

# ARUBA INSTANT UPGRADE PROCEDURE



#### Aruba Instant Upgrade Procedure

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#### Aruba Instant Upgrade Procedure

#### 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:

<u>Note</u>: 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:

a Hewlett Packard Enterprise company	RTUAL ROLLER Set	Maintenance	System RF Security Maintenance   More   Help Logout
2 Networks      Name - C arubatest kkk New      SetMeUp-C4:44  Info Name: Country code: Virtual Controller IP: VC IPv5 Address: VC DNS: IP Mode: Masagement: Master: IPv6 Address: Uplink type: Uplink type: Uplink status: Radius RFC3576 Listen Port:	SetMeUp-C4:4           IN           10.30.156.35           ::           0.0.0.0           v4-only           Local           10.30.156.35           ::           Ethernet           Up           3799	Current Version: 6.5,4.9_67129 (Digitator 5 Step 2: Build) Manual Image file Image URL Image file for new version (Taurus): Browse Step 4 Reboot all APs after upgrade Upgrade Now Click on Browse to locate the Autobacic Onep 0.0.0 Step 5:	ESSID The second

- 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— Arubalnstant\_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 Arubalnstant\_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:

elfederi Packad Effererise Company	About Configuration Certificates Firmware Reboot Convert	Sve <u>Help</u>	tem RF Secu	rity Maintenance   More-   F
Ame ←         Clients           Arubatest         3           kkk         6           New         6	Current Version: 6.5.4.9_67129 (Digital igned - Production Build)	Stop 4:	ESSID arubate kkk kkk arubate	Step 1: Access Point ArubaAP ArubaAP ArubaAP st ArubaAP
SetMeUp-C4:44:74           Info         SetMeUp-C4:4           Country code:         IN           Virtual Controller IP:         10.30.156.35           VC DNS:         0.00.0           IP Mode:         V4-only           Management:         Local           Master:         10.30.156.35           IPV6 Address:            Uplink type:         Ethernet           Uplink type:         Ethernet           Uplink status:         Up           Radius RFC3576 Listen Port:         3799	RF Dash Client Onep Client Step 5: Client Cl	h preferred	g IDS protocol 10 5 0 Thi 100M 100M 100M 100M	AirGroup Configuration 1 Option 21:10 21:15 21:20 21: oughput (bps)

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:

				New version a	vailable Syste	em RF Security Maintenance   More +   Help Logout
a Hewlett Packard CONT		etMeUp-CA:74	Maintenance	Hel	2	bearch
Emerprise company			About Configuration Certificates	Firmware Reboot Convert		
🛞 1 Network		+ 🔊 2				Ston 1 +
Name	Clients		Current Version: 6.5.4.3_61959 (Dig	Ston 2.		ESSID S Point
SetMeUp (SetMeUp-CA:7	0	Step 3:	Manual	<u>5(C) 2.</u>		
→ New			LIPI for AP314/31E/334/33E/338/3	74/27E/277 (Centaurus)		
		4	- URL IOF AP214/215/224/225/228/2	74/275/277 (Celitaurus):		
			trtp:// <ip-address>/Arubainstant_Cer</ip-address>	itaurus_8.5.0.5_73491		
			URL for AP314/315/324/325 (Hercu	iles):		
	_		tftp:// <ip-address>/Arubainstant_H</ip-address>	ercules 8.5.0.5 73491		
		Ston 4.				
		<u> 3160 4.</u>	Reboot all APs after upgrade			
			Upgrade Now	Enter Image URL with preferre	d protoc	oloption
SetMelln-CA:74	·6C				MODUOD	Configuration 1 Alert -
Settleop on a			Automatic			ig 100 million comganation 2 million
Info		RF Dashboard	Check for New Version			Usage Trends
Name:	SetMeUp-CA:7	ſ				Clients
Country code:	IN		Step 5:		ors	Clients
Virtual Controller IP:	0.0.0.0	All clients	<u></u>		1	20
VC IPv6 Address:	11	-			1	
VC DNS:	0.0.0.0				-	10
IP Mode:	v4-only					
Management:	LOCAI 10 20 156 56					
Master: TRu6 Address:	10.50.156.56					0
Unlink type:	Ethernet					20:20 20:25 20:30
Uplink status:	Up			Close		Throughput (bps)
Radius RFC3576 Listen Port:	3799			01030		100

