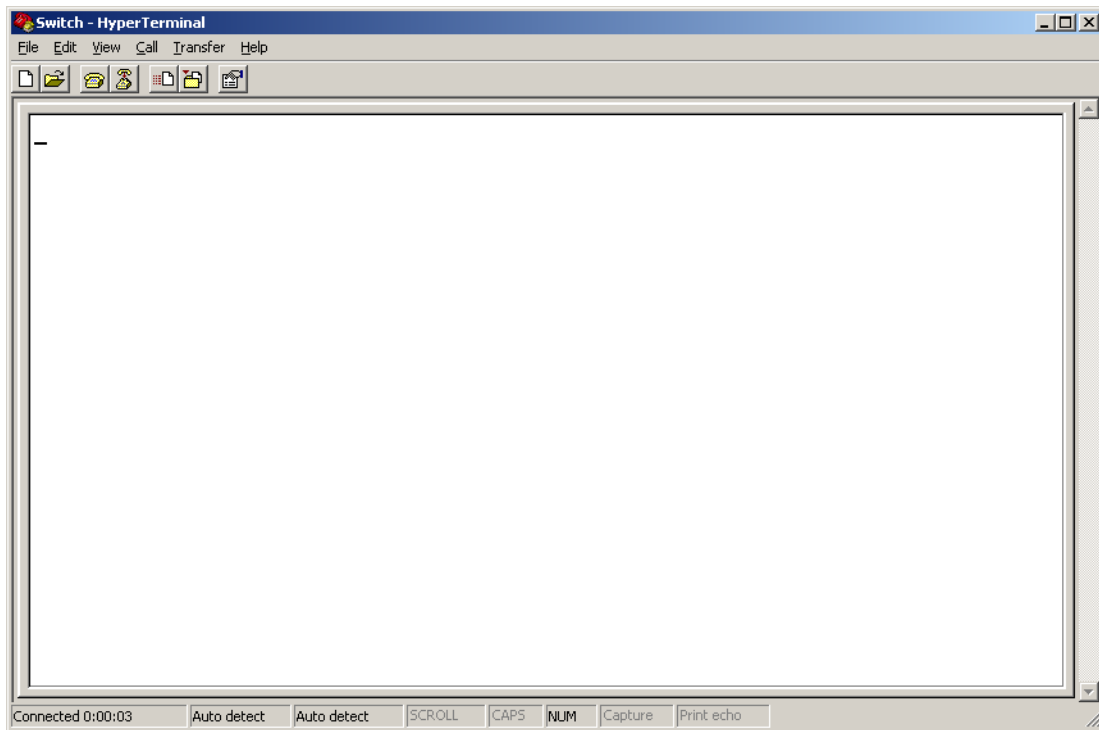
4. Click OK after selecting a serial port. The following dialog box appears. Set Bits per second to 9600, Data bits to 8, Parity to None, Stop bits to 1, and Flow control to None.

