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Cisco Nexus 7000 Series FPGA/EPLD Upgrade Release Notes, Release 4.0

Part Number: OL-16783-03 D0
Release Date: November 3, 2008

[Table 1](#) shows the online history change for this document.

Table 1 **Online History Change**

Part Number	Revision	Date	Description
OL-16783-01	A0	06/13/2008	Created for Release 4.0(2).
OL-16783-02	A0	08/21/2008	Updated for Release 4.0(3).
	B0	08/29/2008	Updated the output for the Upgrading EPLD for Active Supervisor Module process.
	C0	09/03/2008	Fixed the Related Documentation header.
	D0	09/10/2008	Added a section to list the updated EPLDs for each release.
OL-16783-03	A0	11/03/2008	Updated for Release 4.0(4).

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Americas Headquarters:
Cisco Systems, Inc., 170 West Tasman Drive, San Jose, CA 95134-1706 USA

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Introduction

The Cisco Nexus 7000 Series devices contain several programmable logical devices (PLDs) that provide hardware functionalities in all modules. Cisco provides EPLD image upgrades to enhance hardware functionality or to resolve known issues. PLDs include electronic programmable logical devices (EPLDs), field programmable gate arrays (FPGAs), and complex programmable logic devices (CPLDs). In this document, the term EPLD is used for FPGA and CPLDs.

System Requirements

This section includes the following topics:

- [Supported Device Hardware, page 2](#)
- [Supported Device Operating Systems, page 2](#)

Supported Device Hardware

The Cisco Nexus 7000 Series device must include the following hardware:

- One or two supervisor modules, each with at least 120 MB of available bootflash or slot0 memory
- One or more I/O modules
- One or more fabric modules
- Two fabric fan tray modules
- Two system fan tray modules

You must be able to access the system through a console, SSH, or Telnet.

You must have administrator privileges to work with the Nexus 7000 Series device.

Supported Device Operating Systems

The Cisco Nexus 7000 Series device must be running the NX-OS operating system, which is used to perform the EPLD upgrades.

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Updated EPLDs

Depending on the NX-OS release that you are using, the EPLDs that you download and reinstall can include newly updated EPLDs. [Table 2](#) lists the updated EPLDs for each NX-OS release and the hardware that they affect. [Table 3](#) lists all of the EPLD versions for the current release

Table 2 Updated EPLDs for the Current NX-OS Release

NX-OS Release	Module Type	EPLD Device	New EPLD Version
4.0(3)	Supervisor module	IO	3.25
	32-port 10 GE I/O module	LinkSec engine	1.8

Table 3 Complete List of EPLDs for the Current NX-OS Release

Module Type	EPLD Device	EPLD Version
Supervisor module	Power Manager	3.6
	IO	3.25
	Inband	1.7
	Local Bus CPLD	2.1
	CMP CPLD	6.0
10/100/1000 Mbps Ethernet I/O module	Power Manager	5.3
	IO	2.10
	Forwarding Engine	1.6
10 Gbps Ethernet I/O module	Power Manager	4.4
	IO	1.10
	Forwarding Engine	1.6
	FE Bridge	186.3
	LinkSec Engine	1.8
Fabric module	Power Manager	2.8
Fan	Fan Controller	0.7



Note

To list the EPLDs running on your system, use the **show version module_number epld** command. If any of the versions that you list are older than what is listed in [Table 3](#), it is recommended that you update the EPLDs.

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Installation Guidelines

You can upgrade (or downgrade) EPLDs using CLI commands on the Nexus 7000 Series device. Follow these guidelines when you upgrade or downgrade EPLDs:

- You can execute an upgrade from the active supervisor module only. All the modules, including the active supervisor module, can be updated individually.
- You can individually update each module whether it is online or offline as follows:
 - If you upgrade EPLD images on an online module, only the EPLD images with version numbers that differ from the new EPLD images are upgraded.
 - If you upgrade EPLD images on an offline module, all of the EPLD images are upgraded.
- On a system that has two supervisor modules, upgrade the EPLDs for the standby supervisor and then switch the active supervisor to standby mode to upgrade its EPLDs. On a system that has only one supervisor module, you can upgrade the active supervisor, but this will disrupt its operations during the upgrade.
- If you interrupt an upgrade, you must upgrade the module that is being upgraded again.
- The upgrade process disrupts traffic on the targeted module.
- Do not insert or remove any modules while an EPLD upgrade is in progress.

