



Cisco Nexus 9000 Series NX-OS Mode Switch FPGA/EPLD Upgrade Release Notes, Release 10.6(3s)F

Note: Beginning with Release 10.5(3), Cisco provides a single image for NXOS and EPLD images. There will no longer be separate images. Instead, the EPLD image is bundled with all NXOS images and so the image sizes are correspondingly larger.

Here’s the link to the [Cisco Nexus 9000 Series NX-OS Software Upgrade and Downgrade Guide, Release 10.5\(x\)](#).

Release 10.6(3s) supports the following 64-bit image:

- The 64-bit Cisco NXOS image file name with nxos64-s1-dpu as the prefix (for example, nxos64-s1-dpu.10.6.3s.F.bin) is mandatory on Nexus N9324C-SE1U and N9348Y2C6D-SE1U switches.

This document lists the current and past versions of EPLD images and describes how to update them for use with the Cisco Nexus 9000 Series switches.

This document also covers later releases. If a new Cisco Nexus 9000 Series FPGA/EPLD Upgrade Release Notes document isn’t available, that means that these are the latest available numbers for upgrade.

This table lists the changes to this document.

Table 1. Changes to this Document

Date	Description
August 23, 2026	Release 10.6(3s)F became available.

Introduction

The Cisco Nexus 9000 Series NX-OS mode switches contain several programmable logical devices (PLDs) that provide hardware functionalities in all modules. Cisco provides electronic programmable logic device (EPLD) image upgrades to enhance hardware functionality or to resolve known issues. PLDs include electronic programmable logic devices (EPLDs), field programmable gate arrays (FPGAs), and complex programmable logic devices (CPLDs), but they do not include ASICs. In this document, the term EPLD is used for FPGA and CPLDs.

The advantage of having EPLDs for some module functions is that when you need to upgrade those functions, you just upgrade their software images instead of replacing their hardware.

Note: EPLD image upgrades for a line card disrupt the traffic going through the module because the module must power down briefly during the upgrade. The system performs EPLD upgrades on one module at a time, so at any one time the upgrade disrupts only the traffic going through one module.

Cisco provides the latest EPLD images with each release. Typically, these images are the same as provided in earlier releases but occasionally some of these images are updated. These EPLD image updates are not mandatory unless otherwise specified. The EPLD image upgrades are independent from the Cisco In Service Software Upgrade (ISSU) process, which upgrades the system image with no impact on the network environment.

When Cisco makes an EPLD image upgrade available, these release notes announce their availability, and you can download the EPLD images from <https://software.cisco.com/download/navigator.html>.

When choosing an EPLD version for upgrade, ensure you have already installed the corresponding NXOS software version first. It is generally not supported to upgrade to a newer EPLD image built for a future version of NXOS while running on an older NXOS version, unless explicitly supported as per the specific EPLD Release Notes. NXOS and EPLD images are labeled for their related version to avoid any unsupported upgrades.

When to upgrade EPLDs

When new EPLD images are available, the upgrades are always recommended if your network environment allows for a maintenance period in which some level of traffic disruption is acceptable. If such a disruption is not acceptable, then consider postponing the upgrade until a better time.

Note:

- The EPLD upgrade operation is a disruptive operation. Execute this operation only at a programmed maintenance time. The system ISSU upgrade is a nondisruptive upgrade.
- The EPLD version is backward compatible. The NXOS software can be downgraded for the switch and the EPLD version does not have to be downgraded to match the older NXOS version.

Switch requirements

- The Cisco Nexus 9000 Series switch must be running the Cisco NX-OS operating system.
- You must be able to access the switch through a console, SSH, or Telnet (required for setting up a switch running in NX-OS mode).
- You must have administrator privileges to work with the Cisco Nexus 9000 Series switch.

EPLD upgrades available for NX-OS Mode releases 10.5(3) through 10.6(3s)

Each EPLD image that you can download from Software Download page is a bundle of EPLD upgrades packaged into a single EPLD image file. Beginning with NXOS Release 10.5(3), this EPLD image file is bundled with NXOS images. There will no longer be separate images. To see the available EPLD versions for the Nexus 9000 standalone and module switches on this release, see the tables.

