Aruba Instant Upgrade Procedure

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Upgrade Scenario One: IAP-Locally managed

Locally managed IAPs

▪ The IAPs will continue to serve clients, pass traffic and will be managed locally. However, connectivity to Activate will be lost. This implies that the IAPs will not synchronize with any new provisioning rules in Activate and will not get the new image information automatically from Activate for the upgrade, using local WebUI.

▪ Since the automatic image check feature is disabled, for the affected version, you can obtain a fixed version image file from your local file system or from a TFTP or HTTP URL. To upgrade locally managed IAPs from the affected version to a fixed version, please follow the steps given below:

Note: Please ensure that you have taken a backup of the configuration from the IAP cluster before the upgrade.
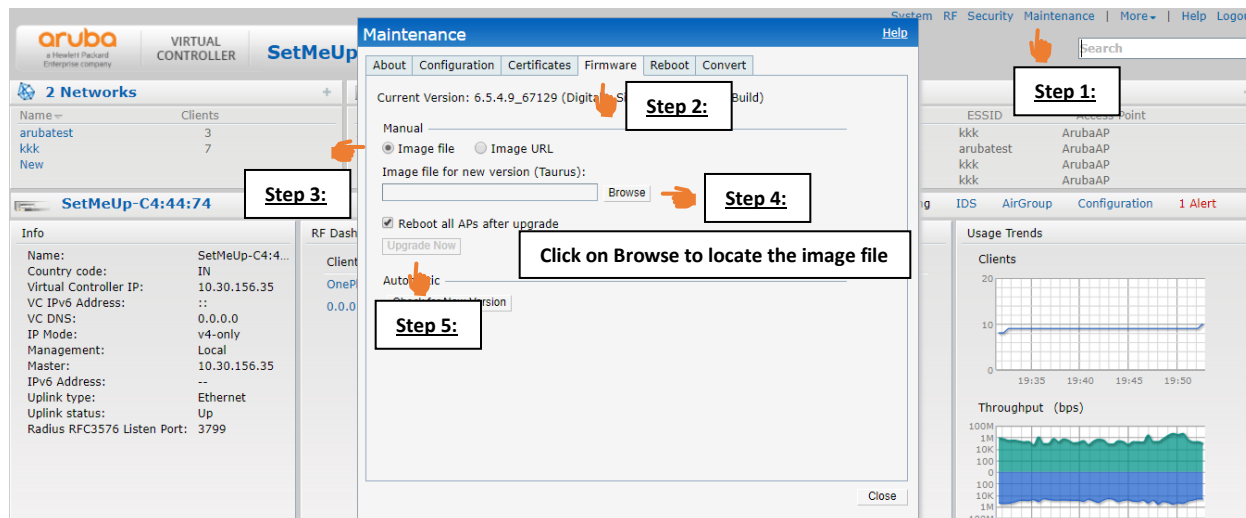
Upgrading an Image Using WEB UI:

To manually check for a new firmware image version and obtain an image file, please follow the steps given below:

• Navigate to Maintenance > Firmware. The Firmware window will be displayed.

On the latest ARUBA Instant OS:

On the old Aruba Instant OS Web UI for single IAP model cluster:

- Under the Manual section, please perform the following steps:

  ➤ Select the Image file option, this method is available for the single-class IAPs only.

    The following examples, describe the image file format, for different models of IAPs:

    - For IAP-134/135 — ArubaInstant_Cassiopeia_6.3.1.1-4.0.0.0_xxxx
    - For RAP-108/109 and IAP-114/115— ArubaInstant_Pegasus_6.3.1.1-4.0.0.0_xxxx
    - For RAP-155/155P — ArubaInstant_Aries_6.3.1.1-4.0.0.0_xxxx
    - For IAP-220 Series— ArubaInstant_Centaurus_6.3.1.1-4.0.0.0_xxxx
    - For all other IAPs —ArubaInstant_Orion_6.3.1.1-4.0.0.0_xxxx

  ➤ Select the "Image URL" option. Select this option to obtain an image file from a TFTP, FTP, or HTTP URL.

    - HTTP - http://<IP-address>/<image-file>. For example, http://<IP-address>/ArubaInstant_Orion_6.3.1.1-4.0.0.0_xxxx
    - TFTP - tftp://<IP-address>/<image-file>. For example, tftp://<IP-address>/ArubaInstant_Orion_6.3.1.1-4.0.0.0_xxxx
    - FTP - ftp://<IP-address>/<image-file>. For example, ftp://<IP-address>/ArubaInstant_Orion_6.3.1.1-4.0.0.0_xxxx

On the latest ARUBA Instant OS, for a single IAP model cluster:

In case of a mixed IAP cluster, you will find multiple tabs to enter the URL based on the IAP type as displayed in the image below:

On the old Aruba Instant OS Web UI:

On the old Aruba Instant OS Web UI for a mixed IAP model cluster, multiple tabs will be displayed to enter the URL based on the IAP type as below:

- Clear the "Reboot all APs after upgrade" option, if required. The "Reboot all APs after upgrade" checkbox is selected by default, to allow the IAPs to reboot automatically after a successful upgrade. To reboot the IAPs at a later time, clear the Reboot all APs after upgrade checkbox.
- Click "Upgrade Now" to upgrade the IAP to the newer version.

