



Upgrading OmniSwitch 9000 Series Switches to 6.1.3.R01

Overview

This instruction sheet documents how to upgrade OmniSwitch 9000 Series switches to 6.1.3.R01 software and firmware. The upgrade can be performed using the CLI, WebView, or SNMP (SNMP using OmniVista is only supported in Builds 3.3 and later). It is recommended that you use WebView to perform the upgrade. For upgrade instructions using the CLI, see [Upgrading with the CLI on page 14](#).

Note. To downgrade a switch (e.g., 6.1.3 to 6.1.1), see [Upgrade/Downgrade Software Matrix on page 21](#).

Prerequisites

This instruction sheet requires that the following conditions exist or are performed before upgrading:

- The person performing the upgrade must:
 - be the responsible party for maintaining the switch's configuration
 - be aware of any issues that may arise from a network outage caused by improperly loading this code
 - understand that the switch must be rebooted and network users will be affected by this procedure
 - have a working knowledge of the switch to configure it to accept an FTP connection through the EMP or Network Interface (NI) Ethernet port.
- If the CLI is used, all CLI commands must be executed via a Console Port connection, not through a Telnet session. If you are performing a remote upgrade, the console port must be connected through a terminal server (via Telnet, PuTTY, etc.) in the same location as the switch you are upgrading.

Note. Do not proceed until all the above prerequisites have been met. Any deviation from these upgrade procedures will result in the malfunctioning of the switch. All steps in these procedures should be reviewed before beginning.

Upgrading with WebView

Upgrading the OS9000 series switches to 6.1.3.R01 consists of the following steps.

- 1 Upgrading the Image Files.
- 2 Upgrading the U-Boot and Miniboot Files
- 3 Upgrading the FPGA.

Note. The steps must be performed in order. You must complete the image file updated first, followed by the U-Boot and Miniboot upgrade, and finally, the FPGA upgrade.

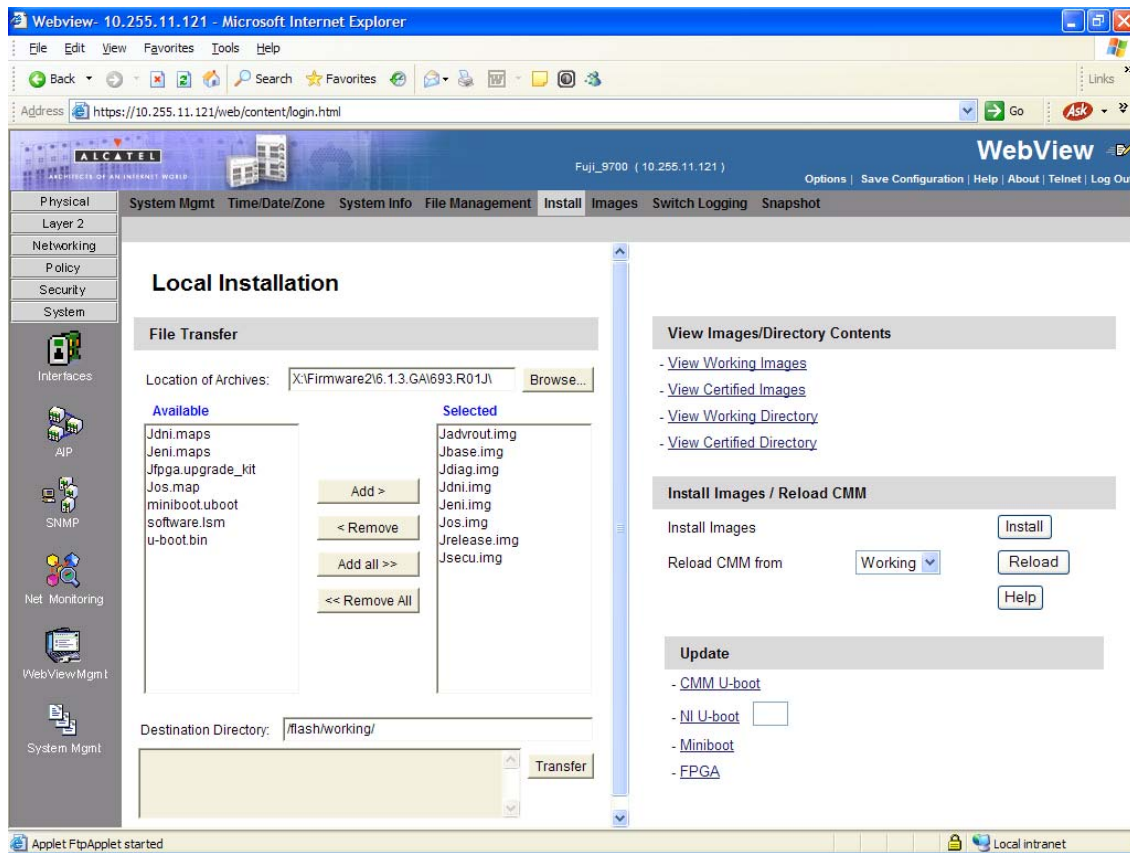
Upgrading the Image Files

Follow the steps below to upgrade the image files to 6.1.3.R01.

- 1 Download the 6.1.3.R01 image files from the Alcatel-Lucent Service and Support web site to your PC.
- 2 Log into the switch through WebView. (In dual redundant configurations you must log into the primary switch).

Note. Before proceeding with the remaining steps, make sure that the switch's Web Management Inactivity Timer is set to at least 10 minutes (default setting is 4 minutes). To view and change the setting, go to the **Session Type Parameters** page by selecting **Security > ASA > Sessions > Configuration**.

