

# HP 1910 Fast Ethernet Switch Series CMW520-R1108 Release Notes

© Copyright 2015 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.  
The information in this document is subject to change without notice.



# Contents

Version information	1
Version number	1
Version history	1
Hardware and software compatibility matrix	2
Upgrading restrictions and guidelines	3
Hardware feature updates	4
Software feature and command updates	4
MIB updates	5
Operation changes	6
Operation changes in CMW520-R1108	6
Operation changes in CMW520-R1107	6
Operation changes in CMW520-R1106	6
Operation changes in CMW520-R1105	6
Operation changes in CMW520-R1104	6
Operation changes in CMW520-R1103	6
Operation changes in CMW520-R1102	7
Operation changes in CMW520-E1101	7
Restrictions and cautions	7
Open problems and workarounds	7
List of resolved problems	8
Resolved problems in CMW520-R1108	8
Resolved problems in CMW520-R1107	8
Resolved problems in CMW520-R1106	9
Resolved problems in CMW520-R1105	9
Resolved problems in CMW520-R1104	9
Resolved problems in CMW520-R1103	9
Resolved problems in CMW520-R1102	10
Resolved problems in CMW520-E1101	10
Related documentation	10
Documentation set	10
Obtaining documentation	10
Contacting HP	11
Subscription service	11
Appendix A Feature list	12
Hardware features	12
Software features	13
Appendix B Upgrading software	15
System software file types	15
Upgrade methods	15
Preparing for the upgrade	15
Upgrading from the WEB	16
Upgrading from the BootWare menu	17

Accessing the BootWare menu.....	17
Using TFTP/FTP to upgrade software through an Ethernet port .....	19
Using XMODEM to upgrade software through the console port .....	21
Managing files from the BootWare menu.....	25
Displaying all files .....	26
Changing the type of a system software image.....	26
Deleting files .....	27
Handling software upgrade failures .....	27

# List of Tables

Table 1 Version history .....	1
Table 2 Hardware and software compatibility matrix.....	2
Table 3 Feature updates .....	4
Table 4 MIB updates .....	5
Table 5 HP 1910 Fast Ethernet Switch Series hardware features.....	12
Table 6 Software features of the HP 1910 Fast Ethernet Switch Series .....	13
Table 7 BootWare menu options.....	18
Table 8 Ethernet submenu options.....	19
Table 9 Network parameter fields and shortcut keys.....	20
Table 10 Serial submenu options .....	21
Table 11 File Control submenu options.....	26

This document describes the features, restrictions and guidelines, open problems, and workarounds for version CMW520-R1108. 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.

## Version information

### Version number

Comware Software, Version 5.20.99, Release 1108

You can see the version information by using the **summary** command in any view. See **Note 1**.

### Version history

**Table 1** Version history

Version number	Last version	Release date	Release type	Remarks
JG536A-CMW520-R1108	JG536A-CMW520-R1107			
JG537A-CMW520-R1108	JG537A-CMW520-R1107			
JG538A-CMW520-R1108	JG538A-CMW520-R1107	2015-03-17	Release version	None
JG539A-CMW520-R1108	JG539A-CMW520-R1107			
JG540A-CMW520-R1108	JG540A-CMW520-R1107			
JG536A-CMW520-R1107	JG536A-CMW520-R1106			
JG537A-CMW520-R1107	JG537A-CMW520-R1106			
JG538A-CMW520-R1107	JG538A-CMW520-R1106	2014-12-18	Release version	None
JG539A-CMW520-R1107	JG539A-CMW520-R1106			
JG540A-CMW520-R1107	JG540A-CMW520-R1106			
JG536A-CMW520-R1106	JG536A-CMW520-R1105			
JG537A-CMW520-R1106	JG537A-CMW520-R1105			
JG538A-CMW520-R1106	JG538A-CMW520-R1105	2014-07-05	Release version	None
JG539A-CMW520-R1106	JG539A-CMW520-R1105			
JG540A-CMW520-R1106	JG540A-CMW520-R1105			
JG536A-CMW520-R1105	JG536A-CMW520-R1104			
JG537A-CMW520-R1105	JG537A-CMW520-R1104			
JG538A-CMW520-R1105	JG538A-CMW520-R1104	2014-06-07	Release version	None
JG539A-CMW520-R1105	JG539A-CMW520-R1104			
JG540A-CMW520-R1105	JG540A-CMW520-R1104			
JG536A-CMW520-R1104	JG536A-CMW520-R1103	2014-04-01	Release version	None

Version number	Last version	Release date	Release type	Remarks
JG537A-CMW520-R1104	JG537A-CMW520-R1103			
JG538A-CMW520-R1104	JG538A-CMW520-R1103			
JG539A-CMW520-R1104	JG539A-CMW520-R1103			
JG540A-CMW520-R1104	JG540A-CMW520-R1103			
JG536A-CMW520-R1103	JG536A-CMW520-R1102			
JG537A-CMW520-R1103	JG537A-CMW520-R1102			
JG538A-CMW520-R1103	JG538A-CMW520-R1102	2013-12-06	Release version	None
JG539A-CMW520-R1103	JG539A-CMW520-R1102			
JG540A-CMW520-R1103	JG540A-CMW520-R1102			
JG536A-CMW520-R1102	JG536A-CMW520-E1101			
JG537A-CMW520-R1102	JG537A-CMW520-E1101			
JG538A-CMW520-R1102	JG538A-CMW520-E1101	2013-08-27	Release version	None
JG539A-CMW520-R1102	JG539A-CMW520-E1101			
JG540A-CMW520-R1102	JG540A-CMW520-E1101			
JG536A-CMW520-E1101				
JG537A-CMW520-E1101				
JG538A-CMW520-E1101	First release	2013-07-04	Release version	None
JG539A-CMW520-E1101				
JG540A-CMW520-E1101				

## Hardware and software compatibility matrix

**Table 2 Hardware and software compatibility matrix**

Item	Specifications
Product family	HP 1910 Fast Ethernet Switch Series
Memory	128MB
Flash	32 MB
Boot ROM version	Version 1.10 or higher (See <b>Note 2</b> )
Host software	JG536A-CMW520-R1108.bin
	JG537A-CMW520-R1108.bin
	JG538A-CMW520-R1108.bin
	JG539A-CMW520-R1108.bin
	JG540A-CMW520-R1108.bin

Item	Specifications
iMC version	iMC PLAT 7.1 (E0302)
	iMC QoS 7.1 (E0301)
	iMC UAM 7.1 (E0302)
	iMC TAM 7.1 (E0302)
	iMC EAD 7.1(E0301)
iNode version	iNode PC 7.1 (E0302)

Display software and Boot ROM version information.

