



Release Notes:

Version H.07.31 Software

for the HP Procurve Series 2600 Switches and the Switch 6108

Release E.07.31 supports these switches:

- HP Procurve Switch 2626 (J4900A — New!)
- HP Procurve Switch 2650 (J4899A)
- HP Procurve Switch 6108 (J4902A)

These release notes include information on the following:

- Downloading switch software and Documentation from the Web
- Software Enhancements available in release H.07.31
- Clarification of operating details for certain software features
- A listing of software fixes included in releases H.07.02 through H.07.31

Caution

The startup-config file saved under version H.07.31 or greater, is NOT backward-compatible with previous software versions. Users are advised to save a copy of the pre-H.07.31 startup-config file BEFORE UPGRADING to H.07.31 or greater, in case there is ever a need to revert to pre-H.07.31 software. Instructions for saving a copy of the startup-config file are found in the "Transferring Switch Configurations" section of Appendix A in the *Management and Configuration Guide* (included in PDF format on the Product Documentation CD-ROM) shipped with the switch, and also available on the HP Procurve website. (Refer to "To Download Product Documentation:" on page 1.)

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Applicable Product

HP Procurve Switch 2626	(J4900A)
HP Procurve Switch 2650	(J4899A)
HP Procurve Switch 6108	(J4902A)

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[http:// www.openssh.com](http://www.openssh.com).

SSL on HP Procurve Switches is based on the OpenSSL software toolkit. This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. For more information on OpenSSL, visit

<http://www.openssl.org>.

This product includes cryptographic software written by Eric Young (eay@cryptsoft.com). This product includes software written by Tim Hudson (tjh@cryptsoft.com)

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Hewlett-Packard Company
8000 Foothills Boulevard, m/s 5551
Roseville, California 95747-5551
<http://www.hp.com/go/hpprocurve>

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Software Management


Downloading Switch Documentation and Software from the Web

You can download software updates and the corresponding product documentation from HP's ProCurve website as described below.

To Download a Software Version:

1. Go to HP's ProCurve website at:
<http://www.hp.com/go/hpprocurve>.
2. Click on **software** (in the sidebar).
3. Under **latest software**, click on **switches**.

To Download Product Documentation: You will need the Adobe® Acrobat® Reader to view, print, and/or copy the product documentation. (HP recommends version 5.0 or greater.)

1. Go to HP's ProCurve website at **<http://www.hp.com/go/hpprocurve>**.
2. Click on **technical support**, then **manuals**.
3. Click on the name of the product for which you want documentation.
4. On the resulting web page, double-click on a document you want.
5. When the document file opens, click on the disk icon  in the Acrobat® toolbar and save a copy of the file.

Downloading Software to the Switch

Caution

The startup-config file generated by the latest software release may not be backward-compatible with the same file generated in your switch by earlier software releases. Refer to the “Caution” on the front page.

HP periodically provides switch operating system (OS) updates through the HP ProCurve website (<http://www.hp.com/go/hpprocurve>). After you acquire the new OS file, you can use one of the following methods for downloading the operating system (OS) code to the switch:

- For a TFTP transfer from a server, do either of the following:
 - Click on **Download OS** in the Main Menu of the switch’s menu interface and use the (default) **TFTP** option.
 - Use the **copy tftp** command in the switch’s CLI (see below).
- For an Xmodem transfer from a PC or Unix workstation, do either of the following:
 - Click on **Download OS** in the Main Menu of the switch’s menu interface and select the **Xmodem** option.
 - Use the `copy xmodem` command in the switch’s CLI (page 4).
- HP’s SNMP Download Manager included in HP TopTools for Hubs & Switches
- A switch-to-switch file transfer

Note

Downloading a new OS does not change the current switch configuration. The switch configuration is contained in a separate file that can also be transferred, for example, for archive purposes or to be used in another switch of the same model and running the same software version.

This section describes how to use the CLI to download an OS to the switch. You can also use the menu interface for OS downloads. For more information, refer to the *Management and Configuration Guide* for your switch.