Figure 3 Set the serial port parameters



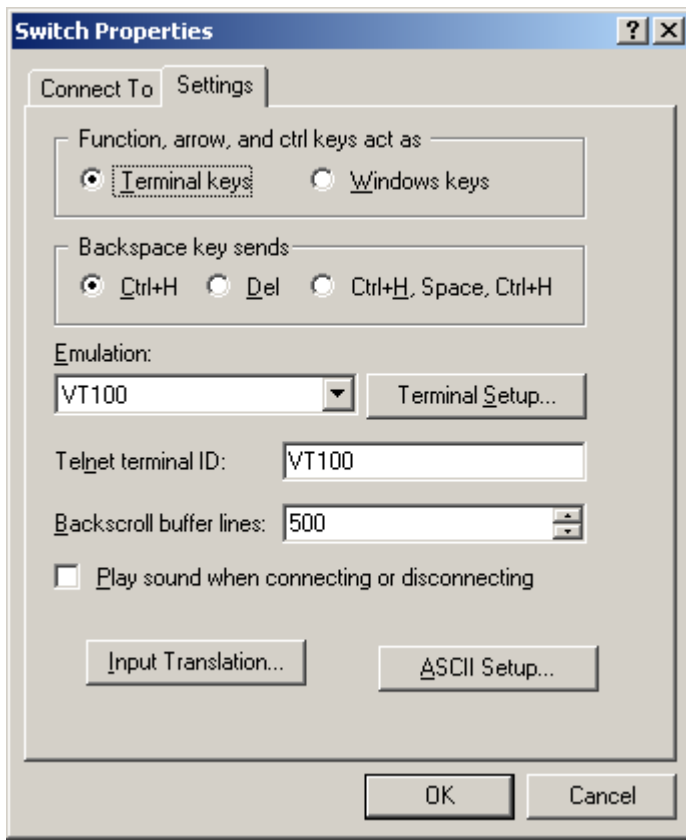
5. Click OK after setting the serial port parameters. The HyperTerminal window appears.

Figure 4 HyperTerminal window



6. Click Properties in the HyperTerminal window to enter the Switch Properties dialog box. Click the Settings tab, set the emulation to VT100, and then click OK.

Figure 5 Set terminal emulation in Switch Properties dialog box



Complete the following tasks to update the Boot ROM program with XMODEM through the console port (For details about the HyperTerminal, refer to [Setting terminal](#) :

Task	Remarks
Enter 6 or press Ctrl + U in the extended Boot menu to access the Boot ROM update menu.	Required.
Enter 1 to update the entire Boot ROM. The file transfer protocol menu appears.	Log in to the switch through the HyperTerminal and then configure the protocol used for loading files.
Enter 3 to choose	Required.
Choose an appropriate download rate. For example, enter 5 to choose 115200 bps.	Log in to the switch through the HyperTerminal and then set the download rate of the console port on the switch.
Change the baud rate setting on the terminal	Optional. Set the baud rate of the serial port on the terminal to be consistent with that of the console port on the switch.
Press Enter to establish a connection between the terminal and the switch for downloading the file	Optional.

Task	Remarks
Upload the software file from the terminal to the switch	Required. Transmit a file from the terminal to the switch using the changed connection rate.
Update the Boot ROM file on the switch	Required. Update the Boot ROM file on the switch.
Restore the download rate to 9600 bps (the default)	Optional. Set the baud rate of the serial port on the terminal to be consistent with the default rate of the console port on the switch.
Press any key to return to the Boot ROM update menu.	Required.

7. Enter **6** or press **Ctrl + U** in the extended Boot menu to access the Boot ROM update menu.

```
Enter your choice(0-9): 6
```

- ```

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

```

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

**Table 23 Boot ROM update menu options**

| Option                     | Task                                  |
|----------------------------|---------------------------------------|
| 1. Update full BootRom     | Update the complete Boot ROM file.    |
| 2. Update extended BootRom | Update the extended Boot ROM segment. |
| 3. Update basic BootRom    | Update the basic Boot ROM segment.    |
| 0. Return to boot menu     | Return to the previous menu.          |

8. Enter **1** to update the entire Boot ROM. The file transfer protocol menu appears.

**NOTE:**

All the Boot ROM files used for upgrade are complete Boot ROM files.

- ```

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

```

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

Table 24 File transfer protocol menu options

Option	Task
1. Set TFTP protocol parameter	Set TFTP parameters.
2. Set FTP protocol parameter	Set FTP parameters.
3. Set XMODEM protocol parameter	Set XMODEM parameters.
0. Return to boot menu	Return to the Boot ROM menu.