Downloading the EPLD images

Before you can prepare the EPLD images for installation, you must download them to the FTP or management server.

To download the EPLD images, follow these steps:

-
- | | |
|---------------|--|
| Step 1 | From a browser, go to the following URL:
http://www.cisco.com
The browser will display the Cisco website. |
| Step 2 | From the Products & Services tab, choose Switches .
The Switches page opens. |
| Step 3 | In the Data Center area, click the arrow next to View Products.
The page lists the Data Center products. |
| Step 4 | Click Nexus 7000 .
The Cisco Nexus 7000 Series Switches page opens. |
| Step 5 | In the Support area, click Download Software .
The Downloads page opens and lists the Data Center switches. |
| Step 6 | Choose Data Center Switches > Cisco Nexus 7000 Series Switches > Cisco Nexus 7000 10-Slot Switch .
The Log In page opens. |
| Step 7 | If you are an existing user, enter your username in the User Name field and your password in the Password field. If you are a new user, click Register Now and provide the required information before returning to the Log In page and logging in with your new username. |

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- The Downloads page lists the software types that can be downloaded for the device you specified.
- Step 8** Click **NX-OS EPLD Updates**.
- The Downloads page lists software releases that you can download.
- Step 9** Choose **Latest Releases > 4.0(2)**.
- The Downloads page displays image information, including a link to the downloadable Tar file, to the right of the the releases.
- Step 10** Click the link for the Tar file.
- The Downloads page displays a Download button and lists information for the Tar file.
- Step 11** Click **Download**.
- The Supporting Documents page opens to display the rules for downloading the software.
- Step 12** Read the rules and click **Agree**.
- A File Download dialog box opens to ask if you want to open or save the images file.
- Step 13** Click **Save**.
- The Save As dialog box appears.
- Step 14** Indicate where to save the Tar file and click **Save**.
- The Tar file saves to the location that you specified.

You are ready to prepare the EPLD images for Installation (see the [“Preparing the EPLD Images for Installation” section on page 5](#)).

Preparing the EPLD Images for Installation

Before you can update the EPLD images for each of your system modules, you must determine the NX-OS version that your system is using, make sure there is space for the new EPLD images, and download the images.

To prepare the EPLD images for installation, follow these steps:

-
- Step 1** Log into the device through the console port, an SSH session, or a Telnet session.
- Step 2** Enter the **show version** command to verify that the device is using the expected version of the NX-OS operating system. The kickstart and system lines indicate the NX-OS version. This step determines the versions of EPLD images that you must download.

```
switch# show version
Cisco Nexus Operating System (NX-OS) Software
TAC support: http://www.cisco.com/tac
Copyright (c) 2002-2008, Cisco Systems, Inc. All rights reserved.
The copyrights to certain works contained in this software are
owned by other third parties and used and distributed under
license. Certain components of this software are licensed under
the GNU General Public License (GPL) version 2.0 or the GNU
Lesser General Public License (LGPL) Version 2.1.. A copy of each
such license is available at
http://www.opensource.org/licenses/gpl-2.0.php and
http://www.opensource.org/licenses/lgpl-2.1.php
Software
  BIOS:          version 3.17.0
```