<HP>summary

Select menu option: Summary

IP Method:

IP address:

Subnet mask:

Default gateway:

IPv6 Method:

IPv6 link-local address:

IPv6 subnet mask length:

IPv6 global address:

IPv6 subnet mask length:

IPv6 default gateway:

Current boot app is: flash:/HP1910-8.bin

Next main boot app is: flash:/hp1910-8.bin

Next backup boot app is: NULL

HP Comware Platform Software

**Comware Software, Version 5.20.99, Release 1108----- Note 1**

Copyright (c) 2010-2015 Hewlett-Packard Development Company, L.P.

HP 1910-8 Switch uptime is 0 week, 0 day, 0 hour, 1 minute

HP 1910-8 Switch

128M bytes DRAM

32M bytes Flash Memory

Config Register points to Flash

Hardware Version is VER.A

**Bootrom Version is 110-----Note 2**

[SubSlot 0] 8FE+2GE Combo Hardware Version is VER.A

## Upgrading restrictions and guidelines

None

# Hardware feature updates

None

# Software feature and command updates

Table 3 Feature updates

Item	Description
<b>CMW520-R1108</b>	
Software feature updates	New features: None Deleted features: None Modified features: None
<b>CMW520-R1107</b>	
Software feature updates	New features: 1. GTS, For more information, see HP1910-CMW520-R1107 Release Notes (Software Feature Changes). 2. The fans can automatically adjust the rotation speed according to the PoE power. For better heat dispersion, the fans automatically increase the rotation speed when the actual PoE power reaches half of the value specified in the specification. Deleted features: None Modified features: An ACL can be applied to multiple ports or VLANs.
<b>CMW520-R1106</b>	
Software feature updates	New features: None Deleted features: None Modified features: None
<b>CMW520-R1105</b>	
Software feature updates	New features: 1. Added EEE settings in the Setup page of Port Management. 2. Added the telnet command. 3. Functionality of Power LED flashing during boot cycle is supported by boot file with version 1.10. Deleted features: None Modified features: 1. The default mode of Combo ports was changed from fiber to copper.



Item	Description
<b>CMW520-R1104</b>	
Software feature updates	New features: None Deleted features: None Modified features: None
<b>CMW520-R1103</b>	
Software feature updates	New features: Voice VLAN Deleted features: None Modified features: None
<b>CMW520-R1102</b>	
Software feature updates	New features: None Deleted features: None Modified features: None
<b>CMW520-E1101</b>	
Software feature updates	New features: None Deleted features: None Modified features: None

## MIB updates

Table 4 MIB updates

Item	MIB file	Module	Description
<b>CMW520-R1108</b>			
New	None		None
Modified	None		None
<b>CMW520-R1107</b>			
New	None		None
Modified	None		None
<b>CMW520-R1106</b>			
New	None		None
Modified	None		None
<b>CMW520-R1105</b>			
New	None		None
Modified	None		None
<b>CMW520-R1104</b>			
New	None		None
Modified	None		None

Item	MIB file	Module	Description
<b>CMW520-R1103</b>			
New	None		None
Modified	None		None
<b>CMW520-R1102</b>			
New	None		None
Modified	None		None
<b>CMW520-E1101</b>			
New	None		First release
Modified	None		First release

## Operation changes

### Operation changes in CMW520-R1108

None

### Operation changes in CMW520-R1107

None

### Operation changes in CMW520-R1106

None

### Operation changes in CMW520-R1105

None

### Operation changes in CMW520-R1104

None

### Operation changes in CMW520-R1103

None

# Operation changes in CMW520-R1102

None

# Operation changes in CMW520-E1101

None

## Restrictions and cautions

- On the HP1910-8/ HP1910-8-PoE+/ HP1910-24/ HP1910-24-PoE+ switches, do not configure a QoS policy with 802.1p priority marking and DSCP marking at the same time. If you configure both 802.1p priority marking and DSCP marking in a QoS policy, only DSCP marking takes effect.
- On the HP1910-48 switches, a QoS policy does not support 802.1p priority marking or DSCP marking.
- On the HP1910-8/ HP1910-8-PoE+/ HP1910-24/ HP1910-24-PoE+ switches, IP routing cannot forward a packet out of the interface that received that packet. This problem exists only on the devices with hardware version A0. You can view the hardware version on the silkscreen on the chassis.
- If the number of IPv4 and IPv6 routes exceeds the upper limit, the exceeding routes are active but do not take effect.
- If the Admin Status is changed for IPv4 or IPv6 in the Modify page of VLAN Interface, the Admin Status is changed for both IPv4 and IPv6.
- The Ping, Loghost, and Trace Route functions in the Web interface cannot perform name resolution.

## Open problems and workarounds

### 201303150291

- Symptom: When the storm control threshold is set in kbps or percentage, the storm control error is high for large-sized packets.
- Workaround: Set the storm control threshold in pps.

### 201304020412

- Symptom: Storm suppression configured on an aggregation group member does not take effect.
- Workaround: Configure storm suppression on the reference port of the aggregation group. The storm suppression configuration on the reference port suppresses traffic of the aggregation group.

