


# Read Me First

for the ProCurve Routing Switch 9408sl

Covering Software Release 02.3.00c (June 2007)



## **WARNING**



The ProCurve 9408sl Routing Switch exceeds 100 lbs. (44 kg) without modules and power supplies installed. To avoid personal injury, reduce weight of chassis by removing all modules and power supplies from chassis prior to lifting or moving.

When handling, two or more people are required.

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## Important! Sync-Standby

If the 9408sl has a redundant (standby) management module installed, the **sync-standby** command must be issued after every bootup on 02.3.00c software! Otherwise, the standby management module will not have a spare copy of the LP primary flash image, and system redundancy is compromised. After the **sync-standby** command, use **show flash** to verify the “LP Application Image (Primary for LP Image Type 0)” exists on the standby management module.

# Important! Required Fan Threshold Settings

## Users Must Change SFM Defaults in 02.3.00c

Software version 02.3.00c has incorrect default fan temperature threshold values for the Switch Fabric Module (SFM). Users are advised to modify the SFM fan temperature thresholds and to save that setting in the config file. ProCurve recommends the same thresholds for the SFM that are defaults for the interface modules. Use these commands to apply and save the recommended SFM fan temperature thresholds:

```
ProCurveRS(config)# fan-threshold switch-fabric low 50 med 46 55 med-hi 51 60 hi 56 85
ProCurveRS(config)# write mem
```

Explanation: Figure 1 below shows the recommended fan temperature thresholds, and visually demonstrates the relationship between one speed's high threshold and the next higher speed's low threshold. (Some of the default SFM thresholds in 02.3.00c violate the rule that the low temperature threshold of a higher fan speed must be lower than the high temperature threshold of the lower fan speed.)

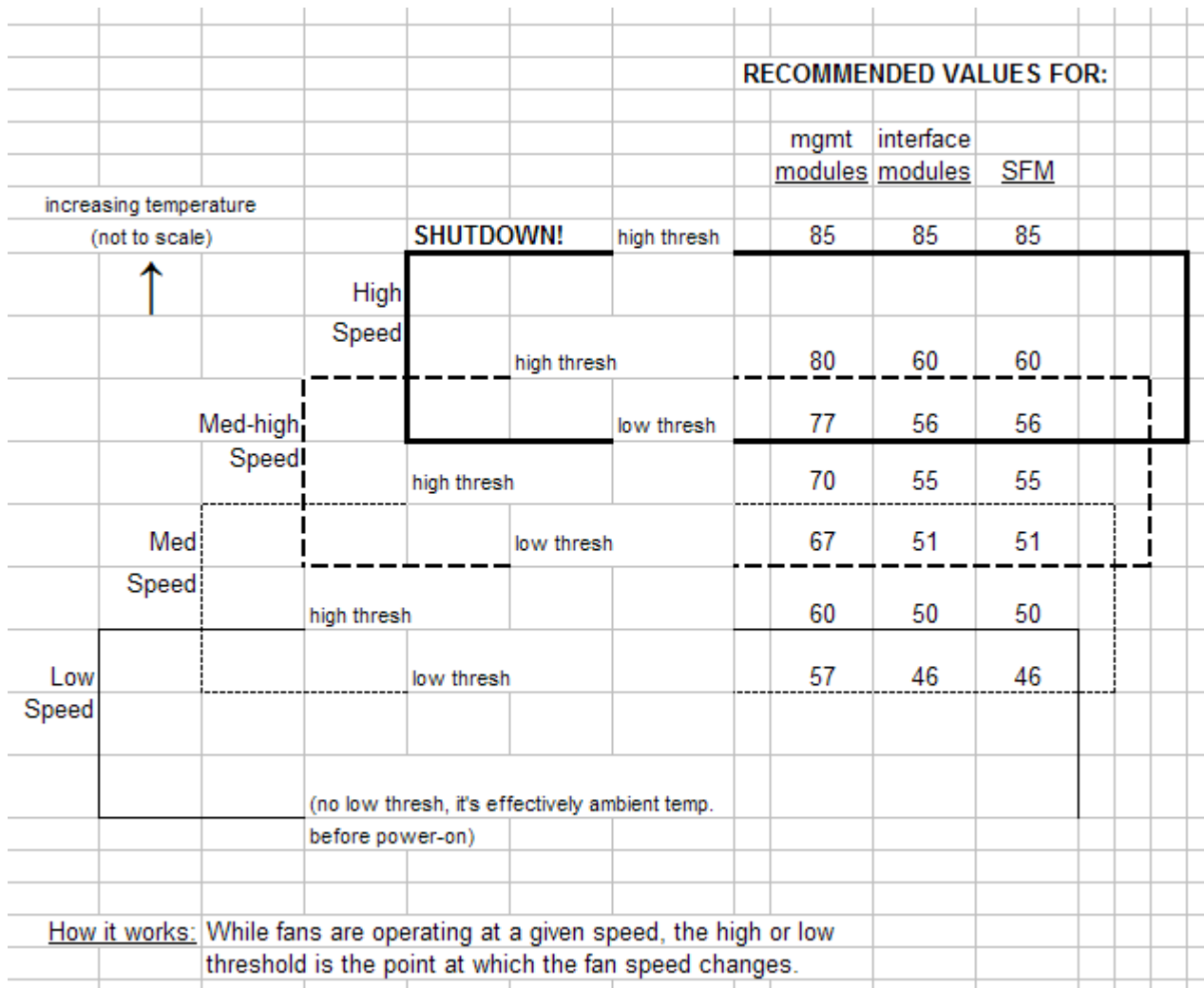


Figure 1. Fan temperature thresholds in the 9408sl

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## Boot Code Must Match Application Code