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```

loader:    version N/A
kickstart: version 4.0(2) [gdb]
system:    version 4.0(2) [gdb]
...

```

- Step 3** Verify that you have 120 MB of free space on the active or standby supervisor memory devices for the EPLD images that you will be downloading by using the **dir bootflash:** or **dir slot0:** commands. By default, these commands display the used and free memory for the active supervisor. If your system has an additional supervisor (a standby supervisor), use the **show module** command to find the module number for the other supervisor, use the **attach module** command to attach to the module number, and then use the **dir bootflash:** or **dir slot0:** command to determine the amount of used and free memory. See [Example 1](#) to determine the amount of available bootflash memory, and see [Example 2](#) to determine the amount of available slot0 memory.

Example 1 Determining the Amount of Available Bootflash Memory

```

switch# dir bootflash:
 4096    Mar 18 17:31:11 2008 bak/
2429706  May 23 10:57:10 2008 dplug
89154513 May 27 22:04:37 2008 n7-dk9-nk
89151767 May 23 16:06:01 2008 n7-dk9-nk-old
2429706  May 23 10:53:50 2008 n7000-s1-debug-sh.4.0.2.bin1
22171136 May 23 10:55:40 2008 n7000-s1-kickstart.4.0.2.bin1
 4096    May 23 13:03:37 2008 newer-fs/
 4096    May 28 15:13:30 2008 nk/
 127     Mar 20 16:37:59 2008 setip.sh

Usage for bootflash://sup-local
572186624 bytes used
306606080 bytes free
878792704 bytes total

switch# show module
Mod  Ports  Module-Type                Model                Status
---  ---
2    32     10 Gbps Ethernet Module   N7K-M132XP-12       ok
5     0     Supervisor module-1X      N7K-SUP1             ha-standby
6     0     Supervisor module-1X      N7K-SUP1             active *
...
switch# attach module 5
...
switch(standby)# dir bootflash:
...
 4096    Mar 18 17:31:11 2008 bak/
2429706  May 23 10:57:10 2008 dplug
89154513 May 27 22:04:37 2008 n7-dk9-nk
89151767 May 23 16:06:01 2008 n7-dk9-nk-old
2429706  May 23 10:53:50 2008 n7000-s1-debug-sh.4.0.2.bin1
22171136 May 23 10:55:40 2008 n7000-s1-kickstart.4.0.2.bin1
 4096    May 23 13:03:37 2008 newer-fs/
 4096    May 28 15:13:30 2008 nk/
 127     Mar 20 16:37:59 2008 setip.sh

Usage for bootflash://sup-local
572186624 bytes used
306606080 bytes free
878792704 bytes total

```

Example 2 Determining the Amount of Available Slot0 Memory

```

switch# dir slot0:

```

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```

25      Apr 28 23:07:28 2008  slot0

Usage for slot:
  642273280 bytes used
  261824512 bytes free
  904097792 bytes total

switch# show module
Mod  Ports  Module-Type                Model              Status
---  -
2    32     10 Gbps Ethernet Module    N7K-M132XP-12     ok
5     0     Supervisor module-1X       N7K-SUP1           ha-standby
6     0     Supervisor module-1X       N7K-SUP1           active *
...
switch# attach module 5
...
switch(standby)# dir slot0:
25      Apr 28 23:07:28 2008  slot0

Usage for slot:
  642273280 bytes used
  261824512 bytes free
  904097792 bytes total

```

- Step 4** If there is not at least 120 MB of memory free for the EPLD files, delete some unneeded files, such as earlier images, so there is enough free memory.

```

switch# delete bootflash:n7000-s1-kickstart.4.0.1.bin
switch# attach module 5
switch(standby)#

```

- Step 5** Copy the EPLD image file from the FTP or management server to the bootflash or slot0 memory in the active supervisor module by using the **copy** command. The following example shows how to copy from the FTP server to the bootflash memory.

```

switch# copy ftp://10.1.7.2/n7000-s1-epld.4.0.2.img bootflash:n7000-s1-epld.4.0.2.img

```

Copy the EPLD image to the standby supervisor by using the **copy** command.

```

switch# copy bootflash:n7000-s1-epld.4.0.2.img
bootflash://sup-standby/n7000-s1-epld.4.0.2.img

```

You are ready to upgrade the EPLD images (see the “[Upgrading EPLD Images](#)” section on page 7).

