



Upgrading OmniSwitch 9000E Series Switches to 6.4.2.R01 or 6.4.2.S01

Overview

This instruction sheet documents how to upgrade OmniSwitch 9000E Series Switches to either 6.4.2.R01 or 6.4.2.S01 software and firmware. The upgrade can be performed using the CLI, WebView, or SNMP. Alcatel-Lucent recommends using WebView to perform the upgrade. For upgrade instructions using the CLI, see [Upgrading with the CLI on page 7](#). These instructions demonstrate the upgrade procedure for an 'R01' build, the steps for an 'S01' build are similar.

Note. To downgrade a switch (e.g., 6.4.2 to 6.4.1), see [Upgrade/Downgrade Software Matrix on page 9](#).

Note. If you are running an ISSU capable build (S01), upgrading from 6.4.1.S01 to 6.4.2.S01 requires a switch reboot.

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.

Requirements for ISSU Patch

- Switches running an 'R##' build, such as 6.4.2.777.R01 do not support ISSU upgrades. The switch must first be upgraded to an 'S##' build such as 6.4.2.777.S01.
- ISSU patches are only supported within the same 'S##' branch. For example, if a switch is running 6.4.1.123.S01 then only 6.4.1.###.S01 images can be used to perform an ISSU patch. If a switch is running 6.4.1.234.S02 then only 6.4.1.###.S02 images can be used to perform an ISSU patch.
- If a critical NI related patch is required, it will be necessary to move to an "R##" related build. Since "R##" related builds do not support the ISSU feature, a reboot will be required and should be scheduled during a maintenance window.
- The images which are ISSU capable are Jbase.img, Jsecu.img, Jadvrout.img and Jos.img.
- A minimum of 25 MB flash space must be present in the switch to accommodate the image files that are used to patch existing image files. This feature is only supported on the OmniSwitch 9000E.
- Approximately every six months a new ISSU capable branch will be available from Service & Support (i.e. S01, S02, S03, etc.). Each new branch will include all NI related fixes that were not supported in the previous ISSU branch. Upgrading from one ISSU branch to another will require a reboot and should be scheduled during a maintenance window.