9. Enter **3** to choose Xmodem. The baud rate menu appears.

Please select your download baudrate:

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

Enter your choice (0-5):

10. Choose an appropriate download rate. For example, enter **5** to choose 115200 bps.

Download baud rate is 115200 bps

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

Press enter key when ready

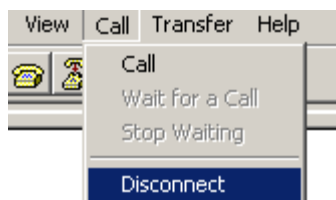
NOTE:

Typically, the size of a .bin file is over 10 MB. Even at a baud rate of 115200 bps, the update takes tens of minutes.

11. Change the baud rate setting on the terminal to be the same as on the switch:

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

Figure 6 Disconnecting the terminal from the switch



- b. Select **File > Properties**. In the **Properties** dialog box, click **Configure** (as shown in [Figure 7](#)), and then select **115200** from the **Bits per second** drop-down list box (as shown in [Figure 8](#)).

Figure 7 Properties dialog box

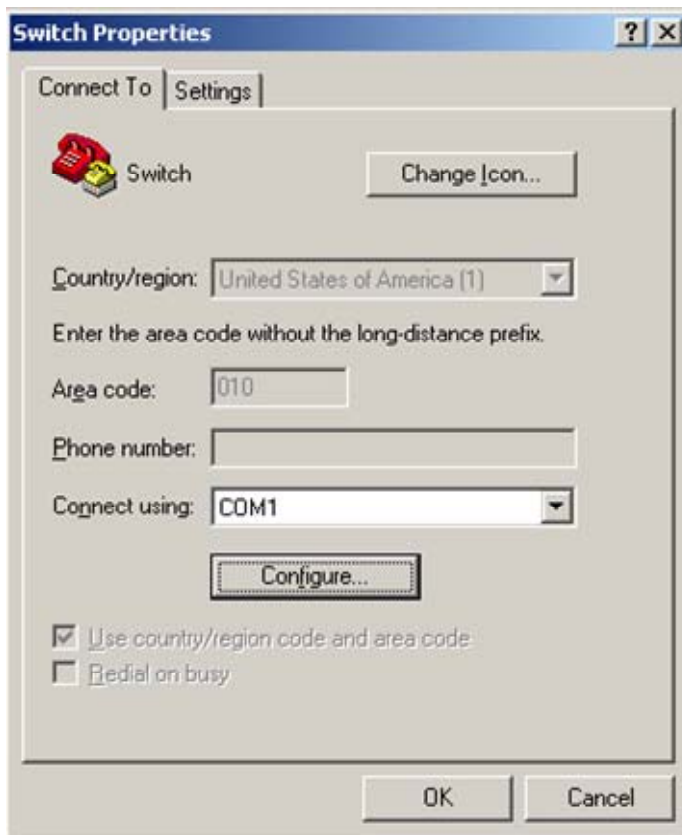
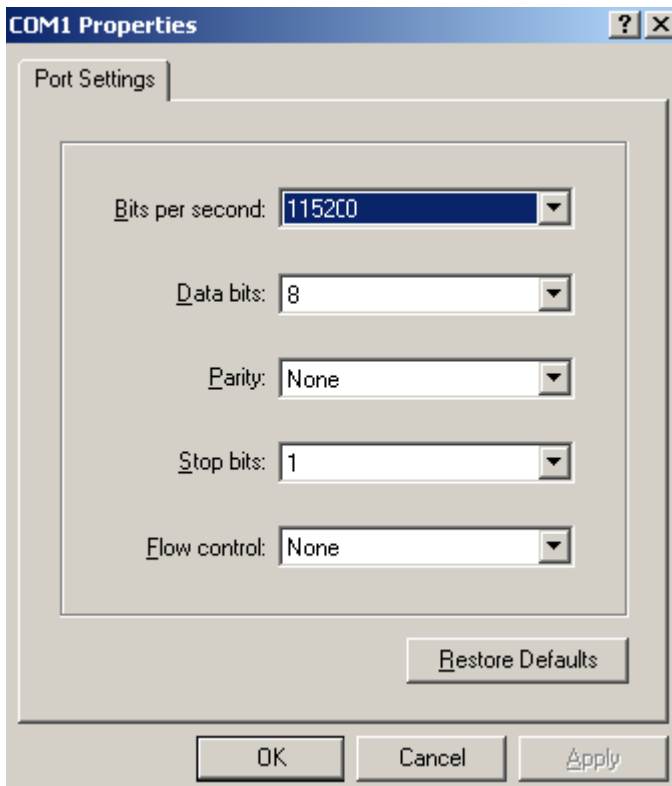
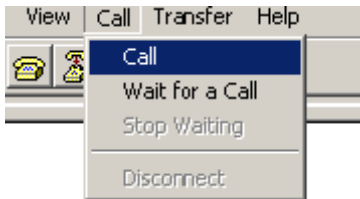


