

Upgrade/Downgrade ACI Switch (Leaf/Spine) via CLI without APIC

Contents

[Introduction](#)

[Prerequisites](#)

[Requirements](#)

[Components Used](#)

[Problem](#)

[Solution](#)

[Step 1. Upload the ACI Firmware Image to Switch](#)

[Step 2. Clear Existing Switch Boot Variables](#)

[Step 3. Set the New Switch Boot Variables](#)

[Step 4. Verify the Boot Variables](#)

[Step 5. Reload the Chassis](#)

[Verify](#)

Introduction

This document describes the upgrade/downgrade of the Application Centric Infrastructure (ACI) switch without an Application Policy Infrastructure Controller (APIC).

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

The information in this document is based on these software and hardware versions:

- N9K-C93180YC-EX
- Console Cable
- Universal Serial Bus (USB) storage, (formatted as FAT32)
- Cisco Nexus ACI firmware image

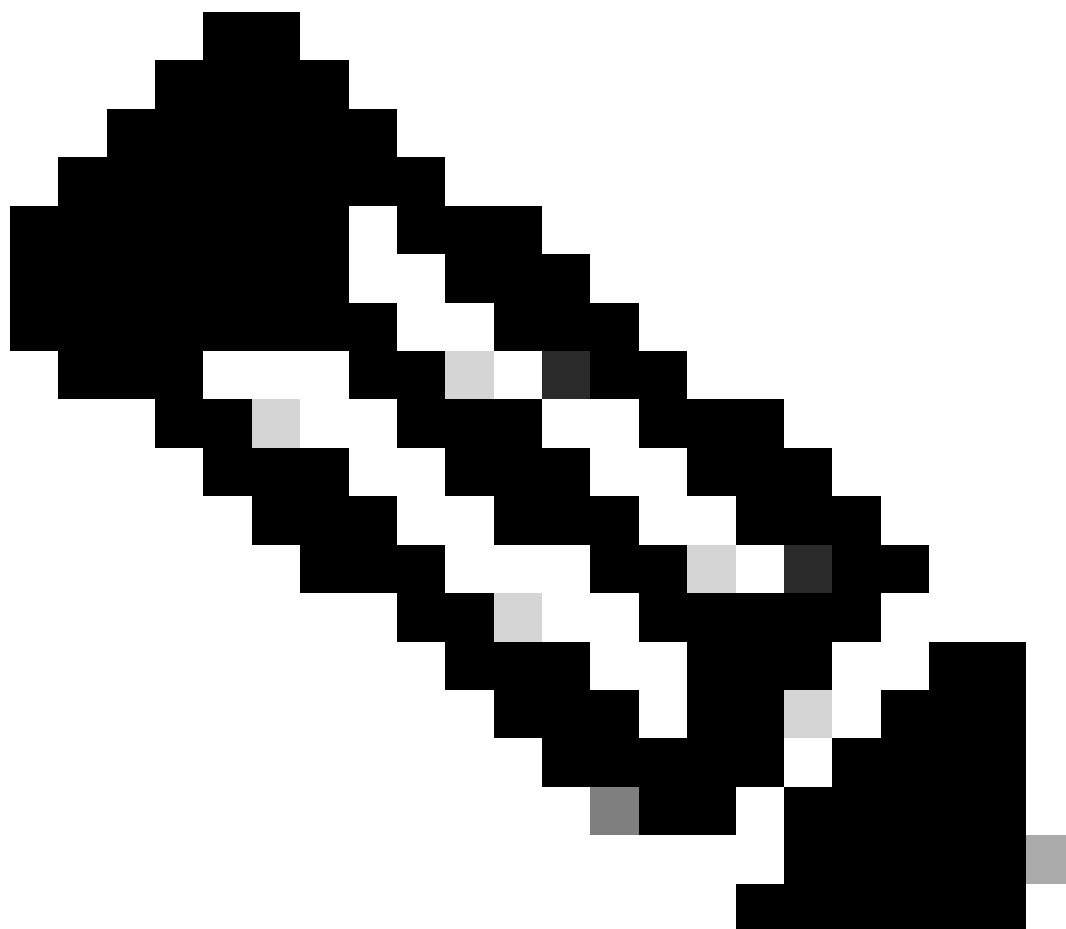
The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, ensure that you understand the potential impact of any command.