Upgrading EPLD Images

When you start upgrading the EPLD images for a module, NX-OS tries to list the current and new versions for each EPLD. If the module is installed and online, NX-OS reports both the installed and new versions of each EPLD, and where there is a difference, NX-OS will upgrade (or downgrade) to the new version when you confirm that the upgrade should occur. For a module that is installed but offline, NX-OS cannot determine the installed versions of its EPLDs so it upgrades all of the EPLDs for that module when you confirm the upgrade. For a module that is not installed, NX-OS displays an error message and does not upgrade the EPLDs.

[Example 3](#) shows how NX-OS reports the current and new EPLD versions for a module that does not need EPLD upgrades. The current and new version numbers for each EPLD are the same.

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Example 3 EPLD Version Comparison Report—No Upgrade Needed

EPLD	Curr Ver	New Ver
Power Manager	5.3	5.3
IO	2.10	2.10
Forwarding Engine	1.6	1.6
Module 1 is upto date		

Example 4 shows how NX-OS reports the current and new EPLD versions for a module that has EPLD images that can be upgraded. According to this report, each of the downloaded Linksec Engine EPLDs has a different version than the same EPLD on the module, so NX-OS will upgrade those EPLDs but will not upgrade the other EPLDs that have the same version numbers. If the new versions have a smaller version number compared to the current version, NX-OS will downgrade the versions.

Example 4 EPLD Version Comparison Report—Upgrade Needed

EPLD	Curr Ver	New Ver
Power Manager	4.4	4.4
IO	1.10	1.10
Forwarding Engine	1.6	1.6
FE Bridge(1)	186.3	186.3
FE Bridge(2)	186.3	186.3
Linksec Engine(1)	1.5	1.7
Linksec Engine(2)	1.5	1.7
Linksec Engine(3)	1.5	1.7
Linksec Engine(4)	1.5	1.7
Linksec Engine(5)	1.5	1.7
Linksec Engine(6)	1.5	1.7
Linksec Engine(7)	1.5	1.7
Linksec Engine(8)	1.5	1.7

The following sections explain how to upgrade the EPLD images for I/O and standby modules, the active supervisor module on single-supervisor systems, fabric modules, and fan tray modules.

- [Upgrading the EPLD Images for I/O or Standby Supervisor Modules, page 8](#)
- [Upgrading EPLDs for the Active Supervisor Module, page 10](#)
- [Upgrading EPLDs for a Fabric Module, page 12](#)
- [Upgrading EPLDs for a Fan Tray Module, page 13](#)

Upgrading the EPLD Images for I/O or Standby Supervisor Modules

You can upgrade the EPLD images for an I/O module or standby supervisor module while the system is operational. If you need to upgrade EPLD images for a single supervisor system, see the [“Upgrading EPLDs for the Active Supervisor Module”](#) section on page 10.



Caution

Upgrading EPLD images for an online I/O module can disrupt traffic going through that module.

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To upgrade EPLDs for an I/O module or the standby supervisor module, follow these steps:

Step 1 Determine the slot number for each module by entering the **show module** command.

```
switch# show module
```

Mod	Ports	Module-Type	Model	Status
1	48	10/100/1000 Mbps Ethernet Module	N7K-N148GT-11	ok
3	32	10 Gbps Ethernet Module	N7K-M132XP-12	ok
5	0	Supervisor module-1X	N7K-SUP1	active
6	0	Supervisor module-1X	N7K-SUP1	ha-standby
10	48	10/100/1000 Mbps Ethernet Module	N7K-M148GT-11	ok

Mod	Sw	Hw	World-Wide_name(s) (WWN)
1	4.0(2)	0.503	--
3	4.0(2)	0.601	--
5	4.0(2)	0.900	--
6	4.0(2)	0.802	--
10	4.0(2)	0.902	--