Figure 8 Modifying the baud rate



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

Figure 9 Reestablish the connection



NOTE:

The new settings can take effect only after you reestablish the connection.

- 12. Press **Enter** to establish a connection between the terminal and the switch for downloading the file.

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

NOTE:

Press **Ctrl + X** to quit downloading files; otherwise, proceed as follows.

- 13. Upload the software file from the terminal to the switch:
 - a. Select **Transfer** > **Send File** in the HyperTerminal window (as shown in [Figure 10](#)). Click **Browse** in the pop-up dialog box (as shown in [Figure 11](#)) to select the software image file to be downloaded (for example, **update.bin**), and select **Xmodem** from the **Protocol** drop-down list.

Figure 10 Transfer menu

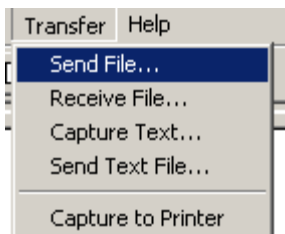
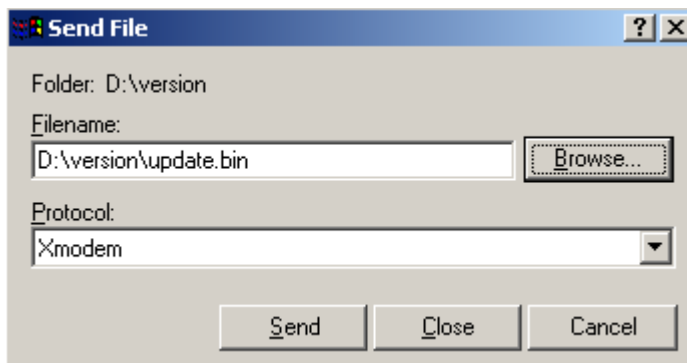
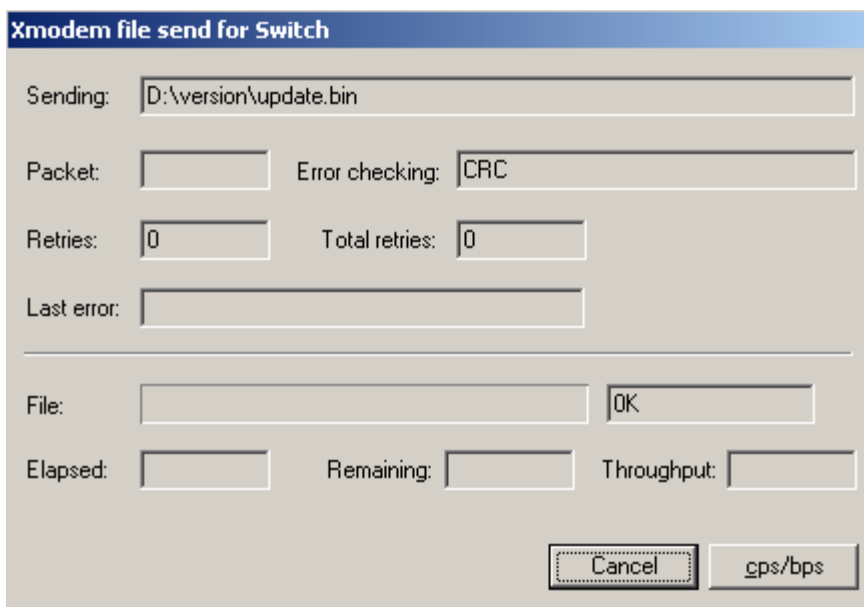