### 201305300531

- Symptom: The MAC entry corresponding to a static ARP entry cannot be displayed.
- Workaround: Configure a static MAC entry for the static ARP entry.

## 201307160332

- Symptom: A switch fails to route a packet that passes MAC authentication on the receiving interface.
- Workaround: Configure MAC authentication on the access device and configure IP routing on the core device.

## 201306140403

- Symptom: When IGMP snooping or MLD snooping is enabled, well-known multicast protocol packets are forwarded according to multicast MAC entries.
- Workaround: Disable IGMP snooping and MLD snooping.

# List of resolved problems

## Resolved problems in CMW520-R1108

### 201412310265

- Symptom: CVE-2014-9295.
- Condition: Stack-based buffer overflows in ntpd in NTP before 4.2.8 allow remote attackers to execute arbitrary code via a crafted packet.

## Resolved problems in CMW520-R1107

### 201408280092

- Symptom: CVE-2008-5161.
- Condition: Error handling in the SSH protocol in several SSH servers/clients, including OpenSSH 4.7p1 and possibly other versions, when using Cipher Block Chaining (CBC) mode, makes it easier for remote attackers to recover certain plaintext data.

### 201408150032

- Symptom: CVE-2014-3508.
- Condition: A flaw in OBJ\_obj2txt may cause pretty printing functions such as X509\_name\_oneline, X509\_name\_print\_ex et al. to leak some information from the stack. Applications may be affected if they echo pretty printing output to the attacker.

### 201410220283

- Symptom: SSL 3.0 Fallback protection.
- Condition: OpenSSL has added support for TLS\_FALLBACK\_SCSV to allow applications to block the ability for a MITM attacker to force a protocol downgrade. Some client applications (such as browsers) will reconnect using a downgraded protocol to work around interoperability bugs in older servers. This could be exploited by an active man-in-the-middle to downgrade connections to

SSL 3.0 even if both sides of the connection support higher protocols. SSL 3.0 contains a number of weaknesses including POODLE (CVE-2014-3566).

#### 201408150484

- Symptom: If an aggregate interface receives a unicast ARP packet destined to the aggregate interface, it sends the ARP packet out.
- Condition: This symptom can be seen if the VLAN of the aggregate interface is enabled with ARP detection.

## Resolved problems in CMW520-R1106

#### 201406100576

- Symptom: CVE-2014-0224.
- Condition: When Open SSL Server is used.

## Resolved problems in CMW520-R1105

#### 201404150407

- Symptom: Logging into the switch through SSH or Telnet fails.
- Condition: This symptom can be seen if the switch started up using default settings.

#### 201405150497

- Symptom: A loop is detected between two ports on which permitted VLANs are different.
- Condition: This symptom can be seen if loop detection is enabled on ports that permit different VLANs.

## Resolved problems in CMW520-R1104

#### 201402210094

- Symptom: No content is displayed on the Address Binding page when it is opened by iMC, and the CPU usage is high.
- Condition: This symptom occurs when the Address Binding page is opened using iMC.

## Resolved problems in CMW520-R1103

#### 201312050464

- Symptom: The help information displayed in the Web interface contains only version and copyright information, without help information for the configuration.
- Condition: This symptom can be seen if you display help information in the Web interface.

# Resolved problems in CMW520-R1 102

## 201307130175

- Symptom: The system-guard function blocks traffic sent by other ports to the CPU, affecting relevant services.
- Condition: This symptom occurs when the following conditions exist:
  - The system-guard function is enabled.
  - Large numbers of packets are sent to the CPU.

## 201307100401

- Symptom: ARP detection discards legal ARP packets.
- Condition: This symptom can be seen if ARP detection is enabled on the VLAN of an aggregate interface.

## 201306060603

- Symptom: The system fails to forward packets that match both a QoS policy and a MAC-VLAN entry on a port.
- Condition: This symptom can be seen if a QoS policy and MAC-VLAN are both configured on a port.

## 201307100408

- Symptom: The switch unexpectedly reboots after an interface goes up and down for two hours.
- Condition: This symptom can be seen if the following conditions exist:
  - An interface goes up and down for two hours.
  - The specifications for MSTP and LACP are reached.

# Resolved problems in CMW520-E1 101

First release

## Related documentation

### Documentation set

- HP 1910 Fast Ethernet Switch Series Getting Started Guide
- HP 1910 Fast Ethernet Switch Series User Guide

## 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

**Table 5 HP 1910 Fast Ethernet Switch Series hardware features**

Item	HP1910-8	HP1910-8-PoE+	HP1910-24	HP1910-24-PoE+	HP1910-48
Dimensions (H x W x D) (w wd wh)	44 x 266 x 162 x mm (1.73 x 10.47 x 6.38 in.)	44 x 330 x 230 mm (1.73 x 12.99 x 9.06 in)	44 x 440 x 173 mm (1.73 x 17.32 x 6.81 in)	44 x 440 x 238 mm (1.73 x 17.32 x 9.37 in)	44 x 440 x 173 mm (1.73 x 17.32 x 6.81 in)
Switching capacity	32Gbps				
Throughput	4.2Mpps		6.6Mpps		13.1Mpps
Ports	8 RJ-45 auto-negotiating 10/100 ports (IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX)		24 RJ-45 auto-negotiating 10/100 ports(IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX)		48 RJ-45 auto-negotiating 10/100 ports(IEEE 802.3 Type 10BASE-T, IEEE 802.3u Type 100BASE-TX)
	2 10/100/1000 Base-T plus 2 1000BASE-X SFP combo ports		2 10/100/1000Base-T plus 2 1000BASE-X SFP combo ports		2 RJ-45 auto-negotiating 10/100/1000 ports 2 1000BASE-X SFP ports
SFP	Support 1000BASE-X SFP Support 100BASE-X SFP				
PoE	Not supported	A single PoE port provides power consumption up to 30 W and the switch provides up to 65 W for PoE port-connected devices in total.	Not supported	A single PoE port provides power consumption up to 30 W and the switch provides up to 190 W for PoE port-connected devices in total.	Not supported
Temperature	Operating temperature: 0 ° C to 40 ° C Storage temperature: -40 ° C to 70 ° C				
Humidity	Operating relative humidity: 5% to 95% Storage relative humidity: 5% to 95%				
Emissions	FCC part 15 Class A; VCCI Class A; EN 55022 Class A; CISPR 22 Class A; EN 55024; EN 61000-3-2 2000, 61000-3-3; ICES-003 Class A,				



