Upgrading an OmniSwitch to 6.4.4.R01

Overview

These instructions documents how to upgrade the following OmniSwitch products to 6.4.4.R01 software and firmware. The upgrade can be performed using the CLI or WebView. Alcatel-Lucent recommends using WebView to perform the upgrade. Release 6.4.4.R01 is supported on the following switches. Click on the link to go to instructions for a specific switch.

- "OmniSwitch 9000E" on page -4
- "OmniSwitch 6855" on page -19
- "OmniSwitch 6850" on page -32
- "OmniSwitch 6400" on page -46.

Note. Release 6.4.4.R01 is **not** supported on the **OS 9600, 9700,** or **9800**. Also note that the OS6850E ships with the latest software and does not require any upgrades.

Prerequisites

WARNING: For all switch models, you **MUST** complete the Image File upgrade **BEFORE** upgrading the U-Boot and Miniboot Files. Please verify that the switch has been properly upgraded to 6.4.4.R01 before upgrading the U-boot and Miniboot.

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.
- Read the 6.4.4.R01 GA Release Notes prior to performing any upgrade for information specific to this release.

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.

UBoot, FPGA, Miniboot, BootROM, Upgrade Requirements

The software versions listed below are the minimum required, except where otherwise noted. Switches running the minimum versions, as listed below, do not require any Uboot, Miniboot, or FPGA upgrades when upgrading to AOS 6.4.4.R01.

Switches not running the minimum version required should upgrade to the latest Uboot, Miniboot, FPGA that is available with the 6.4.4.R01 AOS software available from Service & Support.

OmniSwitch 9000E

Release	Miniboot.uboot CMM	UBoot CMM	UBoot NI	FPGA CMM
6.4.4.R01	6.4.3.479.R01	6.4.3.479.R01	6.4.3.479.R01	Major Revision: 2 Minor Revision: 25 (displays as 0x19; rec- ommended)

Note: The 'S01' build is required for ISSU support. Also note that Release 6.4.4.R01 is **not** supported on the OS 9600, 9700, or 9800.

OmniSwitch 6850

Release	Miniboot.uboot	UBoot	FPGA
6.4.4.R01	6.4.3.479.R01	6.4.3.479.R01 - (Minimum)	No minimum required
		6.4.4.213.R01 - (Recommended for OS6850/OS6850E mixed stack)	

Note. For more information on upgrading in a mixed stack environment (6850/6850E), see "OmniSwitch 6850" on page -32.

OmniSwitch 6850E

Release	Miniboot.uboot	UBoot	CPLD
6.4.4.R01	6.4.4.213.R01	6.4.4.213.R01	No minimum required

OmniSwitch 6855/OmniSwitch 6855-U24X

Release	Miniboot.uboot	UBoot	FPGA
6.4.4.R01	6.4.3.479.R01	6.4.3.479.R01	No minimum required

OmniSwitch 6400

Release	Miniboot	UBoot	FPGA
6.4.4.R01	6.4.3.565.R01	6.4.3.565.R01	OS6400-C24/P24 (v16) OS6400-C48/P48 (v11) OS6400-U24 (v10)

OmniSwitch 9000E

Upgrading With WebView

Upgrading OS9000E Series Switches to 6.4.4.R01 using WebView consists of the following steps. The steps must be performed in order. You must complete the Image File upgrade **before** upgrading the U-Boot and Miniboot Files.

- **1** Upgrading the Image Files.
- **2** Upgrading the U-Boot and Miniboot Files, if necessary.

Note. Release 6.4.4.R01 is not supported on the OS 9600, 9700, or 9800.

WARNING: You **MUST** complete the Image File upgrade **BEFORE** upgrading the U-Boot and Miniboot Files. Please verify that the switch has been properly upgraded to 6.4.4.R01 before upgrading the U-boot and Miniboot.

Upgrading the Image Files

Follow the steps below to upgrade the Image Files to 6.4.4.R01.

- 1 Download the 6.4.4.R01 upgrade 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 CMM).

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 6.4.4.R01 Image Files that you downloaded in Step 1. Click on the Browse button to locate the files.
- **4** Select one of the files and click **Open**. All of the files will appear in the "Selected" area as shown below.

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5 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 back to the "Selected" area as shown below: Jadvrout.img, Jbase.img, Jencrypt.img, Jeni.img, Jos.img, Jsecu.img.

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- **6** 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").
- 7 Reload the switch from the Working Directory. In the "Install Images/Reload CMM" area, select Working in 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). Wait for the process to complete.

WARNING: DO NOT INTERRUPT the upgrade process until it is complete. Interruption of the process will result in an unrecoverable failure condition.

Upgrading the U-Boot and Miniboot Files

Follow the steps below to upgrade the U-Boot and Miniboot Files, if necessary. U-Boot and Miniboot version **6.4.3.479.R01** is **required** for the 6.4.4.R01 upgrade.

WARNING: You **MUST** complete the Image File upgrade **BEFORE** upgrading the U-Boot and Miniboot Files. Please verify that the switch has been properly upgraded to 6.4.4.R01 before upgrading the U-boot and Miniboot.

- 1 Download the applicable upgrade files from the Alcatel-Lucent Service and Support website to your PC.
- **2** Log into the switch through WebView. (In dual redundant configurations you must log into the primary CMM.)

Note. If you have not already done so, 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 6.4.4.R01 Image Files that you downloaded in Step 1. Click on the Browse button to locate the files.
- **4** Select one of the files and click **Open**. All of the files will appear in the "Selected" area as shown below.



5 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.

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6 Transfer the files 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").

STOP: If you have **not** already completed the Upgrade Image section, **DO NOT CONTINUE.** Complete the Image File upgrade before returning to this section to complete the Uboot/Miniboot upgrade.

7 In the "Update" area, click on <u>Uboot-Miniboot</u>, 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 cornet of the screen. When the upgrade is complete, the following message appears: "set operation finished successfully."

WARNING: DO NOT INTERRUPT the upgrade process until it is complete. Interruption of the process will result in an unrecoverable failure condition.

- 8 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.
- 9 After verifying that the upgrade was successful, delete the miniboot.uboot and uboot.bin files from the Flash Directory by selecting System > System Mgmt > File Management > Local, as shown below.

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		Г	cs_system1.pmd	1389460	Read/Write	Apr 23 15:40	5			
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10 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.

Verifying the Upgrade

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.

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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.

Verifying the U-Boot and Miniboot Upgrade

To verify that the U-Boot and Miniboot 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.

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292	RAM Manufacturer	Other					
0 0	RAM Size (bytes)	268435456					
	NVRAM Battery Status	Ok					
2	CPU Type	PowerPC8540					
Console Port	CPLD Version	0x6					
	FPGA Major Version	2					
	FPGA Minor Version	0x19					
	Uboot Version	6.4.3.479.R01					
	Miniboot Version	6.4.3.479.R01					

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

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Upgrading With The CLI

Upgrading OS9000E Series Switches to 6.4.4.R01 using the CLI consists of the following steps. The steps must be performed in order. You must complete the Image File upgrade **before** upgrading the U-Boot and Miniboot Files.

- **1** Upgrading the Image Files.
- **2** Upgrading the U-Boot and Miniboot Files, if necessary.

WARNING: You **MUST** complete the Image File upgrade **BEFORE** upgrading the U-Boot and Miniboot Files. Please verify that the switch has been properly upgraded to 6.4.4.R01 before upgrading the U-boot and Miniboot.

Upgrading the Image Files

Follow the steps below to upgrade the Image Files to 6.4.4.R01.

- 1 Download the 6.4.4.R01 upgrade files from the Alcatel-Lucent Service and Support web site to your PC.
- 2 FTP the following 6.4.4.R01 Image Files to the /flash/working directory of the primary CMM: Jadvrout.img, Jbase.img, Jencrypt.img, Jeni.img, Jos.img, Jsecu.img.

- 3 Log into the switch. In dual redundant configurations, you must log into the primary switch.
- 4 Reload the switch from the working directory.
 - -> reload working no rollback-timeout
- **5** After the switch finishes rebooting, log into the switch.
- **6** Copy the Image Files from the Working Directory to the Certified Directory.
 - If you have a single CMM switch enter:
 - -> copy working certified
 - 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). Wait for the process to complete.

WARNING: DO NOT INTERRUPT the upgrade process until it is complete. Interruption of the process will result in an unrecoverable failure condition.

Upgrading the U-Boot and Miniboot Files

Follow the steps below to upgrade the U-Boot and Miniboot Files, if necessary. U-Boot and Miniboot version **6.4.3.479.R01** is **required** for the 6.4.4.R01 upgrade.

WARNING: You **MUST** complete the Image File upgrade **BEFORE** upgrading the U-Boot and Miniboot Files. Please verify that the switch has been properly upgraded to 6.4.4.R01 before upgrading the U-boot and Miniboot.

- 1 Download the applicable upgrade files from the Alcatel-Lucent Service and Support web site to your PC.
- 2 FTP the **miniboot.uboot** and **u-boot.bin** files to the **/flash** directory on the primary CMM.

STOP: If you have **not** already completed the Upgrade Image section, **DO NOT CONTINUE.** Complete the Image File upgrade before returning to this section to complete the Uboot/Miniboot upgrade.