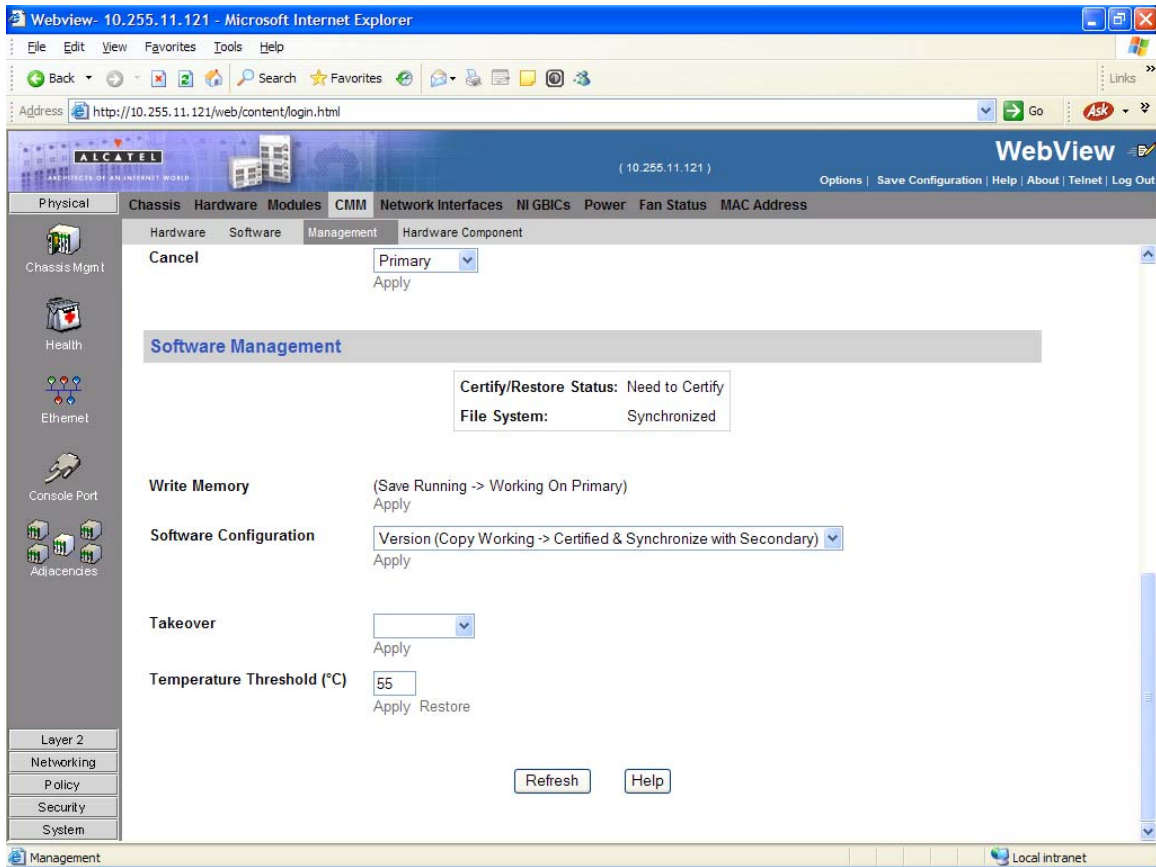
- 3 Select **System > System Mgmt > Install** to locate and FTP the 6.1.3.R01 image files that you downloaded in Step 1. Click on the **Browse** button to locate the files. All of the files will appear in the "Selected" area.
- 4 Click on the **Remove All** button to move all of the files to the "Available" area; then select the following image files and click the **Add** button to move them to the "Selected" area as shown below:
Jadvrout.img, Jbase.img, Jdiag.img, Jdni.img, Jeni.img, Jos.img, Jrelease.img, Jsecu.img



- 5 Transfer the files to the **flash/working** directory. Make sure the **Destination Directory** is **flash/working**, then click the **Transfer** button. Wait until the process is complete (indicated in the area next to the **Transfer** button - "All files have been transferred successfully").
- 6 Install the images in the Working Directory. In the "Install Images/Reload CMM" area, click the **Install** button. Click **OK** at the warning prompt.

When the process is complete, the following message appears in the upper right corner of the screen: "set operation finished successfully." Wait until the process is complete before proceeding to the next step.

- 7 Reload the switch from the Working Directory. In the "Install Images/Reload CMM" area, select **Working** from the **Reload CMM From** field, then click the **Reload** button. Click **OK** at the warning prompt. Wait until the process is complete.
- 8 After the CMM finishes rebooting, log into WebView.
- 9 Copy the files to the Certified Directory and sync the Primary and Secondary CMMs (if applicable). Select **Physical > Chassis Mgmt > CMM > Management** as shown below.



- 10 In the **Software Configuration** field, select **Copy Working -> Certified on Primary** for switches with a single CMM, or **Copy Working -> Certified & Synchronize with Secondary** for switches with a secondary CMM, then click **Apply**.

The switch will copy the files from the Working to the Certified Directory and synchronize the CMMs (if applicable). This command should **not** be interrupted. Go to [Verifying the Software Upgrade on page 11](#) for instructions on verifying the software upgrade.

Upgrading the U-Boot and Miniboot files

Follow the steps below to upgrade the U-Boot and Miniboot files.

- 1 Download the applicable U-boot and Miniboot files from the Alcatel-Lucent Service and Support web site to your PC.

Note. The following U-Boot and Miniboot version is supported for the 6.1.3. upgrade - **6.1.1.167.R02**.

- 2 Log into the switch through WebView. (In dual redundant configurations you must log into the primary switch).

Note. Before proceeding with the remaining steps, make sure that the switch's Web Management Inactivity Timer is set to at least 10 minutes (default setting is 4 minutes). To view and change the setting, go to the **Session Type Parameters** page by selecting **Security > ASA > Sessions > Configuration**.