Mod	MAC-Address(es)	Serial-Num
1	00-19-07-6c-c0-6c to 00-19-07-6c-c0-a0	JAB11060144
3	00-1b-54-c1-33-98 to 00-1b-54-c1-33-bc	JAB1152010K
5	00-1b-54-c1-16-18 to 00-1b-54-c1-16-20	JAB114902HF
6	00-19-07-c1-00-b8 to 00-1b-54-c1-00-c0	JAB114402JX
10	00-1b-54-c1-07-88 to 00-1b-54-c1-07-bc	JAB114501RW

* this terminal session
switch#

Step 2 Install the EPLDs by entering the **install module slot_number epld url** command.

```
switch# install module 6 epld bootflash:n7000-s1-epld.4.0.2.img
```

EPLD image file , built on Fri May 16 20:36:39 2008

EPLD	Curr Ver	New Ver
Power Manager	3.4	3.6
IO	3.23	3.23
Inband	1.7	1.7
Local Bus CPLD	2.1	2.1
CMP CPLD	6.0	6.0

WARNING: Upgrade process could take upto 30 minutes.

Standby supervisor is being upgraded.
Do you want to continue (y/n) ?

Step 3 Begin upgrading the EPLD images by entering Y for yes.

Do you want to continue (y/n) ? **Y**

Step 4 For releases 4.0(2) or earlier, if you updated the power management EPLD image, you must reset the power for the module so that EPLD can take effect (this is not required for release 4.0(3) or later). You can reset the power in one of the following two ways:

- To reset the power for a module, physically remove the module and reinstall it.

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**Note**

A module reload or just pressing the ejector buttons on the module is not sufficient for this reset requirement.

- To reset an entire system, power cycle the system.

To confirm the EPLD upgrade, see the [“Displaying EPLD Versions for an I/O or Supervisor Module” section on page 14](#).

**Caution**

Resetting the power disrupts any data traffic going through the affected modules. If you power cycle the entire system, all data traffic going through the system at the time of the power cycling is disrupted. This is not necessary for release 4.0(3) or later.

**Note**

As of release 4.0(3), the system automatically loads the new power management EPLD after an upgrade, so it is no longer necessary to reset the power for the module or system.

Upgrading EPLDs for the Active Supervisor Module

When you upgrade EPLDs on a system with only one supervisor module, data traffic on the switch will be affected when you reload the system after the upgrade. If you are upgrading EPLDs for a dual supervisor system, you can upgrade the standby supervisor while the system is operational as explained in the [“Upgrading the EPLD Images for I/O or Standby Supervisor Modules” section on page 8](#).

To upgrade EPLDs for the supervisor module in a single supervisor system, follow these steps:

- Step 1** Determine the slot number for each module by entering the **show module** command. The active supervisor is in either slot 5 or slot 6.

```
switch# show module
Mod Ports Module-Type Model Status
---
1 48 10/100/1000 Mbps Ethernet Module N7K-N148GT-11 ok
3 32 10 Gbps Ethernet Module N7K-M132XP-12 ok
5 0 Supervisor module-1X N7K-SUP1 active
10 48 10/100/1000 Mbps Ethernet Module N7K-M148GT-11 ok

Mod Sw Hw World-Wide_name(s) (WWN)
---
1 4.0(2) 0.503 --
3 4.0(2) 0.601 --
5 4.0(2) 0.900 --
10 4.0(2) 0.902 --

Mod MAC-Address(es) Serial-Num
---
1 00-19-07-6c-c0-6c to 00-19-07-6c-c0-a0 JAB11060144
3 00-1b-54-c1-33-98 to 00-1b-54-c1-33-bc JAB1152010K
5 00-1b-54-c1-16-18 to 00-1b-54-c1-16-20 JAB114902HF
10 00-1b-54-c1-07-88 to 00-1b-54-c1-07-bc JAB114501RW
```

* this terminal session

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Step 2 Install the EPLDs by entering the **install module slot_number epld url** command.

```
switch# install module 5 epld bootflash:n7000-s1-epld.4.0.2.img
```

```
EPLD image file , built on Fri May 16 20:36:39 2008
```

EPLD	Curr Ver	New Ver
Power Manager	3.4	3.6
IO	3.23	3.23
Inband	1.7	1.7
Local Bus CPLD	2.1	2.1
CMP CPLD	6.0	6.0

WARNING: Upgrade process could take upto 30 minutes.