3 Execute the following CLI command to update the U-Boot and Miniboot Files on the switch.

-> update uboot-miniboot

Sample output for "update uboot-miniboot" ->

WED APR 20 17:29:09 : SYSTEM (75) info message: +++ ---->SSACTION_UPDATE_UBOOT_MINIBOOT WED APR 20 17:29:09 : CSM-CHASSIS (103) info message: +++ == CSM == Update bootrom on all slots +++ == CSM == sysUpdate begin WED APR 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
WED APR 20 17:29:13 : SYSTEM (75) info message:
+++ NI 1 software update started
WED APR 20 17:29:20 : SYSTEM (75) info message:
+++ NI 1 software update completed -- file /flash/u-boot.bin copied
WED APR 20 17:29:26 : SYSTEM (75) info message:
+++ NI 4 software update started
WED APR 20 17:29:37 : SYSTEM (75) info message:
+++ NI 4 software update completed -- file /flash/u-boot.bin copied
WED APR 20 17:30:44 : CSM-CHASSIS (103) info message:
+++ == CSM == sysUpdate end
+++ == CSM == timer_r:duplex---- session end ----
+++ == CSM == UPDATE COMPLETED
```

WARNING: DO NOT INTERRUPT the upgrade process until it is complete. Interruption of the process will result in an unrecoverable failure condition.

4 When the "UPDATE COMPLETED" message appears, delete the U-Boot and Miniboot Files from the **/flash** directory, and the reload the switch from the **working** directory:

-> reload working no rollback-timeout

The upgrade is now complete. See Verifying the Upgrade with the CLI below for information on verifying the upgrade.

Verifying the Upgrade with the CLI

Verifying the Software Upgrade

To verify that the software was successfully upgraded to 6.4.4.R01, use the **show microcode** command as shown below.

-> show microcode

Package	Release	Size	Description	
Jbase.img	6.4.4.342.R01	21798508	Alcatel-Lucent	Base Software
Jadvrout.img	6.4.4.342.R01	2859888	Alcatel-Lucent	Advanced Routing
Jos.img	6.4.4.342.R01	2151785	Alcatel-Lucent	OS
Jeni.img	6.4.4.342.R01	6497127	Alcatel-Lucent	NI software
Jsecu.img	6.4.4.342.R01	581967	Alcatel-Lucent	Security Management
Jencrypt.img	6.4.4.342.R01	3437	Alcatel-Lucent	Encryption Management

-> show ni

Verifying the U-Boot and Miniboot Upgrade

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

-> show hardware info		
СРИ Туре	:	Motorola MPC8540 ADS,
Flash Manufacturer	:	SanDisk SDCFJ-128
Flash size	:	128319488 bytes (122 MB),
RAM Manufacturer	:	0x00000040 - Other,
RAM size	:	268435456 bytes (256 MB),
NVRAM Battery OK ?	:	YES,
CPLD rev	:	0x6,
FPGA major rev	:	0x2,
FPGA minor rev	:	0x19,
uboot Version	:	6.4.3.479.R01,
uboot-miniboot Version	:	6.4.4.479.R01,
Backplane type	:	Regular mode,

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

Module in slot 1	
Model Name:	OS9700-24,
Description:	C24 10/100/1000,
Part Number:	902367-90,
Hardware Revision:	C15,
Serial Number:	G25Q0772,
Manufacture Date:	JUN 28 2006,
Firmware Version:	,
Admin Status:	POWER ON,
Operational Status:	UP,
Power Consumption:	51,
Power Control Checksum:	0xd872,
CPU Model Type :	Motorola MPC8540 ADS,
MAC Address:	00:d0:95:ec:d1:c8,
ASIC - Physical 1:	BCM56504_A1,

FPGA - Physical 1:	0005/00,
UBOOT Version :	6.4.3.479.R01,
UBOOT-miniboot Version :	No Miniboot,
POE SW Version :	n/a
Module in slot 2	
Model Name:	OS9700-U24,
Description:	U24 1000,
Part Number:	902370-10,
Hardware Revision:	C13,
Serial Number:	G0410042,
Manufacture Date:	FEB 23 2006,
Firmware Version:	,
Admin Status:	POWER ON,
Operational Status:	UP,
Power Consumption:	55,
Power Control Checksum:	0xb156,
CPU Model Type :	Motorola MPC8540 ADS,
MAC Address:	00:d0:95:e1:6e:7a,
ASIC - Physical 1:	BCM56504_A1,
FPGA - Physical 1:	0005/B9,
UBOOT Version :	6.4.3.479.R01,
UBOOT-miniboot Version :	No Miniboot,
POE SW Version :	n/a

Upgrade/Downgrade Software Matrix

Refer to the matrix below for software compatibility when upgrading/downgrading a 9000E Series Switch to/from Build 6.4.4.R01. 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.

	Upgrade/Downgrade Matrix											
		6.4.4.R01 GA										
	I = 6.4.4.R01 GA											
	F = 6.4.3.479.R01											
	Build and Supporte	d Software Versions For Ea	ch Upgrade									
	6.4.1 GA 6.4.2 GA 6.4.3 GA											
	I = 6.4.1.R01 I = 6.4.2.R01 I = 6.4.3.R01											
Model	F = 6.4.1.149.R01	F = 6.4.1.149.R01	F = 6.4.3.479.R01									
9000E	Yes	Yes	Yes									

Note. Hardware is only backward compatible down to the software that originally supported it. For example, the lowest software version that you can run on a 9000E Series Switch is 6.4.1.R01. Also, when downgrading, make sure to load the applicable U-Boot/Miniboot Files. For more information, contact Customer Support.

OmniSwitch 6855

Upgrading with WebView

Upgrading OS6855 Series Switches to 6.4.4.R01 using WebView consists of the following steps. If you are performing a U-Boot/Miniboot upgrade, the steps must be performed in order. You must complete the image file upgrade **before** upgrading the U-Boot and Miniboot files.

- **1** Upgrading the Image Files.
- **2** Upgrading the U-Boot and Miniboot Files, if necessary.

WARNING: If you are upgrading the U-boot and Miniboot, you **MUST** complete the image file upgrade **BEFORE** upgrading the U-Boot and Miniboot files. Please verify that the switch has been properly upgraded to 6.4.4.R01 before upgrading the U-boot and Miniboot.

Upgrading the Image Files

Follow the steps below to upgrade the image files to 6.4.4.R01.

- 1 Download the 6.4.4.R01 upgrade files from the Alcatel-Lucent Service and Support web site to your PC.
- **2** Log into the switch through WebView.

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 6.4.4.R01 image files that you downloaded in Step 1. Click on the Browse button to locate the files.
- **4** Select one of the files and click **Open**. All of the files will appear in the "Selected" area, as shown below.

@Webview- 10.255.1	1.153 - Windows Inter	net Explorer			_IO ×
🕒 🕘 🔹 🔊 Hittp: J	//10.255.11.153/web/con	tent/login.html		Scoole	P -
File Edit View Fav	vorites Tools Help				
😭 🐼 🍎 Webview	- 10.255.11.153			🐴 • 🔂 - 🖶 • 🔂 Pag	n • 🕜 Tools • *
Alcatel-Lucent			0+015/154_1/244_1	53 (10.255.11.153) Options Save Configuration Help Abo	View
Physical Sy	stem Mgmt Time D	ate/Zone + System	m Info File Management +	Install Images + Switch Logging + Snapshot	
Layer 2				Create Snapshot Apply Snap	pshot
Policy	Local Installat	tion			
Security	ile Transfer			View Images/Directory Contents	
Interfaces SNMP Net Montoring VVeb/Vew/Mgm1	Location of Archives: Available	C:Documents and Add > < Remove Add all +> << Remove All	Settings Browse Selected K2diag.img K2tiga.upgrade_ K2tos.img K2os.img K2os.img K2os.img K2os.img Kadrout.img Kbase.img Kbase.img Keni.img kminiboot.uboot Ksetu.img ku-boot bin	- <u>View Working Images</u> - <u>View Certified Images</u> - <u>View Working Directory</u> - <u>View Certified Directory</u> Install Images / Reload CMM Install Images Ins Reload CMM from Working ▼ Reload Update	tall
الني System Mgmt	Destination Directory:	Mash/working/	Transfer	- <u>Miniboot</u> - <u>U:boot</u> - <u>Uboot-Miniboot</u> - <u>FPGA</u> Help <u>Refresh</u>	

5 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: K2Ios.img, Kadvrout.img, Kbase.img, Kencrypt.img, Keni.img, Ksecu.img.

Webview- 10.3	255.11.153 - Windows Internet Explorer			
G 🕤 • 🖻	http://10.255.11.153/web/content/login.html		💌 🖅 🗙 Google	P •
File Edit View	Favorites Tools Help			6.
🙀 🏟 🙍 We	bview- 10.255.11.153		🟠 • 🖸 · 🖶 •	Page • 🕜 Tools • »
Alcatel-Lucen		0e015n5e_u24e_153 (1	0.255.11.153) Options Save Configuration)	WebView
Physical	System Mgmt Time/Date/Zone + System In	to File Management + Ins	tall Images + Switch Logging + S	napshot +
Layer 2		Local		
Networking	Local Installation			
Security	and the second se			100
System	File Transfer		View Images/Directory Content	ts
Interfaces	Location of Archives: C:Documents and Set Available Se K2diag.img K2diag.img K2diag.img K2diga.jm	tings Browse tected tos.img dvrout.img ase.img ni.img ecu.img	View Working Images View Certified Images View Working Directory View Certified Directory Install Images / Reload CMM	
Net Montoring	ku-boot bin miniboot2 backup miniboot2 defaut software.ism software2.ism software3.ism		Install Images Reload CMM from Working 💌	Reload
N			Update	
System Mgmt	Destination Directory: Mash/working/	Transfer	- <u>Miniboot</u> - <u>U-boot</u> - <u>Uboot-Miniboot</u> - EPGA Help Refresh	I
			Local intranet	* 100% • //

- **6** 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").
- 7 Reload the switch from the Working Directory. In the "Install Images/Reload CMM" area, select Working in 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 Select Physical > Chassis Mgmt > CMM > Management as shown below.

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icatel-Lucent			5n5a_u24x_153 (10 255 11 153) Options Save Configuration Help	About Telnet Log Ou
Physical	Chassis Stack + Har	dware CMM + Network Interfa	ces NI GBICs + Power + Fan Status MAC Address	+ Running Director
(m)	Hardware Software	e Management Hardware Componen	ı	
Hessis Mgm L	Reload P	rimary	In (bh:mm) 📄 : 🚺 At (bh:mm)	: <u> </u>
Health	Working Timeout	collback Minutes	In (bh:mm)	
COO 88 Ethenet	Cancel P	rimary 💌		
97	Software Manage	ment		
Ionacle Port	Certify/Restore Statu	s: Need to Certify		
	File System:	Need to Synchronize		
vascences	Write Memory	(Save Running -> Working On F Apply	² rimary)	
	Software Configuration	Version (Copy Working -> Cer Apply	tified On Primary)	
Layer 2	Tabaaaa	1222		
Networking	Takeover	ADDA		
Policy				
Security		Date	esh Helo	

10 In the Software Management field, select Copy Working -> Certified on Primary for standalone switches. For a stack, select Copy Working -> Certified & Synchronize with Secondary and click Apply. The switch will synchronize files from the working directory with all other stacks (if applicable). Wait for the synchronization process to complete on all switches before proceeding to the next step.

WARNING: DO NOT INTERRUPT the upgrade process until it is complete. Interruption of the process will result in an unrecoverable failure condition.

Upgrading the U-Boot and Miniboot Files

Follow the steps below to upgrade the U-Boot and Miniboot Files, if necessary. U-Boot and Miniboot version **6.4.3.479.R01** is **required** for the 6.4.4.R01 upgrade.

WARNING: If you are upgrading the U-boot and Miniboot, you **MUST** complete the image file upgrade **BEFORE** upgrading the U-Boot and Miniboot files. Please verify that the switch has been properly upgraded to 6.4.4.R01 before upgrading the U-boot and Miniboot.

- 1 Download the applicable U-Boot/Miniboot files from the Alcatel-Lucent Service and Support web site to your PC (**ku-boot.bin** and **k2Iminiboot.uboot**).
- **2** Log into the switch through WebView.

Note. If you have not already done so, 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 6.4.4.R01 image files that you downloaded in Step 1. Click on the **Browse** button to locate the files.
- **4** Select one of the files and click **Open**. All of the files will appear in the "Selected" area, as shown below.



5 Click on the **Remove All** button to move all of the files to the "Available" area, then select the **kuboot.bin** file and the **k2Iminiboot.uboot** file and click the **Add** button to move them to the "Selected" area as shown below.