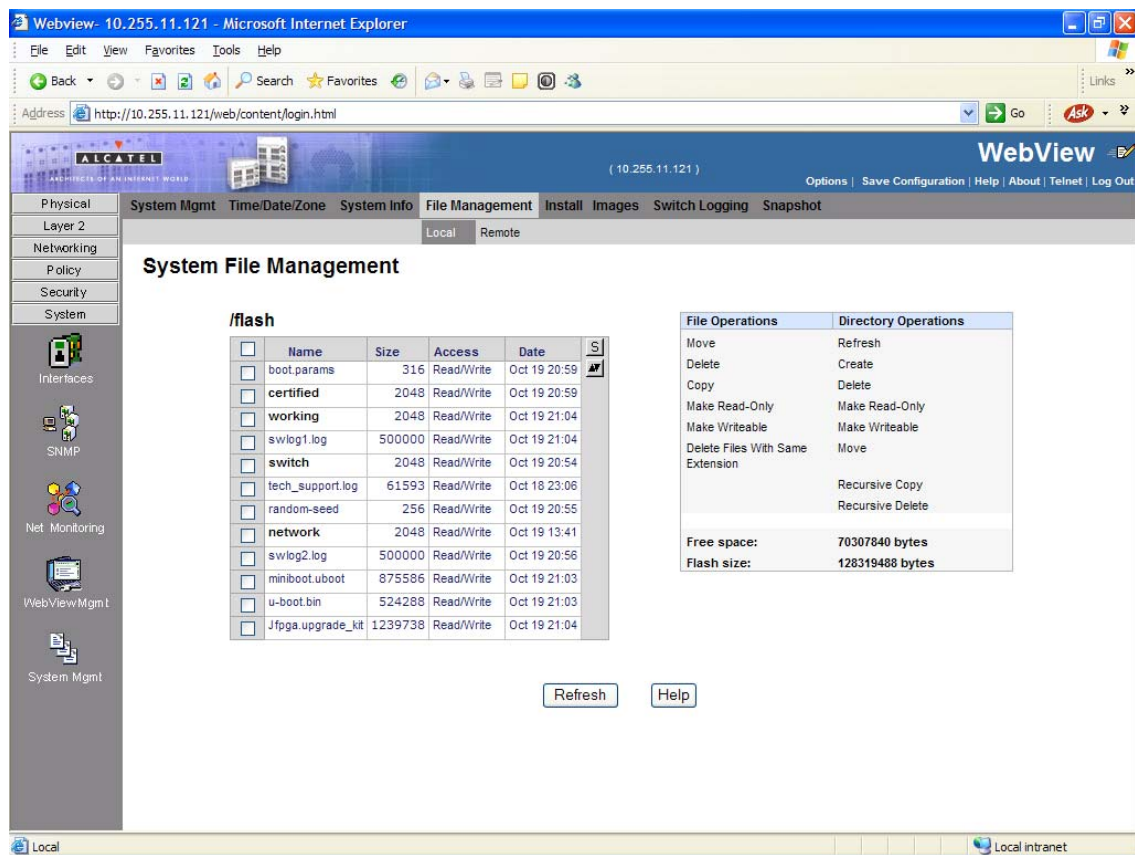
- 3 Select **System > System Mgmt > Install** to locate and FTP the Miniboot and U-Boot files that you downloaded in Step 1. Click on the **Browse** button to locate the files. All of the files will appear in the "Selected" area.

Click on the **Remove All** button to move all of the files to the "Available" area; then select both the **miniboot.uboot** and **u-boot.bin** files and click the **Add** button to move them to the "Selected" area as shown below.

The screenshot shows the WebView interface for a switch. The browser address bar shows 'http://10.255.11.121/web/content/login.html'. The main content area is titled 'Local Installation' and is divided into several sections:

- File Transfer:**
 - Location of Archives: X:\Firmware\216.1.3.GAI693.R01\
 - Available files: Jadvrout.img, Jbase.img, Jdiag.img, Jdni.img, Jdni.maps, Jeni.img, Jeni.maps, Jos.img, Jos.map, Jrelease.img, Jsecu.img, software.lsm, Jfpga.upgrade_kit
 - Selected files: miniboot.uboot, u-boot.bin
 - Buttons: Add >, < Remove, Add all >>, << Remove All
 - Destination Directory: /flash/
 - Transfer button
- View Images/Directory Contents:**
 - View Working Images
 - View Certified Images
 - View Working Directory
 - View Certified Directory
- Install Images / Reload CMM:**
 - Install Images button
 - Reload CMM from: Working (dropdown)
 - Reload button
- Update:**
 - CMM U-boot
 - NI U-boot (dropdown)
 - Miniboot
 - Uboot-Miniboot
 - FPGA
 - Help and Refresh buttons

- 4 Make sure the **Destination Directory** is **/flash**, then click the **Transfer** button. Wait until the process is complete (indicated in the area next to the **Transfer** button - “All files have been transferred successfully”).
- 5 Click on **Uboot-Miniboot**, then click **OK** at the confirmation prompt. This will upgrade the Uboot and Miniboot files on all of the CMMs and the NIs. The upgrade progress is indicated in the upper right corner of the screen. When the upgrade is complete, the following message appears: “set operation finished successfully.”
- 6 Reload the switch from the Working Directory. In the “Install Images/Reload CMM” area, select **Working** from the **Reload CMM From** field, then click the **Reload** button. Click **OK** at the warning prompt. Wait until the process is complete.
- 7 After verifying that the upgrade was successful (see [Verifying the U-Boot/Miniboot/FPGA Upgrade on page 12](#)), delete the **miniboot.uboot** and **u-boot.bin** files from the Flash Directory by selecting **System > System Mgmt > File Management > Local**, as shown below.



- 8 Check the box next to the **miniboot.uboot** file, select **Delete** in the **File Operations** box, then click **OK** at the confirmation prompt. Repeat to delete the **u-boot.bin** file.

The U-Boot/Miniboot upgrade is now complete. Go to [Verifying the U-Boot/Miniboot/FPGA Upgrade on page 12](#) for instructions on verifying the upgrade.

Upgrading the FPGA

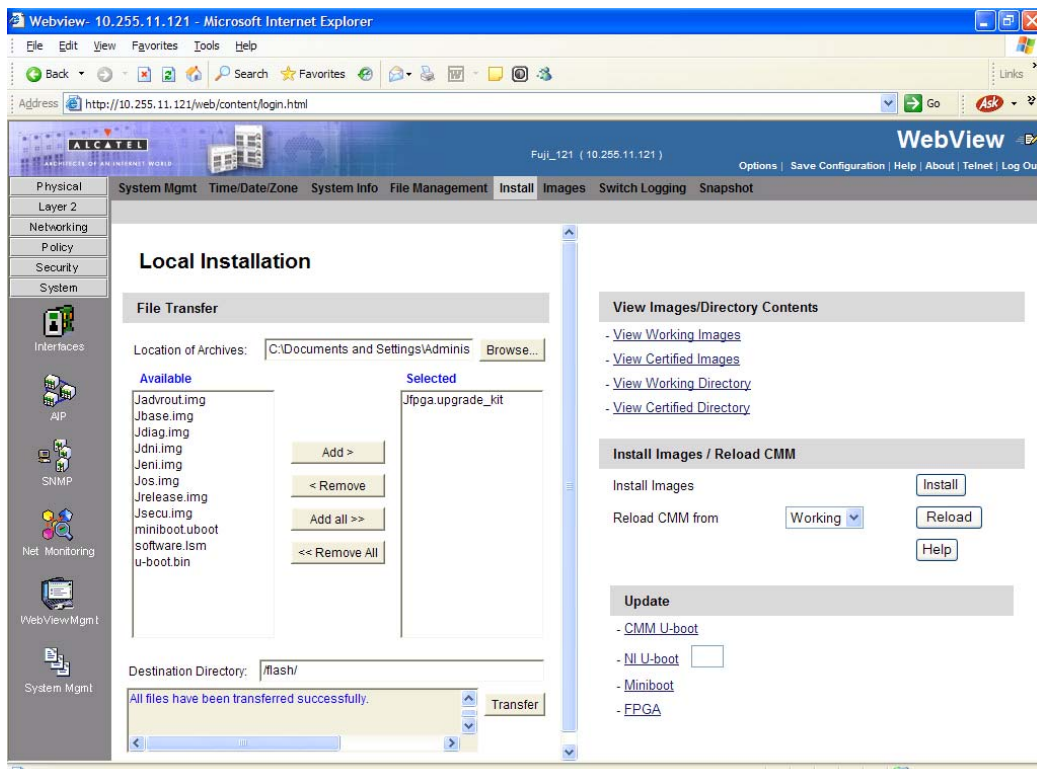
Follow the steps below to upgrade the FPGA to FPGA 25 (0x19) on OmniSwitch 9000 switches. Please note that there must be 4.2 megabytes of free flash on each CMM.