Figure 11 File transmission dialog box



- b. Click **Send**. The following dialog box appears:

Figure 12 Sending the software file with XMODEM



14. Update the Boot ROM file on the switch:

After the Boot ROM file is downloaded, the terminal displays the following information:

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

The system asks you whether you want to update the basic Boot ROM segment. Click **Y** and then the system displays the following information after the update is completed.

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

The system asks you whether you want to update the extended Boot ROM segment. Click **Y**. Then the system displays the following information after the update is completed:

```
Updating extended BootRom.....Done!  
Please change the terminal's baudrate to 9600 bps, press ENTER when ready.
```


15. Restore the download rate to 9600 bps (the default). See [Change the baud rate setting on the terminal.](#))

NOTE:

If you select 9600 bps as the download rate, skip this step, that is, you do not need to modify the baud rate of the HyperTerminal.

16. Press any key to return to 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):
```

17. Enter **0** to return to the extended Boot menu.

18. Enter **0** in the extended Boot menu to restart the device.

After the restart is complete, the updated Boot ROM file becomes effective.

Loading a system software image file

To load the system software image file of the switch, enter **1** in the extended Boot menu. The system displays the following information:

```
1. Set TFTP protocol parameter
2. Set FTP protocol parameter
3. Set XMODEM protocol parameter
0. Return to boot menu
Enter your choice(0-3):3
```

Select an appropriate protocol in [Table 15](#) to load the file.

The procedure of loading a system software image file is the same as upgrading Boot ROM.

After the file is loaded, set the file attribute to **main**, **backup**, or **none** at the prompt.