Upgrading an Image Using CLI:

> ➢ **To upgrade an image using a HTTP, TFTP, or FTP URL:**
> (Instant Access Point)# upgrade-image <ftp/tftp/http-URL>

```
ArubaAP# upgrade-image ?
<url>     ftp/tftp/http URL syntax

ArubaAP# upgrade-image tftp://<IP-address>/ArubaInstant_Orion_6.3.1.1-4.0.0.0_xx ?
<cr>
no-reboot

ArubaAP# upgrade-image tftp://<IP-address>/ArubaInstant_Orion_6.3.1.1-4.0.0.0_xxxx
```

> ➢ **To upgrade an image without rebooting the IAP:**
> (Instant Access Point)# upgrade-image2-no-reboot <ftp/tftp/http-URL>

```
ArubaAP# upgrade-image2-no-reboot http://<IP-address>/ArubaInstant_Orion_6.3.1.1-4.0.0.0_xxxx

Upgrade is triggered.
Please type "show upgrade" to get the result.
ArubaAP#
```

> ➢ **To view the upgrade information:**
> (Instant Access Point)# Show upgrade info

Image Upgrade Progress

Mac   IP Address   AP Class Status   Image Info Error Detail

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d8:c7:c8:c4:42:98 10.17.101.1 Orion   image-ok image file none

Auto reboot: enable

Use external URL: disable

To upgrade locally managed IAPs using activate:

Please follow the steps given below to upgrade the IAP cluster from Aruba Activate, for both single IAP model cluster and mixed IAP model cluster:

Note: Please do ensure that the IAPs have a valid IP configuration, a DNS IP and an internet connection.
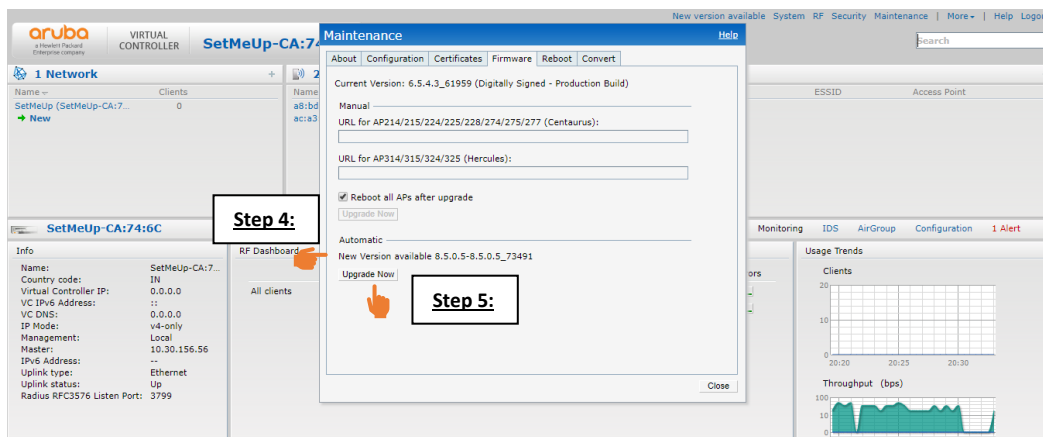
Login to IAP cluster WebUI
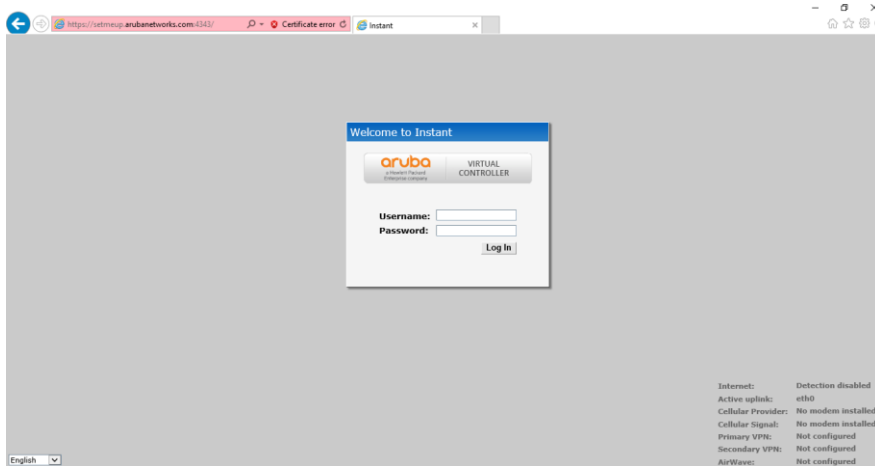
1. From the side menu, under "Maintenance", click on "Firmware".
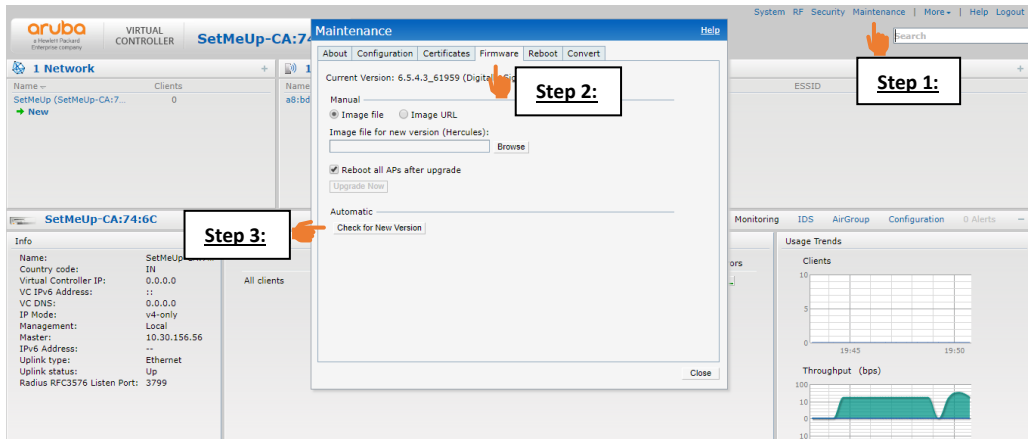
2. Click on the "Check for New Version" button.