Note. By default, a shunt connecting pins 1 and 2 on jumper block J64 is installed on all CMMs. (This jumper connection allows FPGA upgrades on CMMs.) If this shunt has been removed and you need to upgrade your CMM's FPGA, perform the steps in [Program Enable Jumpers Not Installed on page 22](#) before proceeding.

All CMMs must be running with 6.1.3.R01 image files before upgrading the FPGA. If you have not installed 6.1.3.R01 image files perform the steps described in [Upgrading the Image Files on page 2](#) before proceeding. In addition, all CMMs must be running with U-Boot and Miniboot version 6.1.1.167.R02. If you have not upgraded the U-Boot and Miniboot version to 6.1.1.167.R02, perform the steps described in [Upgrading the U-Boot and Miniboot files on page 5](#) before proceeding.

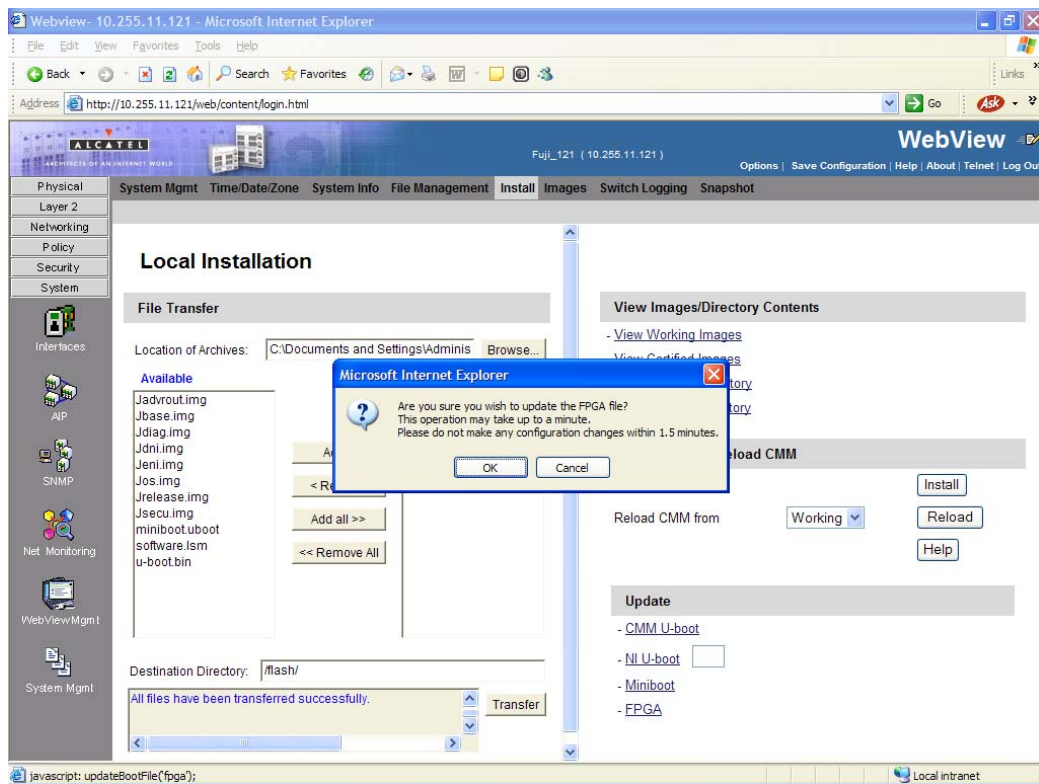
WARNING. Dual CMMs *must* have the same FPGA version number. Do not attempt to run switches with CMMs with different FPGA versions. See [Verifying the U-Boot/Miniboot/FPGA Upgrade on page 12](#) for more information on viewing the current FPGA version.

- 1 Download the latest 6.1.3 GA Build from the Alcatel-Lucent Service and Support web site to your PC.
- 2 Log into the switch through WebView. (In dual redundant configurations you must log into the primary switch).
- 3 Select **System > System Mgmt > Install** to locate and FTP the FPGA Upgrade file that you downloaded in Step 1. Click on the **Browse** button to locate the files. All of the files will appear in the "Selected" area.
- 4 Click on the **Remove All** button to move all of the files to the "Available" area; then select the **Jfpga.upgrade_kit** file and click the **Add** button to move it to the "Selected" area as shown below:

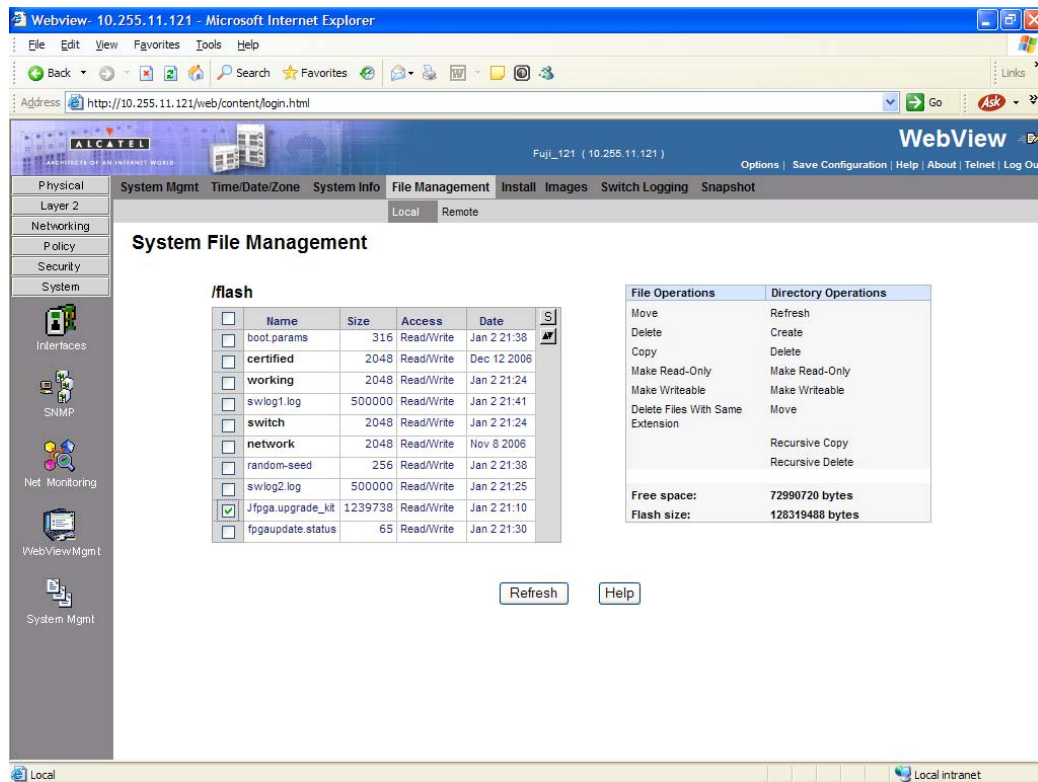


WARNING. All CMMs must be certified and in redundant configurations. Both CMMs must be synchronized before beginning. In addition, the switch must be running in the Working directory. Use the **show running-directory** command to confirm these conditions.

- 5 Transfer the file to the **flash/** directory. Make sure the **Destination Directory** is **flash/**, then click the **Transfer** button. Wait until the process is complete (indicated in the area next to the **Transfer** button - "All files have been transferred successfully").
- 6 Select **FPGA** in the **Update** area. A confirmation prompt will be displayed, as shown below:



- 7 Click **OK** at the warning prompt. The FPGA will be updated on the primary (and if present, secondary CMM) and the switch will automatically re-boot.
- 8 After verifying that the upgrade was successful, delete the **Jfpga.upgrade_kit** file from the primary CMM by selecting **System > System Mgmt > File Management > Local** as shown below:



9 Check the box next to **Jfpga.upgrade_kit**.

10 Select **Delete** in the **File Operations** box. A confirmation window will be displayed.

11 Click **OK**.

Note. After the file is deleted the page will automatically refresh and show that the file has been deleted.

The FPGA upgrade is now complete. Go to [Verifying the U-Boot/Miniboot/FPGA Upgrade](#) on page 12 for instructions on verifying the upgrade.

Verifying the Upgrade with WebView

Verifying the Software Upgrade

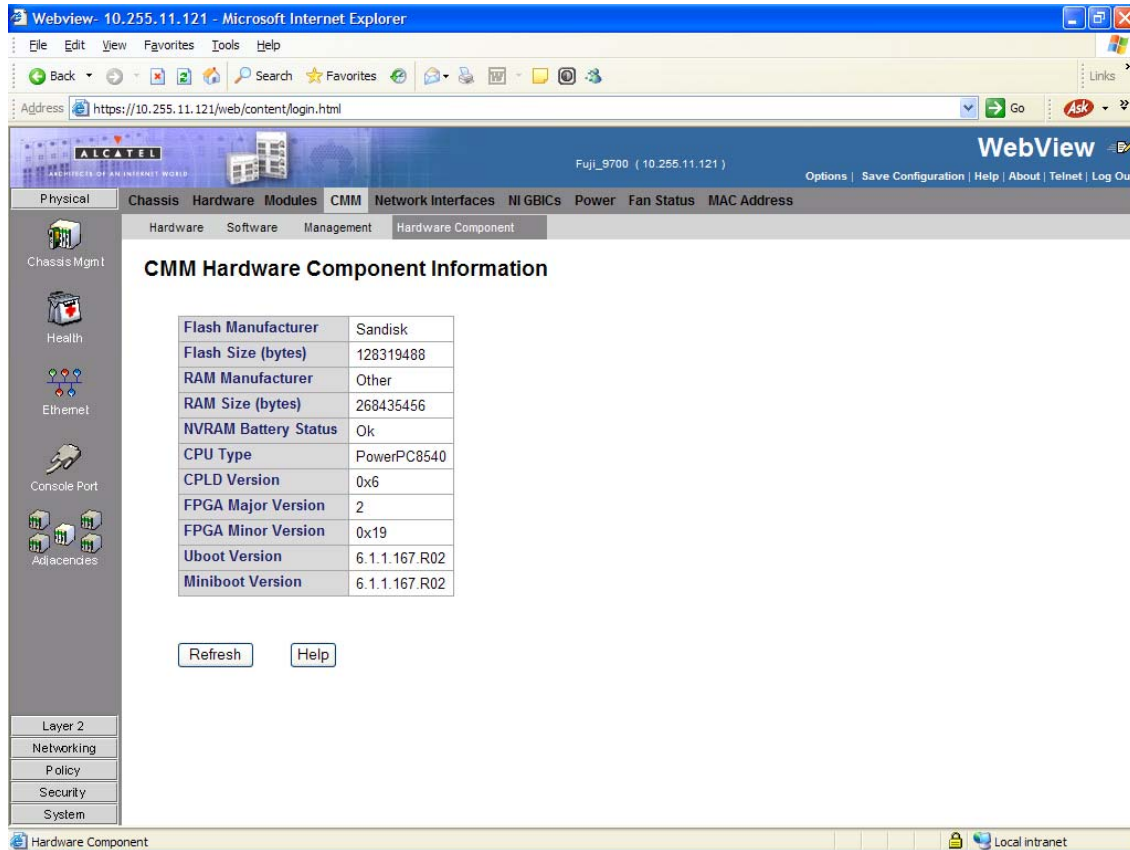
To verify that the software was successfully upgraded, go to the **Loaded Image Files** page by selecting **System > System Mgmt > Images > Loaded Images** as shown below.