- 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>



#### > To upgrade an image without rebooting the IAP:

(Instant Access Point)# upgrade-image2-no-reboot <ftp/tftp/http-URL>



#### > To view the upgrade information:

(Instant Access Point)# Show upgrade info

Image Upgrade Progress

-----

Mac IP Address AP Class Status Image Info Error Detail

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

( ) ( https://setmeup.arubanetworks.com.4343/	,O → 🔇 Certificate error C	-	<b>5 ×</b> බ කි ඕ 🧐
		Welcome to Instant	
		COLUDO VIRTUAL CONTROLLER	
		Username:	
		Password: Log In	
		Internet: Detecti Active uplink: eth0	on disabled
		Cellular Provider. No mod Cellular Signal: No mod Primary UPN: Not con	em installed em installed figured
English 🔽		Secondary VPN: Not con AirWave: Not con	figured figured

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

			Syste	m RF Security Maintenance   More+   Help Logou
a Howlett Packard Enterprise company	Jp-CA:74	Maintenance Help		bearch
I Network       Name -     Clients       SetHelip (SetMeUp-CA:7	+ Name a8:bd	Current Version: 6.5.4.3_61959 (Digitation of Step 2: Image file Or Image URL Image file for new version (Hercules): Browse @ Reboot all APs after upgrade Upgrade Nove		essito Step 1:
SetMeUp-CA:74:6C         Step           Irdo         SetMeUp-CA:74:6C         Step           Name:         SetMeUp-CA:74:6C         Step           Country code:         IN         Virtual Controller IP:         0.0.0.0           VC Ibr6 Address:         ::         0.0.0.0         A           VC Ibr6 Address:         ::         0.0.0.0         A           IP Mode:         u4-only         Management:         Local           LPa6 Address:         ::         0.0.155:55         Uplink type:         Ethernet           Uplink status:         Up         p         Radius RFC3376 Listen Port:         3799	3:	Automatic Check for New Version	Monitoring ors =	IDS         AirGroup         Configuration         0 Alerts         -           Usage Trends         Clients         10         -



2. Click on the "Check for New Version" button.

					New version available S	System RF Security	Maintenance   More +   H	elp Logout
a Hewlett Packard	TUAL	SetMeUp-C	CA:74	Maintenance	Help		Bearch	
Enterprise company				About Configuration Certificates Firmware Reboot Convert				
A 1 Network		+	D) 2					+
Name -	Clients		Name	Current Version: 6.5.4.3_61959 (Digitally Signed - Production Build)		ESSID	Access Point	
SetMeUp (SetMeUp-CA:7	0		a8:bd	Manual				
→ New			ac:a3	URL for AP214/215/224/225/228/274/275/277 (Centaurus):	_			
				URL for AP314/315/324/325 (Hercules):				
SetMeUp-CA:74:	:6C	Step 4	<u>l:</u>	Reboot all APs after upgrade     Upgrade Now	Moni	itoring IDS Air	Group Configuration 1	Alert –
Info		RF Dashbo	ard	Automatic		Usage Trends		
Name:	SetMeUp-CA	:7		Linnade Now	ors	Clients		
Country code:	IN	All all and		opginde non		20		
VC IPv6 Address	0.0.0.0	All clien	ts	h Sten 5:	-			
VC DNS:	0.0.0.0				-			
IP Mode:	v4-only					10		
Management:	Local							
Master:	10.30.156.50	6				0		
IPv6 Address:						20:20	20:25 20:30	
Uplink type:	Ethernet							
Uplink status:	Up				Close	Throughput	(bps)	
Radius RFC3576 Listen Port:	3799					100	-	
						10		

- 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.

