Use Backup Image on Wireless LAN Controllers

Contents

Introduction

This document describes how to use the backup image on a Wireless LAN Controller (WLC).

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- Knowledge of how to configure the WLC and Lightweight Access Point (LAP) for basic operation

Components Used

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

- Any Cisco WLC that runs AireOS and Cisco BootLoader Version: 8.5.103.0.

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.

Primary and Backup Images on WLCs

The WLC, by default, maintains two images. These images are the primary image and the backup image. The primary image is the active image used by the WLC while the backup image is used as a backup for the active image.

The controller bootloader (ppcboot) stores a copy of the active primary image and the backup image. If the primary image becomes corrupted, you can use the bootloader to boot with the backup image.

Configure

You can change the active image with either of these two methods: throughout the boot process or you can manually change the active boot image.

Throughout Boot Process

If you assume that the controller has a valid backup image, reboot the controller. Throughout the boot process on the controller, press Esc key to see additional options. You are prompted to choose an option from this list:

1. Run primary image

2. Run backup image

3. Change active boot image

4. Clear configuration

5. Manually update images

Choose Option 3: **Change active boot image** from the boot menu to set the backup image as the active boot image. The controller, when rebooted, boots with the new active image.

```
Cisco bootloader . . .

Cisco BootLoader Version : 8.5.103.0 (Cisco build) (Build time: Jul 25 2017 - 07:47:10)

Octeon unique ID: 03c000610221f31e0057
OCTEON CN7240-AAP pass 1.3, Core clock: 1500 MHz, IO clock: 800 MHz, DDR clock: 1067 MHz (2134 Mhz
DRAM: 8 GiB
Clearing DRAM...... done
CPLD Revision : a5
Reset Reason : Soft reset due to RST_SOFT_RST write
SF: Detected S25FL064A with page size 256 Bytes, erase size 64 KiB, total 8 MiB
MMC: Octeon MMC/SD0: 0 (Type: MMC, Version: MMC v5.1, Manufacturer ID: 0x15, Vendor: Man 150100 Sr
Net: octmgmt0, octmgmt1, octeth0, octeth1, octeth2, octeth3, octeth4, octeth5, octeth6
SF: Detected S25FL064A with page size 256 Bytes, erase size 64 KiB, total 8 MiB


Press <ESC> now to access the Boot Menu...

=============================================================
 Boot Loader Menu
=============================================================

 1. Run primary image (8.8.111.0) - Active
 2. Run backup image (8.5.131.0)
 3. Change active boot image
 4. Clear configuration
 5. Manually update images


-------------------------------------------------------------
Enter selection:
```

Note: Older versions of Cisco BootLoader can show slightly different Menu options.

Manually via CLI

You can also manually change the active boot image of the controller with the `config boot {primary | backup }` command.

Each controller can boot off the primary, previously loaded OS image or boot off the backup image, an OS image that was loaded earlier. To change the controller boot option, use the config boot command. By default, the primary image on the controller is chosen as the active image.

```
(Cisco Controller) >config boot ?

primary Sets the primary image as active.
backup Sets the backup image as active.

(Cisco Controller) >
```

Manually via GUI

1. Choose **Commands** > **Config Boot** to navigate to the **Config Boot Image page**, which displays the primary and backup images presently available on the controller and also indicates the current image in use showing as **(active)**.
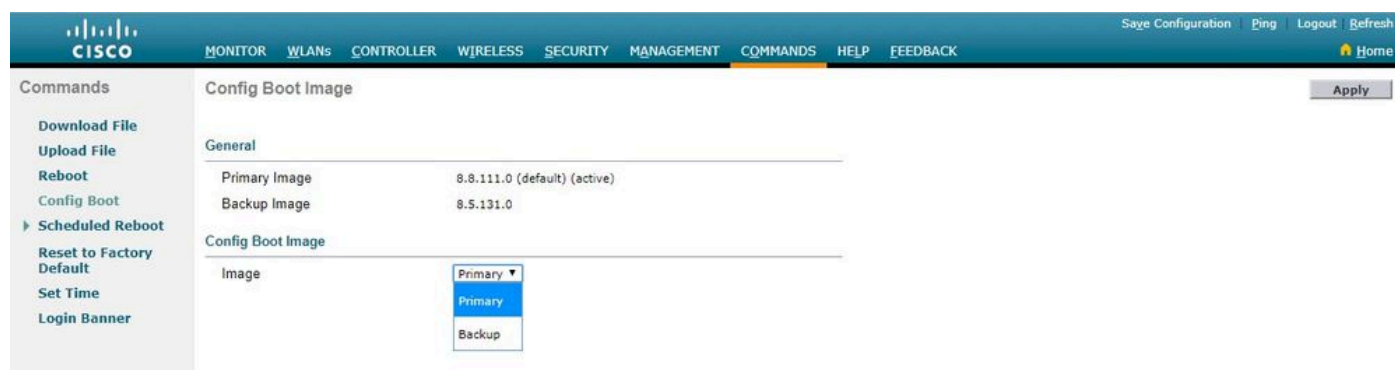
2. From the **Image** drop-down list, choose the image to be used as the active image.

3. Click **Apply.**

4. Save the configuration and reboot the controller.

The controller, when rebooted, boots with the image that you chose.

In order to remove or overwrite an image on the WLC, boot up the WLC with the image that you want to keep and perform an upgrade. This way, the new image replaces the primary image.

Note: The previous backup image is lost.

Verify

On the controller GUI, to see the active image that the controller uses currently, choose **Monitor** > **Summary** to navigate to the Summary page and see the **Software Version field**.

Or you can navigate to **Commands** > **Config Boot** to navigate to the **Config Boot Image** page, and the image that runs shows up as **(active)**:

On the controller CLI, use the show boot command to view the primary and backup image present on the controller.

```
(Cisco Controller) >show boot
Primary Boot Image............................... 8.8.111.0 (default) (active)
Backup Boot Image................................ 8.5.131.0

(Cisco Controller) >
```

Related Information

- **Cisco Wireless Controller Configuration Guide, Release 8.8**
- **Cisco Technical Support & Downloads**