Problem

During the maintenance phase of equipment, equipment hardware is often damaged and requires Return

Materials Authorization (RMA) replacement. However, after you receive the RMA, the version running on the equipment is rarely consistent with the version running on your existing network. You must upgrade or downgrade the version before you can replace the device.

However, ACI device upgrade/downgrade must be performed on APIC, but the device currently cannot be added to APIC because of different versions. Therefore, you must use the CLI in order to upgrade or downgrade the Switch.



Note: In some cases, the Erasable Programmable Logic Device (EPLD)/Field Programmable Gate Array (FPGA)/Basic Input/Output System (BIOS) version of your switch also needs to be upgraded.

Upgrading the ACI version through the CLI ignores the upgrade of other versions.

It is recommended that the target you upgrade to is a small version different from your APIC version.

After the switch joins the APIC, upgrade the switch to a consistent version, that is, upgrading the switch using APIC and also upgrading the EPLD/FPGA/BIOS version.

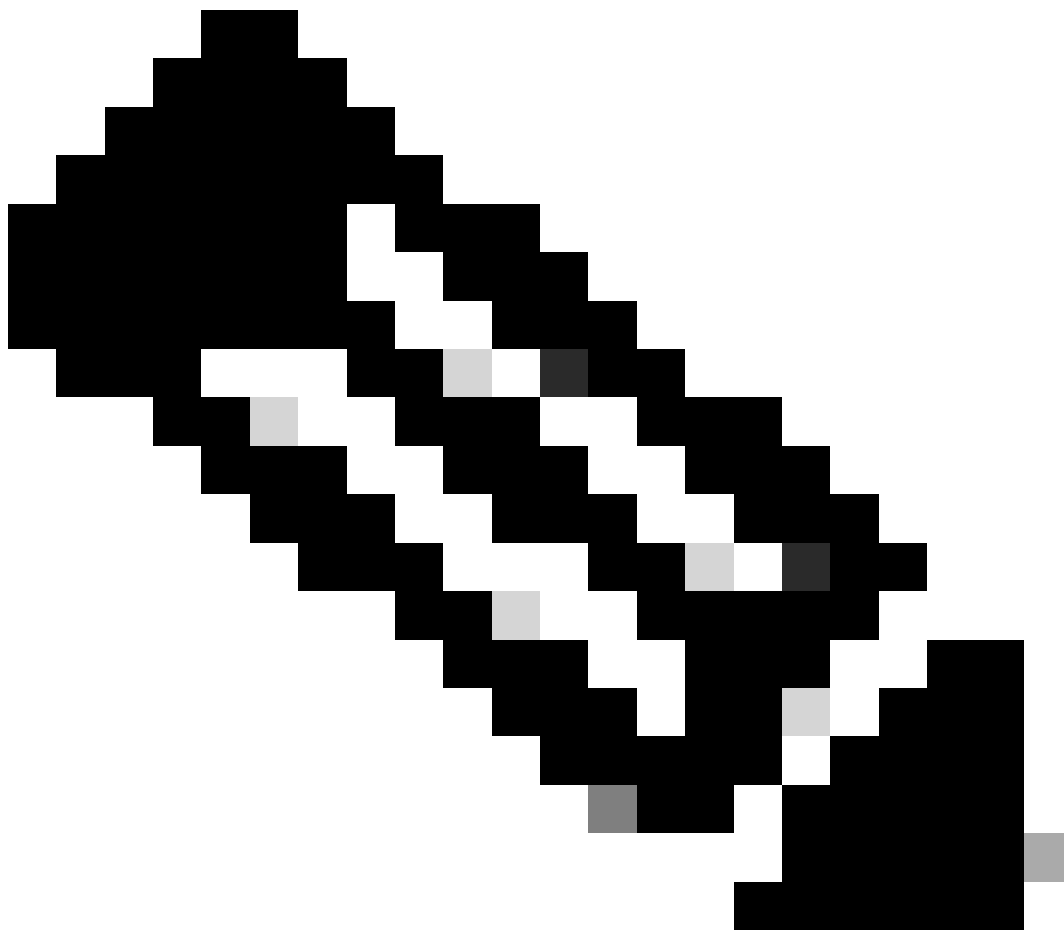
Solution

You can upgrade/downgrade the device through the five steps mentioned.

Step 1. Upload the ACI Firmware Image to Switch

You can use a USB storage device in order to transfer the image to the switch.

```
(none)# cp /usb/usb1/aci-n9000-dk9.15.2.8h.bin /bootflash/
```



Note: If your switch is your existing spare part, in some cases, the switch can have the Out-of-Band (OOB) address of your previous configuration.

At this time, you can also transfer the image to the device through protocols such as Secure Copy (SCP)/File Transfer Protocol (FTP).

```
(none)# scp user@your-scp-server:aci-n9000-dk9.15.2.8h.bin /bootflash/aci-n9000-d k9.15.2.8h.bin
(none)# md5sum /bootflash/aci- n9000-dk9.15.2.8h.bin