		New	ew version avail	able System RF Security Maint	tenance   More+   Help Logout
	tMeUp-CA:7	laintenance	<u>Help</u>		Search
Enterprise company		About Configuration Certificates Firmware Reboot Convert			
l Network	+ 🔊 2			h ac:a3:1e:c5:8b:7e	+
Name - Clients	Name	Current Version: 6.5.4.3_61959 (Digitally Signed - Production Build)		ESSID	Access Point
SetMeUp (SetMeUp-CA:7 0	a8:bd	Confirm Firmware Upgrade			
▼ new	dCido	All Access Points will reboot after the upgrade, and service will be interrupted during the reboot process. Do you want to continue? Upgrade Now Cancel			
ac:a3:1e:c5:8b:7e				n IDS AirGroup Configu	ration Cellular 1 Alert –
Info	Overview			Overview	Radio 1: 2.4 GHz - Chan. 6
Name:         acta311erc518b;7e           P Address:         10.30,156,58           Mode:         Access           Spectrum:         Deabled           Clients:         0           Dr4 Adress:         -           Type:         215(indoor)           Type:         CK0026730           CPU ublization:         5%           Hemory free:         133 MB           HAC:         acta311etc518b:7e	Neighboring Al		Close	20:40	
RE Dashboard	10				
Signal Speed	5	70 0 -			
All clients 🔜 🧥					

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.

oruba Central		Q Search o	r anie Aruba		٩	0 H &
TG Raj SD-WAN						3 HOURS
(3) ACCESS POINTS	📾 SWITCH - MAS 🛛 SWITCH - ARUBA 🏟 GATEWAY	5				
Step 1:	<u>štep 2:</u>				Manage Firmware Con	pliance
LD CLIENTS ACCESS POIN	пъ					0
APPLICATIONS NAME	APS	FIRMWARE VERSION	RECOMMENDED VERSION	UPGRADE STATUS	COMPLIANCE 572	itus
SECURITY Sectional	C2 F3 BA 0	8.5.0.5,73401	8.5.0.5,73401	<ul> <li>Firmware up to date</li> </ul>	Not Set	
ALERTS     AUOT     AUOT		Step 4 Upgrade Virtual Confer Fir Firmware Version® Recommended ® Now O Later Date	cancel Upgrade			Continue
			Step 5:			

Select "Other", to manually upgrade the IAPs and follow the steps given below:





# Upgrading IAP when compliance is "not set":

**<u>Step 1</u>**: Click to select the IAP VC.

**<u>Step 2</u>**: Click on other to choose the type of firmware.

# <u>Step 3:</u>

- > You can choose the firmware from:
- General Availability
- Early Availability Build
- Custom Build

orubo Central	<b>C</b>	TICAL ADVISORY		Q Search or ask Aruba		< 🔿 🗰 ሐ
⊤ TG RAJ_IAP_grp ▼						3 HOURS
		SWITCH - MAS	📼 SWITCH - ARUBA	🙊 GATEWAYS		
MANAGE						
B OVERVIEW	Filter By Upgrade Sta	tus		Stop 2		Manage Firmware Compliance
DEVICES	Show All	<b></b>		<u> 3tep 2.</u>		
CLIENTS	ACCESS DOINTS		Lingrado Vi			
APPLICATIONS	Access Folints		opgrade vi			
	NAME	AP	S Firmware Version	O Recommended  Other	ADE STATUS	COMPLIANCE STATUS
Step 1:	Idc-wifi	1	General Availabi	ility Build	Firmware up to date	Not Set
A ALEOTE & EVENTS	SetMel	iten 3:	Early Availability	- Ruild	Newer firmware available	Not Set
D ALERIS & EVENIS	<u> </u>	<u>ntep 3.</u>	Curly Annual Sing	Juid	_	
AUDIT TRAIL			Custom Build			
🖏 TOOLS						
REPORTS				Cancel	Jpgrade	
MAINTAIN					_	
© FIRMWARE						
						Continue

# Step 4:

 Once you decide the type of firmware you have to click on the drop down list to view available firmware versions:

<b>Orubo</b> Central		CRITICAL ADVISORY		Q Search or ask Aruba		۹ 🗇 🏭
⊤ та RAJ_IAP_grp 🔻						🚯 з но
🛱 GROUP	O ACCESS POINTS	📼 SWITCH - MAS	📼 SWITCH - ARUBA	GATEWAYS     GATEWAYS     Second se		
- MANAGE						
B OVERVIEW	Filter By Upgrade	e Status				🕲 Manage Firmware Compliance
DEVICES	Show All	•				
La CLIENTS	ACCESS POIL	NTS	Lingrade Vi	rtual Controller Firmware		
APPLICATIONS	NAME		opgrade vi		ADE CTATUS	
SECURITY			Firmware Version	O Recommended () Other	Firmware up to date	Not Set
- ANALYZE	- SetMeUp	-CA:74:6C	0 GENERAL AVAILA	BILITY BUILD	Newer firmware available	Not Set
ALERTS & EVENTS						
AUDIT TRAIL		Step 4:	8 5 0 5 73491		_	
🖏 TOOLS	-		8 2 0 11 72691			
REPORTS			6.5.4.16.74160			
- MAINTAIN			6.5.4.16_74160			
FIRMWARE			6.5.4.15_/36//			
			6.4.4.8-4.2.4.16_7	3658		
						Continue





**<u>Step 5</u>**: Select either the "Now" or "Later Date" radio button to schedule an upgrade.

(j) A	CCESS POINTS	📾 SWITCH - MAS	📼 SWITCH - ARUBA	R GATEWAYS						
	Filter By Upgrad Show All	de Status							¢	Manage Firmware Compliance
	ACCESS POI	INTS								Θ
	NAME			APS	FIRMWARE VERSION		RECOMMENDED VERSION	UPGRADE STATUS		COMPLIANCE STATUS
					8.5.0 5,78491	Manage firmware com sma RAL JOWNN Firmware Version To Later Date Steep 5:	plance Cancel Save and Upgrade	✓ Remareustate	]	Nor Se

#### 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.

<b>Orubo</b> Central		CRITICAL ADVISORY		C	Search or	ask Aruba			۹ (	ව 🏭 🖁
\[     \] RAJ_IAP_grp2     \[     \]									Ð	) 3 HOURS
	C ACCESS POINTS	📼 SWITCH - MAS	📼 SWITC	CH - ARUBA	🙊 gatev	VAYS				
- MANAGE										
OVERVIEW	Filter By Upgrade	e Status						🙆 Man	age Firmware Complian	nce
DEVICES	Show All	•							0	
CLIENTS	ACCESS POI	NTS								
APPLICATIONS	NAME		APS FI	IRMWARE VERSIC	N	RECOMMENDED VERSION	UPGRADE STATUS		COMPLIANCE STATUS	
SECURITY	🗌 🌒 Idc-wifi		1 6.	.5.4.16_74160		6.4.4.8-4.2.4.16_73658	✓ Firmware up to date		Set	
- ANALYZE										
ALERTS & EVENTS										
AUDIT TRAIL										
🖏 tools										
REPORTS										
- MAINTAIN										
FIRMWARE										





# 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.

aruba Central		CRITICAL ADVISORY		Q Search or ask Aruba			۹ 🛛 🏭 🕯
\[     \begin{bmatrix} RAJ_IAP_grp2 \]     \[     \begin{bmatrix} \							3 HOURS
	C ACCESS POINTS	📼 SWITCH - MAS	📼 SWITCH - ARUBA	n GATEWAYS			
MANAGE							
OVERVIEW	Filter By Upgrade	Status				🛻 🔞 Manar	ge Firmware Compliance
DEVICES	Show All	<b></b>	All Groups			Ctor 1	
CLIENTS	ACCESS POIN	ITS	default			<u>Step 1:</u>	0
APPLICATIONS	NAME	A	PS RAJ_IAP_grp		ADE STATUS		COMPLIANCE STATUS
SECURITY	lide-v	Step 2:	1 RAJ_IAP_grp2		Firmware up to date		Set
- ANALYZE			Raj_SD-WAN				
ALERTS & EVENTS					-		
AUDIT TRAIL			Now O Lat	.er Date			
🖏 TOOLS				Cancel Save and Upgrad	le		
REPORTS			-		_		
- MAINTAIN							
FIRMWARE							

# <u>Step 3:</u>

• Click on "Firmware version" drop down list to choose the firmware.