3. The IAP will contact the "Activate Server" to get the latest available version and you will see the latest available version displayed.
4. Click on the "Upgrade Now" button to upgrade all the IAPs automatically to the latest available version through the Activate Server.
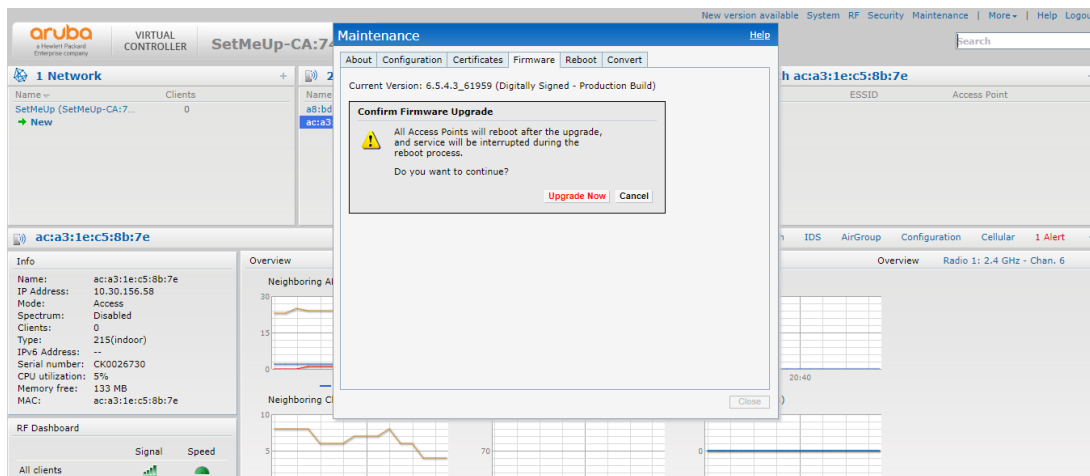
5. All the IAPs will then automatically upgrade themselves and reboot and come up to the upgraded version.

Upgrade Scenario Two: IAP-Managed by Aruba Central

It is easy to upgrade to the current version using Aruba Central. The latest recommended version is already available under the Maintain > firmware tab on Aruba Central.

Instant Access Points managing via Aruba Central.

Network Topology: For IAPs in the same Layer 2 network formed as a cluster and being managed by Aruba Central.

Upgrading Steps:

Follow these steps to upgrade the IAP cluster to the beta code from Aruba Central:

a)   Login to the Aruba Central Account.

b)   Click on the menu symbol next to "All Groups".

c)   Select the Group that the IAP Cluster is a part of.

d)   From the side menu, under "Maintenance", click on Firmware.

e)   Select the VC Name that you would like to upgrade and click "Upgrade Firmware"

f)   An upgrade firmware window will pop up, as shown below:

   ➢   Select "Recommended" and click "Upgrade", to automatically upgrade to the recommended version.
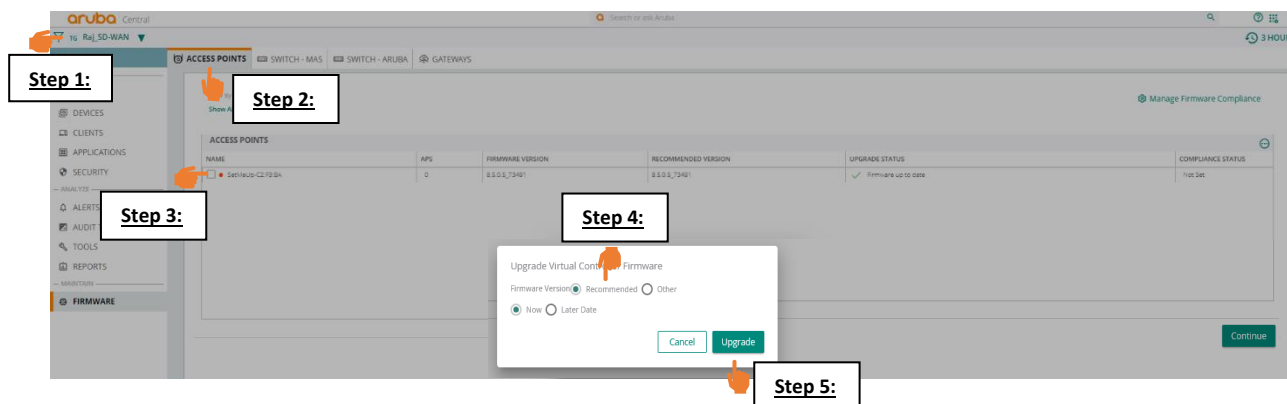
   ➢   Select "Other", to manually upgrade the IAPs and follow the steps given below:

Upgrading IAP when compliance is "not set":

Step 1: Click to select the IAP VC.