TFTP Download from a Server

Syntax: copy tftp flash < ip-address > < remote-os-file > [< primary | secondary >]

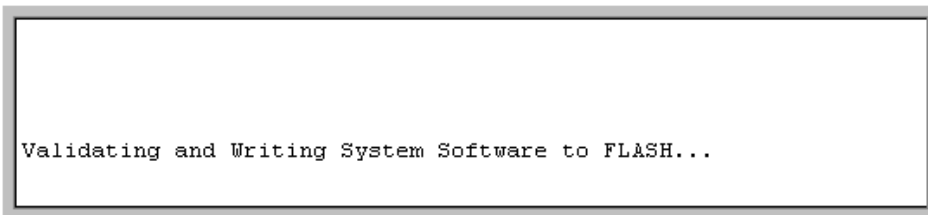
Note that if you do not specify the flash destination, the TFTP download defaults to the primary flash.

For example, to download an OS file named **E_07_31.swi** from a TFTP server with the IP address of 10.28.227.103:

1. Execute the copy command as shown below:

```
HPswitch# copy tftp flash 10.28.227.103 H_07_31.swi
Device will be rebooted, do you want to continue [y/n]? y
00224K _
```

2. When the switch finishes downloading the OS file from the server, it displays this progress message:

A screenshot of a terminal window with a gray border. The text inside the window reads: "Validating and Writing System Software to FLASH...".

```
Validating and Writing System Software to FLASH...
```

Figure 1. Message Indicating the Switch Is Writing the Downloaded Software to Flash Memory

3. After the switch writes the downloaded software to flash memory, you will see this screen:

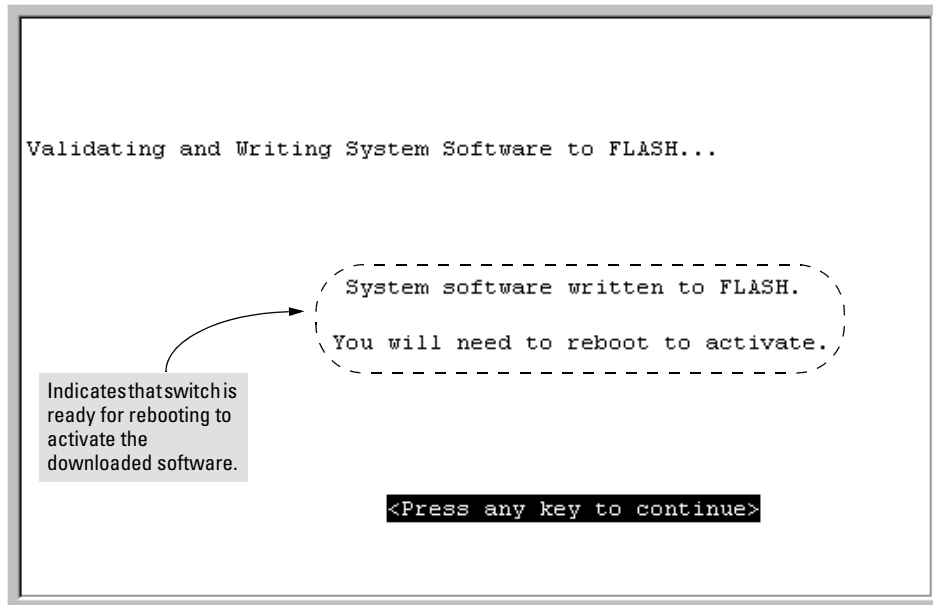


Figure 2. Message Indicating the Switch Is Ready To Activate the Downloaded Software

4. Reboot the switch.

After the switch reboots, it displays the CLI or Main Menu, depending on the **Logon Default** setting last configured in the menu's Switch Setup screen.

Xmodem Download From a PC or Unix Workstation

This procedure assumes that:

- The switch is connected via the Console RS-232 port on a PC operating as a terminal. (Refer to the Installation Guide you received with the switch for information on connecting a PC as a terminal and running the switch console interface.)
- The switch operating system (OS) is stored on a disk drive in the PC.
- The terminal emulator you are using includes the Xmodem binary transfer feature. (For example, in the Microsoft Windows NT® terminal emulator, you would use the **Send File** option in the **Transfer** dropdown menu.)