e9065f12d6eac79d15091f0c595ed9e5 /bootflash/aci- n9000-dk9.15.2.8h.bin
```

Step 2. Clear Existing Switch Boot Variables

```
(none)# clear-bootvars.sh
(none)#
```

Step 3. Set the New Switch Boot Variables

```
(none)# setup-bootvars.sh aci-n9000-dk9.15.2.8h.bin
(none)#
```

Step 4. Verify the Boot Variables

```
(none)# cat /mnt/cfg/0/boot/grub/menu.lst.local
boot aci-n9000-dk9.15.2.8h.bin
(none)# cat /mnt/cfg/1/boot/grub/menu.lst.local
boot aci-n9000-dk9.15.2.8h.bin
(none)#
```

Step 5. Reload the Chassis

```
(none)# reload
This command will reload the chassis, Proceed (y/n)? [n]: y
```

Verify

Check the switch version after restarting.

```
(none)# show version
Cisco Nexus Operating System (NX-OS) Software
TAC support: http://www.cisco.com/tac
Documents: http://www.cisco.com/en/US/products/ps9372/tsd\_products\_support\_series\_home.html
Copyright (c) 2002-2014, 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
```

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Software

BIOS: version 07.69
kickstart: version 15.2(8h) [build 15.2(8h)]
system: version 15.2(8h) [build 15.2(8h)]
PE: version 5.2(8h)
BIOS compile time: 04/07/2021
kickstart image file is: /bootflash/aci-n9000-dk9.15.2.8h.bin
kickstart compile time: 12/06/2023 03:00:51 [12/06/2023 03:00:51]
system image file is: /bootflash/auto-s
system compile time: 12/06/2023 03:00:51 [12/06/2023 03:00:51]

Hardware

cisco N9K-C93180YC-EX ("supervisor")
Intel(R) Xeon(R) CPU @ 1.80GHz with 24499200 kB of memory.
Processor Board ID FD0211113N0

Device name: f6leaf101
bootflash: 62522368 kB

Kernel uptime is 00 day(s), 00 hour(s), 51 minute(s), 12 second(s)

Last reset at 560000 usecs after Thu Mar 21 23:03:15 2024 CST
Reason: reset-requested-by-cli-command-reload
System version: 15.2(8h)
Service: PolicyElem Ch reload

plugin

Core Plugin, Ethernet Plugin
(none)#