Item	HP1910-8	HP1910-8-PoE+	HP1910-24	HP1910-24-PoE+	HP1910-48
Safety	EN60950-1, UL 60950-1 2nd edition / CSA22.2 No 60950-1 2nd edition, IEC 60950-1				
Max power	≤ 8W	≤ 90W	≤ 12W	≤ 220W	≤ 22W
Weight	≤ 1 kg (2.20 lb)	≤ 2.1 kg (4.63 lb)	≤ 2.2 kg (4.85 lb)	≤ 3.3 kg (7.28 lb)	≤ 2.3 kg (5.07 lb)
Input AC Voltage	Rated voltage range: 100 VAC to 240 VAC @ 50 Hz or 60Hz				

## Software features

**Table 6 Software features of the HP 1910 Fast Ethernet Switch Series**

Item	HP1910-8	HP1910-8-PoE+	HP1910-24	HP1910-24-PoE+	HP1910-48
VLAN	Voice VLAN				
IPv4	Static routing (32)				
IPv6	IPv6 routing (32) ND Pingv6, Telnetv6, FTPv6, TFTPv6, ICMPv6				
DHCP	DHCP relay DHCP client DHCP snooping DHCP snooping Option 82				
Multicast	IGMP V1/V2/V3 snooping MLD V1/V2 snooping				
ACL	Mac based and IP based ACL Ingress ACL				
QoS	Diff-Serv QoS WRR/HQ-WRR queue schedule Priority mark/remark				
security	Two-level admin and monitor management SSHv2 ARP anti-attack MAC limit IEEE 802.1X RADIUS SNMPv3, SSHv2 Broadcast storm control				

Item	HP1910-8	HP1910-8-PoE+	HP1910-24	HP1910-24-PoE+	HP1910-48
System management†	Console/AUX Modem/Telnet/SSH2.0 command line configuration				
	FTP, TFTP, XModem, SFTP software application file download				
	SNMP V1/V2c/V3				
	RMON, 1, 2, 3, 9 group				
	NTP				
	Syslog				
	single IP management (IRF-Lite)				
PoE	Not supported	PoE Power 65W Port Max 30W	Not supported	PoE Power 190W Port Max 30W	Not supported

# Appendix B Upgrading software

This section describes how to upgrade system software while the switch is operating normally or when the switch cannot correctly start up.

## System software file types

System software images are in .bin format (for example, main.bin) and run at startup. You can set a system software image as a **main**, **backup**, or **secure** image.

At startup, the switch always attempts to boot first with the main system software image. If the attempt fails, for example, because the image file is corrupted, the switch tries to boot with the backup system software image. If the attempt still fails, the switch tries to boot with the secure system software image. If all attempts fail, the switch displays a failure message.

## Upgrade methods

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

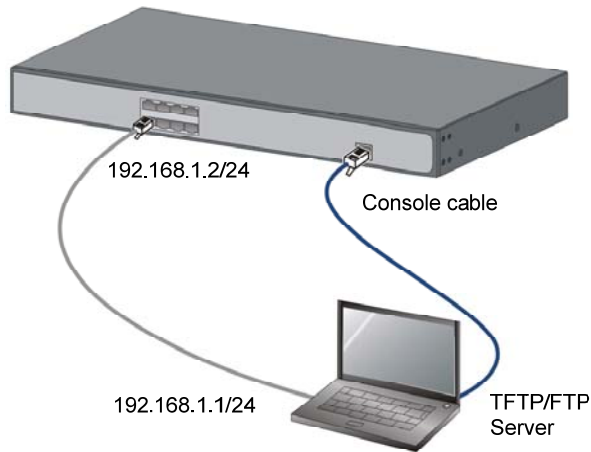
Upgrade method	Remarks
<a href="#">Upgrading from the WEB</a>	<ul style="list-style-type: none"><li>You must reboot the switch to complete the upgrade.</li><li>This method can interrupt ongoing network services.</li></ul>
<a href="#">Upgrading from the BootWare menu</a>	Use this method when the switch cannot correctly start up.

## Preparing for the upgrade

Before you upgrade system software, complete the following tasks:

- Set up the upgrade environment as shown in [Table 8](#).
- Configure switch to make sure that the switch and the file server can reach each other.
- Run a TFTP or FTP server on the file server.
- Log in to the CLI of the switch through the console port.
- Copy the upgrade file to the file server and correctly set the working directory on the TFTP or FTP server.
- Make sure that the upgrade has minimal impact on the network services. During the upgrade, the switch cannot provide any services.

Figure 1 Set up the upgrade environment



## Upgrading from the WEB

### Upgrading the system software

1. Select **Device > File Management** from the navigation tree to enter the file management page, as shown in Figure 2 .

Figure 2 File management

File Management

Please select disk **flash** Used space: 22.18 MB Free space: 6.24 MB Capacity: 28.42 MB

<input type="checkbox"/>	File	Size(KB)	Boot File Type	Operation
<input type="checkbox"/>	flash:/test_old_2126d002.bin	11,184	Backup	
<input type="checkbox"/>	flash:/default.diag	94.433		
<input type="checkbox"/>	flash:/system.xml	0.147		
<input type="checkbox"/>	flash:/startup.cfg	1.288		
<input type="checkbox"/>	flash:/_startup_bak.cfg	1.272		
<input type="checkbox"/>	flash:/test.bin	11,214	Main	
<input type="checkbox"/>	flash:/logfile/logfile.log	208.504		

7 records, 20 per page | page 1/1, record 1-7 | First Prev Next Last  **GO**

**Download File** **Remove File** **Set as Main Boot File**

Upload File

Please select disk **flash**

File  **浏览...**

- Note: Do not perform any operation when upload is in process.