Webview- 10.2	255.11.153 - Windows Inter	rnet Explorer				
G 🔾 • 🔊	http://10.255.11.153/web/cor	ntent/login.html			💌 🐓 🛪 Google	2.
File Edit View	Favorites Tools Help					Q -
👷 🐼 🍎 We	bview- 10.255.11.153				☆・ □・ ∉	• 🕑 Page • 🕥 Tools • 39
Alcatel-Lucent			6+8150	5a_424a_153 (10	0 255.11.153) Options Save Configuration	WebView
Physical	System Mgmt Time1	Date/Zone + System Ir	nto File Manag	ement i Inst	all Images + Switch Logging +	Snapshot +
Layer 2				Logging Output	Change Logging Levels Log File Te	ch-Support
Networking	Local Installa	tion				
Security						960mm
System	File Transfer				View Images/Directory Conte	ents
A		1	-		 View Working Images 	
	Location of Archives:	C:Documents and Se	tings Browse		 View Certified Images 	
Intertaces	Available	S	elected		 View Working Directory 	
SHAP	K2ldlag.img K2lfbga.upgrade_ K2os.img K2otg.img Kencrypt.img Kminiboot.uboot	Add > < Remove	-boot bin		Install Images / Reload CMM	
Net Montoring	miniboot2.backup	Add all >>			Install Images	Install
e	software2.ism software3.ism	<< Remove All			Reload CMM from Working	Reload
	Kadwoutimg				Update	
فين	Kbase.img				- Miniboot	
System Mgmt		1			- U-boot	
	Destination Directory:	Mash		1	- Uboot-Miniboot	
		11	- Transfer		- EPGA	
			*		Help Refres	h
					Local intrane	t 100% •

6 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").

STOP: If you have **not** already completed the Upgrade Image section, **DO NOT CONTINUE.** Complete the Image File upgrade before returning to this section to complete the Uboot/Miniboot upgrade.

7 In the "Update" area, click on <u>Uboot-Miniboot</u>, then click **OK** at the confirmation prompt to upgrade the Uboot and Miniboot files. 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."

WARNING: DO NOT INTERRUPT the upgrade process until it is complete. Interruption of the process will result in an unrecoverable failure condition.

8 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.

9 After verifying that the upgrade was successful, delete the K2Iminiboot.uboot and ku-boot.bin files from the Flash Directory by selecting System > System Mgmt > File Management > Local, as shown below.

LOR VIEW	Favorites To	ols Help		1 1				0 - D - A - Dom-	E)
Or OWS	Dview- 10.255.11	.153	Providence			_			1005
atel-Lucen	t 🕖 📃	Es de la			Gebt	inta_u24a_1	153 (10.255.11.153) Ontines 1	WebV	iew 4
Physical	System Mgm	t Time Dated	Zone .	System Info	File Man	gement i	Install Images Sw	itch Logging + Snapshot +	Address of Decks. A
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etworking	System	File Manager	ment						
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6		working	4090	Deed Minte	Sep 2 23.40	-	Make Read-Only	Make Read-Only	
2	- E	evolution and	4006	ReadWrite	Sep 3.02.04	1	Make Writeable	Make Writeable	
INMP		swinet ine	64000	Dead/Write	Sep 3.02:03		Delete Files With Same Extension	Move	
	- E	swips2 los	64000	Read/Write	Sep 2 02:14	3	Extension	Recursive Copy	
		network	4096	Read/Write	Feb 16 20-56	S.		Recursive Delete	
Montoring	L 18	boot slot cfp	25	Read/Write	Jul 15 2000		Archive Operations		
respondent i t	- 12 E	installed	20	Read/Write	Sep 2 22:17		Backup		
100	1 i E	random-seed	256	Read/Write	Jul 22 2000		Restore TETP Operations		
View Mrsm 1		boot.cfg.1.err	356	Read/Write	Sep 1 18:49	13	Get		
	1 I I I I I I I I I I I I I I I I I I I	k2iminiboot uboot	820990	Read/Write	Sep 3 02:02		Put		
15 ₁ .	F	ku-boot bin	227860	Read/Write	Sep 3 02:02		12/2		
-3	1000						Free space:	60424192 bytes	
aen egni							Flash size:	134217728 Dytes	
					Re	freeh	Help		
					100	nean	1 Marth		

10 Check the box next to the ku-boot.bin file, select **Delete** in the **File Operations** box, then click **OK** at the confirmation prompt. Repeat to delete the k2Iminiboot.uboot file.

Verifying the Upgrade

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.

File Edit View Fare Favorites Web Alcatel-Lucent Physical Sys Layer 2 Networking Policy Security System File System	orites Tools He wiew-10.255.11.15 wiew Mgmt Ta coaded Ima Version V 6.4.4.342.R01 6.4.4.342.R01 6.4.4.342.R01 6.4.4.342.R01 6.4.4.342.R01	b 3 The Date/Zone Age Files Name V K2los.img Kadvrout.img Kbase.img	CeetionSe_u24x_153 (System Info File Management + Ins Description V Alcatel-Lucent OS Alcatel-Lucent Advanced Routing Alcatel-Lucent Rose Software	()	Option 5		• Tools • 💽 • * bView - D ^e out : Telnet Log Out
Favorites Web Alcatel-Lucent Physical Sys Layer 2 Networking Policy Socurty System Fight Res Policy System	oview-10.255.11.15 stem Mgmt Tu coaded Ima Version ♥ 6.4.4.342.R01 6.4.4.342.R01 6.4.4.342.R01 6.4.4.342.R01	age Files Name V K2los.img Kadvrout.img Kbase.img	CeationSe_u244_123 (System Info File Management + Ins Description V Alcatel-Lucent OS Alcatel-Lucent Advanced Routing Alcatel-Lucent Advanced Routing	(10.205.11.153) tali image Size 1901586 2851329		Int - Page - Safety - Wet Save Configuration Help Abs Switch Logging + Snapsho	Tools • ♥ • [×] bView № out Telmet Log Out It
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Layer 2 Networking Policy Security System	Oaded Ima Version V 6.4.4.342.R01 6.4.4.342.R01 6.4.4.342.R01 6.4.4.342.R01 6.4.4.342.R01	Name V K2los.img Kadvrout.img Kbase.img	Description V Alcatel-Lucent OS Alcatel-Lucent Advanced Routing	Size 1901586 2851329	5		
Networking Policy Security System	Version V 6.4.4.342 R01 6.4.4.342 R01 6.4.4.342 R01 6.4.4.342 R01 6.4.4.342 R01	Name V K2los.img Kadvrout.img Kbase.img	Description V Alcatel-Lucent OS Alcatel-Lucent Advanced Routing	Size 1901586 2851329	5		
Policy Security System	Version V 6.4.4.342.R01 6.4.4.342.R01 6.4.4.342.R01 6.4.4.342.R01 6.4.4.342.R01	Name V K2los.img Kadvrout.img Kbase.img	Description V Alcatel-Lucent OS Alcatel-Lucent Advanced Routing	Size 1901586 2851329	5		
Statem	Version V 6.4.4.342 R01 6.4.4.342 R01 6.4.4.342 R01 6.4.4.342 R01	Name V K2los.img Kadvrout.img Kbase.img	Description V Alcatel-Lucent OS Alcatel-Lucent Advanced Routing	Size 1901586 2851329	SE		
	6.4.4.342 R01 6.4.4.342 R01 6.4.4.342 R01 6.4.4.342 R01	K2los.img Kadvrout.img Kbase.img	Alcatel-Lucent OS Alcatel-Lucent Advanced Routing	1901586 2851329	-		
Interfaces	6.4.4.342 R01 6.4.4.342 R01 6.4.4.342 R01 6.4.4.342 R01	Kadvrout.img Kbase.img	Alcatel-Lucent Advanced Routing	2851329			
Interfaces	6.4.4.342 R01 6.4.4.342 R01	Kbase img	Alcatel usent Base Software				
E SIMP	6.4.4.342 R01	riessering		17498732			
SNMP	0.4.4.9.4E.140.1	Kencrypt ima	Alcatel-Lucent Encryption Management	3437			
22	6.4.4.342 R01	Keni ima	Alcatel-Lucent NI software	5469336			
22	6.4.4.342 R01	Ksecu img	Alcatel-Lucent Security Management	607217			
			,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,,		_		
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Charles and a state of the	Refresh	Help					
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GALIC							
SAA							

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.

Verifying the U-Boot and Miniboot Upgrade

To verify that the U-Boot and Miniboot files were successfully upgraded, go to the **Network Interfaces** page by selecting **Physical** > **Chassis Mgmt** > **Network Interfaces**, as shown below. Scroll right to the **Uboot Version** and **Miniboot Version** columns for the switch(es). Information for each switch in a stack (if applicable) is displayed.

Webview- 10.2	255.1	1.153	- Windows	Internet	Explorer										_1012
G 🕘 🕫 🖻	http:	//10-2	55.11.153/-	isb/content	t/logn.html						-	4 × 60	ng		۵.
He Edit View	Fa	vorites	Tools H	telp											
Favorites	We	ebview	10.255.11.	153								6 · 6	- 📑 🙀 - Page	• • Safety •	Tools - 🕡 -
Alcatel-Lucent		0						Gelli	5n5e_u24e_15	a (10 25	5.11.153.)	Options (Save Configuration	Web\	Telnet Log Out
Physical	Ch	hassis	s Stack	+ Hard	ware Cl	M + Netw	ork Inter	faces	MI GBICs +	Power	r + Fan	Status MA	C Address + Ru	nning Direct	ory
Chassis Mgm1	N	etw	ork Inte	erface	s										
Teatr			Slot Number	Model Type	Model Name	Part Number	Admin Status	Oper Status	Reload on Takeover	OK1 LED Status	Power	Description	ASIC Revision	CPLD Revision	Uboot Version
Concent 6 6		Г	1	Module	O\$6855- U24X	902757-	Power On	Up	Enabled	Green On •	0	24 SFP+2 RJ45+10G	BCM56512_A0	0034/00	6.4.3.479.R0
in		Г	2	Module	OS6855- U24X	902757- 90	Power On	Up	Enabled	Green On •	٥	24 SFP+2 RJ45+10G	BCM56512_A0	0034/00	6.4.3.479.R01
		Re	Noad NI		Reload A	LL NIs	F	≷eftesh	Help						
Layer 2 Networking Policy Security															
System	4							_		-					

Upgrading with the CLI

Upgrading OS6855 Series Switches to 6.4.4.R01 using the CLI consists of the following steps. If you are performing a U-Boot/Miniboot upgrade, the steps must be performed in order. You must complete the image file upgrade **before** upgrading the U-Boot and Miniboot files.

- **1** Upgrading the Image Files.
- **2** Upgrading the U-Boot and Miniboot Files, if necessary.

WARNING: If you are upgrading the U-boot and Miniboot, you **MUST** complete the image file upgrade **BEFORE** upgrading the U-Boot and Miniboot files. Please verify that the switch has been properly upgraded to 6.4.4.R01 before upgrading the U-boot and Miniboot.

Upgrading the Image Files

Follow the steps below to upgrade the image files to 6.4.4.R01.

- 1 Download the 6.4.4.R01 upgrade files from the Alcatel-Lucent Service and Support web site to your PC.
- 2 FTP the following 6.4.4.R01 image files to the /flash/working directory of the primary switch: K2Ios.img, Kadvrout.img, Kbase.img, Kencrypt.ing, Keni.img, Ksecu.img.

- **3** Log into the switch. In dual redundant configurations you must log into the primary switch.
- **4** Reload the switch from the working directory.
 - -> reload working no rollback-timeout
- **5** After the switch finishes rebooting, log into the switch.
- **6** Copy the image files from the Working Directory to the Certified Directory.
 - If you have a **standalone** switch enter:
 - -> copy working certified
 - If you have a stack 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). Wait for the process to complete.

WARNING: DO NOT INTERRUPT the upgrade process until it is complete. Interruption of the process will result in an unrecoverable failure condition.

Upgrading the U-Boot and Miniboot Files

Follow the steps below to upgrade the U-Boot and Miniboot Files, if necessary. U-Boot and Miniboot version **6.4.3.479.R01** is **required** for the 6.4.4.R01 upgrade.

WARNING: If you are upgrading the U-boot and Miniboot, you **MUST** complete the image file upgrade **BEFORE** upgrading the U-Boot and Miniboot files. Please verify that the switch has been properly upgraded to 6.4.4.R01 before upgrading the U-boot and Miniboot.

- 1 Download the applicable U-Boot/Miniboot files from the Alcatel-Lucent Service and Support web site to your PC (ku-boot.bin and k2Iminiboot.uboot).
- 2 FTP the **ku-boot.bin** and **k2Iminiboot.uboot** files to the **/flash** directory on the primary switch.

STOP: If you have **not** already completed the Upgrade Image section, **DO NOT CONTINUE.** Complete the Image File upgrade before returning to this section to complete the Uboot/Miniboot upgrade.

3 Execute the following CLI commands to update the Miniboot and U-Boot files on the switch(es) (can be a standalone or stack).