```
Writing flash.....Done!
.....Done!
Please input the file attribute (Main/Backup/None) M
Done!
```

NOTE:

If a system software image file with a specific attribute already exists when you set a new file with the attribute, the attribute of the existing file becomes **none** after the new file becomes effective.

Using TFTP to upgrade software through an Ethernet port

Upgrading the Boot ROM program

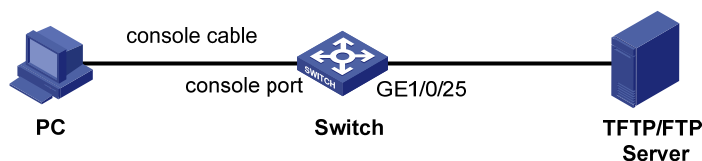
Complete the following tasks to upgrade the Boot ROM program using TFTP through an Ethernet port (For details about the HyperTerminal, refer to [Setting terminal](#) :

Task	Remarks
Set up the configuration environment	Required. Connect the switch to the TFTP server through an Ethernet port, and to a PC through the console port. The PC and the TFTP server can be the same device.
Run the TFTP Server program on the sever	Required.
Run the terminal emulation program on the PC connected with the switch's console port. Start the switch and enter the Boot ROM menu. Then enter the protocol parameter setting menu.	Required. Log in to the switch through the HyperTerminal and configure the protocol for uploading the Boot ROM file.
Enter 1 to update the entire Boot ROM. The file transfer protocol menu appears.	
Enter 1 to choose TFTP. The TFTP	
Update the Boot ROM file on the switch	Required. Update the Boot ROM file on the switch.
Press any key to return to the Boot ROM update menu.	Required. Restart the switch to make the updated Boot ROM file effective.

1. Set up the configuration environment:

Connect an Ethernet port (GigabitEthernet 1/0/25, for example) of the switch to the server (whose IP address is available) that provides the file (usually the **.bin** file) to be downloaded, and connect the console port of the switch to a PC, as shown in [Figure 13](#) .

Figure 13 Load software using TFTP/FTP through Ethernet port



⚠ CAUTION:

- The PC and the TFTP/FTP server can be the same device.
- Each S5800-32F switch provides a management Ethernet port, which can work even when a switching chip problem causes all regular Ethernet ports to stop working. To guarantee an upgrade success, H3C recommends using the management Ethernet port for software upgrade.
- The TFTP/FTP server program is not provided with the S5800 series. Make sure one TFTP/FTP server program is available yourself.

2. Run the TFTP Server program on the sever:
Run TFTP Server on the server connected with the switch's Ethernet port, and specify the path of the application file to be downloaded.

3. Run the terminal emulation program on the PC connected with the switch's console port. Start the switch and enter the Boot ROM menu. Then enter the protocol parameter setting menu.

If you want to load the Boot ROM file, enter **6** in the extended Boot menu after the system displays "Enter your choice(0-9):" to enter 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):

4. Enter **1** to update the entire Boot ROM. The file transfer protocol menu appears.

Bootrom update menu:

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

Enter your choice(0-3):

5. Enter **1** to choose TFTP. The TFTP settings menu appears.

Load File Name :update.bin
Server IP Address :10.10.10.2
Local IP Address :10.10.10.3
Gateway IP Address :

Table 25 TFTP parameter settings

Field	Description
Load File Name :	Name of the file to be downloaded (for example, update.bin).
Server IP Address :	IP address of server (for example, 10.10.10.2).
Local IP Address :	IP address of the switch (for example, 10.10.10.3).
Gateway IP Address :	IP address of the gateway (suppose it is not specified).

NOTE:

- Enter the file name and IP addresses based on the actual condition.
- If the switch and the server are on the same network segment, you can specify any unused IP address of the network for the switch without specifying the gateway's IP address; if they are not on the same segment, you need to specify the gateway's IP address so that the switch can communicate with the server.

6. Update the Boot ROM file on the switch:

Enter the corresponding parameters based on the actual condition. The system displays the following information:

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

The system asks you whether you want to update the basic Boot ROM segment. Click **Y**. Then the system displays the following information after the update is complete:

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

The system asks you whether you want to update the extended Boot ROM segment. Click **Y**. Then the system displays the following information after the update is complete:

```
Updating extended BootRom.....Done!
```

7. Press any key to return to the Boot ROM update menu.

```
Press enter key when ready  
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** to return to the extended Boot menu.

9. Enter **0** in the extended Boot menu to restart the device.

After the restart is complete, the updated Boot ROM file becomes effective.

Loading a system software image file

To load the system software image file of the switch, enter **1** in the extended Boot menu. The system displays the following information:

```
1. Set TFTP protocol parameter  
2. Set FTP protocol parameter  
3. Set XMODEM protocol parameter  
0. Return to boot menu  
Enter your choice(0-3):3
```

You can enter **1** to load the file.

The procedure of loading a system software image file is the same as upgrading Boot ROM.

After the file is loaded, set the file attribute to **main**, **backup**, or **none** at the prompt.

```
Writing flash.....  
.....Done!  
Please input the file attribute (Main/Backup/None) M  
Done!
```

NOTE:

If a system software image file with a specific attribute already exists when you set a new file with the attribute, the attribute of the existing file becomes **none** after the new file becomes effective.

Using FTP to upgrade software through an Ethernet Port

Upgrading the Boot ROM program

NOTE:

When upgrading the Boot ROM program, the switch can serve only as an FTP client.