Because the 02.3.00 boot code is not compatible with previous 02.2.01 boot code, it is not supported for a system to have 02.3.00c software in primary flash and 02.2.01h software in secondary flash. With current software 02.3.00c in primary flash and previous software 02.2.01h in secondary flash, the command “boot system flash secondary” will not successfully back-rev the software, for two reasons:

1. Line cards boot from primary flash by default, so the system complains that LP software doesn't match management module software, and line cards don't come up (“card\_state\_interactive”).
2. There is no secondary boot code or secondary monitor image, so the system and line cards will run boot code and monitor software that does not match application software loaded from secondary flash.

Incompatible boot and monitor code between 02.2.01 and 02.3.00 may cause system instabilities and feature failures. Therefore, saving 02.2.01h in secondary flash when the routing switch is running 02.3.00c software (or vice versa) is not supported. A software back-rev (revert from 02.3.00c back to 02.2.01h) can be accomplished by loading the entire system with the previous version of software, including both flash areas, boot code, and FPGAs.

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## Recovery from Mismatched Line Card Software

**Scenario 1:** System is on new software 02.3.00c, and user inserts a line card that has previous software 02.2.01h. If the management module holds a spare copy of LP primary application software (version 02.3.00c), the management module will copy that LP application software to the line card. However, the line card will still not come up because of an XPP mismatch (“Warning: Slot #'s XPP revision 8 is less than 9, bring up failed”) - which means XPP version 91.8 is older than 91.9.

**RECOVERY STEPS:** Load 02.3.00c versions of boot code, PBIF, and XPP (and XBRIDGE for a 60-port module) onto that line card, then power-cycle the line card (power-off lp #, power-on lp #) to bring up the card.

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**Note:** If the management module does not hold a spare copy of LP application software, the system complains about a software mismatch (“WARN: LP slot #'s application image version (2 3 0 3) doesn't match that of the MP (2 2 1 8)”) - where “2 2 1 8” equals 02.2.01h (h is the 8th letter in the alphabet), and “2 3 0 3” equals 02.3.00c (c is the 3rd letter in the alphabet). In that case, the recovery steps would be: load the full set of software, boot code, and FPGA images onto the line card, then power-cycle the line card.

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**Scenario 2:** System is on previous software 02.2.01h, and user inserts a line card that has new software 02.3.00c. If the management module holds a spare copy of LP primary application software (version 02.2.01h), the management module will copy that LP application software to the line card and the line card will come up (“card\_state\_up”) - but with mismatched boot code, PBIF, XPP, and XBRIDGE images.

**RECOVERY STEPS:** load 02.2.01h boot code, PBIF, and XPP (and XBRIDGE for a 60-port module) onto that line card, then power-cycle the line card (power-off lp #, power-on lp #) to bring up the card.

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**Note:** If the management module does not hold a spare copy of LP application software, the system complains about a software mismatch (“WARN: LP slot #'s application image version (2 2 1 8) doesn't match that of the MP (2 3 0 3)”) - where “2 3 0 3” equals 02.3.00c (c is the 3rd letter in the alphabet), and “2 2 1 8” equals 02.2.01h (h is the 8th letter in the alphabet). In that case, the recovery steps would be: load the full set of software, boot code, and FPGA images onto the line card, then power-cycle the line card.

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The recovery steps require network connectivity from the 9408sl to a TFTP server (either through the management port or through line cards that are up). If the system has no network connectivity, the software download recovery steps must be performed from a PCMCIA card in the 9408sl management module. DO NOT use a 256-Meg or larger PCMCIA card to copy software files! A 128-Meg or smaller PCMCIA card will work properly.

Use **show flash** to ensure the correct images are loaded (be aware that **show flash** will not show newly-loaded FPGA files), and after the power-cycle use **show version** to ensure the correct images and FPGA versions are running on the affected line card.

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**Note:** XBRIDGE is used on only the 60-port line card, and XBRIDGE cannot be loaded from a PCMCIA card (command keyword “fpga-xbridge” does not exist for PCMCIA). However, a 60-port line card with an old 02.2.01h XBRIDGE image will come up in a system running 02.3.00c. After the line card is up, use TFTP to load the 02.3.00c XBRIDGE image, then power-cycle the line card to initialize the FPGAs.

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## Software Updates Are Free!