```
-> update uboot-miniboot
WED APR 20 14:19:34 : SYSTEM (75) info message:
+++ ---->SSACTION_UPDATE_UBOOT_MINIBOOT
WED APR 20 14:19:34 : CSM-CHASSIS (103) info message:
+++ == CSM == Application & Watchdog Monitoring Stopped
+++ == CSM == Update bootrom on all slots
+++ == CSM == sysUpdate begin
Allocating temporary buffer for bootrom image...
```

Reading bootrom image into temporary buffer... Writing bootrom to boot sectors of flash... Writing size 131072 bytes at 0xfff00000 Writing size 96740 bytes at 0xfff20000 Verifying bootrom sectors of flash... Bootrom updated!!! Allocating temporary buffer for checksuming miniboot image... Reading miniboot image into temporary buffer... Writing miniboot(828609 bytes) to boot sectors of flash... Writing 131072 bytes at 0xff900000 Writing 131072 bytes at 0xff920000 Writing 131072 bytes at 0xff940000 Writing 131072 bytes at 0xff960000 Writing 131072 bytes at 0xff980000 Writing 131072 bytes at 0xff9a0000 Writing 42177 bytes at 0xff9c0000 Verifying miniboot sectors of flash... Default miniboot updated !!! sysStartWatchdog() Starting watchdog timer to INTERRUPT after 60 secs. WED APR 20 14:19:51 : CSM-CHASSIS (103) info message: +++ == CSM == timer r:simplex---- session end ----+++ == CSM == UPDATE COMPLETED +++ == CSM == Application & Watchdog Monitoring Started

WARNING: DO NOT INTERRUPT the upgrade process until it is complete. Interruption of the process will result in an unrecoverable failure condition.

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

-> reload working no rollback-timeout

The upgrade is now complete. See Verifying the Upgrade with the CLI, below, for information on verifying the upgrade.

Verifying the Upgrade with the CLI

Verifying the Software Upgrade

To verify that the software was successfully upgraded to 6.4.4.R01, use the **show microcode** command as shown below. The display below shows a successful image file upgrade.

-> show microcode

Package	Release	Size	Description	
		18106560		
Kbase.1mg	6.4.4.342.RUI	1/126563	Alcatel-Lucent	Base Soltware
Kadvrout.img	6.4.4.342.R01	2810182	Alcatel-Lucent	Advanced Routing
K2Ios.img	6.4.4.342.R01	1773242	Alcatel-Lucent	OS
Keni.img	6.4.4.342.R01	5604309	Alcatel-Lucent	NI software
Ksecu.img	6.4.4.342.R01	606113	Alcatel-Lucent	Security Management
Kencrypt.img	6.4.4.342.R01	3437	Alcatel-Lucent	Encryption Management

Verifying the U-Boot and Miniboot Upgrade

To verify that the U-Boot and Miniboot files were successfully upgraded, use the **show ni** command as shown below. Information for each switch in a stack (if applicable) is displayed.