Version	Name	Description	Size
6.1.3.719.R01	Jadvrout.img	Alcatel Advanced Routing	1428464
6.1.3.719.R01	Jbase.img	Alcatel Base Software	12794877
6.1.3.719.R01	Jdiag.img	Alcatel Diagnostics Archive	2914382
6.1.3.719.R01	Jdni.img	Alcatel Diag NI Software	2547675
6.1.3.719.R01	Jeni.img	Alcatel NI Software	4267419
6.1.3.719.R01	Jos.img	Alcatel OS	1903767
6.1.3.719.R01	Jsecu.img	Alcatel Security	386935

In addition, you should also select **System > System Mgmt > Images > Images in Certified** and **System > System Mgmt > Images > Images in Working** to verify that Certified and Working directories were successfully upgraded to Release 6.1.3.R01.

Verifying the U-Boot/Miniboot/FPGA Upgrade

To verify that the U-Boot, Miniboot, and FPGA files were successfully upgraded on the CMM, go to the **CMM Hardware Component Information** page by selecting **Physical > Chassis Mgmt > CMM > Hardware Component**, as shown below.

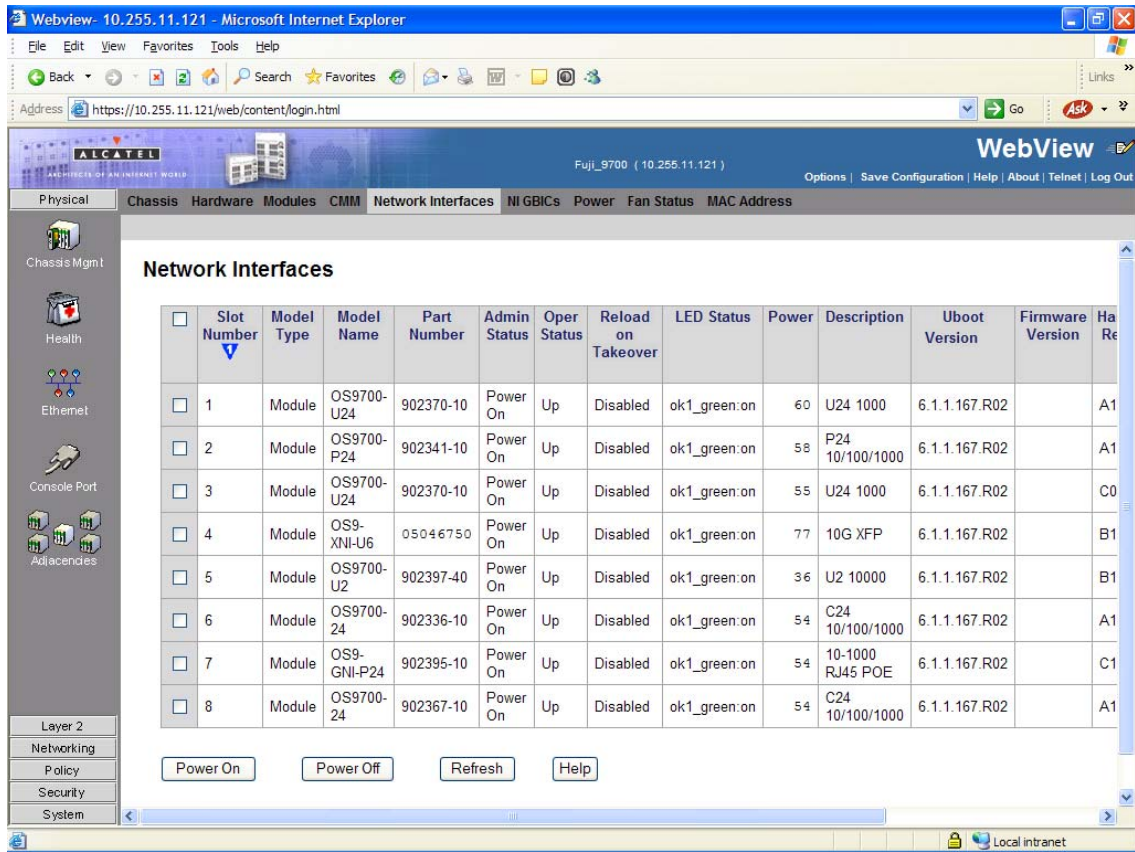


The screenshot shows the Alcatel WebView interface for a Fuji_9700 switch. The main content area displays the "CMM Hardware Component Information" page. The page features a table with the following data:

Flash Manufacturer	Sandisk
Flash Size (bytes)	128319488
RAM Manufacturer	Other
RAM Size (bytes)	268435456
NVRAM Battery Status	Ok
CPU Type	PowerPC8540
CPLD Version	0x6
FPGA Major Version	2
FPGA Minor Version	0x19
Uboot Version	6.1.1.167.R02
Miniboot Version	6.1.1.167.R02

Below the table are two buttons: "Refresh" and "Help". The interface also includes a navigation menu on the left with options like "Chassis Mgmt", "Health", "Ethernet", "Console Port", and "Adjacencies". The status bar at the bottom shows "Hardware Component" and "Local intranet".

To verify that the U-Boot file was successfully upgraded on the switch's NIs, go to the **Network Interfaces** page by selecting **Physical > Chassis Mgmt > Network Interfaces**, as shown below.



Upgrading with the CLI

Upgrading the OS9000 series switches to 6.1.3.R01 consists of the following steps.

- 1 Upgrading the Image Files.
- 2 Upgrading the U-Boot and Miniboot Files
- 3 Upgrading the FPGA.

Note. The steps must be performed in order. You must complete the image file updated first, followed by the U-Boot and Miniboot upgrade, and finally, the FPGA upgrade.

Upgrading the Image Files

Follow the steps below to upgrade the image files to 6.1.3.R01.

- 1 FTP the 6.1.3.R01 image files from the Alcatel-Lucent Service and Support code directory to the /**flash/working** directory of the primary CMM.
- 2 Log into the switch. In dual redundant configurations you must log into the primary switch.
- 3 Enter:
`-> install *.img`
- 4 Enter:
`-> reload working no rollback-timeout`
- 5 After the switch finishes rebooting, log into the switch.
- 6 If you have a single CMM switch enter:
`-> copy working certified`
- 7 If you have redundant CMMs enter:
`-> copy working certified flash-synchro`

The switch will copy the files from the Working to the Certified Directory and synchronize the CMMs (if applicable).