Syntax: `copy xmodem flash < unix | pc >`

For example, to download an OS file from a PC:

1. To reduce the download time, you may want to increase the baud rate in your terminal emulator and in the switch to a value such as 57600 bits per second. (The baud rate must be the same in both devices.) For example, to change the baud rate in the switch to 57600, execute this command:

```
HPswitch(config)# console baud-rate 57600
```

(If you use this option, be sure to set your terminal emulator to the same baud rate.)

2. Execute the following command in the CLI:

```
HPswitch(config)# copy xmodem flash pc
Device will be rebooted, do you want to continue [y/n]? y
Press 'Enter' and start XMODEM on your host...
```

3. Execute the terminal emulator commands to begin the Xmodem transfer.

The download can take several minutes, depending on the baud rate used in the transfer.

When the download finishes, the switch automatically reboots itself and begins running the new OS version.

4. Use this command to confirm that the operating system downloaded correctly:

```
HPswitch> show system
```

(Check the **Firmware revision** line to verify that the switch downloaded the new OS.)

```
HPswitch# show system

Status and Counters - General System Information

System Name       : HPswitch
System Contact    :
System Location   :

MAC Age Time (sec) : 300

Time Zone         : 0
Daylight Time Rule : None

Firmware revision : H.07.31
ROM Version        : H.07.2X
Base MAC Addr     : 000a57-cee840
Serial Number     : XX43783211

Up Time           : 3 mins
CPU Util (%)      : 9
Memory - Total    : 19,964,696
Memory - Free     : 16,275,576

IP Mgmt - Pkts Rx : 0
              Pkts Tx : 279
Packet - Total   : 1998
Buffers - Free   : 1941
              Lowest : 1931
```

Firmware Revision



Figure 3. Using the Firmware Revision Line to Verify the Current OS Version

5. If you increased the baud rate on the switch (step 1), use the same command to return it to its previous setting. (HP recommends a baud rate of 9600 bits per second for most applications.)
(Remember to return your terminal emulator to the same baud rate as the switch.)

Saving Configurations While Using the CLI

The switch operates with two configuration files:

- **Running-Config File:** Exists in volatile memory and controls switch operation. Rebooting the switch erases the current running-config file and replaces it with an exact copy of the current startup-config file. To save a configuration change, you must save the running configuration to the startup-config file.
- **Startup-Config File:** Exists in flash (non-volatile) memory and preserves the most recently-saved configuration as the "permanent" configuration. When the switch reboots for any reason, an exact copy of the current startup-config file becomes the new running-config file in volatile memory.

When you use the CLI to make a configuration change, the switch places the change in the running-config file. If you want to preserve the change across reboots, you must save the change to the startup-config file. Otherwise, the next time the switch reboots, the change will be lost. There are two ways to save configuration changes while using the CLI:

- Execute **write memory** from the Manager, Global, or Context configuration level.
- When exiting from the CLI to the Main Menu, press **[Y]** (for Yes) when you see the "save configuration" prompt:

```
Do you want to save current configuration [y/n] ?
```

HP ProCurve Switch Software Key

Software Letter	HP ProCurve Switch
C	1600M, 2400M, 2424M, 4000M, 8000M
E	Series 5300XL (5304XL and 5308XL)
F	Series 2500 (2512 and 2524)
G	Series 4100GL (4104GL and 4108GL)
H	Series 2600 (2626 and 2650) Switches and Switch 6108

Minimum Software Versions for Series 2600 and Switch 6108 Features

For Software Features. To view a tabular listing of major switch software features and the minimum software version each feature requires:

1. Visit the HP ProCurve website at <http://www.hp.com/go/hpprocurve>.
2. Click on **software**.
3. Click on **Minimum Software Version Required by Feature**.

If you are viewing this publication online, just click on the underlined text in step 3 to go directly to the Minimum Software information.

For Series 2600 Switches and the Switch 6108 Hardware.