### Help Us Help You...Register Now To Keep Up-To-Date on the Latest Software!

ProCurve periodically provides *free* software updates on the ProCurve Networking Website for various, managed ProCurve networking products you may have in your network. To access the latest software updates, go to the ProCurve Networking Website at <http://www.procurve.com>, then click on **Software updates** to go to the **ProCurve Networking software updates** page.

**Register for Automatic Notification of Updates.** From the **free software updates** page you can also register to automatically receive email notice of new updates for your managed ProCurve networking products. Just follow the instructions on that page for how to receive the update notices.

To determine whether you have the latest software, compare the software version that is available on the website with the version that is currently installed in the management module(s) in your routing switch.

ProCurve periodically updates the software and documentation for your routing switch products. Refer to “Downloading Switch Software and Documentation from the Web”, below.

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## Downloading Switch Software and Documentation from the Web

### To Download a Software Version:

1. Go to the ProCurve Networking Website at <http://www.procurve.com>
2. Click on **Software updates**.
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. You can download the latest version from Adobe at <http://www.adobe.com>.

1. Go to the ProCurve Networking Website at <http://www.procurve.com>
2. Click on **Technical Support**, then **Product manuals**.
3. Click on the name of the switch product for which you want documentation. (For a module, click on the name of the switch product with which it is used.)
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.

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## FPGA Version Information

A new FPGA file does not necessarily contain a different version of FPGA image for all types of interface modules. For example, the FPGA PBIF version might change for some of the interface modules but not all. At the end of the software update process, the user is cautioned to use the **show version** command to ensure that the routing switch is running the new software versions, and also the new FPGA image versions for each interface module. For that reason, the FPGA versions are listed here for both the previous 9408sl software (version 02.2.01h), and also for the current 9408sl software (version 02.3.00c).

### (Previous software) 02.2.01h FPGA versions

Type of Interface Module	02.2.01h PBIF	02.2.01h XTM	02.2.01h XPP	02.2.01h XBRIDGE
4-Port 10-GbE	ver 42	ver 89.1	ver 88.9	N/A
40-Port Mini-GBIC	ver 22	ver 89.1	ver 91.9	N/A
40-Port 10/100/1000-T	ver 22	ver 89.1	ver 91.9	N/A
60-Port 10/100/1000-T	ver 10	ver 89.1	ver 91.9	ver 34

### (Current software) 02.3.00c FPGA versions

Type of Interface Module	02.3.00c PBIF	02.3.00c XTM	02.3.00c XPP	02.3.00c XBRIDGE
4-Port 10-GbE	ver 42	ver 89.1	ver 88.9	N/A
40-Port Mini-GBIC	ver 22	ver 89.1	ver 91.9	N/A
40-Port 10/100/1000-T	ver 22	ver 89.1	ver 91.9	N/A
60-Port 10/100/1000-T	ver 10	ver 89.1	ver 91.9	ver 34

---

## Software Update Procedures

**Note:** Software release 02.3.00 requires 02.3.00 boot code and monitor images.

This section explains how to update the following software images on the management and interface modules:

- Monitor
- Boot
- ProCurve Software
- Field-Programmable Gate Array (FPGA) (interface modules only)

The sequence for a complete system update is:

- A. Update the management module's monitor and boot images
- B. Update the management module's ProCurve software image
- C. Update the interface module's monitor and boot images

- D. Update the interface module's ProCurve software image
- E. Update the interface module's FPGA images
- F. Reboot using the **boot system** command
- G. Extra Step: Use the **sync-standby** command to load the standby management module's spare LP primary application image (bug workaround).

**Note:** Steps A through E can be performed in a single step using a script to copy files from a TFTP server. A sample script is included with the software files on the web. See "Downloading a New Image Using a Script" on page 11 for general script syntax and information.

## A. Updating the Management Module's Monitor and Boot Images

Software releases 02.0.00a and later enable you to update the management module's monitor and boot images simultaneously. Both images are contained in a single file, which is placed in both the boot flash and the code flash.

To update the management module's monitor and boot images simultaneously, perform the following steps:

1. Place the new monitor-and-boot-image file on a TFTP server to which the system has access or on a 128-Meg or smaller PCMCIA flash card inserted in slot 1 or 2.
2. Copy the new monitor-and-boot-image file to the ProCurve 9408sl management module. Enter one of the following commands at the Privileged EXEC level of the CLI:

**Table 1. New Command Syntax for Updating Monitor and Boot Images on the Management Module**

Command Syntax <sup>a</sup>	Description
<b>copy tftp flash &lt;ip-addr&gt; &lt;image-name&gt; mon copy-boot</b>	Copies the "image-name" file from a TFTP server at "ip-addr" to both the monitor file in code flash and the boot file in boot flash.
<b>copy slot1   slot2 flash &lt;image-name&gt; mon copy-boot</b>	Copies the "image-name" file from a flash card in slot 1 or 2 to both the monitor file in code flash and the boot file in boot flash.

a. These commands are supported in software releases 02.0.00 and later.

For software version 02.3.00c, the "image-name" filename is "mb02300c.bin".

