CISCO Switch Firmware Upgrade Guide

Objectives

1. **Download and Prepare the IOS Image**: Obtain the latest IOS image for the Cisco 9300 switch and save it on your computer or USB drive.
2. **Set Up the Transfer Method**: Install and configure a TFTP server on your computer (if using TFTP) or ensure your USB drive is ready.
3. **Connect to the Switch**: Use a console cable and PuTTY to connect to the switch.
4. **Log In and Verify Settings**: Access the switch, log in, check the current IOS version, and verify available space.
5. **Transfer the IOS Image**: Move the IOS image to the switch's flash memory using TFTP or USB.
6. **Set the New Image to Boot**: Configure the switch to use the new IOS image and save the settings.
7. **Reboot and Verify**: Restart the switch, log back in, and confirm the new image is running.

What You Need

1. **Cisco 9300 Switch**
2. **Console Cable – usb to mini usb or RJ45 to USB or Serial if the laptop has serial port**
3. **Computer/Laptop**
4. **PuTTY Terminal Emulator - Link**
5. **TFTP Server** (or a USB drive with the IOS image)
6. **New Cisco IOS Image File**

Preparation

1. **Download the IOS Image:**

   a) Get the new IOS image file from Cisco's website and save it on your computer.

2. **Set Up TFTP Server (if using TFTP):**

   a) **Download and Install Tftpd64**:

      i. Go to the Tftpd64 website and download the latest version.

      ii. Run the installer and follow the prompts to install Tftpd64 on your computer.

   b) **Configure Tftpd64**:

      i. Launch Tftpd64.
      ii. Set the TFTP root directory by selecting the folder where your IOS image file is stored.
      iii. Ensure the **"Server Interfaces"** field shows the correct IP address of your computer.

   c) **Add the IOS Image File**:

      i. Copy the IOS image file into the TFTP root directory.
      ii. Verify the file appears in the Tftpd64 window under the **"Current Directory"**.

   d) **Start the TFTP Server**:

      i. Tftpd64 should start the TFTP server automatically. Ensure that the TFTP server is active and ready to receive requests.

3. **Connect Equipment:**

   a) Connect the console cable from your computer to the switch.

   b) Open PuTTY on your computer.

   c) Set PuTTY to use the serial connection type with these settings:

      - **Serial Line:** *USB Serial Port*
      - **Speed**: 9600
      - **Connection Type:** Serial

4. **Start the Connection:**

   a) Click **Open** in PuTTY to connect to the switch.

Installation Steps

5. Verify the checksum

a) Result should be the same on the website
verify /md5 flash:(filename)

6. Login to the switch

7. Remove old software

a) Install remove inactive

8. Copy the image to the switch

a) copy tftp://< tftp ip >/image/ (firmware filename) flash:

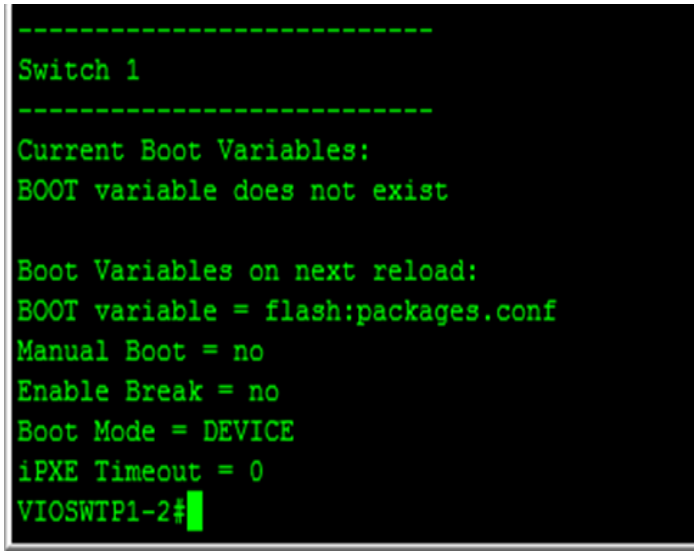
9. Proceed with the IOS upgrade. Verify the integrity of the new IOS binary

a) verify /md5 flash:(firmware filename)
b) verify flash:(firmware filename)

10. Set Boot Variable

conf t
!
boot system flash:packages.conf

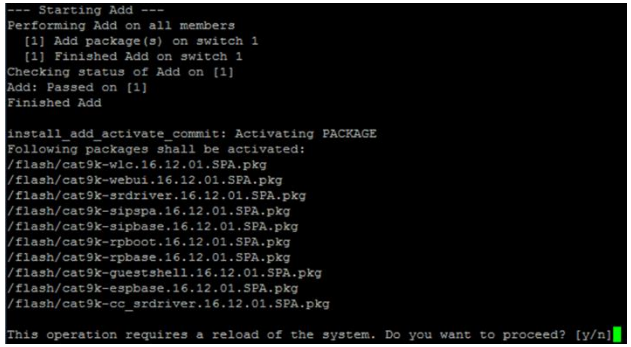
11. Verify boot variable



12. Install the firmware

a) install add file flash:(filename) activate commit

b) Choose Yes if below prompt shown



c) After the software has been successfully installed, use the dir flash: command to verify that the flash partition has ten new .pkg files and two .conf files.

d) Switch# dir flash:*.pkg

e) Switch# dir flash:*.conf

13. Verify Installation

After the image boots up, use this command to verify the version of the new image.

a) Switch# show version