Active Supervisor is being upgraded.
Data traffic on the switch will be affected!!
The switch will reload after the upgrade process.
Do you want to continue (y/n) ?

Step 3 Confirm the upgrade by entering Y for yes.

Do you want to continue (y/n) ? **Y**

The Cisco Nexus 7000 Series system will reload as soon as the upgrade occurs.

Step 4 For releases 4.0(2) or earlier, if you updated the power management EPLD image, you must reset the power for the module so that EPLD can take effect (this is not required for release 4.0(3) or later). You can reset the power in one of the following two ways:

- To reset the power for a module, physically remove the module and reinstall it.



Note

A module reload or just pressing the ejector buttons on the module is not sufficient for this reset requirement.

- To reset an entire system, power cycle the system.

To confirm the EPLD upgrade, see the [“Displaying EPLD Versions for an I/O or Supervisor Module” section on page 14](#).



Caution

Resetting the power disrupts any data traffic going through the affected modules. If you power cycle the entire system, all data traffic going through the system at the time of the power cycling is disrupted. This is not necessary for release 4.0(3) or later.



Note

As of release 4.0(3), the system automatically loads the new power management EPLD after an upgrade, so it is no longer necessary to reset the power for the module or system.

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Upgrading EPLDs for a Fabric Module

You can upgrade EPLDs for a fabric (Xbar) module while the system is operational as long as at least one other fabric module is operational.

To upgrade EPLDs for a fabric module, follow these steps:

- Step 1** Determine which fabric modules are present on the Cisco Nexus 7000 Series device by entering the **show module xbar** command.

```
switch# show module xbar
```

Xbar	Ports	Module-Type	Model	Status
1	0	Xbar	N7K-C7010-FAB-1	ok
2	0	Xbar	N7K-C7010-FAB-1	ok
3	0	Xbar	N7K-C7010-FAB-1	ok

Xbar	Sw	Hw	World-Wide-Name(s) (WWN)
1	NA	0.404	--
2	NA	0.405	--
4	NA	0.405	--

Xbar	MAC-Address(es)	Serial-Num
1	NA	JAB114700WL
2	NA	JAB115000LU
4	NA	JAB115000LJ

* this terminal session

- Step 2** Install the EPLD images for a fabric module by entering the **install xbar-module slot_number epld url** command.

```
switch# install xbar-module 1 epld bootflash:n7000-s1-epld.4.0.2.img
```

EPLD image file , built on Fri May 16 20:36:39 2008

EPLD	Curr Ver	New Ver
Power Manager	2.7	2.8

WARNING: Upgrade process could upto 30 minutes.
Module could be powered down and up.

Xbar Module 1 will be powered down now!!
Do you want to continue (y/n) ? [n] **y**

- Step 3** Confirm the upgrade by entering Y for yes.

Do you want to continue (y/n) ? [n] **y**
\

Xbar Module 1 EPLD upgrade is successful.

To confirm the EPLD upgrade, see the [“Displaying EPLD Versions for a Fabric Module”](#) section on page 14.

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Upgrading EPLDs for a Fan Tray Module

You can upgrade EPLDs for fan tray modules while the system is operational.