3. Verify that the new monitor and boot images have been successfully copied to flash by using the **show flash** command. Check the boot image and monitor image versions on the management module(s).

## B. Updating the Management Module's ProCurve Software Image

To update the management module's ProCurve software image (primary or secondary), perform the following steps:

1. Place the new ProCurve software image on a TFTP server to which the ProCurve 9408sl system has access or on a 128-Meg or smaller PCMCIA flash card inserted in slot 1 or 2.
2. Copy the new ProCurve software image from the TFTP server or a flash card in slot 1 or 2 to the management module's code flash. To perform this step, enter one of the following commands at the Privileged EXEC level of the CLI:
  - **copy tftp flash <ip-addr> <image-name> primary | secondary**
  - **copy slot1 | slot2 flash <image-name> primary | secondary**

For software version 02.3.00c, the "image-name" filename is "mpr02300c.bin".

- Verify that the new ProCurve software image has been successfully copied to the specified destination by using the **show flash** command. Check the primary or secondary image (“Application Image”) version on the management module(s).

### C. Updating the Interface Module’s Monitor and Boot Images

Software releases 02.0.00a and later enable you to update an interface module’s monitor and boot images simultaneously. Both images are contained in a single file, which is placed in both the boot flash and the code flash.

To update an interface module’s monitor and boot images simultaneously, perform the following steps:

- Place the new monitor-and-boot-image file on a TFTP server to which the system has access or on a 128-Meg or smaller PCMCIA flash card inserted in slot 1 or 2.
- Copy the new monitor-and-boot-image file to the interface module(s). Enter one of the following commands at the Privileged EXEC level of the CLI:

**Table 2. New Command Syntax for Updating the Monitor and Boot Images on the Interface Module**

Command Syntax <sup>a</sup>	Description
<code>copy tftp lp &lt;ip-addr&gt; &lt;image-name&gt; monitor copy-boot all   &lt;slot-number&gt;</code>	Copies the “image-name” file from a TFTP server at “ip-addr” to all interface modules or to the specified interface module (slot-number), placing it as both the monitor file in code flash and the boot file in boot flash.
<code>copy slot1   slot2 lp &lt;image-name&gt; monitor copy-boot all   &lt;slot-number&gt;</code>	Copies the “image-name” file from a flash card in slot 1 or 2 to all interface modules or to the specified interface module (slot-number), placing it as both the monitor file in code flash and the boot file in boot flash.

a. These commands are supported in software releases 02.0.00 and later.

For software version 02.3.00c, the “image-name” filename is “lb02300c.bin”.

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**Note:** If you copy the new monitor-and-boot image to all interface modules using the **all** keyword, the management module makes a copy of the image (called lp-monitor-0) and stores it in its code flash. If you copy the new monitor-and-boot image to a specified chassis slot, the management module does not make a copy of the image.

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- Verify that the new monitor and boot images were successfully copied to flash by using the **show flash** command. Check the monitor image and boot image versions on the interface modules.

## D. Updating the Interface Module's ProCurve Software Image

To update the ProCurve software image (primary or secondary) on all interface modules or an interface module in a specified chassis slot, perform the following steps:

1. Place the new ProCurve software image on a TFTP server to which the system has access or on a 128-Meg or smaller PCMCIA flash card inserted in slot 1 or 2.
2. Copy the new ProCurve software image from the TFTP server or a flash card in slot 1 or 2 to all interface modules or an interface module in a specified chassis slot. To perform this step, enter one of the following commands at the Privileged EXEC level of the CLI:
  - **copy tftp lp <ip-addr> <image-name> primary | secondary all | <chassis-slot-number>**
  - **copy slot1 | slot2 lp <image-name> primary | secondary all | <chassis-slot-number>**

For software version 02.3.00c, the "image-name" filename is "lp02300c.bin".

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**Note:** If you copy the new ProCurve software image to all interface modules using the **all** keyword, the management module makes a copy of the image (called lp-primary-0 or lp-secondary-0) and stores it in its code flash. If you copy the new ProCurve software image to a specified chassis slot, the management module does not make a copy of the image.

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3. Verify that the new ProCurve software image has been successfully copied by entering the following command at any level of the CLI:

**show flash**

Check the primary or secondary image ("Application Image") version on the interface modules.

## E. Updating the Interface Module's FPGA Images

The interface modules contain the following field-programmable gate array (FPGA) images:

- PBIF
- XTM
- XPP
- XBRIDGE (60-port module only)

When you update the ProCurve 9408sl software, it is important to also update all FPGA images.

### Determining the FPGA Image Versions

Normally, the **show flash** output identifies the currently-installed images, and the **show version** output identifies the currently-running images. However, the FPGA versions that are currently installed and currently running on an interface module are not correctly displayed until the interface module is power-cycled! The power-cycle of the interface modules is accomplished by one of these procedures:

- reboot the 9408sl using the **boot system** command
- power-cycle each interface module using the **lp power-off <slot>** and **lp power-on <slot>** commands
- physically power-cycle the 9408sl routing switch

If you are not sure if the interface modules were power-cycled since installing FPGA images, you may want to perform one of the listed procedures now. After that, you can use the **show flash** and **show version** commands to determine the FPGA versions currently installed and currently running on the interface modules.