HP ProCurve Device	Minimum Supported Software Version
Switch 2626 (J4900A)	H.07.31
Switch 2650 (J4899A)	H.07.02
Switch 6108 (J4902A)	H.07.02

Clarifications

OS/Web/Java Compatibility Table

The switch web agent supports the following combinations of OS browsers and Java Virtual Machines:

Operating System	Internet Explorer	Netscape Navigator	Java
Windows NT 4.0 SP6	5.00 5.01 5.01, SP1 6.0, SP1	4.7 7.0 7.01	Sun Java 2 Runtime Environment, Ver. 1.4.1 Microsoft Virtual Machine 5.0.38.09
Windows 2000 SP3	5.01, SP1 6.0, SP1	7.0 7.01	
Windows XP Professional XP Hotfix SP2	6.0, SP1	7.0 7.01	

Using TopTools for Hubs & Switches To Access the Switch 2626

Although TopTools recognizes the Switch 2626 as an SNMP device, customized device management is not supported for the Switch 2626 in HP TopTools for Hubs & Switches.

Enhancements

Unless otherwise noted, each new release includes the enhancements added in all previous releases.

Release H.07.31 Enhancements

To Locate Publications Supporting H.07.31 Features:

1. Go to HP's ProCurve website at <http://www.hp.com/go/hpprocurve>.
2. Click on **technical support**, then **manuals**.
3. Click on the name of the product for which you want documentation.
4. Select the document indicated in the enhancement description (table 1) for the desired feature.

(HP recommends periodically visiting the [HP ProCurve website](#) to keep up-to-date with the latest documentation available for the HP ProCurve Series 2600 switches and the Switch 6108.)

Table 1. Release H.07.31 Enhancements

Enhancement	Overview
Software Support for New HP ProCurve Switch 2626	Release H.07.31 supports the new, stackable HP ProCurve 2626 Switch offering 24 auto-sensing 10/100 ports plus 2 dual personality ports for 10/100/1000 or mini-GBIC connectivity. If you are viewing this document online, click here to visit the HP ProCurve website for more information .
SSL	Provides Secure Socket Layer (SSL) transactions for Web management access. This allows the switch to authenticate itself to the user and to establish a secure connection. Includes support for self-signed and CA signed certificates to allow administrators to choose the level of security required. ¹
SSHv2	Updates SSH to support SSHv2, allowing PEM-encoded keys and greater compatibility with SSH client software. ¹
802.1x Open VLAN Mode	Adds flexibility for clients lacking 802.1x supplicant software, plus an additional provision for controlling access by authenticated clients.
Debug and Syslog Messaging Operation	The Debug/Syslog feature provides a method for recording messages useful for debugging network-level problems such as routing misconfigurations and other protocol details. ²
Port-Security Option for Configuring Allowed MAC Addresses	Adds the configured option to port-security learn-mode to allow a port to add only specifically configured MAC addresses. Using this option, a switch port does not automatically learn non-specified MAC addresses from the network. ¹
SNMPv3 Access	The Series 2600 switches and the Switch 6108 now support SNMPv3 to enhance the security of SNMPv3 traffic. It includes authentication and/or encryption of management traffic configurable at the operator's discretion. ²
IGMPv3 Support	Adds support for the IGMPv3 Join request. ²
Additional Outbound Port Queue	Adds a fourth outbound port queue. ²

¹ Refer to the *Access Security Guide* for the HP ProCurve Series 4100 Switches, Series 2600 Switches, and the Switch 6108, Edition 1—5990-5995, May 2003 (or later) on the HP ProCurve website.

² Refer to the *Management and Configuration Guide* for the HP ProCurve Series 4100 Switches, Series 2600 Switches, and the Switch 6108, Edition 1—5990-5998, May 2003 (or later) on the HP ProCurve website.

Release H.07.03 Enhancements

Software fixes only; no new enhancements.

Release H.07.02 Enhancements

Release H.07.02 was the original software released to support the HP ProCurve Switch 2650 and the Switch 6108.

Software Fixes in Releases H.07.03 and H.07.31

Release H.07.31

Release H.07.31 is the first software release for the HP ProCurve Switch 2626.