Step 2: Click on other to choose the type of firmware.

Step 3:
- ➢ You can choose the firmware from:
- ▪ General Availability
- ▪ Early Availability Build
- ▪ Custom Build
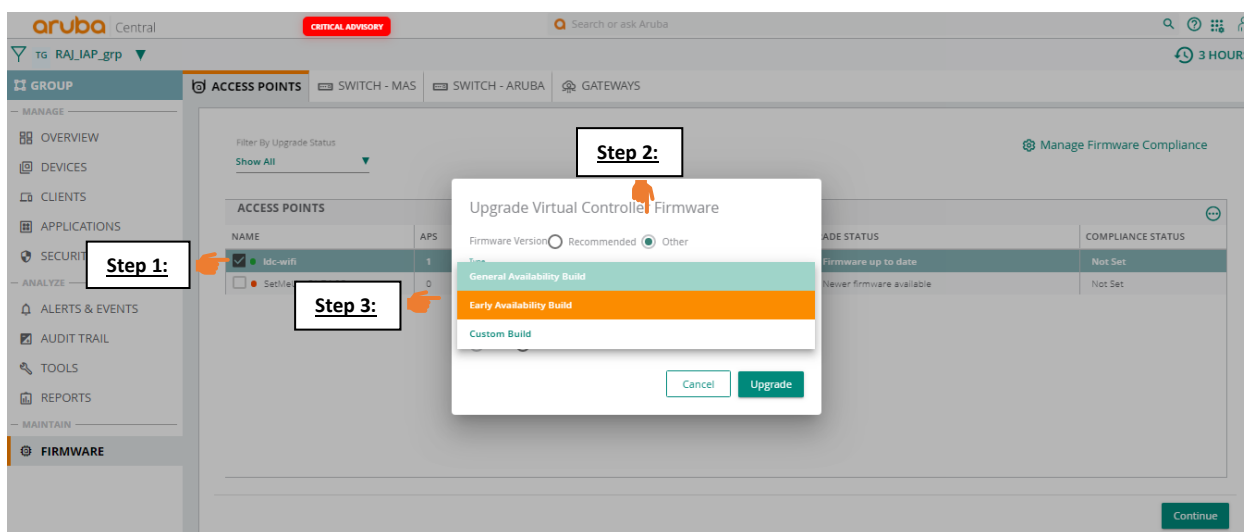
Step 4:
- ▪ Once you decide the type of firmware you have to click on the drop down list to view available firmware versions:
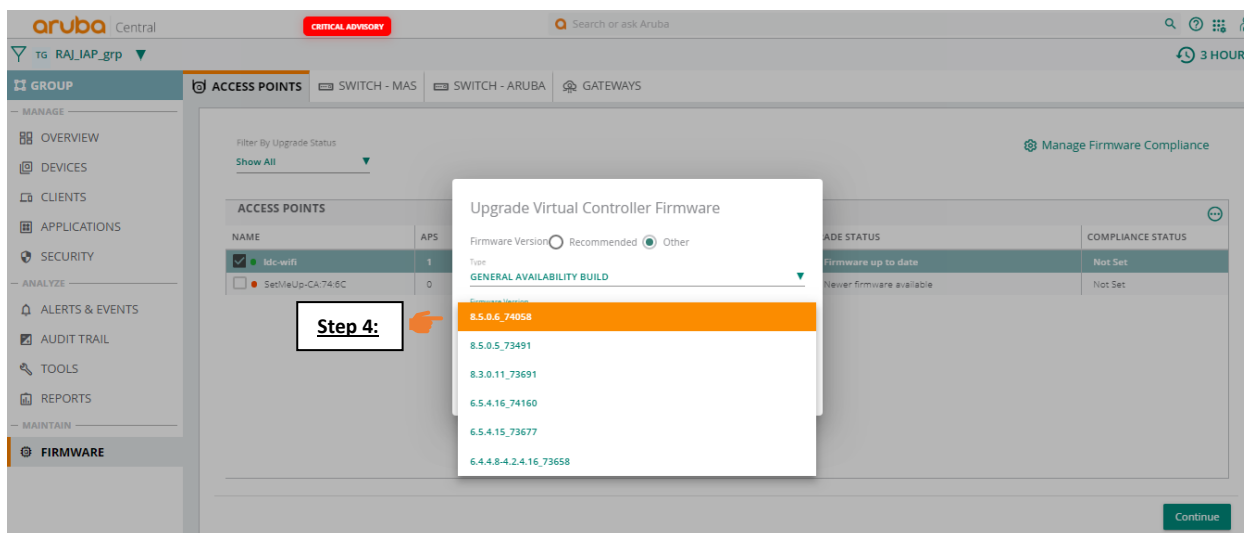
Step 5: Select either the "Now" or "Later Date" radio button to schedule an upgrade.