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**Note:** Not all FPGA versions are necessarily updated with each new software release for the ProCurve 9408sl routing switch. Also, FPGA versions are not necessarily the same for all interface modules. ProCurve indicates the set of FPGA files applicable for each software release by appending the software version to the filename. FPGA versions for previous software 02.2.01h and current software 02.3.00c are documented in the “FPGA Version Information” section on page 5.

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## Updating the FPGA Images

To update the FPGA images on a Gigabit Ethernet module, perform the following steps:

1. Place the new FPGA image(s) on a TFTP server to which the system has access or on a 128-Meg or smaller PCMCIA flash card inserted in slot 1 or 2.
2. Copy the PBIF image from the TFTP server or a flash card in slot 1 or 2 to all interface modules or an interface module in a specified chassis slot. To perform this step, enter one of the following commands at the Privileged EXEC level of the CLI:
  - **copy tftp lp <ip-addr> <image-name> fpga-pbif all [<module-type>]**
  - **copy tftp lp <ip-addr> <image-name> fpga-pbif <chassis-slot-number>**
  - **copy slot1 | slot2 lp <image-name> fpga-pbif all [<module-type>]**
  - **copy slot1 | slot2 lp <image-name> fpga-pbif <chassis-slot-number>**

If you specify the module-type (e.g., 4x10g), the ProCurve 9408sl copies the PBIF images for that particular module only. If you specify **all** without a module-type, the system copies the appropriate PBIF images to their corresponding modules.

For software version 02.3.00c, the “image-name” filename is “pbif02300c.bin”.

3. Copy the XTM image from the TFTP server or a flash card in slot 1 or 2 to all interface modules or an interface module in a specified chassis slot. To perform this step, enter one of the following commands at the Privileged EXEC level of the CLI:
  - **copy tftp lp <ip-addr> <image-name> fpga-xtm all**
  - **copy tftp lp <ip-addr> <image-name> fpga-xtm <chassis-slot-number>**
  - **copy slot1 | slot2 lp <image-name> fpga-xtm all**
  - **copy slot1 | slot2 lp <image-name> fpga-xtm <chassis-slot-number>**

For the XTM image, there is no option to specify “module-type”.

For software version 02.3.00c, the “image-name” filename is “xtm02300c.bin”.

4. Copy the XPP image from the TFTP server or a flash card in slot 1 or 2 to all interface modules or an interface module in a specified chassis slot. To perform this step, enter one of the following commands at the Privileged EXEC level of the CLI:
  - **copy tftp lp <ip-addr> <image-name> fpga-xpp all [<module-type>]**
  - **copy tftp lp <ip-addr> <image-name> fpga-xpp <chassis-slot-number>**
  - **copy slot1 | slot2 lp <image-name> fpga-xpp all [<module-type>]**
  - **copy slot1 | slot2 lp <image-name> fpga-xpp <chassis-slot-number>**

If you specify the module-type (e.g., 4x10g), the ProCurve 9408sl copies the XPP images for that particular module only. If you specify **all** without a module-type, the ProCurve 9408sl copies the appropriate XPP images to their corresponding modules.

For software version 02.3.00c, the “image-name” filename is “xpp02300c.bin”.

5. Copy the XBRIDGE image from the TFTP server to all interface modules or an interface module in a specified chassis slot. To perform this step, enter one of the following commands at the Privileged EXEC level of the CLI:
  - **copy tftp lp** <ip-addr> <image-name> **fpga-xbridge all** [<module-type>]
  - **copy tftp lp** <ip-addr> <image-name> **fpga-xbridge** <chassis-slot-number>

If you specify the module-type (e.g., 1gx60-gc-v6), the ProCurve 9408sl copies the xbridge images for that particular module only. If you specify **all** without a module-type, the ProCurve 9408sl copies the appropriate xbridge images to their corresponding modules.

The XBRIDGE image cannot be copied from a PCMCIA card (command keyword “fpga-xbridge” does not exist for PCMCIA).

For software version 02.3.00c, the “image-name” filename is “xbridge02300c.bin”.

## F. Rebooting the Management Module

After updating the software images on the management and interface modules, you must reboot the management module. After the management module reboots, it in turn reboots the interface modules.