Complete the following tasks to upgrading the Boot ROM program using FTP through an Ethernet port (For details about the HyperTerminal, refer to [Setting terminal](#) :

Task	Remarks
Set up the configuration environment	Required Connect the switch to the TFTP server through an Ethernet port, and to a PC through the console port. The PC and the TFTP server can be the same device.
Run the FTP Server program on the server	Required
Run the terminal emulation program on the PC connected with the switch's console port. Start the switch and enter the Boot ROM menu, and then enter the protocol parameter setting menu.	Required Log in to the switch through the HyperTerminal and configure the protocol for uploading the Boot ROM file.
Enter 1 to update the entire Boot ROM. The file transfer protocol menu appears.	
Enter 2 to choose FTP. The FTP settings menu appears.	
Update the Boot ROM file on the switch	Required Update the Boot ROM file on the switch.
Press any key to return to the Boot ROM update menu.	Required Restart the switch to make the updated Boot ROM file effective.

1. Set up the configuration environment:

Connect an Ethernet port (GigabitEthernet 1/0/25, for example) of the switch to the server (whose IP address is available) that provides the file (usually the **.bin** file) to be downloaded, and connect the console port of the switch to a PC, as shown in [Figure 13](#) .

2. Run the FTP Server program on the server:

Run FTP Server on the server connected with the switch's Ethernet port, configure the FTP username and password, and specify the path of the software image file to be downloaded.

3. Run the terminal emulation program on the PC connected with the switch's console port. Start the switch and enter the Boot ROM menu, and then enter the protocol parameter setting menu.

If you want to load the Boot ROM file, enter **6** in the Boot ROM menu after the system displays "Enter your choice(0-9):" to enter 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):

```

4. Enter **1** to update the entire Boot ROM. The file transfer protocol menu appears.

```

Bootrom update menu:

1. Set TFTP protocol parameter
2. Set FTP protocol parameter
3. Set XMODEM protocol parameter
0. Return to boot menu
Enter your choice(0-3):

```

5. Enter **2** to choose FTP. The FTP settings menu appears.

```

Load File Name      :update.bin
Server IP Address   :10.10.10.2
Local IP Address    :10.10.10.3
Gateway IP Address  :0.0.0.0
FTP User Name       :5800
FTP User Password   :123

```

Table 26 FTP parameter settings

Field	Description
Load File Name :	Name of the file to be downloaded
Server IP Address :	IP address of the PC
Local IP Address :	IP address of the switch
Gateway IP Address :	IP address of the gateway
FTP User Name	Username for logging in to the FTP server, which should be consistent with that configured on the FTP server.
FTP User Password	Password for logging in to the FTP server, which should be consistent with that configured on the FTP server.

NOTE:

- Enter the file name and IP addresses based on the actual condition.
- If the switch and the server are on the same network segment, you can specify any unused IP address of the network for the switch without specifying the gateway's IP address; if they are not on the same segment, you need to specify the gateway's IP address so that the switch can communicate with the server.

6. Update the Boot ROM file on the switch:

Enter the corresponding parameters based on the actual condition. The system displays the following information:

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

The system asks you whether you want to update the basic Boot ROM segment. Click **Y**. The system displays the following information after the update is complete:

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

The system asks you whether you want to update the extended Boot ROM segment. Click **Y** and then the system displays the following information after the update is complete:

```
Updating extended BootRom.....Done!
```

7. Press any key to return to the Boot ROM update menu.

```
Press enter key when ready
```

- ```
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** to return to the extended Boot menu.
9. Enter **0** in the extended Boot menu to restart the device.

After the restart is complete, the updated Boot ROM file becomes effective.

## Loading a system software image file

To load the system software image file of the switch, enter **1** in the extended Boot menu. The system displays the following information:

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

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

Enter **2** to load the file through FTP.

The procedure of loading a system software image file is the same as upgrading Boot ROM.

After the file is loaded, set the file attribute to **main**, **backup**, or **none** at the prompt.

```
Writing flash.....
.....Done!
Please input the file attribute (Main/Backup/None) M
Done!
```

NOTE:

If a system software image file with a specific attribute already exists when you set a new file with the attribute, the attribute of the existing file becomes **none** after the new file becomes effective.

Upgrading software from CLI

You can upgrade software or download files remotely from CLI.