Step 6: Click on "Save and Upgrade" to upgrade the IAPs.

If Compliance is "Set":

- If the compliance is "Set" that means the IAPs are already upgraded to the selected firware version.
- If you now decide to upgrade to any other specific IAP firmware version, then it can be only done by changing the compliance setttings.
- The VC check box will also be grayed out when the compliance is met.

We have to change the compliance in order to upgrade the IAPs to a specific version by following below steps:

Step 1:
- Click on Manage Firmware Compliance.

Step 2:
- Select the appropriate group.
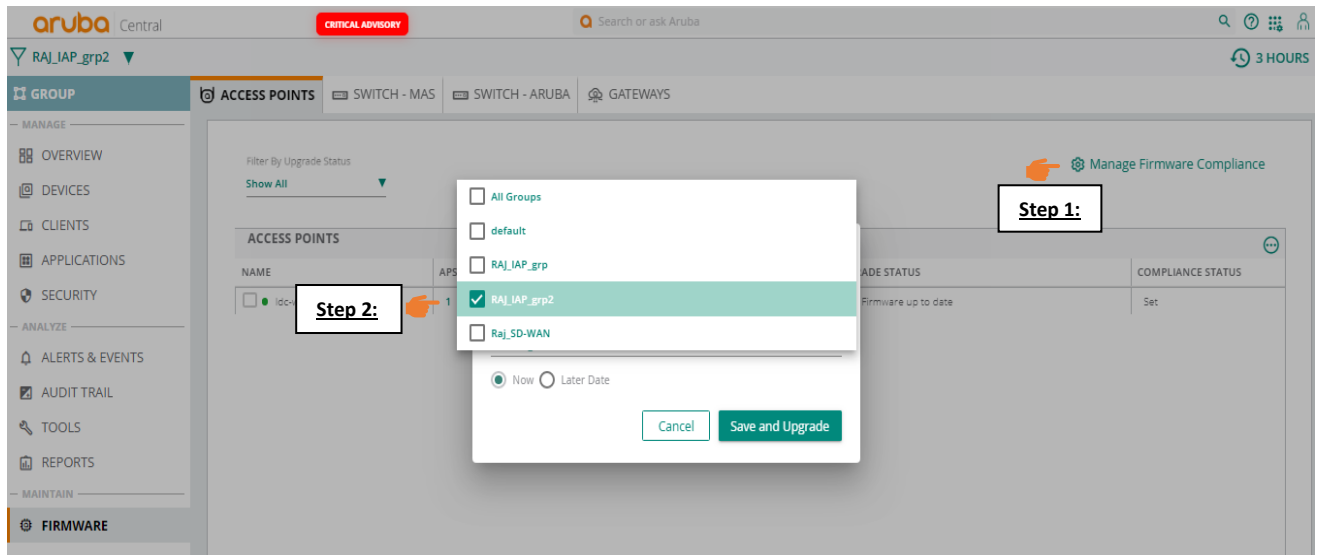
Step 3:
- Click on "Firmware version" drop down list to choose the firmware.
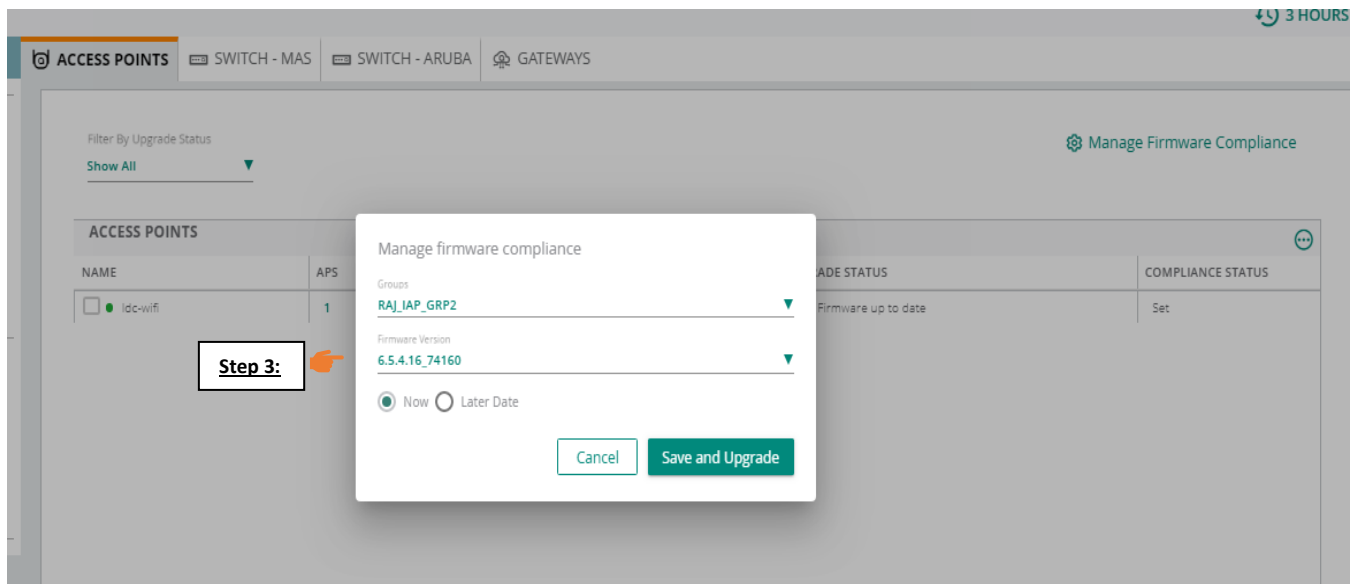
Step 4:
- Choose the firmware.
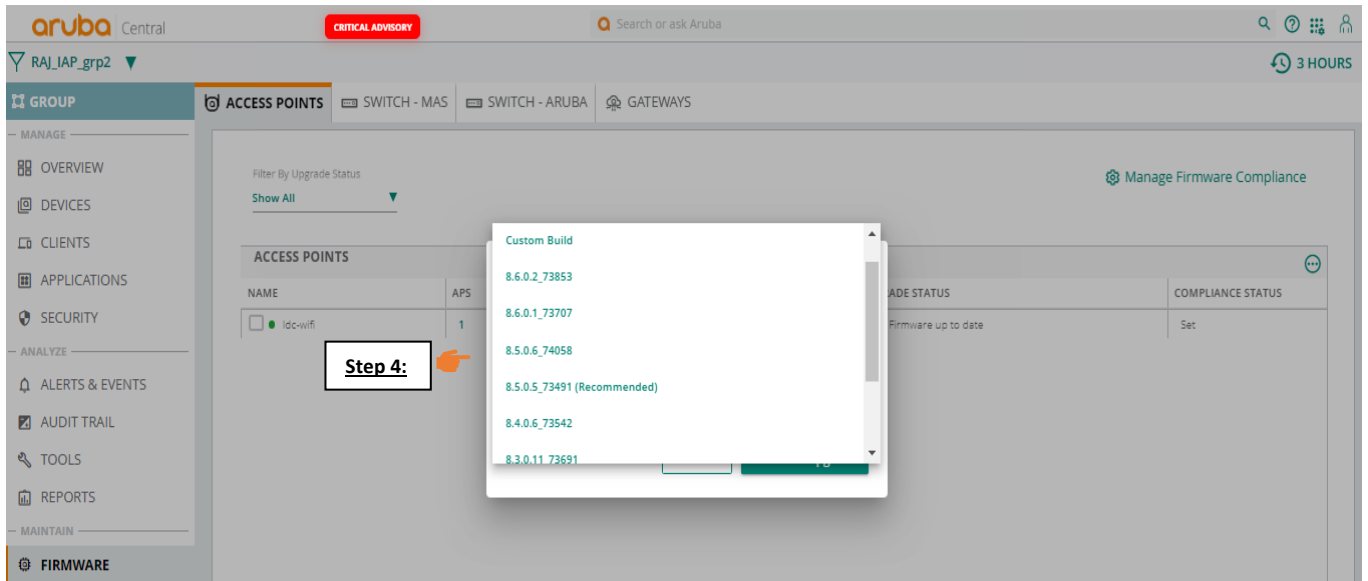
Step 5: Select either the "Now" or "Later Date" radio button to schedule an upgrade.