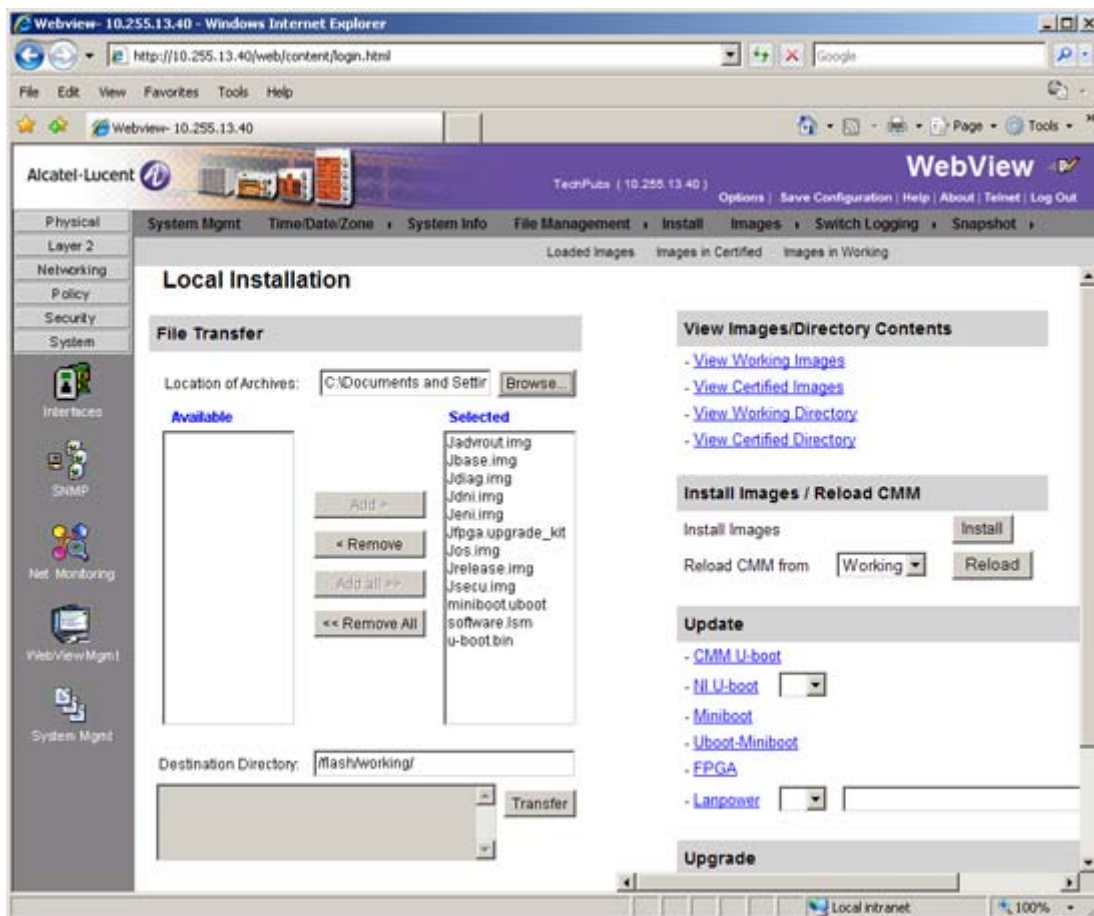
Upgrading with WebView

Upgrading OS9000E Series Switches to 6.4.2.R01 consists of upgrading the Image Files only. The U-Boot and Miniboot Files that shipped with the 6.4.1.R01 Release (6.4.1.149.R01) are compatible with the 6.4.2.R01 Release. Follow the steps below to upgrade the image files to 6.4.2.R01.

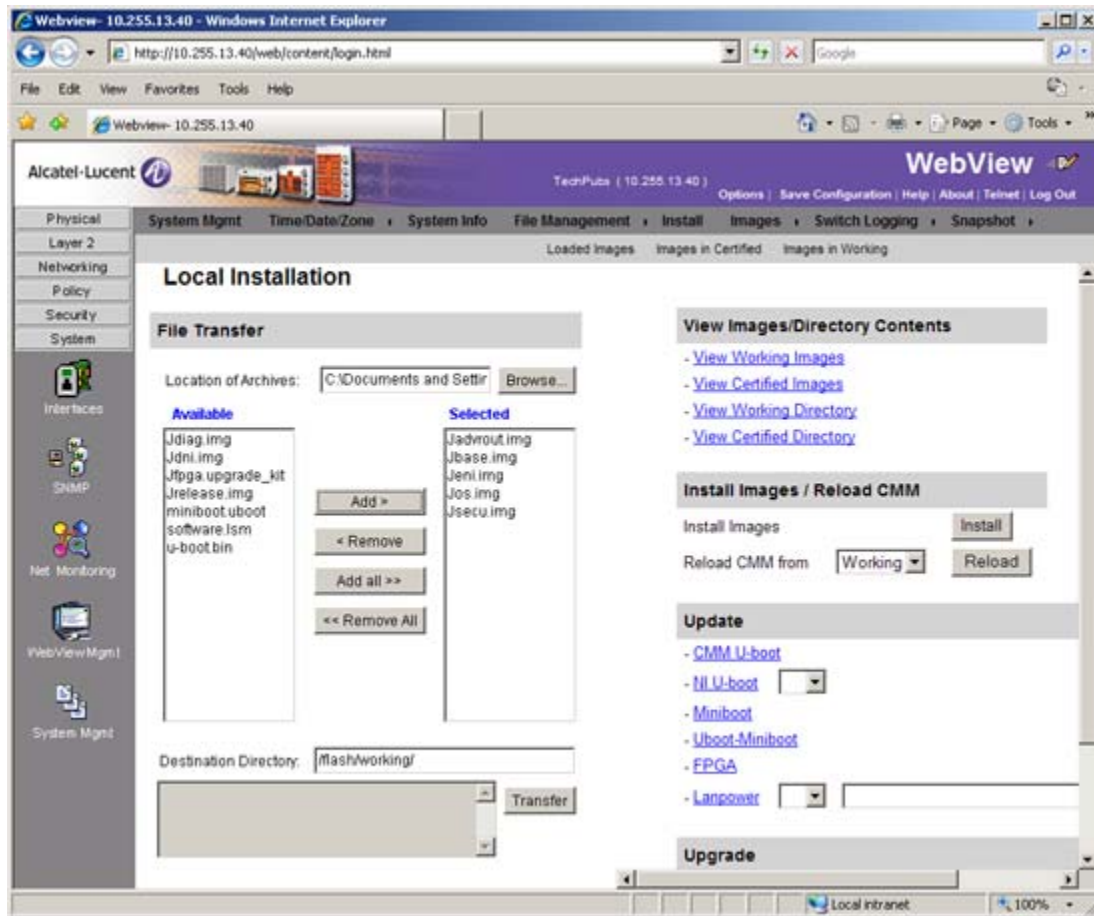
- 1 Download the 6.4.2.R01 upgrade files from the Alcatel-Lucent Service and Support web site to your PC.
- 2 Log into the switch through WebView. (In dual redundant configurations you must log into the primary CMM).