```
-> show ni
Module in slot 1
  Model Name:
                                  OS6855-U24X,
  Description:
                                   24 SFP+2 RJ45+10G,
  Current mode of 10G ports:
                                   stacking,
  Mode of 10G ports at next boot:stacking,
  Part Number:
                                   902757-90,
  Hardware Revision:
                                  A04,
  Serial Number:
                                  K07Q0210,
  Manufacture Date:
                                  FED 23 2009,
  Firmware Version:
                                   ,
  Admin Status:
                                   POWER ON,
  Operational Status:
                                   UP,
  Power Consumption:
                                   Ο,
  Power Control Checksum:
                                   0x8814,
  CPU Model Type
                                   Freescale MPC8247 ADS,
                    :
```

DOF SW Version :	n/a
UBOOT-miniboot Version :	6.4.3.479.R01,
UBOOT Version :	6.4.3.479.R01,
FPGA - Physical 1:	2.2,
ASIC - Physical 1:	BCM56512_A0,
MAC Address:	00:e0:b1:b6:7d:f7

Upgrade/Downgrade Software Matrix

Refer to the matrix below for software compatibility when upgrading/downgrading a 6855 Series Switch to/from Build 6.4.4.R01. 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.

	Upgrade/Downgrade Matrix								
6.4.4.R01 GA									
	I = 6.4.4.R01 GA								
	F = 6.4.3.479.R01								
	Build and Su	pported Software Ve	rsions For Each Up	grade					
	6.3.2 GA	6.3.4 GA	6.4.2 GA	6.4.3 GA					
	l = 6.3.2.R01	I = 6.3.4.R01	I = 6.4.2.R01	I = 6.4.3.R01					
Model	F = 6.3.2.86.R01	F = 6.3.4.265.R01	F = 6.4.2.316.R01	F = 6.4.3.265.R01					
6855	Yes	Yes	Yes	Yes					

Note. Hardware is only backward compatible down to the software that originally supported it. For example, the lowest software version that you can run on a 6855 Series Switch is 6.3.2.R01. Also, when downgrading, make sure to load the applicable U-Boot/Miniboot files. For more information, contact Customer Support.

OmniSwitch 6850

Upgrading with WebView

Upgrading OS6850 Series Switches to 6.4.4.R01 consists of the following steps. If you are performing a U-Boot/Miniboot upgrade, the steps must be performed in order. You must complete the image file upgrade **before** upgrading the U-Boot and Miniboot files.

- **1** Upgrading the Image Files.
- **2** Upgrading the U-Boot and Miniboot Files, if necessary.

WARNING: If you are upgrading the U-boot and Miniboot, you **MUST** complete the image file upgrade **BEFORE** upgrading the U-Boot and Miniboot files. Please verify that the switch has been properly upgraded to 6.4.4.R01 before upgrading the U-boot and Miniboot.

WARNING: If you intend to run in a mixed OS6850/OS6850E stacked evironment you must first upgrade the existing OS6850 switches **before** adding the OS6850E to the stack. Additionally, it's recommended that the OS6850 switches be upgraded to U-Boot/Miniboot version **6.4.4.213.R01** to match the OS6850E switches.

WARNING: In a mixed OS6850/OS6850E stack environment with an OS6850 as the primary element, do not attempt to upgrade the miniboot/uboot for all elements at the same time by using the 'all' parameter of the 'update' command unless the Primary OS6850 miniboot/uboot has been upgraded to 6.4.4.213.R01 which is the minimum supported on the OS6850E switches.

WARNING: In a mixed OS6850/OS6850E stack environment never attempt an FPGA upgrade for all devices at the same time by using the 'all' parameter of the 'update' command. This will cause all stack elements to use the FPGA version of the Primary device, which is not compatible between models.

Upgrading the Image Files

Follow the steps below to upgrade the image files to 6.4.4.R01.

- 1 Download the 6.4.4.R01 upgrade 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 6.4.4.R01 image files that you downloaded in Step 1. Click on the Browse button to locate the files.
- **4** Select one of the files and click **Open**. All of the files will appear in the "Selected" area, as shown below.

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Physical	System Mgmt Time/Date/Z	one • System Info File Management	+ Install Images + Switch Logging + Snapshot +	
Layer 2 Networking Policy	Local Installation	R.		
Security	File Transfer		View Images/Directory Contents	
System	Location of Archives: C10	ocuments and Setting Browse	- <u>View Working Images</u> - <u>View Certified Images</u>	_
SIMP	Available	Add > K2los.img K2lding.img K2lding.img K2lding.ungrade K2lminiboot.uboc K2lminiboot.uboc K2ls.img	View Certified Directory	
Net Monitoring	×	Remove K2otg.img Kadwout.img	Install Images / Reload CMM	
Ģ	***	Remove All Keni img kminiboot uboot	Reload CMM from Working - Reload	f.
Di-		ku-boot bin miniboot2 backur •	Update on slot 1 💌	
Sustem Mont			- <u>Miniboot</u>	
System mynn	Destination Directory Mast	v/working/	- Uboat-Minibaot	
		Transfer	- Lanpower	
		<u>*</u>	Help Refresh	
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5 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: K2os.img, Kadvrout.img, Kbase.img, Kencrypt.img, Keni.img, Ksecu.img.

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Layer 2						
Networking	Local Installat	tion				
Security						
System	File Transfer			View Image	s/Directory Contents	
1	Location of Archives:	C:\Documents and	Setting Browse	 <u>View Workin</u> <u>View Certifie</u> 	g Images d Images	
Interfaces	Available		Selected	 View Working 	g Directory	
E SNMP	K2diag.img K2ldiag.img K2lfpga.upgrade_kif k2lminiboot.uboot K2los.img	Add >	K20s.img Kadwout.img Kbase.img Kencrypt.img Keni.img Ksecu.img	- <u>View Certifie</u>	d Directory	
Net Mantarian	kminiboot.uboot ku-boot.bin	< Remove		Install Imag	es / Reload CMM	
	miniboot2.backup	Add all >>		Install Images		Install
Vieto View Marto 1	software2.lsm	<< Remove All		Reload CMM	from Working	Reload
	sottware3.1sm			Update on s	lot 1 💌	
Ľ,				- Miniboot		
System Mgmt				- U-boot		
	Destination Directory:	/flash/working/		- Uboot-Minibe	oot	
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- 6 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").
- 7 Reload the switch from the Working Directory. In the "Install Images/Reload CMM" area, select Working in 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 Select Physical > Chassis Mgmt > CMM > Management as shown below.

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Console Port	Certify/Restore Status:	Software Certified		
	File System:	Synchronized		
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Lever 2	T			
Networking	Takeover	Apply		
Policy				
Security		De	Holp	
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10 In the Software Management field, select Copy Working -> Certified on Primary for standalone switches. For a stack, select Copy Working -> Certified & Synchronize with Secondary and click Apply. The switch will synchronize files from the working directory with all other stacks (if applicable). Wait for the synchronization process to complete on all switches before proceeding to the next step.

WARNING: DO NOT INTERRUPT the upgrade process until it is complete. Interruption of the process will result in an unrecoverable failure condition.

Upgrading the U-Boot and Miniboot Files

Follow the steps below to upgrade the U-Boot and Miniboot Files, if necessary. U-Boot and Miniboot version **6.4.3.479.R01** is **required** for the 6.4.4.R01 upgrade and version **6.4.4.213.R01** is **recommended** in a mixed OS6850/OS6850E stacked environment.

WARNING: If you are upgrading the U-boot and Miniboot, you **MUST** complete the image file upgrade **BEFORE** upgrading the U-Boot and Miniboot files. Please verify that the switch has been properly upgraded to 6.4.4.R01 before upgrading the U-boot and Miniboot.

WARNING: If you intend to run in a mixed OS6850/OS6850E stacked evironment you must first upgrade the existing OS6850 switches **before** adding the 6850E to the stack. Additionally, it's recommended that the OS6850 switches be upgraded to U-Boot/Miniboot version **6.4.4.213.R01** to match the OS6850E switches.

WARNING: In a mixed OS6850/OS6850E stack environment with an OS6850 as the primary element, do not attempt to upgrade the miniboot/uboot for all elements at the same time by using the 'all' parameter of the 'update' command unless the Primary OS6850 miniboot/uboot has been upgraded to **6.4.4.213.R01** which is the minimum supported on the OS6850E switches.

WARNING: In a mixed OS6850/OS6850E stack environment never attempt an FPGA upgrade for all devices at the same time by using the 'all' parameter of the 'update' command. This will cause all stack devices to use the FPGA version of the Primary device, which is not compatible with both models.

- 1 Download the applicable upgrade 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. If you have not already done so, 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 6.4.4.R01 image files that you downloaded in Step 1. Click on the Browse button to locate the files.
- **4** Select one of the files and click **Open**. All of the files will appear in the "Selected" area, as shown below.

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Physical	System Mgmt Time/Date/Zon	e i System Info File Management	+ Install Images + Switch Logging + Snape	shot)
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Security	File Transfer		View Images/Directory Contents	
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System Mgml	Destination Directory. Mash/	vorking/ Transfer	- <u>U-boot</u> - <u>Uboot-Miniboot</u> - <u>Lanpower</u> Help Refresh	
الغ System Mgmt	Destination Directory: Mash/	vorking/	- <u>Miniboot</u> - <u>U-baot</u> - <u>Uboot-Miniboot</u> - <u>Lanpower</u> Help Refresh	*, 100%

5 Click on the **Remove All** button to move all of the files to the "Available" area, then select the **ku-boot.bin** file and the **kminiboot.uboot** file and click the **Add** button to move them to the "Selected"

area as shown below.

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tworking	Local Installation			
ncurity	er Mannarauseuse			
ystem	File Transfer		View Images/Directory Contents	
-		and Collins Downey	- View Working Images	
* *	Location of Archives. C. Documents a	and Semut Blowse	- View Certified Images	
erfaces	Available	Selected	- View Working Directory	
8	K2diag.img	kminiboot uboot	- View Certified Directory	
	K2lfpga.upgrade_			
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2	K2os.img < Remove		Install Images / Reload CMM	
	Kadvrout.img		Instantininges / Reford Chini	and the second
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	Keni.img << Remove All	E E	Reload CMM from Working - Re	beole
/ew Marn t	Kseculing minihoot2 backur	·		
	miniboot2.defaul		Update on slot 1 -	
5.,	software.lsm		- Miniboot	
m Mgml			- U-boot	
	Destination Directory: Mash		- Uboot-Miniboot	
		A Transfer	- Lanpower	
		Transfer		
		*	Help Refresh	
			rish rishean	

6 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").

STOP: If you have **not** already completed the Upgrade Image section, **DO NOT CONTINUE.** Complete the Image File upgrade before returning to this section to complete the Uboot/Miniboot upgrade.

7 In the "Update on slot" area, select the slot number of the switch you want to update (or select "All" to update all switches in the stack), click on <u>Uboot-Miniboot</u>, then click OK at the confirmation prompt. 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."

WARNING: DO NOT INTERRUPT the upgrade process until it is complete. Interruption of the process will result in an unrecoverable failure condition.

8 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.

9 After verifying that the upgrade was successful, delete the miniboot.uboot and ku-boot.bin files from the Flash Directory by selecting System > System Mgmt > File Management > Local, as shown below.

ss 📳 http://	10.255.13.4	1/web/content/lo	gin.html			_		
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uniosi I	-		-	N CORDO			Options Sav	e Configuration Help About Telnet
syer 2	System	Agimit Lime 4	vate/2006	e i Syste	minto Hie	Managem	ent i Instali Images i	Switch Logging + Shapshot
working					Local Memo	te		
olicy	Syster	m File Mana	gemer	nt				
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▲]K	E	Hame	Size	Access	Date	5	File Operations	Directory Operations
ertaces	E.	certified	512	Readwine	Dec 14 10:33	-	Move	Refresh
(s).		boot params	340	Read/write	Dec 15 10:27	8	Delete	Create
3	F	working	512	ReadWrite	Dec 14 10:32		Copy	Delete
NMP	Г	boot.slot.cfg	11	ReadWitte	Dec 18 2005	5	Make Materials	Make Nead-Uniy Make Wittashia
14	Г	Swiog1 Jog	64000	ReadWhite	Dec 15 10:28		Delete Files With Sene	Move
1 A	Г	network	512	ReadWrite	Oct 10 09:27		Extension	
Kontorna	Г	boot.cfg.1.err	687	ReadWitte	Dec 15 10:27			Recursive Copy
100000200	Г	kminiboot.uboot	796430	ReadWhite	Dec 17 17:04		and a second	Recursive Delete
		switch	512	ReadWhite	Dec 17 17:02		Archive Operations	
55-	Г	swiog2.log	64000	ReadMinte	Dec 17 17:04		Backup	
new Mgm I		ku-boot.bin	219516	ReadWhite	Dec 17 17:04	16	TFTP Operations	
8.	Г	installed	20	ReadWhite	Dec 14 10:27		Get	
	Г	random-seed	256	ReadWitte	Aug 7 17:29		Put	
em Mgmt	0						is and	
							Free space:	4608 bytes
							Flash size:	64094208 bytes

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

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.

🛃 Webview- 10.2	55.13.41 - Microsoft Ir	nternet Explorer	provided by Alcatel-Lucent			×
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G Back + 🕤	- 🖹 🖻 🏠 .	🔎 Search ל	Favorites 🚱 🍰 🍑 🗔 - 🦲	12 8		
Address 🔊 http://	10.255.13.41/web/conter	nt/login.html			💌 🎒 Go 🛛 Links	39
Alcatel-Lucent	0	6	vicTarget (10 255.13.4	1) Options Sar	WebView	2
Physical	System Mgmt Tir	me:Date/Zone	System Info File Management + Ins	tall Image	jes + Switch Logging + Snapshot +	
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	6.4.4.342.R01	Kaduraut ima	Alcatel Lucent Advanced Pauling	2064072		
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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.

Verifying the U-Boot and Miniboot Upgrade

To verify that the U-Boot and Miniboot files were successfully upgraded, go to the **Network Interfaces** page by selecting **Physical** > **Chassis Mgmt** > **Network Interfaces**, as shown below. Scroll right to the **Uboot Version** and **Miniboot Version** columns for the switch(es). Information for each switch in a stack (if applicable) is displayed.

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emet	г	1	Module	0/36850- 24X	902458- 40	Power On	Up	Disabled	Green On •	56	24 G + 2 10 G	BCM56504_B2	0018/00	6.4.3.479
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Upgrading with the CLI

Upgrading OS6850 Series Switches to 6.4.4.R01 consists of the following steps. If you are performing a U-Boot/Miniboot upgrade, the steps must be performed in order. You must complete the image file upgrade **before** upgrading the U-Boot and Miniboot files.

- **1** Upgrading the Image Files.
- **2** Upgrading the U-Boot and Miniboot Files, if necessary.

WARNING: If you are upgrading the U-boot and Miniboot, you **MUST** complete the image file upgrade **BEFORE** upgrading the U-Boot and Miniboot files. Please verify that the switch has been properly upgraded to 6.4.4.R01 before upgrading the U-boot and Miniboot.

WARNING: If you intend to run in a mixed OS6850/OS6850E stacked evironment you must first upgrade the existing OS6850 switches **before** adding the 6850E to the stack. Additionally, it's recommended that the OS6850 switches be upgraded to U-Boot/Miniboot version **6.4.4.213** to match the OS6850E switches.

WARNING: In a mixed OS6850/OS6850E stack environment with an OS6850 as the primary element, do not attempt to upgrade the miniboot/uboot for all elements at the same time by using the 'all' parameter of the 'update' command unless the Primary OS6850 miniboot/uboot has been upgraded to **6.4.4.213** which is the minimum supported on the OS6850E switches.

WARNING: In a mixed OS6850/OS6850E stack environment never attempt an FPGA upgrade for all devices at the same time by using the 'all' parameter of the 'update' command. This will cause all stack devices to use the FPGA version of the Primary device, which is not compatible with both models.

Upgrading the Image Files

Follow the steps below to upgrade the image files to 6.4.4.R01.