Loading software through the USB interface

Each S5800 series switch provides a USB interface on its front panel. You can download software files to a removable storage device (such as a USB flash disk), and load the file through the USB interface.

To load a software file (for example, **update.bin**) from the USB flash disk:

1. Plug the USB flash disk containing the **update.bin** file in the USB interface of the switch.
2. Copy the **update.bin** file to the flash memory of the switch.

```
<H3C> cd flash:
<H3C> copy usba:/update.bin update.bin
```

3. Remove the USB flash disk, and then load the Boot ROM file.

```
<H3C> bootrom update file update.bin slot 1
This command will update bootrom file on the specified board(s), Continue? [Y/N]:y
Now updating bootrom, please wait...
```

4. Load the file, and specify the file as the main program file.

```
<H3C> boot-loader file update.bin slot 1 main
This command will set the boot file of the specified board. Continue? [Y/N]:y
The specified file will be used as the main boot file at the next reboot on slot 1!
<H3C> display boot-loader
Slot 1
The current boot app is:  flash:/update.bin
The main boot app is:    flash:/update.bin
The backup boot app is:  flash:/update.bin
<H3C> reboot
```

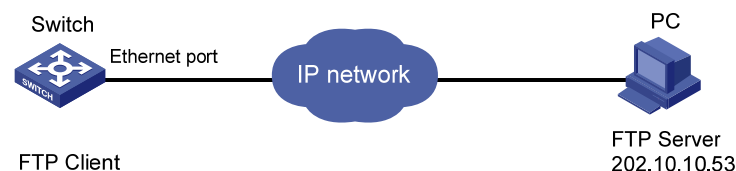
NOTE:

- After loading the file, use the **reboot** command to restart the switch to make the update take effect (make sure you have saved other configurations before restart).
 - If the built-in flash does not have enough space, load the Boot ROM file first, and then delete unused files (for example, unused system software image files) from the built-in flash, and then load the new system software image file.
 - Avoid power failure during the loading process.
-

Loading software with FTP

As shown in [Figure 14](#), run FTP Server on the local host, configure username **admin** and the password, and specify the path of the file to be downloaded (suppose the IP address of the FTP server is 202.10.10.53). Then, telnet to the switch and send the host program file to the switch using FTP.

Figure 14 Load software through FTP



To download a software file (for example, **update.bin**) from an FTP server and upgrade software:

1. Download the file to the switch by using FTP.

```
<H3C> ftp 202.10.10.53
Trying ...
Press CTRL+K to abort
Connected.
220 WFTPD 2.0 service (by Texas Imperial Software) ready for new user
User(none):admin
331 Give me your password, please
Password:
230 Logged in successfully
[ftp] get update.bin update.bin
[ftp] bye
```

2. Upgrade the Boot ROM program.

```
<H3C> bootrom update file update.bin slot 1
This command will update bootrom file on the specified board(s), Continue? [Y/N]:y
Now updating bootrom, please wait...
```

3. Load the file, and specify the file as the main system software image file.

```
<H3C> boot-loader file update.bin slot 1 main
This command will set the boot file of the specified board. Continue? [Y/N]:y
The specified file will be used as the main boot file at the next reboot on slot 1!
<H3C> display boot-loader
Slot 1
The current boot app is: flash:/update.bin
The main boot app is: flash:/update.bin
The backup boot app is: flash:/update.bin
<H3C> reboot
```

NOTE:

- After loading the application file, use the **reboot** command to restart the switch to make the update take effect (make sure you have saved other configurations before restart).
 - If the built-in flash does not have enough space, load the Boot ROM file first, and then delete unused files (for example, unused system software image files) from the built-in flash, and then load the new system software image file.
 - Avoid any power failure during the loading process.
-

Loading software with TFTP

Loading a file through TFTP is similar to loading a file through FTP. The switch can serve only as a TFTP client that downloads the file from the TFTP server to its flash memory. The procedure after download is the same as loading the file remotely through FTP.