Upgrading the U-Boot and Miniboot Files

Follow the steps below to upgrade the U-Boot and Miniboot files.

- 1 Download the applicable U-Boot and Miniboot files from the Alcatel-Lucent Service and Support web site to the **/flash** directory on the primary CMM.

Note. The following U-Boot and Miniboot version is supported for the 6.1.3. upgrade - **6.1.1.167.R02**.

- 2 Execute the following CLI commands to update the U-Boot and Miniboot files on the switch.

```
-> update uboot-miniboot
```

Sample output for "update uboot-miniboot" ->

```
FRI OCT 20 17:29:09 : SYSTEM (75) info message:
+++ ---->SSACTION_UPDATE_UBOOT_MINIBOOT
FRI OCT 20 17:29:09 : CSM-CHASSIS (103) info message:
+++ == CSM == Update bootrom on all slots
+++ == CSM == sysUpdate begin
FRI OCT 20 17:29:10 : FTP (82) info message:
+++ Session 0 New Connection, Client Address 127.2.66.1
+++ Get /flash/u-boot.bin!
+++ Session 0 Ending
FRI OCT 20 17:29:13 : SYSTEM (75) info message:
+++ NI 1 software update started
FRI OCT 20 17:29:20 : SYSTEM (75) info message:
+++ NI 1 software update completed -- file /flash/u-boot.bin copied
+++ NI 2 software update started
FRI OCT 20 17:29:26 : SYSTEM (75) info message:
+++ NI 2 software update completed -- file /flash/u-boot.bin copied
+++ NI 3 software update started
FRI OCT 20 17:29:32 : SYSTEM (75) info message:
+++ NI 3 software update completed -- file /flash/u-boot.bin copied
+++ NI 4 software update started
FRI OCT 20 17:29:37 : SYSTEM (75) info message:
+++ NI 4 software update completed -- file /flash/u-boot.bin copied
+++ NI 5 software update started
```

```
FRI OCT 20 17:29:42 : SYSTEM (75) info message:
+++ NI 5 software update completed -- file /flash/u-boot.bin copied
+++ NI 6 software update started
FRI OCT 20 17:29:48 : SYSTEM (75) info message:
+++ NI 6 software update completed -- file /flash/u-boot.bin copied
+++ NI 7 software update started
FRI OCT 20 17:29:53 : SYSTEM (75) info message:
+++ NI 7 software update completed -- file /flash/u-boot.bin copied
+++ NI 8 software update started
FRI OCT 20 17:29:58 : SYSTEM (75) info message:
+++ NI 8 software update completed -- file /flash/u-boot.bin copied
+++ NI 65 software update started
Erasing flash....
Writing flash....
Done
FRI OCT 20 17:30:04 : SYSTEM (75) info message:
+++ NI 65 software update completed -- file /flash/u-boot.bin copied
+++ NI 66 software update started
FRI OCT 20 17:30:10 : SYSTEM (75) info message:
+++ NI 66 software update completed -- file /flash/u-boot.bin copied
+++ NI 65 software update started
Erasing flash.....
Writing flash.....
Done
FRI OCT 20 17:30:23 : SYSTEM (75) info message:
+++ NI 65 software update completed -- file /flash/miniboot.u-boot copied
+++ NI 66 software update started
FRI OCT 20 17:30:36 : SYSTEM (75) info message:
+++ NI 66 software update completed -- file /flash/miniboot.u-boot copied
FRI OCT 20 17:30:44 : CSM-CHASSIS (103) info message:
+++ == CSM == sysUpdate end
+++ == CSM == timer_r:duplex---- session end ----
+++ == CSM == UPDATE COMPLETED
```


- 3 When the "UPDATE COMPLETED" message appears, delete the miniboot and u-boot files from the /flash directory, then reload the switch:

```
-> reload working no rollback-timeout
```

The upgrade is now complete. See [Verifying the Upgrade with the CLI on page 18](#) for information on verifying the upgrade.

Note. This procedure details upgrading the Uboot/Miniboot files using 6.1.3.R01 software. To install these files using an older software version, see the applicable upgrade instructions (e.g., "Upgrading Switches to 6.1.2.R03").

Upgrading the FPGA

Follow the steps below to upgrade the FPGA to FPGA 25 (0x19) on OmniSwitch 9000 switches. Please note that there must be 4.2 megabytes of free flash on each CMM.

Note. By default, a shunt connecting pins 1 and 2 on jumper block J64 is installed on all CMMs. (This jumper connection allows FPGA upgrades on CMMs.) If this shunt has been removed and you need to upgrade your CMM's FPGA, perform the steps in [Program Enable Jumpers Not Installed on page 22](#) before proceeding.

All CMMs must be running with 6.1.3.R01 image files before upgrading the FPGA. If you have not installed 6.1.3.R01 image files perform the steps described in [Upgrading the Image Files on page 14](#) before proceeding. In addition, all CMMs must be running with U-Boot and Miniboot version 6.1.1.167.R02. If you have not upgraded the U-Boot and Miniboot version to 6.1.1.167.R02, perform the steps described in [Upgrading the U-Boot and Miniboot Files on page 15](#) before proceeding.

WARNING. Dual CMMs *must* have the same FPGA version number. Do not attempt to run switches with CMMs with different FPGA versions. See [Verifying the U-Boot/Miniboot/FPGA Upgrade on page 19](#) for more information on viewing the current FPGA version.

- 1 Download the latest 6.1.3 GA Build from the Alcatel-Lucent Service and Support web site to your PC.
- 2 FTP the FPGA upgrade kit file (**Jfpga.upgrade_kit**) to the /flash directory on the primary CMM. Make sure you change the path of the destination directory from /flash/working (the default) to the root /flash directory before transferring the upgrade kit.
- 3 Log into the CMM.

Note. In dual CMM configurations you must log into the primary CMM.

- 4 Enter:

```
-> update fpga cmm
```

The FPGA will be updated on the primary (and, if present secondary) CMM. When the update is complete, the following message will be displayed:

```
+++ == CSM == UPDATE COMPLETED
```

The switch will automatically reboot.