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**.

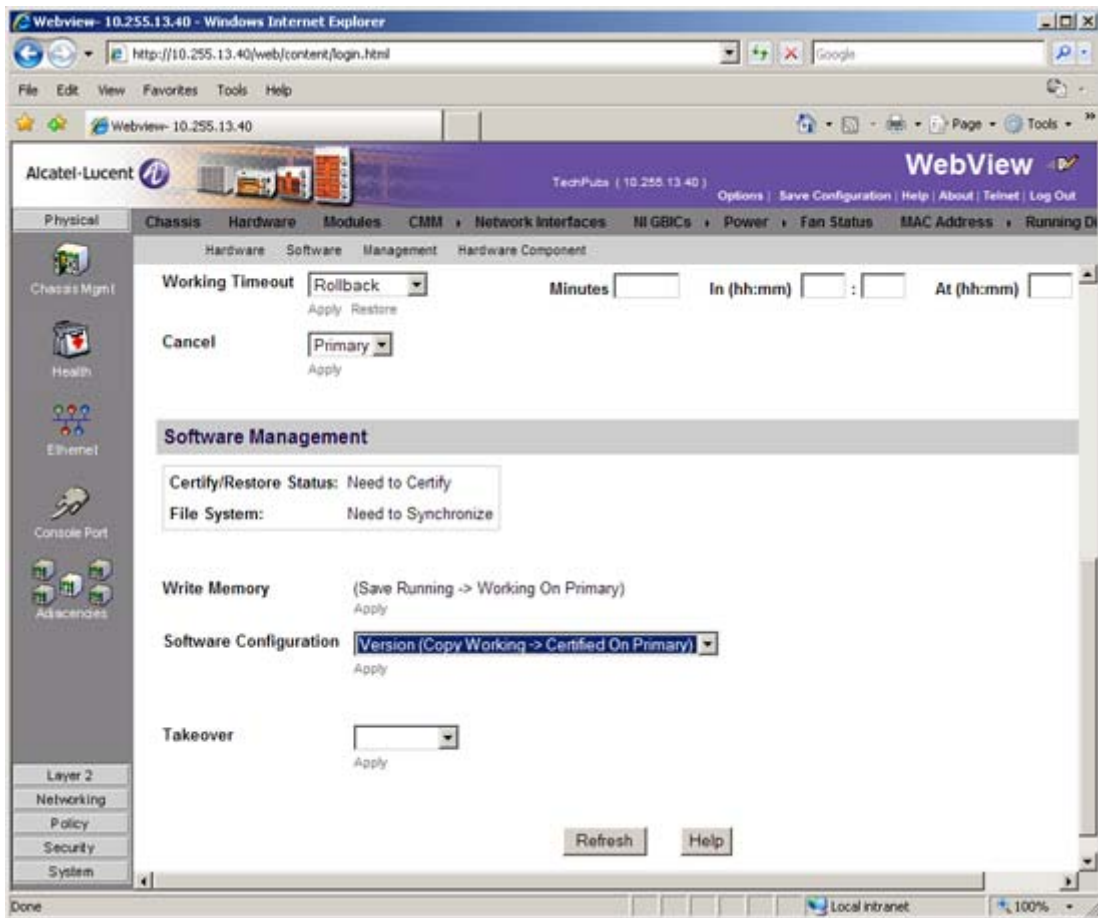
- 3 Select **System > System Mgmt > Install** to locate and FTP the 6.4.2.R01 image files that you downloaded in Step 1. Click on the **Browse** button to locate the files.
- 4 Select one of the files and click **Open**. All of the files will appear in the "Selected" area as shown below.