**Apply**

2. In the **Upload File** area, select a disk from the **Please select disk** drop-down list to save the file, and then select the file path and filename by clicking **Browse**. Click **Apply** to upload the file to the specified storage device.
3. Select the application file (with the extension **.bin** or **.app**) from the file list.
4. Click **Set as Main Boot File**

---

 **CAUTION:**

Uploading a file takes some time. HP recommends you not to perform any operation on the web interface during the upgrading procedure.

---

## Upgrading from the BootWare menu

You can use the following methods to upgrade software from the BootWare menu:

- Using TFTP/FTP to upgrade software through an Ethernet port
- Using XMODEM to upgrade software through the console port

---

 **TIP:**

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

---

## Accessing the BootWare menu

1. Power on the switch (for example, an HP1910-8), and you can see the following information:

```
System is starting...
Press Ctrl+D to access BASIC-BOOTWARE MENU
Booting Normal Extend BootWare
The Extend BootWare is self-decompressing.....Done!

*****
*
*          HP 1910-8 Switch JG536A BootWare, Version 1.06          *
*
*****

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

Compiled Date       : Jul  3 2013 17:43:17
CPU Type           : MIPS4kec
CPU L1 Cache       : 16KB
CPU Clock Speed    : 500MHz
Memory Type        : DDR3 SDRAM
Memory Size        : 128MB
Memory Speed       : 300MHz
BootWare Size      : 3MB
Flash Size         : 32MB
```

```
BootWare Validating...
Press Ctrl+B to enter extended boot menu...
```

2. Press **Ctrl + B** at the prompt.

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

Password recovery capability is enabled.

Note: The current operating device is flash

Enter < Storage Device Operation > to select device.

```
=====<EXTEND-BOOTWARE MENU>=====
|<1> Boot System |
|<2> Enter Serial SubMenu |
|<3> Enter Ethernet SubMenu |
|<4> File Control |
|<5> Restore to Factory Default Configuration |
|<6> Skip Current System Configuration |
|<7> BootWare Operation Menu |
|<8> Clear Super Password |
|<9> Storage Device Operation |
|<0> Reboot |
=====
Ctrl+Z: Access EXTEND-ASSISTANT MENU
Ctrl+F: Format File System
Enter your choice(0-9):
```

**Table 7 BootWare menu options**

Item	Description
<1> Boot System	Boot the system software image.
<2> Enter Serial SubMenu	Access the Serial submenu (see <a href="#">Table 10</a> ) for upgrading system software through the console port or changing the serial port settings.
<3> Enter Ethernet SubMenu	Access the Ethernet submenu (see <a href="#">Table 8</a> ) for upgrading system software through an Ethernet port or changing Ethernet settings.
<4> File Control	Access the File Control submenu (see <a href="#">Table 11</a> ) to retrieve and manage the files stored on the switch.
<5> Restore to Factory Default Configuration	Restore to Factory Default Configuration
<6> Skip Current System Configuration	Start the switch with the factory default configuration. This is a one-time operation and does not take effect at the next reboot. You use this option when you forget the console login password.
<7> BootWare Operation Menu	Access the BootWare Operation menu for backing up, restoring, or upgrading BootWare. When you upgrade the system software image, BootWare is automatically upgraded. HP does not recommend upgrading BootWare separately. This document does not cover using the BootWare Operation menu.
<8> Clear Super Password	Clear all super passwords used for switching to higher user privilege levels. By default, no super password is required for switching to a higher user privilege level.
<9> Storage Device Operation	Access the Storage Device Operation menu to manage storage devices. Using this option is beyond this chapter.

Item	Description
<0> Reboot	Restart the switch.

## Using TFTP/FTP to upgrade software through an Ethernet port

1. Enter **3** in the BootWare menu to access the Ethernet submenu.

```

===== <Enter Ethernet SubMenu> =====
|Note:the operating device is cfa0          |
|<1> Download Application Program To SDRAM And Run |
|<2> Update Main Application File           |
|<3> Update Backup Application File        |
|<4> Update Secure Application File        |
|<5> Modify Ethernet Parameter            |
|<0> Exit To Main Menu                    |
|<Ensure The Parameter Be Modified Before Downloading!> |
=====
Enter your choice(0-5):

```

**Table 8 Ethernet submenu options**

Item	Description
<1> Download Application Program To SDRAM And Run	Download a system software image to the SDRAM and run the image.
<2> Update Main Application File	Upgrade the main system software image.
<3> Update Backup Application File	Upgrade the backup system software image.
<4> Update Secure Application File	Upgrade the secure system software image.
<5> Modify Ethernet Parameter	Modify network settings.
<0> Exit To Main Menu	Return to the BootWare menu.

2. Enter **5** to configure the network settings.

```

===== <ETHERNET PARAMETER SET> =====
|Note:      '.' = Clear field.          |
|           '-' = Go to previous field. |
|           Ctrl+D = Quit.              |
=====
Protocol (FTP or TFTP) :tftp
Load File Name         :main.bin
                       :
Target File Name       :main.bin
                       :
Server IP Address      :192.168.1.1
Local IP Address       :192.168.1.253
Gateway IP Address     :0.0.0.0
FTP User Name          :user
FTP User Password      :password

```

**Table 9 Network parameter fields and shortcut keys**

<b>Field</b>	<b>Description</b>
'.' = Clear field	Press a dot (.) and then <b>Enter</b> to clear the setting for a field.
'-' = Go to previous field	Press a hyphen (-) and then <b>Enter</b> to return to the previous field.
Ctrl+D = Quit	Press <b>Ctrl + D</b> to exit the Ethernet Parameter Set menu.
Protocol (FTP or TFTP)	Set the file transfer protocol to FTP or TFTP.
Load File Name	Set the name of the file to be downloaded.
Target File Name	Set a file name for saving the file on the switch. By default, the target file name is the same as the source file name.
Server IP Address	Set the IP address of the FTP or TFTP server. If a mask must be set, use a colon (:) to separate the mask length from the IP address. For example, 192.168.80.10:24.
Local IP Address	Set the IP address of the switch.
Gateway IP Address	Set a gateway IP address if the switch is on a different network than the server.
FTP User Name	Set the username for accessing the FTP server. This username must be the same as configured on the FTP server. This field is not available for TFTP.
FTP User Password	Set the password for accessing the FTP server. This password must be the same as configured on the FTP server. This field is not available for TFTP.