- 5 After the FPGA upgrade has been successfully completed, delete the **Jfpga.upgrade_kit** file from the primary CMM. Enter the following to delete the **Jfpga.upgrade_kit** file on the primary CMM:

```
-> rm JFfpga.upgrade_kit
```

Note. Use the **ls** command to confirm that the upgrade kit file has been deleted on the primary CMM.

Verifying the Upgrade with the CLI

Verifying the Software Upgrade

To verify that the software was successfully upgraded to 6.1.3.R01, use the **show microcode** command as shown below.

```
-> show microcode
```

Package	Release	Size	Description
Jbase.img	6.1.3.719.R01	12791788	Alcatel Base Software
Jeni.img	6.1.3.719.R01	4265379	Alcatel NI Software
Jdni.img	6.1.3.719.R01	2547675	Alcatel Diag NI Software
Jdiag.img	6.1.3.719.R01	2914537	Alcatel Diagnostics Archive
Jsecu.img	6.1.3.719.R01	386933	Alcatel Security
Jos.img	6.1.3.719.R01	1902999	Alcatel OS
Jadvrout.img	6.1.3.719.R01	1428434	Alcatel Advanced Routing

Verifying the U-Boot/Miniboot/FPGA Upgrade

To verify that the U-Boot, Miniboot, and FPGA files were successfully upgraded on the CMM, use the **show hardware info** command as shown below.

```
-> show hardware info

CPU Type           : PowerPC 8540,
Flash Manufacturer  : SanDisk SDCFJ-128,
Flash size         : 128319488 bytes (122 MB),
RAM Manufacturer   : Other,
RAM size           : 268435456 bytes (256 MB),
NVRAM Battery OK ? : YES,
CPLD rev           : 0x6,
FPGA major rev     : 0x2,
FPGA minor rev     : 0x19,
uboot Version      : 6.1.1.167.R02,
uboot-miniboot Version : 6.1.1.167.R02,
```

To verify that the NI modules were successfully upgraded, use the **show ni** command as shown below.

```
-> show ni

Module in slot 1

Model Name:           OS9700-U24,
Description:          U24 1000,
Part Number:          902370-10,
Hardware Revision:    A10,
Serial Number:        F313047A,
Manufacture Date:     OCT 05 2005,
Firmware Version:     ,
Admin Status:         POWER ON,
Operational Status:   UP,
Power Consumption:    60,
Power Control Checksum: 0x0,
MAC Address:          00:d0:95:d0:bb:d8,
ASIC - Physical 1:    BCM56504_A1
CPLD - Physical 1:    0005/B7
UBOOT Version      : 6.1.1.167.R02
```

UBOOT-miniboot Version : No Miniboot

POE SW Version : n/a

NI GBIC 1

Model Name: Tyco Electronics,

Description: Tyco Electronics,

Part Number: 1382408-1 ,

Hardware Revision: 000,

Serial Number: b3515047 ,

Manufacture Date: 031219 ,

Firmware Version: ,

Laser Wave Length: N/A,

Admin Status: POWER ON,

Operational Status: UP

Upgrade/Downgrade Software Matrix

Refer to the matrix below for software compatibility when upgrading/downgrading a 9000 Series Switch. For more information, contact Customer Support.

I = Image Files

F= U-Boot/Miniboot

Yes = You can upgrade/downgrade to the next build.

No = You cannot upgrade/downgrade to the next build.

N/A = Not applicable. Build not supported on the model.

Upgrading To 6.1.3.R01 GA I = 6.1.3.R01 GA F = 6.1.1.167.R02	
Build and Supported Software Versions for Each Upgrade	
	6.1.1 GA I = 6.1.1.R01 GA F = 6.1.1.632.R01
Model	
9600	Yes
9700	Yes
9800	N/A

Downgrading From 6.1.3.R01 GA I = 6.1.3.R01 GA F = 6.1.1.167.R02	
Build and Supported Software Versions for Each Upgrade	
	6.1.1 GA I = 6.1.1.R01 GA F = 6.1.1.632.R01
Model	
9600	Yes
9700	Yes
9800	N/A

Note. Hardware is only backward compatible when run with the software that originally supported it. For example, you cannot run a 9600 Series Switch with 6.1.1.R01 software; however, you could run it with 6.1.1.R02 software. Also, when downgrading make sure to load the applicable BootROM/Miniboot files. For more information, contact Customer Support.

Program Enable Jumpers Not Installed

By default, a shunt connecting pins 1 and 2 on jumper block J64 is installed on all CMMs that allows the FPGA upgrade to be performed on all CMMs. Only perform these steps if this shunt has been removed.

- 1** When it will not have an adverse effect on the network, power off the switch.
- 2** Loosen the CMM's two captive screws that secure the module to the chassis. If necessary, use a flat-blade screwdriver to loosen the screws. Be sure that both captive screws are completely disengaged from the threaded holes in the chassis before continuing
- 3** Simultaneously pull the two module extractor levers—one on top of the CMM and one on the bottom—until the CMM disengages from the chassis.
- 4** Holding the module in both hands, carefully slide it out of the chassis along the card guide. The module should slide out easily. Do not force the module from the slot.
- 5** Place the CMM on a clean, flat, static-free surface.
- 6** Connect pins 1 and 2 on jumper block J64.
- 7** Holding the CMM in both hands, carefully slide it into the chassis card guide. The CMM should slide in easily. Do not force the CMM into the slot. If any resistance is encountered, ensure the CMM is aligned properly in the card guide.
- 8** When the CMM is nearly seated in the slot, be sure that the two extractor levers—one on top of the CMM and one on the bottom—are slightly opened (approximately 30 degrees). This allows the notch on each extractor lever to grasp the rail on the chassis. Once the notches have grasped the rail, press both extractor levers inward simultaneously until the CMM is firmly seated.
- 9** Once the CMM is firmly seated, secure the CMM to the chassis by tightening the two captive screws. *Be sure not to overtighten the captive screws. If you use a screwdriver, the torque used to tighten the screws must not exceed 2.3 inch pounds.*

Note. Refer to the appropriate *OmniSwitch Hardware Users Guide* for additional documentation on adding and removing modules.



Alcatel-Lucent
26801 West Agoura Road
Calabasas, CA 91301
(818) 880-3500 FAX (818) 880-3505

US Customer Support: (800) 995-2696
International Customer Support: (818) 878-4507
Internet: <http://eservice.ind.alcatel.com>