- 1 Download the 6.4.4.R01 upgrade files from the Alcatel-Lucent Service and Support web site to your PC.
- 2 FTP the following 6.4.4.R01 image files to the /flash/working directory of the primary switch: K2os.img, Kadvrout.img, Kbase.img, Kencrypt.img, Keni.img, Ksecu.img.
- **3** Log into the switch. In dual redundant configurations you must log into the primary switch.
- **4** Reload the switch from the working directory.
 - -> reload working no rollback-timeout
- **5** After the switch finishes rebooting, log into the switch.
- **6** Copy the image files from the Working Directory to the Certified Directory.
 - If you have a **standalone** switch enter:
 - -> copy working certified
 - If you have **a stack** 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). Wait for the process to complete.

WARNING: DO NOT INTERRUPT the upgrade process until it is complete. Interruption of the process will result in an unrecoverable failure condition

Upgrading the U-Boot and Miniboot Files

Follow the steps below to upgrade the U-Boot and Miniboot Files, if necessary. U-Boot and Miniboot version **6.4.3.479.R01** is **required** for the 6.4.4.R01 upgrade and version **6.4.4.213.R01** is **recommended** in a mixed OS6850/OS6850E stacked environment.

WARNING: If you are upgrading the U-boot and Miniboot, you **MUST** complete the image file upgrade **BEFORE** upgrading the U-Boot and Miniboot files. Please verify that the switch has been properly upgraded to 6.4.4.R01 before upgrading the U-boot and Miniboot.

WARNING: If you intend to run in a mixed OS6850/OS6850E stacked evironment you must first upgrade the existing OS6850 switches **before** adding the 6850E to the stack. Additionally, it's recommended that the OS6850 switches be upgraded to U-Boot/Miniboot version **6.4.4.213** to match the OS6850E switches.

WARNING: In a mixed OS6850/OS6850E stack environment with an OS6850 as the primary element, do not attempt to upgrade the miniboot/uboot for all elements at the same time by using the 'all' parameter of the 'update' command unless the Primary OS6850 miniboot/uboot has been upgraded to **6.4.4.213** which is the minimum supported on the OS6850E switches.

WARNING: In a mixed OS6850/OS6850E stack environment never attempt an FPGA upgrade for all devices at the same time by using the 'all' parameter of the 'update' command. This will cause all stack devices to use the FPGA version of the Primary device, which is not compatible with both models.

- 1 Download the applicable upgrade files from the Alcatel-Lucent Service and Support web site to your PC.
- 2 FTP the **ku-boot.bin** and **kminiboot.uboot** files to the **/flash** directory on the primary switch.

STOP: If you have **not** already completed the Upgrade Image section, **DO NOT CONTINUE.** Complete the Image File upgrade before returning to this section to complete the Uboot/Miniboot upgrade.

3 Execute the following CLI command to update the Miniboot and U-Boot files on the switch(es) (can be a standalone or stack).

-> update uboot-miniboot

Sample output for "update uboot-miniboot" for a stack of 2

WED APR 20 10:58:52 : SYSTEM (75) info message: +++ ---->SSACTION_UPDATE_UBOOT_MINIBOOT WED APR 20 10:58:52 : CSM-CHASSIS (103) info message: +++ == CSM == Update bootrom on all slots +++ == CSM == sysUpdate begin WED APR 20 10:58:54 : SYSTEM (75) info message: +++ NI 1 software update started Erasing flash.. Writing flash ... Done WED APR 20 10:58:59 : SYSTEM (75) info message: +++ NI 1 software update completed -- file /flash/ku-boot.bin copied +++ NI 1 software update started Erasing flash..... Writing flash..... Done WED APR 20 10:59:14 : SYSTEM (75) info message: +++ NI 1 software update completed -- file /flash/kminiboot.uboot copied +++ NI 2 software update started WED APR 20 10:59:19 : SYSTEM (75) info message: +++ NI 2 software update completed -- file /flash/ku-boot.bin copied

WED APR 20 11:01:23 : CSM-CHASSIS (103) info message: +++ == CSM == sysUpdate end +++ == CSM == timer_r:simplex---- session end ----+++ == CSM == UPDATE COMPLETED

WARNING: DO NOT INTERRUPT the upgrade process until it is complete. Interruption of the process will result in an unrecoverable failure condition.

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

-> reload working no rollback-timeout

The upgrade is now complete.

Verifying the Upgrade with the CLI

Verifying the Software Upgrade

To verify that the software was successfully upgraded to 6.4.4.R01, use the **show microcode** command as shown below. The display below shows a successful image file upgrade.

-> show microcode

Package	Release	Size	Description	
Kbase.img	6.4.4.342.R01	17129458	Alcatel-Lucent	Base Software
Kadvrout.img	6.4.4.342.R01	2810592	Alcatel-Lucent	Advanced Routing
K2os.img	6.4.4.342.R01	1744629	Alcatel-Lucent	OS
Keni.img	6.4.4.342.R01	5604310	Alcatel-Lucent	NI software
Ksecu.img	6.4.4.342.R01	606099	Alcatel-Lucent	Security Management
Kencrypt.img	6.4.4.342.R01	3437	Alcatel-Lucent	Encryption Management

Verifying the U-Boot and Miniboot Upgrade

To verify that the U-Boot and Miniboot files were successfully upgraded, use the **show ni** command as shown below. Information for each switch in a stack (if applicable) is displayed.

-> show ni	
Module in slot 1	
Model Name:	OS6850-P48,
Description:	48 G POE,
Part Number:	902463-10,
Hardware Revision:	04,
Serial Number:	G0650243,
Manufacture Date:	FEB 21 2006,

Firmware Version:	,
Admin Status:	POWER ON,
Operational Status:	UP,
Power Consumption:	95,
Power Control Checksum:	0x23a5,
CPU Model Type :	Motorola MPC8248,
MAC Address:	00:d0:95:e2:6d:24
ASIC - Physical 1:	BCM56502_B2,
ASIC - Physical 2:	BCM56504_B2,
FPGA - Physical 1:	0018/00,
UBOOT Version :	6.4.3.479.R01,
UBOOT-miniboot Version :	6.4.3.479.R01,
POE SW Version :	n/a

Upgrade/Downgrade Software Matrix

Refer to the matrix below for software compatibility when upgrading/downgrading a 6850 Series Switch to/from Build 6.4.4.R01. 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.

Upgrade/Downgrade Matrix 6.4.4.R01 GA								
		I = 6.4.4.R01	1 GA					
	F = 6.4.3.479.R01							
	Build and Su	ipported Software Ve	rsions For Each Upg	rade				
	6.1.2 6.3.4 GA 6.4.2 GA 6.4.2 GA							
Through I = 6.3.4.R01 GA I = 6.4.2.R01 GA I = 6.4.2.R01 GA								
Model 6.3.1 F = 6.3.4.265.R01 F = 6.3.4.265.R01 F = 6.3.4.265.R01								
6850	Contact Support	Yes	Yes	Yes				

Note. Hardware is only backward compatible down to the software that originally supported it (e.g., 6.1.2.R01 for the 6850). Also, when downgrading, make sure to load the applicable U-Boot/Miniboot files. For more information, contact Customer Support.

OmniSwitch 6400

Upgrading with WebView

Upgrading OS6400 Series Switches to 6.4.4.R01 consists of the following steps. If you are performing a U-Boot/Miniboot upgrade, the steps must be performed in order. You must complete the image file upgrade **before** upgrading the U-Boot and Miniboot files.

- **1** Upgrading the Image Files.
- **2** Upgrading the U-Boot and Miniboot Files.
- **3** Upgrading the FPGA (OS6400-C24 and OS6400-P24 models only).

WARNING: The steps MUST be performed in order. You must complete the image file upgrade first, followed by the U-Boot/Miniboot upgrade, and finally, the FPGA upgrade, if applicable.

Upgrading the Image Files

Follow the steps below to upgrade the image files to 6.4.4.R01.

- 1 Download the 6.4.4.R01 upgrade files from the Alcatel-Lucent Service and Support web site to your PC.
- **2** Log into the switch through WebView.

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 6.4.4.R01 image files that you downloaded in Step 1. Click on the Browse button to locate the files.
- **4** Select one of the files and click **Open**. All of the files will appear in the "Selected" area, as shown below.

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Physical System Mgm	t Time Date/Zone > System Info File Management	+ Install Images + Switch Logging + Snapshot +
Networking Local I Policy	Installation	
Security File Trans	sfer	View Images/Directory Contents
System Location of Available System System System Net Montoring WebView/Mgm1	fArchives: D1Documents and Setting Browse Selected Gbase.img Gdiag.img Gdiag.img Geni.img Gfiga.upgrade_kit gminiboot uboot Gos.img Gsecu.img ku-boot bin software.lsm	- <u>View Working Images</u> - <u>View Certified Images</u> - <u>View Working Directory</u> - <u>view Certified Directory</u> Install Images / <u>Reload CMM</u> Install Images Install Reload CMM from Working ▼ <u>Reload</u> Update on slot 1 ▼
System Mgmt	Directory: Mash/working/	- <u>Miniboot</u> - <u>U-boot</u> - <u>Ubsol-Miniboot</u> - <u>Lanpower</u> Help Refresh

5 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: **Gbase.img**, **Geni.img**, **Gos.img**, **Gsecu.img**.

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Layer 2 Networking Policy	Local Installatio	n	
Security	File Transfer		View Images/Directory Contents
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iebViewMgm1	Destination Directory: Ma	< Remove All	Reload CMM from Working Reload Update on slot 1 - Miniboot - U-boot - Uboot-Miniboot
Johott Swa		Transfer	- Lanpower

- 6 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").
- 7 Reload the switch from the Working Directory. In the "Install Images/Reload CMM" area, select Working in 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 Select Physical > Chassis Mgmt > CMM > Management as shown below.

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File System: Synchronized Write Memory (Save Running -> Working On Primary) Apply Software Configuration Version (Copy Working -> Centified On Primary) Apply Layer 2 Takeover Networking Policy Takeover System Refresh	Console Port	Certify/Restore Status:	Need to Certify				
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10 In the Software Management field, select Copy Working -> Certified on Primary for standalone switches. For a stack, select Copy Working -> Certified & Synchronize with Secondary and click Apply. The switch will synchronize files from the working directory with all other stacks (if applicable). Wait for the synchronization process to complete on all switches before proceeding to the next step.

WARNING: DO NOT INTERRUPT the upgrade process until it is complete. Interruption of the process will result in an unrecoverable failure condition.

Upgrading the U-Boot and Miniboot Files

Follow the steps below to upgrade the U-Boot and Miniboot Files. U-Boot and Miniboot version **6.4.3.565.R01** is **required** for the 6.4.4.R01 upgrade.

WARNING: You **MUST** complete the image file upgrade **BEFORE** upgrading the U-Boot and Miniboot files. Please verify that the switch has been properly upgraded to 6.4.4.R01 before upgrading the U-boot and Miniboot files.

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

2 Log into the switch through WebView.

Note. If you have not already done so, 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 6.4.4.R01 image files that you downloaded in Step 1. Click on the **Browse** button to locate the files.
- **4** Select one of the files and click **Open**. All of the files will appear in the "Selected" area, as shown below.



5 Click on the **Remove All** button to move all of the files to the "Available" area, then select the **gminiboot.uboot** file and the **ku-boot.bin** file and click the **Add** button to move them to the "Selected" area as shown below.

Webview- 10.2	55.11.90 - Microsoft Inter	net Explorer provid	ed by Alcatel-Lucent	
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System	File Transfer			View Working Images
F	Location of Archives:	D://Documents an	d Setting: Browse	- View Certified Images
Intertaces	Available		Selected	- View Working Directory
E SNMP	Gfpga.upgrade_kit Gbase.img Gdiag.img Geni.img Gos.img	Add >	gminiboot.uboot ku-boot.bin	- <u>View Certified Directory</u>
	software.lsm	< Remove		Install Images / Reload CMM
Net Monitoring		Add all >> << Remove All		Install Images Install Reload CMM from Working Reload
TYOU VIEW HIGHT				Update on slot 1 🔳
قغ				- Miniboot
System Mgmt		-		- U-boot
6791a67	Destination Directory:	Mashi		- Uboot-Miniboot
1931 SM			Transfer	- Lanpower
			<u>*</u>	Help Refresh
6)				Local Intranet

6 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").

STOP: If you have **not** already completed the Upgrade Image section, **DO NOT CONTINUE.** Complete the Image File upgrade before returning to this section to complete the Uboot/Miniboot upgrade.

7 In the "Update" area, click on <u>Uboot-Miniboot</u>, then click **OK** at the confirmation prompt. This will upgrade the Uboot and Miniboot files on all of the switches in the stack. 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."

WARNING: DO NOT INTERRUPT the upgrade process until it is complete. Interruption of the process will result in an unrecoverable failure condition.

8 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.

9 After verifying that the upgrade was successful, delete the miniboot.uboot and ku-boot.bin files from the Flash Directory by selecting System > System Mgmt > File Management > Local, as shown below.

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00	Г	network	512	ReadWhite	Oct 10 09:27			Recursive Copy		
20	E	boot.cfg.1.err	687	ReadWitte	Dec 15 10:27			Recursive Delete		
Net Monitoring	E	kminiboot.uboot	796430	ReadWhite	Dec 17 17:04		Archive Operations			
		switch	512	ReadWitte	Dec 17 17:02		Backup			
		swiog2.log	64000	ReadWhite	Dec 17 17:04		TFTP Operations			
WebViewMgm1	E	ku-boot.bin	219516	ReadWhite	Dec 17 17:04		Get		11111111	
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						Refresh	Help			
Done .								0 1	usted sites	1

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

Upgrading the FPGA

The FPGA cannot be upgraded on the OS6400 using WebView. Refer to the CLI instructions "Upgrading the FPGA" on page -55.

Upgrading with the CLI

Upgrading OS6400 Series Switches to 6.4.4.R01 consists of the following steps. If you are performing a U-Boot/Miniboot upgrade, the steps must be performed in order. You must complete the image file upgrade **before** upgrading the U-Boot and Miniboot files.

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

3 Upgrading the FPGA (OS6400-C24 and OS6400-P24 models only).

WARNING: The steps MUST be performed in order. You must complete the image file upgrade first, followed by the U-Boot/Miniboot upgrade, and finally, the FPGA upgrade, if applicable..

Upgrading the Image Files

Follow the steps below to upgrade the image files to 6.4.4.R01.

- 1 Download the 6.4.4.R01 upgrade files from the Alcatel-Lucent Service and Support web site to your PC.
- 2 FTP the following 6.4.4.R01 image files to the /flash/working directory: Gbase.img, Geni.img, Gos.img, Gsecu.img.
- **3** Log into the switch and reload the switch from the working directory.

-> reload working no rollback-timeout

- **4** After the switch finishes rebooting, log into the switch.
- **5** Copy the image files from the Working Directory to the Certified Directory.
 - If you have a **standalone** switch enter:
 - -> copy working certified
 - If you have a stack 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). Wait for the process to complete.

WARNING: DO NOT INTERRUPT the upgrade process until it is complete. Interruption of the process will result in an unrecoverable failure condition.

Upgrading the U-Boot and Miniboot Files

Follow the steps below to upgrade the U-Boot and Miniboot Files. U-Boot and Miniboot version **6.4.3.565.R01** is **required** for the 6.4.4.R01 upgrade.

WARNING: You **MUST** complete the image file upgrade **BEFORE** upgrading the U-Boot and Miniboot files. Please verify that the switch has been properly upgraded to 6.4.4.R01 before upgrading the U-boot and Miniboot files.

- 1 Download the applicable upgrade files from the Alcatel-Lucent Service and Support web site to your PC.
- 2 FTP the gminiboot.uboot and ku-boot.bin files to the /flash directory.

STOP: If you have **not** already completed the Upgrade Image section, **DO NOT CONTINUE.** Complete the Image File upgrade before returning to this section to complete the Uboot/Miniboot upgrade.

- **3** Execute the following CLI commands to update the Miniboot and U-Boot files on the switch(es) (can be a standalone or stack).
 - -> update uboot-miniboot

Sample output for "update uboot-miniboot" for a stack of 2