Note:

- All updates to an image are shown in boldface. If more than one release is shown for a column, the boldface applies to the first release listed for the column.
- This release of EPLD addresses the Secure Boot Hardware Tampering vulnerability for Nexus 9000 Series switches. Please refer to this Security Advisory for more information – <https://www.cisco.com/c/en/us/support/docs/csa/cisco-sa-20190513-secureboot.html>.

Table 2. Available EPLD Images for the Cisco N9300 Smart Switches

Switch or Uplink Module	EPLD Device	Release 10.5(3)	Release 10.6(1)	Release 10.6(2)	Release 10.6(3)	Release 10.6(3s)
Cisco Nexus 9348Y2C6D-SE1U (N9348Y2C6D-SE1U)	IOFPGA	N/A	0x5 (0.005)	0x8 (0.008)	0x8 (0.008)	0x8 (0.008)
	MIFPGA	N/A	0x7 (0.007)	0x9 (0.009)	0x12 (0.018)	0x12 (0.018)
	DPU FPGA	N/A	0x10000	0x10000	0x10000	0x10000
Cisco Nexus 9324C-SE1U (N9324C-SE1U)	MIFPGA	0x18 (0.024)	0x18 (0.024)	0x19 (0.025)	0x20 (0.032)	0x20 (0.032)
	IOFPGA	0x09 (0.09)	0x11 (0.17)	0x12 (0.018)	0x12 (0.018)	0x12 (0.018)
	DPU FPGA	N/A	0x10000	0x10000	0x10000	0x10000

Determining whether to upgrade EPLD images

If the current EPLD image number for a card is greater than or matches the version expected for your current NXOS software version, you can skip the upgrade.

- To determine the EPLD upgrades needed for a Cisco Nexus 9000 Series switch running 10.6(3s) software, use the **show install impact epld bootflash:<image-name>** command on that switch, where the image-name given is **nxos64-s1-dpu.10.6.3s.F.bin**. First, copy this file to the bootflash to proceed. In this example, the IO FPGA needs to be upgraded.

Note: The CLI content in this document is only an example. The CLI output might change depending on the hardware/software.

```
switch(config)# show install all impact epld nxos64-s1-dpu.10.6.3s.F.bin
```

Retrieving EPLD versions.... Please wait.

Images will be upgraded according to following table:

Module	Type	EPLD	Running-Version	Flashed-Version	New-Version	Upg-Required
--------	------	------	-----------------	-----------------	-------------	--------------

1	SUP	MI FPGA	0x14	0x14	0x14	No
1	SUP	IO FPGA	0x08	0x08	0x08	No
1	SUP	DPU FPGA	0x10000	0x10000	0x10000	No
27	SUP	MI FPGA	0x14	0x14	0x14	No
27	SUP	IO FPGA	0x08	0x08	0x08	No
27	SUP	DPU FPGA	0x10000	0x10000	0x10000	No

Compatibility check:

Module	Type	Upgradable	Impact	Reason

27	SUP	Yes	disruptive	Module Upgradable

EPLD upgrade using install EPLD command

To install the EPLD upgrades needed for a Cisco Nexus 9000 Series switch running 10.5(3) software, use the **install epld bootflash:<image-name> module all** command on that switch. Where the image-name given is **nxos64-s1-dpu.10.6.3s.F.bin**. First, copy this file to the bootflash to proceed. In this example, the IO FPGA needs to be upgraded.

Note: The CLI content in this document is only an example. The CLI output might change depending on the hardware/software.

```
switch(config)# install epld nxos64-s1-dpu.10.6.3s.F.bin
```

^

% Invalid command at '^' marker.

```
switch(config)# install epld nxos64-s1-dpu.10.6.3s.F.bin module all
```

Compatibility check:

Module	Type	Upgradable	Impact	Reason

27	SUP	Yes	disruptive	Module Upgradable

Retrieving EPLD versions.... Please wait.