To upgrade EPLDs for a fan tray module, follow these steps:

- Step 1** Display fan tray information, such as module numbers and fan tray types, by entering the **show environment fan** command.

```
switch# show environment fan
```

```
Fan:
```

```
-----
Fan           Model           Hw           Status
-----
Fan1(sys_fan1)           0.0         Ok
Fan2(sys_fan2)           0.0         Ok
Fan3(fab_fan1)           0.0         Ok
Fan4(fab_fan2)           0.0         Ok
Fan_in_PS1      --           --         Ok
Fan_in_PS2      --           --         Ok
Fan_in_PS3      --           --         Ok
Fan Air Filter : Absent
switch#
```

- Step 2** Upgrade the EPLD images for the fan tray module by entering the **install fan-module slot_number epld url** command.

```
switch# install fan-module 1 epld bootflash:n7000-s1-epld.4.0.2.img
```

```
EPLD image file , built on Fri May 16 20:36:39 2008
```

```
-----
EPLD           Curr Ver      New Ver
-----
Fan Controller      0.5         0.7
Fan Controller      0.5         0.7
WARNING: Upgrade process could upto 30 minutes.
Module could be powered down and up.
```

```
Programming Fan Module 1 !!
Do you want to continue (y/n) ? [n]
```

- Step 3** Confirm the upgrade by entering Y for yes.

```
...
Do you want to continue (y/n) ? [n] y
\
Fan Module 1 EPLD upgrade is successful.
```

To confirm the EPLD upgrade, see the [“Displaying EPLD Versions for a Fan Tray Module”](#) section on page 15.

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Displaying the EPLD Versions

The following sections describe how to display the EPLD versions on each module in your system and the available EPLD versions:

- [Displaying EPLD Versions for an I/O or Supervisor Module, page 14](#)
- [Displaying EPLD Versions for a Fabric Module, page 14](#)
- [Displaying EPLD Versions for a Fan Tray Module, page 15](#)
- [Displaying the Available EPLD Versions, page 15](#)

Displaying EPLD Versions for an I/O or Supervisor Module

To display all of the current EPLD versions on a specific I/O or supervisor module, use the **show version module slot_number epld** command as shown in [Example 5](#).

Example 5 Displaying the Current EPLD Versions for a Module

```
switch# show version module 2 epld
```

EPLD Device	Version
Power Manager	4.2
IO	1.10
Forwarding Engine	1.6
FE Bridge(1)	186.2
FE Bridge(2)	186.2
Linksec Engine(1)	1.2
Linksec Engine(2)	1.2
Linksec Engine(3)	1.2
Linksec Engine(4)	1.2
Linksec Engine(5)	1.2
Linksec Engine(6)	1.2
Linksec Engine(7)	1.2
Linksec Engine(8)	1.2

Displaying EPLD Versions for a Fabric Module

To view all current EPLD versions on a fabric module, use the **show version xbar slot_number epld** command as shown in [Example 6](#).

Example 6 Displaying the Current EPLD Versions for a Fabric Module

```
switch# show version xbar 1 epld
```

EPLD Device	Version
Power Manager	2.7

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Displaying EPLD Versions for a Fan Tray Module

To view all current EPLD versions on a specific fan tray, use the **show version fan slot_number epld** command as shown in [Example 7](#).

Example 7 *Displaying Current EPLD Versions for Fan Tray 1*

```
switch# show version fan 1 epld
EPLD Device                               Version
-----
Fan Controller (BUS A)                    2.7
Fan Controller (BUS B)                    2.7
```

Displaying the Available EPLD Versions

To view the available EPLD versions, use the **show version epld url** command.

```
switch# show version epld bootflash:n7000-s1-epld.4.0.2.img

EPLD image file , built on Fri May 16 20:36:39 2008
```