- 5 Click on the **Remove All** button to move all of the files to the “Available” area; then select the following image files and click the **Add** button to move them back to the “Selected” area as shown below: **Jadvrout.img, Jbase.img, Jeni.img, Jos.img, Jsecu.img.**



- 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.

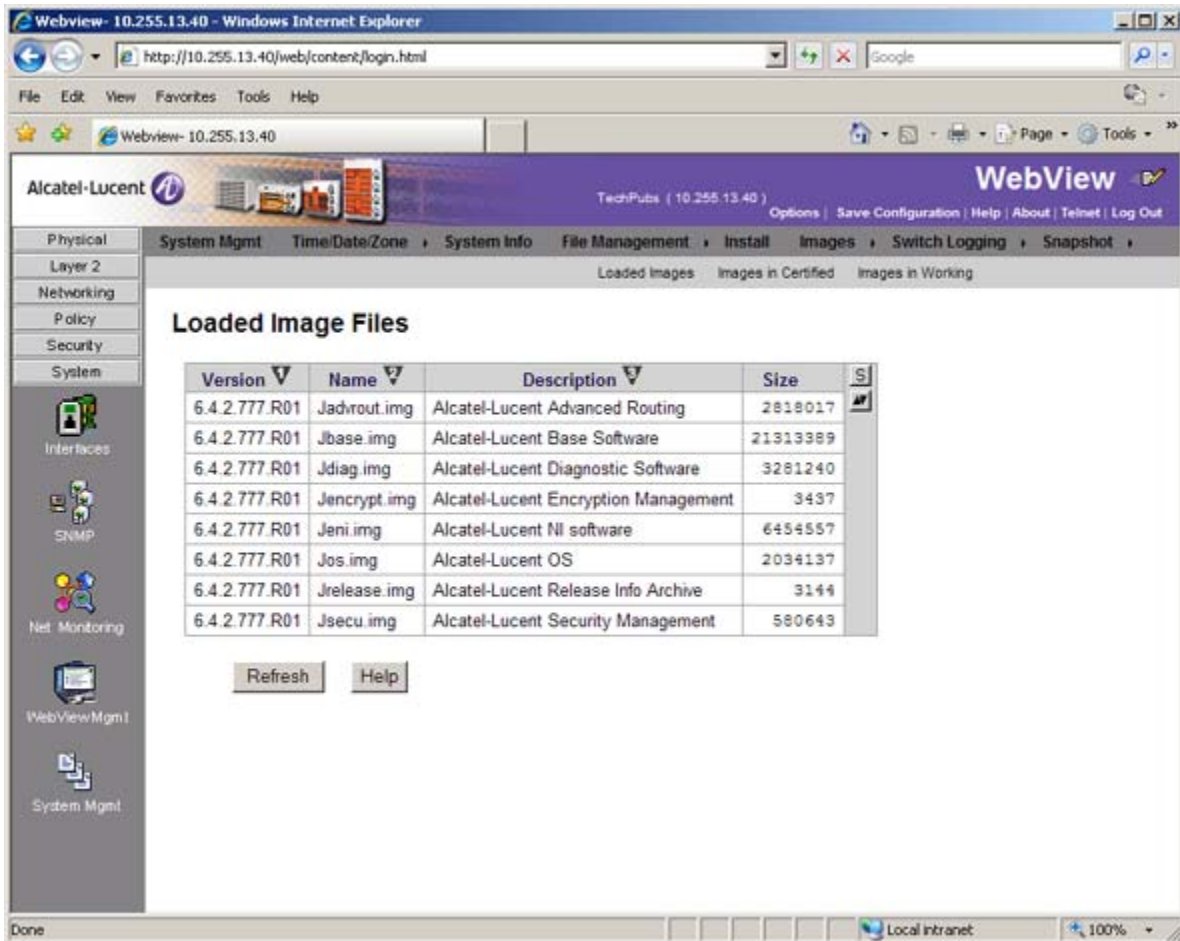


- 10** In the **Software Configuration** field, select **Copy Working -> Certified on Primary** for switches with a single CMM, or **Copy Working -> Certified & Synchronize with Secondary** for switches with a secondary CMM, then click **Apply**.