Images will be upgraded according to following table:

Module	Type	EPLD	Running-Version	Flashed-Version	New-Version	Upg-Required

27	SUP	MI FPGA	0x14	0x14	0x14	No
27	SUP	IO FPGA	0x08	0x08	0x08	No
27	SUP	DPU FPGA	0x10000	0x10000	0x10000	No

All Modules are up to date.

EPLD upgrade during install all

The EPLD image can be upgraded along with the nxos image during **install all**. To upgrade your EPLD image using the **install all** command, use **install all nxos <image-name>**. This command will upgrade both NXOS and EPLD, if required.

```
switch(config)# install all nxos nxos64-s1-dpu.10.6.3s.F.bin
```

Installer will perform compatibility check first. Please wait.

Installer is forced disruptive

Verifying image bootflash:/nxos64-s1-dpu.10.6.3s.F.bin for boot variable "nxos" .

[#####] 100% -- SUCCESS

Verifying EPLD/FPGA image //bootflash/nxos64-s1-dpu.10.6.3s.F.bin.

[#####] 100% -- SUCCESS

Verifying image type.

[#####] 100% -- SUCCESS

Preparing "nxos" version info using image bootflash:/nxos64-s1-dpu.10.6.3s.F.bin.

[#####] 100% -- SUCCESS

Preparing "bios" version info using image bootflash:/nxos64-s1-dpu.10.6.3s.F.bin.

[#####] 100% -- SUCCESS

Performing module support checks.

[#####] 100% -- SUCCESS

Notifying services about system upgrade.

[#####] 100% -- SUCCESS

Compatibility check is done:

Module bootable Impact Install-type Reason

1	yes	disruptive	reset	default upgrade is not hitless
27	yes	disruptive	none	default upgrade is not hitless

Images will be upgraded according to following table:

Module	Image	Running-Version(pri:alt)	New-Version	Upg-Required
1	lcn9k	10.6(3s)	10.6(3s)	no
27	nxos	10.6(3s)	10.6(3s)	no
27	bios	v01.19(01/23/2026):v01.19(01/23/2026)	v01.17(05/09/2025)	no

FPGA microcode will be upgraded according to following table:

Module	Type	EPLD	Running-Version	Flashed-Version*	New-Version	Upg-Required
27	SUP	MI FPGA	0x14	0x14	0x14	No
27	SUP	IO FPGA	0x8	0x8	0x8	No
27	SUP	DPU FPGA	0x10000	0x10000	0x10000	No

* If Running-Version and Flashed-Version are different it implies that the system has not yet been reloaded for the new version to take effect

Switch will be reloaded for disruptive upgrade.

Do you want to continue with the installation (y/n)? [n] n

switch(config)#

EPLD upgrades are disruptive. For non-disruptive NXOS system upgrade, use the **install all nxos <image-name> non-disruptive** command. This command will upgrade and load a new NXOS version and program the EPLD. However, explicit power cycle or reload of the switch is required for the new EPLD image to take effect.

To upgrade only NXOS, you can use the **skip-epld** option. Use this command: **install all nxos <image-name> skip-epld**

For additional information about ISSU, please see the [Cisco Nexus 9000 Series NX-OS Software Upgrade and Downgrade Guide](#).

Displaying the status of EPLD upgrades

To display the status of EPLD upgrades on the switch, use the **show install epld status** command.

Limitations

When EPLDs are upgraded, apply these guidelines and observations:

- If a module is not online, you cannot upgrade its EPLD images.
- If there are two supervisors that are installed in the switch (Cisco Nexus 9504, 9508, and 9516 switches only), you can either upgrade only the standby or upgrade all modules (including both supervisor modules) by using these commands:
 - **install epld bootflash:<image-name> module standby-supervisor-slot-number** (upgrades only the standby supervisor module)

Note: After you use this command, you can switchover the active and standby supervisor modules and then upgrade the other supervisor.

- **install epld bootflash:<image-name> module all** (upgrades all of the modules)
- If there is only one supervisor installed in the switch, the upgrade or downgrade of the EPLD images is disruptive.

Related documentation

The entire [Cisco NX-OS 9000 Series documentation](#) set.

Release notes

The entire [Cisco NX-OS 9000 Series release notes](#) set.

Documentation feedback

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