Furthermore, each interface module must be power-cycled in order for the new FPGA images to be loaded. Therefore, you must reboot the system using the **boot system** command (not the **reload** command). Use this command to reboot the management module, specifying **primary** or **secondary** to correspond with where you placed the new software images:

- **boot system flash primary | secondary**

During the management module reboot, the following synchronization events occur:

- If you have a standby management module, the active management module compares the standby module’s monitor, primary, and secondary images to its own. If you have updated these images on the active module, the active module automatically synchronizes the standby module’s images with its own.
- If you copied the primary and/or secondary ProCurve software image and/or monitor-and-boot image to all interface modules using the **copy** command with the **all** keyword, the management module made a copy of the image and stored it in its code flash under the names lp-primary-0, lp-secondary-0 or lp-monitor-0. By default, the system checks the interface modules’ ProCurve software images, which reside in the code flash of the interface modules and the management module to make sure they are the same in both locations. (The interface module images are retained on the management module for storage only, and are not run by the management or interface modules.) If the images stored on the interface and management modules are different, the system automatically enters “interactive mode” and prompts you to do the following:
  - If you want to update the ProCurve software images in the interface module’s code flash with the images in the management module’s code flash, enter the **lp cont-boot sync <slot-number> | all** command at the Privileged EXEC prompt.
  - If you want to retain the ProCurve software images in the interface module’s code flash, enter the **lp cont-boot no-sync <slot-number> | all** command at the Privileged EXEC prompt.

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**Note:** If you do not enter a command within 60 seconds, the synchronization proceeds automatically.

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After the management module finishes booting, do the following:

- Enter the **show module** command at any CLI level, and verify that the status of all interface modules is **CARD\_STATE\_UP**.
- Enter the **show version** command at any CLI level, and verify that all management and interface modules are running the new software image version.

If you find that an interface module is in a waiting state or is running an older software image, then you may have forgotten to enter the **lp cont-boot sync <slot-number>** command at the Privileged EXEC prompt.

## G. Extra Step: Sync-Standby!

After booting up with software version 02.3.00c, an installed standby management module does not hold a copy of the LP primary application image (use the **show flash** command to see this). As a workaround to this bug, issue the **sync-standby** command, which forces the standby management module to synchronize with the active management module, and recovers a copy of the LP primary application image onto the standby management module. Then use **show flash** to verify the image is present.

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## Downloading a New Image Using a Script

Beginning with software version 02.2.01h, you can create a script to download new software images to your ProCurve 9408sl. Use this command to download an image using a script:

**syntax:** `copy tftp system <ip_addr> <download_script>`

The `<ip_addr>` variable is used to identify the IP address of the tftp server that holds the script.

The `<download_script>` variable is the name of the script containing download specifications.

The CLI command first copies the download script specified to the system's memory. It then parses the script to perform the software download specified in the script.

The following section describes the download script syntax.

```
# download script syntax:
# <spec_line>
# ...
# <spec_line>
# where <spec_line> == KEYWORD:<val>;
#
# 1) Supported KEYWORD
# SRC                // specify source of the images, optional
# DIR                // image source directory, optional
# MP_MON             // MP monitor image
# MP_APP             // MP application image
# LP_MON             // LP monitor image
# LP_APP             // LP application image
# XPP                // FPGA XPP
# XTM                // FPGA XTM
# PBIF               // FPGA PBIF
# XBRIDGE            // FPGA XBRIDGE
# Note: If SRC is not specified, the images are taken from the server specified in the CLI
command line.
#
# 2) Syntax of <val>
#
# It depends on the KEYWORD preceding it:
#
# SRC:tftp:<ip_addr>;
#
# MP_MON:<image_name>:[boot]; // [boot] is the option to copy monitor to boot.
# MP_APP:pri:<image_name>;
# MP_APP:sec:<image_name>;
#
# LP_MON:all:<image_name>:[boot];
# LP_MON:<slot#>[[,-]<slot#>]:<image_name>:[boot];
#
# LP_APP:pri:all:<image_name>;
# LP_APP:pri:<slot#>[[,-]<slot#>]:<image_name>;
# LP_APP:sec:all:<image_name>;
```

```

# LP_APP:sec:<slot#>[[,-]<slot#>]:<image_name>;
#
# XPP:all:<image_name>;
# XPP:<slot#>[[,-]<slot#>]:<image_name>;
#
# XTM:all:<image_name>;
# XTM:<slot#>[[,-]<slot#>]:<image_name>;
#
# PBIF:all:<image_name>;
# PBIF:<slot#>[[,-]<slot#>]:<image_name>;
#
# XBRIDGE:all:<image_name>;
# XBRIDGE:<slot#>[[,-]<slot#>]:<image_name>;
#
# Note: If one <spec_line> fails to parse, or it fails to copy, the script is aborted.

```

## Sample Install Script

The following example script installs software files on a ProCurve 9408sl using files previously stored on a TFTP server.

The script must be stored in the same directory as the image files. Be sure to change the script to match your needs, as noted in the script comments.

The script installs all files from the source area as follows:

1. Install file mb02300c.bin to MP in both the monitor area, and also boot flash.
2. Install file mpr02300c.bin to MP primary flash.
3. Install file mpr02300c.bin to MP secondary flash.
4. Install file lb02300c.bin to all LPs in both the monitor area, and also boot flash.
5. Install file lp02300c.bin to all LPs in the primary flash area.
6. Install file lp02300c.bin to all LPs in the secondary flash area.
7. Install FPGA file pbif02300c.bin to all LPs.
8. Install FPGA file xtm02300c.bin to all LPs.
9. Install FPGA file xpp02300c.bin to all LPs.
10. Install FPGA file xbridge02300c.bin to all LPs (error messages will indicate the slots that do not have 60-port modules, and therefore do not need or accept the XBRIDGE image).