Problems Resolved in Release H.07.31

- **CLI (PR_81948)** - A duplicate "enable" command is present in the Interface Configuration text within the CLI.
- **CLI (PR_82475)** - Within the CLI, the "ip" auto-extend help text for "source-route" is incorrect.
- **Config / Switch Management (PR_89846)** - When the "no web-management" command is executed, "no telnet-server" is also added to the running config. A loss of Telnet connectivity is only seen when the config file is saved to a TFTP server, then copied back.
- **IGMP (PR_90376)** - In some cases, the switch would display "0.0.0.0" for the output of the CLI command "show ip igmp."
- **IP Stack Mgmt/Web (PR_89753)** - A bus error occurs when accessing the close-up view of a 15-member stack (IP Stack Management) through the Web interface.
- **IP Routing (PR_90711)** - Switch incorrectly identifying packets routed from a trunk port across the stack link as port security violations. This resulted in overrunning the CPU queues and causing management problems.
- **QOS (PR_90937)** - Switch only utilizing three of the four available priority queues.
- **Spanning Tree (PR_90412)** - Enhancements to 802.1w operation to address version 3 BPDU communication issues.
- **Self Test (PR_90777)** - A self test error may occur when a Gigabit-SX, or LX mini-GBIC module is inserted into the switch while powered on.
- **UI / CLI (PR_90302)** - Addressed grammatical errors for the "interfaces" command when "show <tab>" is executed.
- **UI (PR_81885)** - In the absence of a time server, the switch may report that it is the year "26".
- **Web/Stack Mgmt (PR_88743)** - Inverted IP address displayed in the Identity tab when the IP Stack Member switch is accessed through the IP Stack Commander switch.

Software Fixes in Releases H.07.03 and H.07.31

Release H.07.03

- **Web-Browser Interface (PR_82530)** - A client using Sun.java 1.3.X or 1.4.X to access the Web-Browser Interface of the switch, may cause the switch's CPU utilization to increase causing agent processes (such as console, telnet, STP, ping, etc.) to stop functioning.
- **Web-Browser Interface (PR_82652)** - The Web agent is showing disabled ports as "Port Not Connected", rather than "Port Disabled."
- **Web-Browser Interface / Port Security (PR_88612)** - When static MAC addresses are configured under port security to allow PCs to communicate through the switch, and one of those MAC addresses is removed via the Web interface of the 2650 and then re-entered, the owner of that MAC address cannot communicate again until the link of that port is toggled.

Release H.07.03

Problems Resolved in Release H.07.03

- **Agent Unresponsive (PR_5903)** - The switch may get into a state where end nodes and other network devices cannot contact (ping, telnet, SNMP, etc) switch's agent.
- **Crash (PR_5877)** - When setting the host name to a very long (~20 characters) string, the switch may crash with a bus error similar to:

```
-> Bus error: HW Addr=0x29283030 IP=0x002086ac Task='mSnmpCtrl' Task ID=0x165ae00.
```
- **Crash (PR_5345)** - Switch may crash with a message similar to:

```
->Assertion failed:0, file drvmem.c, line 167
```
- **IGMP (PR_5991)** - If switch receives an IGMPv3 Join with a reserved Multicast address, or an invalid IP Multicast address, the switch may crash with a message similar to:

```
-> Software exception at alloc_free.c:479 -- in 'tDevPollTx' Task ID = 0x1900f18 buf_free: corrupted buffer
```
- **IGMP (PR_6001)** - When an IGMP v3 Join contains an invalid IP Multicast address or a reserved IP Multicast address in the IGMP Group Address field, the switch will attempt to stop processing the Join, and mistakenly double-free, or double-forward the Join packet. One possible symptom is a switch crash similar to:

```
->Software exception at alloc_free.c ... buf_free: corrupted buffer
```
- **SNMP (PR_6006)** - The ifAlias OID is defaulted to "not assigned", which may cause network management applications such as Network Node Manager to log error messages. [The fix is to default ifAlias to a zero-length string, as stated in the MIB.]

Release H.07.02

Release H.07.02 was the first software release for the HP ProCurve Switches 2650 and 6108.



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