Step 6: Click on "Save and Upgrade" to upgrade the IAPs.
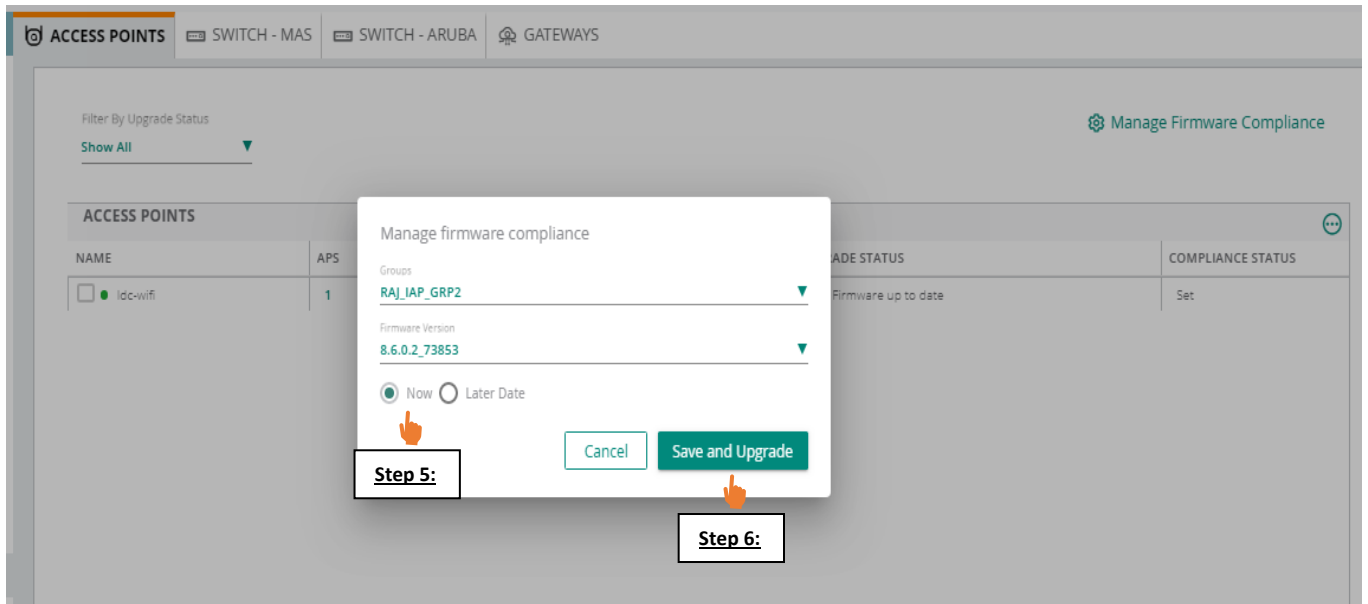
Upgrade Scenario Three: IAP-Managed by Airwave