After the script completes, use the **show flash** command to verify successful transfer of boot image, monitor image, and primary software image. (There is no command to verify successful FPGA file transfer until after the interface modules have been power-cycled.)

Then use this command to reboot the system and power-cycle the interface modules:

### boot system flash primary

```

# Filename: TFTP-02300c-both.txt
#
# Sample 9408sl install script for 02.3.00c.
#
# This version uses TFTP to install these images:
#   boot-and-monitor,
#   BOTH primary AND secondary flash,
#   FPGAs.
#
# CHANGES NEEDED TO USE THIS:

```

```
# 1) change IP address to be your TFTP server
#
# NOTES:
# i. Script must be stored in
#    same directory as image files.
# ii. If any line fails, script aborts!
#     Users MUST verify results!
# iii. After files are installed, 9408s1 must be
#       rebooted for the update to take effect.
#
# SYNTAX:
#    copy tftp system <ip-addr> <script-filename>
#
SRC:tftp:10.10.10.56;
MP_MON:mb02300c.bin:boot;
MP_APP:pri:mpr02300c.bin;
MP_APP:sec:mpr02300c.bin;
LP_MON:all:lb02300c.bin:boot;
LP_APP:pri:all:lp02300c.bin;
LP_APP:sec:all:lp02300c.bin;

PBIF:all:pbif02300c.bin;
XTM:all:xm02300c.bin;
XPP:all:xpp02300c.bin;
XBRIDGE:all:xbridge02300c.bin;
```

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# Product Documentation Set

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**Note:** ProCurve periodically updates the ProCurve 9300/9400 Series Routing Switch documentation. For the latest version of any of these publications, visit the ProCurve Networking Website at:

<http://www.procurve.com>

Click on **Technical Support**, then **Product manuals**.

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## Read Me First

The "Read Me First" document, printed on bright yellow paper, is included with every chassis and module. It contains an overview of software release information, an included parts list, and other information that is not included elsewhere in the product documentation. It also includes:

- software update instructions
- operating notes for this release

## Installation and Basic Configuration Guide for the ProCurve 9300 Series Routing Switches

This is an electronic (PDF) guide containing product safety and EMC regulatory statements as well as installation and basic configuration information, and software and hardware specifications. This guide is included on the Documentation CD shipped with your ProCurve product. The latest version is also available on the ProCurve Networking Website.

### Topics Specific to the 9300 Series Routing Switches

- Product mounting instructions
- Module installation
- Basic access and connectivity configuration (passwords, IP addresses)
- Redundant management module commands and file systems
- Cooling system commands and information
- Basic software feature configuration (SNMP, clock, mirror/monitor ports)
- Configuring for these features:
  - Uni-Directional Link Detection (UDLD)
  - Metro Ring Protocol (MRP)
  - Virtual Switch Redundancy Protocol (VSRP)
  - GVRP (dynamic VLANs)
- Software update instructions
- Hardware specs
- Software specs (e.g. RFC support, IEEE compliance)

### Topics Covered for the 9300/9408sI Routing Switches

- Port settings
- VLANs
- Trunks
- Spanning Tree Protocol
- Syslog

## **Quick Start Guide for the ProCurve Series 9300 Routing Switches**

This is a printed guide you can use as an easy reference to the installation and product safety information needed for out-of-box setup, plus the general product safety and EMC regulatory statements of which you should be aware when installing and using a Routing Switch. This guide is on the Documentation CD shipped with your ProCurve product, and the latest version is also available on the ProCurve Networking Website.

## **Installation and Basic Configuration Guide for the ProCurve 9408sl Routing Switch**

This is a printed guide that describes the ProCurve 9408sl and provides procedures for installing modules and AC power supplies into the ProCurve 9408sl, cabling the 10 Gigabit Ethernet interface ports, and performing a basic configuration of the software. The guide explains how to perform tasks using the CLI.

### **Topics Specific to the 9408sl Routing Switch**

- Product overview and architecture
- Product mounting instructions
- Module installation
- Basic access and connectivity configuration (passwords, IP addresses)
- Management Module redundancy and file systems
- Interacting with the cooling system, switch fabric module, and interface modules
- Basic software feature configuration (SNMP, clock, mirror/monitor ports)
- Hardware maintenance instructions
- Software update instructions
- Hardware specs
- Safety and regulatory statements
- Software specs (e.g. RFC support, IEEE compliance)

## **Advanced Configuration and Management Guide for the ProCurve 9300/9400 Series Routing Switches**

This is an electronic (PDF) guide that contains advanced configuration information for routing protocols and Quality of Service (QoS). In addition, appendixes in this guide contain reference information for network monitoring, policies, and filters. This guide is included on the Documentation CD shipped with your ProCurve product. The latest version is also on the ProCurve Networking Website.