The switch will copy the files from the Working to the Certified Directory and synchronize the CMMs (if applicable). This command should **not** be interrupted.

Verifying the Upgrade with WebView

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.



The screenshot shows the Alcatel-Lucent WebView interface. The browser address bar shows `http://10.255.13.40/web/content/login.html`. The page title is "Webview- 10.255.13.40". The main navigation menu includes "System Mgmt", "Time/Date/Zone", "System Info", "File Management", "Install", "Images", "Switch Logging", and "Snapshot". The "Images" menu is expanded, showing "Loaded Images", "Images in Certified", and "Images in Working". The "Loaded Image Files" page displays a table with the following data:

Version	Name	Description	Size
6.4.2.777.R01	Jadvrout.img	Alcatel-Lucent Advanced Routing	2818017
6.4.2.777.R01	Jbase.img	Alcatel-Lucent Base Software	21313389
6.4.2.777.R01	Jdiag.img	Alcatel-Lucent Diagnostic Software	3281240
6.4.2.777.R01	Jencrypt.img	Alcatel-Lucent Encryption Management	3437
6.4.2.777.R01	Jeni.img	Alcatel-Lucent NI software	6454557
6.4.2.777.R01	Jos.img	Alcatel-Lucent OS	2034137
6.4.2.777.R01	Jrelease.img	Alcatel-Lucent Release Info Archive	3144
6.4.2.777.R01	Jsecu.img	Alcatel-Lucent Security Management	580643

Below the table are "Refresh" and "Help" buttons. The status bar at the bottom shows "Done" and "Local intranet".

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.

Upgrading with the CLI

Upgrading OS9000E Series Switches to 6.4.2.R01 consists of upgrading the Image Files only. The U-Boot and Miniboot Files that shipped with the 6.4.1.R01 Release (6.4.1.149.R01) are compatible with the 6.4.2.R01 Release. Follow the steps below to upgrade the image files to 6.4.2.R01.

- 1** Download the 6.4.2.R01 upgrade files from the Alcatel-Lucent Service and Support web site to your PC.
- 2** FTP the following 6.4.2.R01 image files to the **/flash/working** directory of the primary CMM: **Jadvrout.img, Jbase.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.
- 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). This command should not be interrupted.

Verifying the Upgrade with the CLI

To verify that the software was successfully upgraded to 6.4.2.R01, use the **show microcode** command as shown below.

```
-> show microcode
```

Package	Release	Size	Description
Jbase.img	6.4.2.777.R01	18216628	Alcatel-Lucent Base Software
Jadvrout.img	6.4.2.777.R01	2745699	Alcatel-Lucent Advanced Routing
Jos.img	6.4.2.777.R01	2049916	Alcatel-Lucent OS
Jeni.img	6.4.2.777.R01	5417699	Alcatel-Lucent NI software
Jsecu.img	6.4.2.777.R01	564947	Alcatel-Lucent Security Management
Jdiag.img	6.4.2.777.R01	3537270	Alcatel-Lucent Diagnostic Software

Upgrade/Downgrade Software Matrix

Refer to the matrix below for software compatibility when upgrading/downgrading a 9000E Series Switch to/from Build 6.4.2.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 6.4.2.R01 GA I = 6.4.2.R01 GA F = 6.4.1.149.R01	
Build and Supported Software Versions for Each Upgrade	
6.4.1 GA I = 6.4.1.R01 GA F = 6.4.1.149.R01	
Model	
9000E	Yes

Note. Hardware is only backward compatible down to the software that originally supported it. For example, you cannot run a 9000E Series Switch with 6.3.4.R01 software; however, you could run it with 6.4.1.R01 software. Also, when downgrading, make sure to load the applicable U-Boot/Miniboot files. For more information, contact Customer Support.



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