3. Select an option in the Ethernet submenu to upgrade a system software image. For example, enter **2** to upgrade the main system software image.

```

Loading.....
.....
.....Done!
31911744 bytes downloaded!
Updating File flash:/main.bin.....
.....Done!
=====<Enter Ethernet SubMenu>=====
|Note:the operating device is flash |
|<1> Download Application Program To SDRAM And Run |
|<2> Update Main Application File |
|<3> Update Backup Application File |
|<4> Update Secure Application File |
|<5> Modify Ethernet Parameter |
|<0> Exit To Main Menu |
|<Ensure The Parameter Be Modified Before Downloading!> |
=====
Enter your choice(0-5):

```

4. Enter **0** to return to the BootWare menu.
5. In the BootWare menu, enter **1** to boot the system.



# Using XMODEM to upgrade software through the console port

1. Enter **2** in the BootWare menu to access the Serial submenu.

```

=====<Enter Serial SubMenu>=====
|Note:the operating device is flash      |
|<1> Download Application Program To SDRAM And Run      |
|<2> Update Main Application File                |
|<3> Update Backup Application File              |
|<4> Update Secure Application File              |
|<5> Modify Serial Interface Parameter          |
|<0> Exit To Main Menu                        |
=====
Enter your choice(0-5):

```

**Table 10 Serial submenu options**

Item	Description
<1> Download Application Program To SDRAM And Run	Download an application to SDRAM through the serial port and run the program.
<2> Update Main Application File	Upgrade the main system software image.
<3> Update Backup Application File	Upgrade the backup system software image.
<4> Update Secure Application File	Upgrade the secure system software image.
<5> Modify Serial Interface Parameter	Modify serial port parameters
<0> Exit To Main Menu	Return to the BootWare menu.

2. Enter **5** to modify serial interface parameters.
3. Select an appropriate baud rate for the console port. For example, enter **5** to select 115200 bps.

```

=====<BAUDRATE SET>=====
|Note:'' indicates the current baudrate      |
|      Change The HyperTerminal's Baudrate Accordingly      |
|-----<Baudrate Available>-----|
|<1> 9600                                          |
|<2> 19200                                       |
|<3> 38400 (Default)*                            |
|<4> 57600                                       |
|<5> 115200                                      |
|<0> Exit                                        |
=====
Enter your choice(0-5):5
The following messages appear:
Baudrate has been changed to 115200 bps.
Please change the terminal's baudrate to 115200 bps, press ENTER when ready.

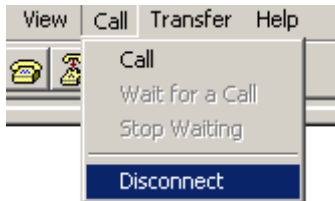
```

**NOTE:**

Typically the size of a .bin file is over 10 MB. Even at 115200 bps, the download takes about 30 minutes.

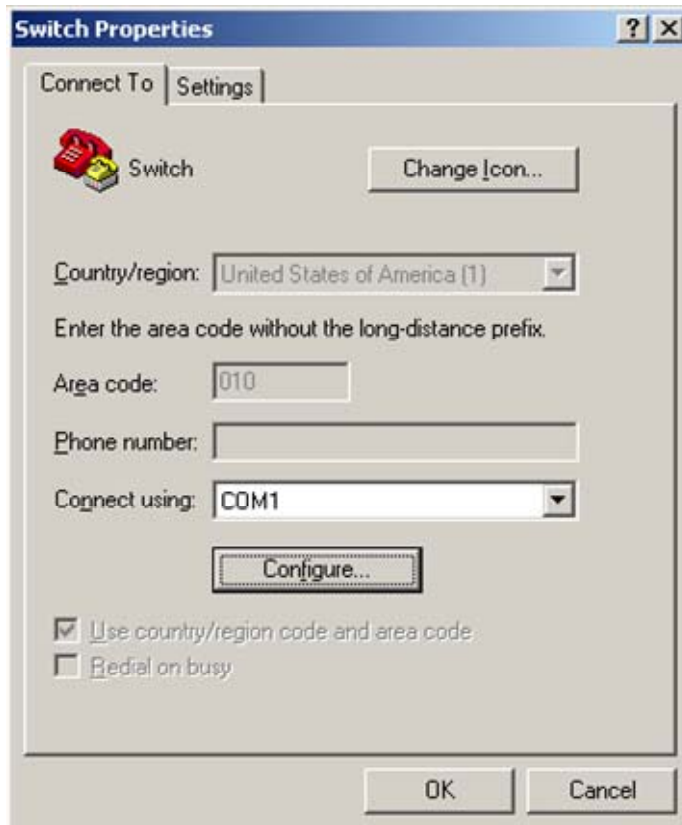
4. Select **Call > Disconnect** in the HyperTerminal window to disconnect the terminal from the switch.