Instant Access Points can be managed completely using Airwave. This provides a great interface to manage a huge number of IAPs in the network, making it very easy to upgrade many devices.

Instant Access Points can be upgraded from Airwave using HTTP or HTTPs. Access Points belonging to a particular group on Airwave can be forced to upgrade using the Group Settings. An upgrade of the Master IAP will force the slaves to upgrade as well.

On Aruba Airwave Web UI:

Master IAP Upgrade:

The following procedure is useful for upgrading a cluster/standalone IAP. These steps include upgrading an individual Virtual Controller using Airwave.

This will also upgrade all the other members of the cluster.

1. Go to the monitor page of the Virtual Controller (VC) that you want to upgrade. You can try to search for the VC IP or go to the access point via the Group to which it belongs

2. Ensure that the device is either in Manage Mode/ Monitor mode with firmware updates. Devices only under monitor mode will not be upgraded. This can be verified from the "Manage" page as highlighted below:
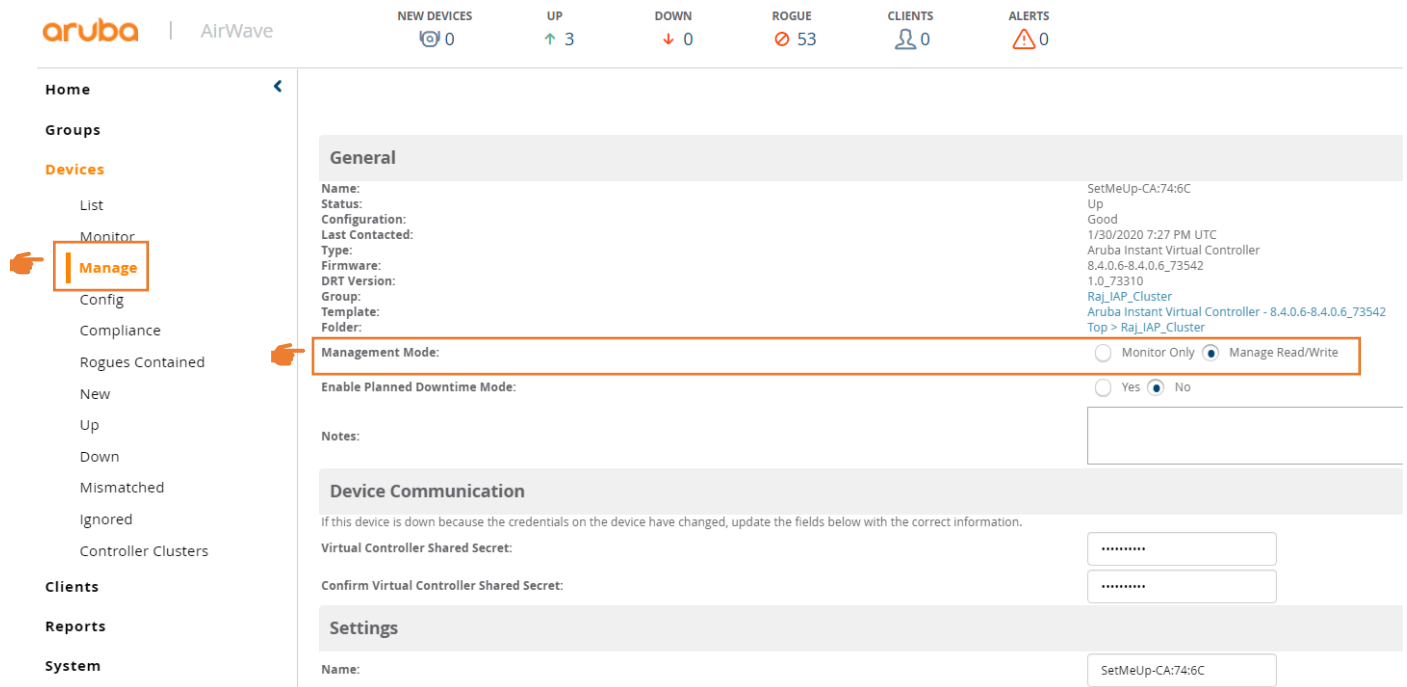
Note: If you have enabled Instant GUI Config (IGC) then all the devices will be in Manage mode.