```
WED APR 20 15:31:25 : SYSTEM (75) info message:
+++ ---->SSACTION_UPDATE_UBOOT_MINIBOOT
WED APR 20 15:31:25 : CSM-CHASSIS (103) info message:
+++ == CSM == Application & Watchdog Monitoring Stopped
+++ == CSM == Update bootrom on all slots
+++ == CSM == sysUpdate begin
WED APR 20 15:31:26 : SYSTEM (75) info message:
+++ NI 1 software update started
Erasing flash
Writing 131072 bytes at 0xfff00000
Erasing flash
Writing 131072 bytes at 0xfff20000
Verifying sectors of flash from (0xfff00000) to (0xfff40000)
Done
WED APR 20 15:31:31 : SYSTEM (75) info message:
+++ NI 1 software update completed -- file /flash/ku-boot.bin copied
+++ NI 1 software update started
Erasing flash
Writing 131072 bytes at 0xff900000
Erasing flash
Writing 131072 bytes at 0xff920000
Erasing flash
Writing 131072 bytes at 0xff940000
Erasing flash
Writing 131072 bytes at 0xff960000
Erasing flash
Writing 131072 bytes at 0xff980000
Erasing flash
Writing 131072 bytes at 0xff9a0000
Erasing flash
Writing 131072 bytes at 0xff9c0000
Verifying sectors of flash from (0xff900000) to (0xff9e0000)
Done
WED APR 20 15:31:47 : SYSTEM (75) info message:
+++ NI 1 software update completed -- file /flash/gminiboot.uboot copied
+++ NI 2 software update started
WED APR 20 15:31:51 : SYSTEM (75) info message:
+++ NI 2 software update completed -- file /flash/ku-boot.bin copied
+++ NI 2 software update started
WED APR 20 15:32:08 : SYSTEM (75) info message:
+++ NI 2 software update completed -- file /flash/gminiboot.uboot copied
sysStartWatchdog() Starting watchdog timer to INTERRUPT after 60 secs.
WED APR 20 15:32:16 : CSM-CHASSIS (103) info message:
+++ == CSM == timer_r:simplex---- session end ----
+++ == CSM == UPDATE COMPLETED
+++ == CSM == Application & Watchdog Monitoring Started
```

WARNING: DO NOT INTERRUPT the upgrade process until it is complete. Interruption of the process will result in an unrecoverable failure condition.

4 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

Upgrading the FPGA

Follow the steps below to upgrade the FPGA to FPGA 16 on OS6400-C24 and OS6400-P24 switches.

WARNING: You **MUST** complete the image file and U-Boot/Miniboot upgrade **BEFORE** upgrading the FPGA.

- 1 Download the latest FPGA build from the Alcatel-Lucent Service and Support web site to your PC.
- 2 FTP the FPGA upgrade kit file (Gfpga.upgrade_kit) to the /flash directory on the primary switch. 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 primary switch.
- 4 Enter:

```
-> update fpga ni all
```

The FPGA will be updated on the primary switch (and, if present, all switches in a stack). 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 Gfpga.upgrade_kit file from the /flash directory. CMM. Enter the following to delete the Gfpga.upgrade_kit file on the primary CMM:

-> rm Gfpga.upgrade_kit

Verifying the Upgrade with the CLI

Verifying the Software Upgrade

To verify that the software was successfully upgraded to 6.4.4.R01, use the **show microcode** command as shown below. The display below shows a successful image file upgrade.

```
-> show microcode
```

Package	Release	Size	Description
Gbase.img	6.4.4.342.R01	16520637	Alcatel-Lucent Base Software
Gos.img	6.4.4.342.R01	1769841	Alcatel-Lucent OS
Geni.img	6.4.4.342.R01	5566177	Alcatel-Lucent NI software
Gsecu.img	6.4.4.342.R01	606061	Alcatel-Lucent Security Management

Verifying the U-Boot and Miniboot Upgrade

To verify that the U-Boot and Miniboot files were successfully upgraded, use the show ni command as shown below. Information for each switch in a stack (if applicable) is displayed.

-> show ni				
Module in slot 1				
Model Name:	6400 24 FIBER PORTS W/STK,			
Description:	6400 24 FIBER PORTS W/STK,			
Part Number:	902623-90,			
Hardware Revision:	001,			
Serial Number:	J0480060,			
Manufacture Date:	JAN 26 2008,			
Firmware Version:	,			
Admin Status:	POWER ON,			
Operational Status:	UP,			
Power Consumption:	79,			
Power Control Checksum:	0xelbc,			
CPU Model Type :	Freescale MPC8248,			
MAC Address:	00:e0:b1:8c:da:72,			
ASIC - Physical 1:	BCM56322_A0,			
FPGA - Physical 1:	0016/00,			
UBOOT Version :	6.4.3.565.R01,			
UBOOT-miniboot Version :	6.4.3.565.R01,			
POE SW Version :	n/a			
GBIC 2				
Manufacturer Name:	PICOLIGHT ,			
Part Number:	PL-XPL-VC-S13-11,			
Hardware Revision:	,			
Serial Number:	C615HA02V ,			
Manufacture Date:	060403 ,			
Laser Wave Length:	850nm,			
Admin Status:	POWER ON,			
Operational Status:	UP			
Module in slot 2				

Model Name:	6400 24 COPPER PORTS W/STK,				
Description:	6400 24 COPPER PORTS W/STK,				
Part Number:	902621-90,				
Hardware Revision:	02,				
Serial Number:	J1480014,				
Manufacture Date:	APR 08 2008,				
Firmware Version:	,				
Admin Status:	POWER ON,				
Operational Status:	UP,				
Power Consumption:	69,				
Power Control Checksum:	0xc09f,				
CPU Model Type :	Freescale MPC8248,				
MAC Address:	00:e0:b1:99:a4:54,				
ASIC - Physical 1:	BCM56322_A0,				
FPGA - Physical 1:	0016/00,				
UBOOT Version :	6.4.3.565.R01,				
UBOOT-miniboot Version :	6.4.3.565.R01,				
POE SW Version :	n/a				

Upgrade/Downgrade Software Matrix

Refer to the matrix below for software compatibility when upgrading/downgrading a 6400 Series Switch to/from Build 6.4.4.R01. 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.

Upgrade/Downgrade Matrix								
6.4.4.R01 GA								
	I = 6.4.4.R01 GA							
		F = 6.4.3.565.R01						
	Build and Supporte	ed Software Versions For Eac	ch Upgrade					
	6.3.3 GA 6.3.4 GA 6.4.3 GA							
	I = 6.3.3.R01 I = 6.3.4.R01 I = 6.4.3.R01							
Model F = 6.3.3.288.R01 F = 6.3.4.265.R01 F = 6.3.4.265.R01								
6400	Contact Support	Yes	Yes					

Note. Hardware is only backward compatible down to the software that originally supported it (e.g., 6.3.3.R01 for the 6400). Also, when downgrading, make sure to load the applicable U-Boot/Miniboot files. For more information, contact Customer Support.



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