**Figure 3 Disconnect the terminal connection**



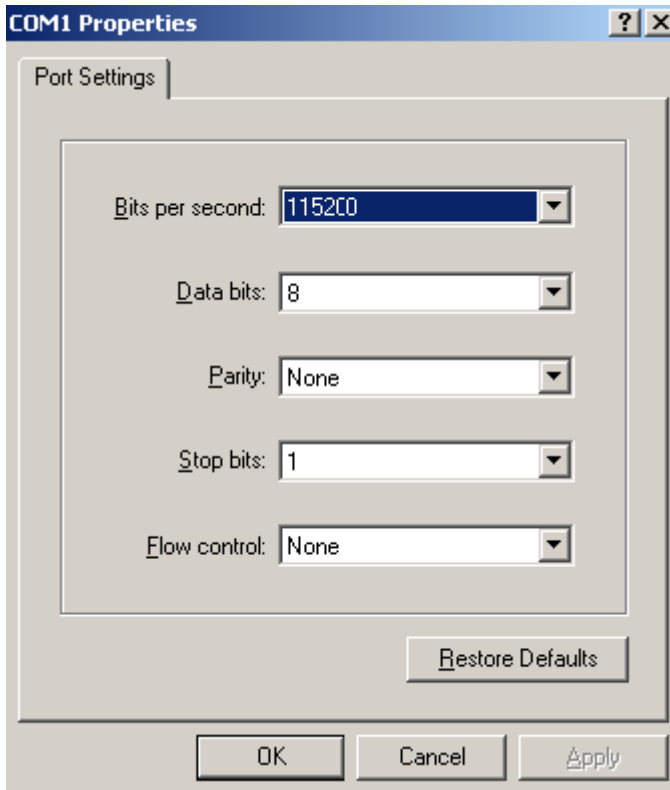
5. Select **File > Properties**, and in the **Properties** dialog box, click **Configure**.

**Figure 4 Properties dialog box**



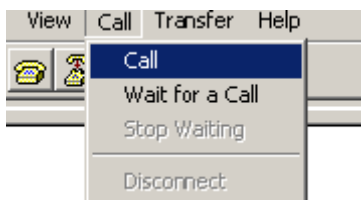
6. Select **115200** from the **Bits per second** list and click **OK**.

Figure 5 Modify the baud rate



7. Select **Call** > **Call** to reestablish the connection.

Figure 6 Reestablish the connection



8. Press **Enter**.

The following menu appears:

```
The current baudrate is 115200 bps
=====<BAUDRATE SET>=====
|Note: '*' indicates the current baudrate |
|   Change The HyperTerminal's Baudrate Accordingly |
|-----<Baudrate Available>-----|
|<1> 9600 |
|<2> 19200 |
|<3> 38400(Default) |
|<4> 57600 |
|<5> 115200* |
|<0> Exit |
=====
Enter your choice(0-5):
```

9. Enter **0** to return to the Serial submenu.

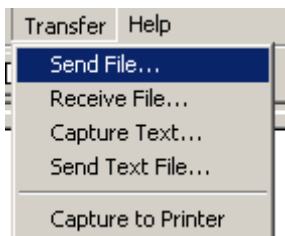
```
=====<Enter Serial SubMenu>=====
|Note:the operating device is flash      |
|<1> Download Application Program To SDRAM And Run |
|<2> Update Main Application File       |
|<3> Update Backup Application File     |
|<4> Update Secure Application File     |
|<5> Modify Serial Interface Parameter  |
|<0> Exit To Main Menu                  |
=====
Enter your choice(0-5):
```

10. Select an option from options **2** to **4** to upgrade a system software image. For example, enter **2** to upgrade the main system software image.

```
Please Start To Transfer File, Press <Ctrl+C> To Exit.
Waiting ...CCCCC
```

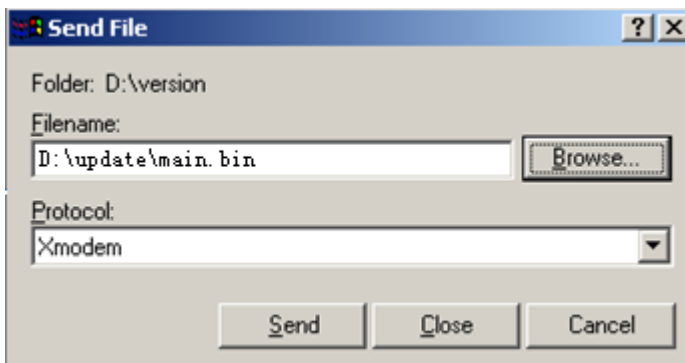
11. Select **Transfer > Send File** in the HyperTerminal window.

**Figure 7 Transfer menu**



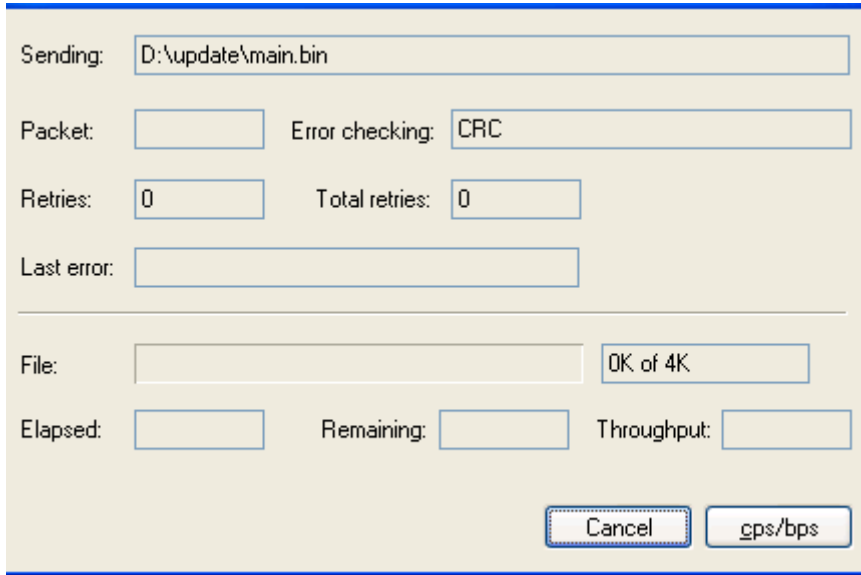
12. In the dialog box that appears, click **Browse** to select the source file, and select **Xmodem** from the **Protocol** list.