3. In order to allow devices to upgrade under Monitor mode, we have to go to AMP Setup > General > Firmware Upgrade/Reboot Options and set the option as shown in the screenshot below:

4. On the above page, you can contact Aruba's Public Image server (a) and get all the files listed in the drop-down (b) for the desired version by clicking on the Update button. If your server does not have access to the internet or you cannot see the desired firmware then you can upload firmware files manually using the Link for "Upload Firmware and Files" (c).

Note: if you have different types of IAP in the cluster, ensure you upload all the required firmware for the upgrade of the slaves, as well. This is only applicable for images that are manually downloaded and not from our image server. To do that, navigate to "Upload Firmware and Files" (a)> Click on "add" (b)> Click on "Choose file" (c)> Click on "Add" (d).

5. Once done, go to Groups>List (a)>Move the cursor to the tool symbol (b)>Firmware(c) page of the VC that needs an upgrade. Click on the "Upgrade Firmware" button at the bottom of the page.

6. Upon selecting the desired version click on the "Save and Upgrade Devices" button at the bottom of the screen. This will take you to the next page.

7. As shown below, in this page, you will find the option to enter the job name, reboot immediately,
   Failure notification options, etc.

8. Once you click on "Upgrade" it will take you to the next page, where you can either schedule your
    upgrade or Apply the changes now, as shown below:

Verification:

1. You can verify if the upgrade task is in progress at System > Firmware Upgrade Job Detail Page. You also have an option to check the Firmware server log, on the same page for more information.
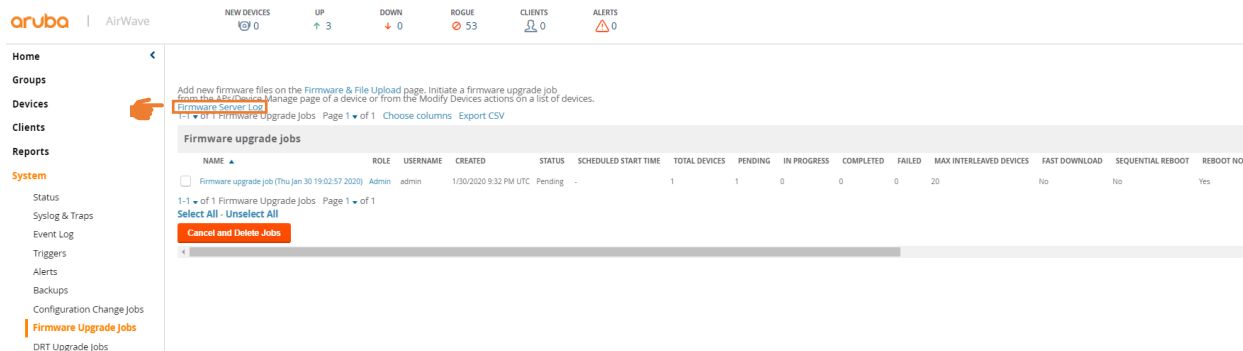
2. Recent AMP Device events will also give further information on the series of events for the upgrade, as shown below:
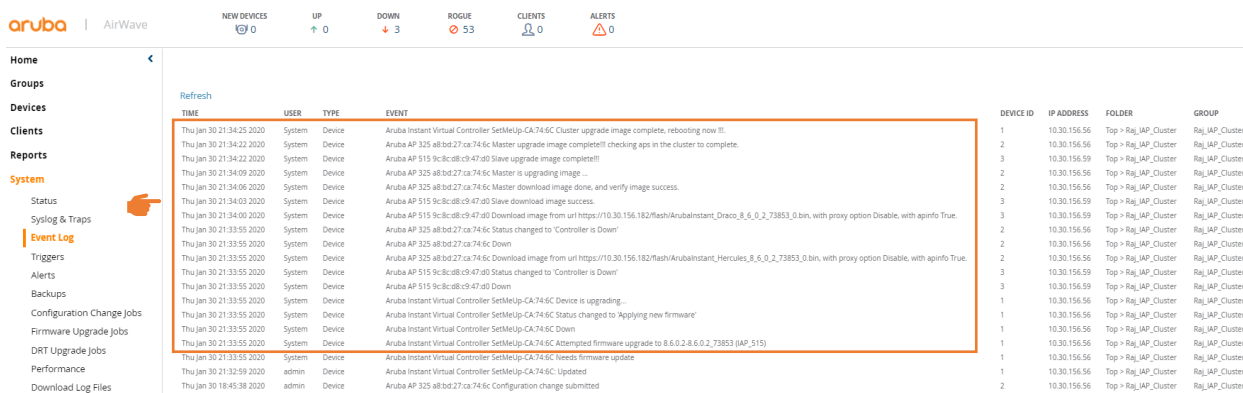
3. Upon a successful upgrade, the VC will show the new version, on the monitor page or under the maintenance page, of the IAP GUI.

Troubleshooting:

1. For advanced troubleshooting, you can enable qlog swarm_debug and use a script qlog_decoder to decode the information to see if the upgrade command was sent to the IAP. You can also check if the upgrade was performed using HTTP or HTTPS

2. Following commands prior to IAP reboot will also give some useful information on the IAP CLI
   - show log upgrade
   - show upgrade info
   - show log system