Module Type	EPLD Device	Version
Supervisor-1X	Power Manager	3.6
Supervisor-1X	IO	3.25
Supervisor-1X	Inband	1.7
Supervisor-1X	Local Bus CPLD	2.1
Supervisor-1X	CMP CPLD	6.0
10/100/1000 Mbps Eth Module	Power Manager	5.3
10/100/1000 Mbps Eth Module	IO	2.10
10/100/1000 Mbps Eth Module	Forwarding Engine	1.6
10 Gbps Ethernet Module	Power Manager	4.4
10 Gbps Ethernet Module	IO	1.10
10 Gbps Ethernet Module	Forwarding Engine	1.6
10 Gbps Ethernet Module	FE Bridge	186.3
10 Gbps Ethernet Module	Linksec Engine	1.8
Xbar	Power Manager	2.8
Fan	Fan Controller	0.7
Fan	Fan Controller	0.7

Caveats

This section includes the following topics:

- [Caveats in Release 4.0\(4\), page 16](#)
- [Caveats in Release 4.0\(3\), page 16](#)
- [Caveats in Release 4.0\(2\), page 16](#)

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Caveats in Release 4.0(4)

- [Open Caveats in Release 4.0\(4\), page 16](#)
- [Resolved Caveats in Release 4.0\(4\), page 16](#)

Open Caveats in Release 4.0(4)

There are no open caveats for Release 4.0(4).

Resolved Caveats in Release 4.0(4)

There are no resolved caveats for Release 4.0(4).

Caveats in Release 4.0(3)

- [Open Caveats in Release 4.0\(3\), page 16](#)
- [Resolved Caveats in Release 4.0\(3\), page 16](#)

Open Caveats in Release 4.0(3)

There are no open caveats for Release 4.0(3).

Resolved Caveats in Release 4.0(3)

There are no resolved caveats for Release 4.0(3).

Caveats in Release 4.0(2)

- [Open Caveats in Release 4.0\(2\), page 16](#)
- [Resolved Caveats in Release 4.0\(2\), page 16](#)

Open Caveats in Release 4.0(2)

There are no open caveats for Release 4.0(2).

Resolved Caveats in Release 4.0(2)

This section lists the resolved caveats for this release.

- CSCsq56222

Symptom: Dropped or corrupted packets in the egress direction on N7K 32-port 10GE module. Link is not dropped.

Conditions: Likelihood for drops or errors increase with higher traffic utilization. Rare event.

Workaround: None

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Resolution: To be fixed in FPGA image version 1.8.

Limitations

When EPLDs are upgraded or downgraded, the following guidelines and observations apply:

- You cannot upgrade the Local Bus CPLD and CMP CPLD while you are upgrading a supervisor module in the 4.0(1) release only.
- You must upgrade each installed module individually. If the module is online, NX-OS upgrades only the EPLD images that have different current and new versions. If the module is offline, all EPLDs are upgraded, even if their version numbers are the same.
- If you interrupt an upgrade, you must upgrade the module again.
- You can execute an upgrade or downgrade only from the active supervisor module. On systems with two supervisors, upgrade the standby supervisor and then switch the standby supervisor to active to place the previously active supervisor module in standby mode. Upgrade the EPLDs on the standby supervisor. On systems that have only one supervisor, you must upgrade or downgrade the EPLDs on the active supervisor, which will interfere with data traffic during the upgrade.

Related Documentation

Cisco Nexus 7000 Series documentation is available at the following URL:

http://www.cisco.com/en/US/products/ps9402/tsd_products_support_series_home.html

The documentation set includes the following documents:

- *Cisco Nexus 7000 Series Site Preparation Guide*
- *Cisco Nexus 7000 Series Hardware Installation and Reference Guide*
- *Cisco Nexus 7000 Series Regulatory Compliance and Safety Information*
- *Cisco Nexus 7000 Series Connectivity Management Processor Configuration Guide*

The release notes for upgrading NX-OS are available at the following URL:

http://www.cisco.com/en/US/docs/switches/datacenter/sw/4_0/nx-os/release/notes/401_nx-os_release_note.html

The release notes for upgrading DCNM are available at the following URL:

http://www.cisco.com/en/US/docs/switches/datacenter/sw/4_0/dcnm/release/notes/dcnm_4_0_relnotes.html

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

Send document comments to nexus7k-docfeedback@cisco.com.

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