**Figure 8 File transmission dialog box**



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

**Figure 9 File transfer progress**



14. When the Serial submenu appears after the file transfer is complete, enter **0** at the prompt to return to the BootWare menu.

```
Download successfully!
31911808 bytes downloaded!
Input the File Name:main.bin
Updating File flash:/main.bin.....
.....Done!
```

```
=====<Enter Serial SubMenu>=====
|Note:the operating device is flash |
|<1> Download Application Program To SDRAM And Run |
|<2> Update Main Application File |
|<3> Update Backup Application File |
|<4> Update Secure Application File |
|<5> Modify Serial Interface Parameter |
|<0> Exit To Main Menu |
=====
Enter your choice(0-5):
```

15. Enter **1** in the BootWare menu to boot the system.
16. If you are using a download rate other than 38400 bps, change the baud rate of the terminal to 38400 bps. If the baud rate has been set to 38400 bps, skip this step.

## Managing files from the BootWare menu

To change the type of a system software image, retrieve files, or delete files, enter **4** in the BootWare menu.

The File Control submenu appears:

```
=====<File CONTROL>=====
|Note:the operating device is flash |
```

```

|<1> Display All File(s) |
|<2> Set Application File type |
|<3> Set Configuration File type |
|<4> Delete File |
|<0> Exit To Main Menu |
=====
Enter your choice(0-4):

```

**Table 11 File Control submenu options**

Item	Description
<1> Display All File	Display all files.
<2> Set Application File type	Change the type of a system software image.
<3> Set Configuration File type	Change the type of a configuration file.
<4> Delete File	Delete files.
<0> Exit To Main Menu	Return to the BootWare menu.

## Displaying all files

To display all files, enter **1** in the File Control submenu:

```

Display all file(s) in flash:
'M' = MAIN      'B' = BACKUP      'S' = SECURE      'N/A' = NOT ASSIGNED
=====
|NO. Size(B)   Time                Type   Name |
|1   640199    Dec/20/2012 09:53:16 N/A    flash:/logfile/logfile.log |
|2   22165484  Dec/20/2012 09:18:10 B+S    flash:/update.bin |
|3   1181      Dec/20/2012 09:42:54 N/A    flash:/startup.cfg |
|4   22165484  Dec/20/2012 09:42:28 M      flash:/main.bin |
=====

```

## Changing the type of a system software image

System software image file attributes include main (M), backup (B), and secure (S). You can store only one main image, one backup image, and one secure image on the switch. A system software image can have any combination of the M, B, and S attributes. If the file attribute you are assigning has been assigned to an image, the assignment removes the attribute from that image. The image is marked as N/A if it has only that attribute.

For example, the file main.bin has the M attribute and the file update.bin has the S attribute. After you assign the M attribute to update.bin, the type of update.bin changes to M+S and the type of main.bin changes to N/A.

---

### NOTE:

You cannot remove or assign the S attribute in the File Control submenu.

---

To change the type of a system software image:

1. Enter **2** in the File Control submenu.

```
'M' = MAIN      'B' = BACKUP      'S' = SECURE      'N/A' = NOT ASSIGNED
=====
|NO. Size(B)   Time                Type   Name                               |
|1  22165484  Dec/20/2012 09:18:10 B+S   flash:/update.bin                 |
|2  22165484  Dec/20/2012 09:42:28 M     flash:/main.bin                   |
|0  Exit                                           |
=====
Enter file No:
```

2. Enter the number of the file you are working with, and press **Enter**.

```
Modify the file attribute:
=====
|<1> +Main                                           |
|<2> -Main                                           |
|<3> +Backup                                         |
|<4> -Backup                                         |
|<0> Exit                                           |
=====
Enter your choice(0-4):
```

3. Enter a number in the range of 1 to 4 to add or delete a file attribute for the file.

```
Set the file attribute success!
```

## Deleting files

When storage space is insufficient, you can delete obsolete files to free up storage space.

To delete files:

1. Enter **4** in the File Control submenu.

```
Deleting the file in cfa0:
'M' = MAIN      'B' = BACKUP      'S' = SECURE      'N/A' = NOT ASSIGNED
=====
|NO. Size(B)   Time                Type   Name                               |
|1  640199     Dec/20/2012 09:53:16 N/A   flash:/logfile/logfile.log       |
|2  22165484  Dec/20/2012 09:18:10 B+S   flash:/update.bin                 |
|3  1181       Dec/20/2012 09:42:54 N/A   flash:/startup.cfg               |
|4  22165484  Dec/20/2012 09:42:28 M     flash:/main.bin                   |
|0  Exit                                           |
=====
Enter file No:
```

2. Enter the number of the file to delete.
3. When the following prompt appears, enter **Y**.

```
The file you selected is cfa0:/backup.bak,Delete it? [Y/N]Y
Deleting.....Done!
```

## Handling software upgrade failures

If a software upgrade fails, the system runs the old software version. To handle a software failure:

1. Check the physical ports for a loose or incorrect connection.

2. If you are using the console port for file transfer, check the HyperTerminal settings (including the baud rate and data bits) for any wrong setting.
3. Check the file transfer settings:
  - If XMODEM is used, you must set the same baud rate for the terminal as for the console port.
  - If TFTP is used, you must enter the same server IP addresses, file name, and working directory as set on the TFTP server.
  - If FTP is used, you must enter the same FTP server IP address, source file name, working directory, and FTP username and password as set on the FTP server.
4. Check the FTP or TFTP server for any incorrect setting.
5. Check that the storage device has sufficient space for the upgrade file.
6. If the message "Something is wrong with the file" appears, check the file for file corruption.