### **Information on Configuring Features**

- Quality of Service (QoS)
- Access Control Lists (ACLs)
- Rate limiting
- IPv4 routing
- RIP
- IP Multicast
- OSPF
- BGP4
- Multicast BGP (MBGP)
- Network Address Translation (NAT)
- VRRP and VRRPE (enhanced VRRP)
- IPX routing
- AppleTalk routing
- Rout health injection
- Standby Routing Protocol (SRP)
- RMON, Netflow, and Sflow monitoring

## IPv6 Configuration Guide for the ProCurve Routing Switches

This is an electronic (PDF) guide that describes the IPv6 software and features. It provides conceptual information about IPv6 addressing and explains how to configure basic IPv6 connectivity and the IPv6 routing protocols. The software procedures explain how to perform tasks using the CLI. This reference is included on the Documentation CD shipped with your ProCurve product and is also available on the ProCurve Networking Website.

## Command Line Interface Reference for ProCurve 9300/9400 Series Routing Switches

This is an electronic (PDF) guide that provides a dictionary of CLI commands and syntax. This reference is included on the Documentation CD shipped with your ProCurve product and is also available on the ProCurve Networking Website.

## Security Guide for the ProCurve 9300/9400 Series Routing Switches

This is an electronic (PDF) guide that provides procedures for securing management access to ProCurve devices and for protecting against Denial of Service (DoS) attacks. This guide is included on the Documentation CD shipped with your ProCurve product. The latest version is also available on the ProCurve Networking Website.

## Diagnostic Guide for the ProCurve 9300/9400 Series Routing Switches

This is an electronic (PDF) guide that describes the diagnostic commands available on ProCurve devices. The software procedures show how to perform tasks using the Command Line Interface (CLI). This guide is included on the Documentation CD shipped with your ProCurve product. The latest version is also available on the ProCurve Networking Website.

## Removing and Installing XENPAK Optics

This is a printed instruction sheet describing the correct preparation and procedure for removing and installing XENPAK optics on the J8174A 2-port 10 Gigabit Ethernet module. This sheet is shipped with the Procurve 9300M Management modules and is also available on both the Documentation CD shipped with your ProCurve product and on the ProCurve Networking Website.

## Release Notes

These documents describe features and other information that becomes available between revisions of the main product guides. New releases of such documents will be available on the ProCurve Networking Website. To register to receive email notice from ProCurve when a new software release is available, visit:

<http://www.procurve.com>

Click on **My software**, and then click on **Register Here**.

## Product Documentation CD: A Tool for Finding Specific Information and/or Printing Selected Pages

This CD is shipped with your ProCurve Routing Switch product and provides the following:

- A **README** file describing the CD contents and use, including easy instructions on how to search the book files for specific information
- A **Contents** file to give you easy access to the documentation on the CD
- Separate PDF files of the individual chapters and appendixes in the major guides, enabling you to easily print individual chapters, appendixes, and selected pages
- Single PDF files for each of the major guides, enabling you to use the Adobe® Acrobat® Reader to easily search for detailed information
- Additional files. These may include such items as additional Read Me files and release notes.

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## Powering-Up a Device Having Multiple Power Supplies

When you power-up a device that requires multiple power supplies, make sure you apply power to all the supplies (or at least to the minimum number of supplies required for your configuration) at the same time. Otherwise, the device either will not boot at all, or will boot and then repeatedly display a warning message stating that you need to add more power supplies.

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## Included Components

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Component	Notes
Power Cords	<b>ProCurve 9408sl:</b> Three power cords. <b>Caution:</b> If the installation requires a different power cord than the one supplied with the switch or routing switch, be sure to use a shielded power cord displaying the mark of the safety agency that defines the regulations for power cords in your country. The mark is your assurance that the power cord can be used safely with the switch or routing switch.
Console Cable	Connects a terminal or PC to a serial port on a ProCurve 9408sl management module for direct-connect access to management using the Command Line Interface (CLI).
CESD Grounding Tap Kit	Use the Cable Electrostatic Discharge (CESD) Grounding Tap before connecting Category 5 or better UTP copper networking cables to the routing switch. Refer to the documentation provided with the kit.
ESD Strap	Helps to prevent electrostatic discharge between your body and routing switch modules or chassis.
Rack Mount Kit	Contains two mounting brackets and the screws required to attach the brackets to the routing switch.
Product Documentation	<ul style="list-style-type: none"><li>• <i>Read Me First</i> (this document): Updates are periodically posted on the ProCurve website.*</li><li>• <i>Installation and Basic Configuration Guide for the ProCurve 9408sl Routing Switch</i>.</li></ul>
Installation Guide for XENPAK Optics	This single-sheet guide is included in the documentation set shipped with all ProCurve 9408sl modules.
Warranty and Support	Included with routing switch chassis shipments.
Declaration of Conformity	Included with routing switch chassis shipments.

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\* Go to <http://www.procurve.com>, click on **Technical Support**, then **Product manuals**. Click on **ProCurve Routing Switch 9400 Series** and scroll to the publication you want to see.

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