



Downloading an Image

Download the image to the same partition of the bootflash where the base image exists. For information on downloading images see, [Loading and Managing System Images Configuration Guide, Cisco IOS XE Release 3S](#).



Note Ensure that you have chosen an upgrade image that is supported by your current software version.

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Bootflash Space Requirements

The ISSU software upgrade process requires a minimum of 2X image size available space in bootflash memory.

Restrictions for Upgrading from Cisco IOS XE Release 3.x to Cisco IOS XE Release 16.x

- Upgrading from Cisco IOS Release 3.x to Cisco IOS Release 16.x is only supported with consolidated mode.
- Upgrading from Cisco IOS Release 3.x to to Cisco IOS Release 16.x using sub-package mode is *not* supported and vice-versa.
- ISSU is *not* supported on upgrade from Cisco IOS XE Release 3.x to 16.x .
- RSP1 Module is *not* supported in Cisco IOS XE Releases 16.x.
- Extracting the Cisco IOS XE Release 16.x image in Cisco IOS XE Release 3.x is not supported, and vice versa.

Upgrading from Cisco IOS XE Release 3.x to Cisco IOS XE 16.x



Note A full upgrade procedure may require reloading the system repeatedly (around two times). Use the **show version** command, after each reload to verify the image version and license level.

Before you begin

- Download the Cisco IOS XE 16.x image from Cisco.com.



Note Cisco IOS XE Release 16.5.1 and onwards is supported.

- Download the ROMMON release from Cisco.com.



Note The system automatically reboots twice, on a FPGA upgrade.

Procedure

Step 1 Backup the running configuration.

Example:

```
Router# copy running-config bootflash:demo.cfg
Destination filename [demo.cfg]?
1834 bytes copied in 0.112 secs (16375 bytes/sec)
```

Step 2 Upgrade the ROMMON image.

Example:

```
Router# upgrade rom-monitor filename bootflash:<rommon-file-name>.pkg all
```

```
Upgrade rom-monitor on Router-Processor 0
Target copying rom-monitor image file
. . .
```

```
ROMMON upgrade complete
```

To make the new ROMMON permanent, you must restart the linecard

```
Router# reload <-- Reloads the active and standby router processor and boot the IOS 3.x
image
```

```
. . .
Router# show platform
. . .
```

Slot	CPLD Version	Firmware Version
R0	16040627	15.6(14r)S □--- Rommon version depends on the type of system

```
R1      16112128      15.6(14r)S
F0      16040627      15.6(14r)S
F1      16112128      15.6(14r)S
```

Step 3 Install the IOS XE 16.x universal image, save the configuration, and reload the device.

Example:

```
Router# configure terminal
Router(config)# no boot system bootflash:previous_image.bin <-- Removes the previous boot
statement
Router(config)# boot system bootflash:16.x-universal-image.bin <-- Adds the new boot statement
Router(config)# end
Router# write
Building configuration...
[OK]
Router# reload <-- Reload the active and standby router processor and boot the IOS XE 16.x
Universal image
```

Step 4 Restore the backup configuration to the running configuration.

Example:

```
Router# copy bootflash:demo.cfg running-config
Destination filename [running-config]?

Router# configure terminal
Router(config)# no boot system bootflash:previous_image.bin <-- Removes the previous boot
statement
Router(config)# end
Router# write
Building configuration...
[OK]
```

Installing Workflow Based ISSU

Starting from release Cisco IOS XE Amsterdam 17.3.1, the RSP3 platform supports installing workflow-based ISSU. So ISSU from release Cisco IOS XE Amsterdam 17.3.1 and later is supported, but it can't support ISSU downgrade to versions prior to release Cisco IOS XE Amsterdam 17.3.1.

Following is the syntax to install workflow-based ISSU:

```
install add file bootflash:<path>/<binary> activate issu commit
```

Example

```
install add file bootflash:Image/asr903rsp3-adventerprisek9.upgrade.bin activate issu
linecard-delay 150 commit
```

Secure eUSB Configuration

Table 1: Feature History

Feature Name	Release Information	Description
Secure eUSB Configuration	Cisco IOS XE Bengaluru 17.6.1	Use the platform secure-cfg command to provide enhanced security to the routers.

Effective with Cisco IOS XE Bengaluru Release 17.6.1, use the **platform secure-cfg** command to provide enhanced security to the routers. When you enable the command, the router does not boot if the eUSB is replaced, swapped, or modified externally. Thus, you cannot format the eUSB externally and this prevents the misuse of the router.

This feature is applicable on the Cisco A900-RSP3C-400-W, Cisco A900-RSP3C-400-S, and Cisco A900-RSP3C-200-S routers.

This feature is applicable on the Cisco NCS4216-RSP routers.

To enable the **platform secure-cfg** command:

```
Router#enable
Router#configure terminal
Router(conf)#platform secure-cfg
Router(conf)#end
Router# write memory
```

Use the following command to verify that the **platform secure-cfg** command is enabled.

```
Router#show running-config | i secure-cfg
platform secure-cfg
```