CESS POINTS 📼 SWITCH	H - MAS 📼 SWITCH	H - ARUBA 🙊 GATEWAYS		
Filter By Upgrade Status Show All				🕲 Manage Firmware Complianc
ACCESS POINTS	Man	age firmware compliance		
NAME	APS	5	ADE STATUS	COMPLIANCE STATUS
Step	<u>3:</u>	ver Version 16_74160 Now O Later Date Cancel Save and	v I Upgrade	





# <u>Step 4:</u>

• Choose the firmware.

aruba Central	(	CRITICAL ADVISORY		Q Search or ask Aruba		ፍ 🕲 🟭 🖁
\[     \begin{bmatrix} RAJ_IAP_grp2 \]     \[     \begin{bmatrix} \         ray \]     \[         ray \]    \[         ray \]     \[         ray \]    \[         ray \]						3 HOURS
	C ACCESS POINTS	📼 SWITCH - MAS	📼 SWITCH - ARUBA	GATEWAYS		
MANAGE						
OVERVIEW	Filter By Upgrade	Status				Manage Firmware Compliance
DEVICES	Show All	<b>.</b>				
CLIENTS		ITC	Custom Build		A	
APPLICATIONS	ACCESS FOIL	115	8.6.0.2_73853			<b>⊖</b>
SECURITY			8.6.0.1_73707		Firmware up to date	Set
- ANALYZE		a	8.5.0.6_74058			
ALERTS & EVENTS	L L	<u>Step 4:</u>	8.5.0.5_73491 (R	ecommended)		
AUDIT TRAIL			8.4.0.6_73542			
🖏 TOOLS			8.3.0.11 73691			
REPORTS			_		_	
MAINTAIN						
FIRMWARE						

**<u>Step 5</u>**: Select either the "Now" or "Later Date" radio button to schedule an upgrade.

**<u>Step 6</u>**: Click on "Save and Upgrade" to upgrade the IAPs.

10 A	ACCESS POINTS 📼 SWITCH - M	AS 📼	SWITCH - ARUBA 🏩 GATEWAYS		
	Filter By Upgrade Status Show All				Manage Firmware Compliance
	ACCESS POINTS		Manage firmware compliance		$\Theta$
	NAME	APS	Groups	ADE STATUS	COMPLIANCE STATUS
	• ldc-wifi	1	RAJ_IAP_GRP2 Firmware Version 8.6.0.2_73853 Now O Later Date Cancel Save and Upgr Step 5: Step 6:	Tade	Set





#### 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:

aruba   AirWave	NEW DEVICES	up ↑ 3	Down ↓ 0	rogue Ø 53	CLIENTS	ALERTS				
Home <										
Groups										
Devices	General									
List Monitor Config Compliance Rogues Contained New Up	Name: Status: Configuration: Last Contacted: Type: Firmware: DRT Version: Group: Template: Folder: Management Mode: Enable Planned Downtime Mode Notes:	2:					SetMeUp-CA:74:6C Up Good 1/30/2020 7:27 PM UTC Aruba Instant Virtual Controller 8.4.0.6-8.4.0.6_73542 1.0_73310 Raj_IAP_Cluster Monitor Only Manage Read/Write Yes No			
Down										
Mismatched	Device Communicatio	on								
Ignored	If this device is down because the	credentials on the	device have changed,	update the fields belo	w with the correct info	ormation.				
Controller Clusters	Virtual Controller Shared Secret	:								
Clients	Confirm Virtual Controller Share	Confirm Virtual Controller Shared Secret:								
Reports	Settings									
System	Name:						SetMeUp-CA:74:6C			

<u>Note</u>: 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:

AMP Setup	Backup Interval:	🔵 Weekly 💿 Daily
General	Number of Backups to Retain Locally:	4 🗸
Network	Nightly Maintenance Time (00:00 - 23:59):	04:15
Users	License APs Usage Threshold (5-100):	90
Roles	Check for software updates from Aruba: Periodically check the Aruba website for notices of new software versions or critical security notifications. News will be displayed for admins on	Yes No
Authentication	the Home Overview page. Software will never be updated automatically.	
MDM Server	Automatic Authorization	
Device Type Setup	Aruba Instant Options	
WLSE	Top Header	
ACS	Search Method	
NMS	Home Overview Preferences	
RADIUS Accounting	Display	
PCI Compliance	Dishiak	
External Server	Device Configuration	
RAPIDS	AMP Features	
VisualRF	External Logging	
	Historical Data Retention	
	Firmware Upgrade/Reboot Options	
	Allow firmware upgrades in monitor-only mode:	💽 Yes 🔵 No –
	Allow Rebooting Monitor Only Devices:	🔵 Yes 💿 No
	NEW DEVICES UP DOWN ROGUE CLIENTS ALERTS	
<b>orubo</b>   AirWave	<b>(⊙)</b> 0 ↑ 3 ↓ 0 <b>⊘</b> 53 <u></u> 0 <u>∧</u> 0	
Home <		
Groups		
List	Firmware Ungrade Ontions	
Config & Audit Jobs	Configure the File Server IP Address to use when upgrading devices in this group. The firmware file definition must be configured to use the per-group setting.	
Monitor	Firmware File Server: Enter a Value	👈 (a)
Basic	Enforce Group Firmware Version:	
Templates	Devices already in the group will be upgraded now or by schedule. Devices added to the group will be upgraded	
Firmware	Allow Downgrade Of Devices: Ves  Ves  No	
DRT File		
Devices	Desired Version	
Clients	Choose the desired firmware version to be applied to the devices in this group. Upload firmware files on the Device Setup	Upload Firmware & Files page.
Reports	Update List of Aruba Image Versions: Update	🔚 (c)
System	Aruba Instant Virtual Controllor:	

Device Setup

AMP Setup RAPIDS

VisualRF

Save

8.6.0.2-8.6.0.2\_73853 local Image Server

2020



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).

orubo   AirWave	NEW DEVICES UP	3	DOW ↓	N O	ROGUE 0	LIENTS ALERTS		Log ou
Groups Devices (b)	Add New Firmware File Impor	t CSV of G	iroup Fil	e Servers				
Clients	Firmware Files							
Reports	TYPE 🔺	SOURCE	USER	DESCRIPTION	SERVER PROTOCO	L USE GROUP FILE SERVE	FIRMWARE FILE SERVER	FIRMWARE FILENAME
System	🦳 👟 Aruba Instant Virtual Controller	User	admin	IAP_515	HTTPS	Disabled		Arubalnstant_Draco_8_6_0_2_73853_0.bin
Dovice Setup	🦳 🔍 Aruba Instant Virtual Controller	User	admin	IAP_215	HTTPS	Disabled	-	Arubalnstant_Centaurus_8_6_0_2_73853_0.bin
Device Setup	🦳 👟 Aruba Instant Virtual Controller	User	admin	IAP_325	HTTPS	Disabled	-	Arubalnstant_Hercules_8_6_0_2_73853_0.bin
Discover	📃 👟 Aruba Instant Virtual Controller	User	admin	-	HTTPS	Disabled		Arubalnstant_Vela_8_5_0_6_74058_0.bin
Communication	📃 👟 Aruba Instant Virtual Controller	User	admin	-	HTTPS	Disabled		Arubalnstant_Draco_8_5_0_6_74058_0.bin
ZTP Orchestrator BETA	📃 👟 Aruba Instant Virtual Controller	User	admin	-	HTTPS	Disabled	-	Arubalnstant_Hercules_8_5_0_6_74058_0.bin
(a) 👉 Upload Firmware & Files	📃 👟 Aruba Instant Virtual Controller	User	admin		HTTPS	Disabled		Arubalnstant_Centaurus_8_5_0_6_74058_0.bin
Certificates	7 Firmware Files			<b></b>				
AMP Setup	Select All - Unselect All	Make	sure all	the firmwar	a are unloaded f	or all the model IABs r	recent in the cluster	
RAPIDS	Delete	widke :	sure dil	une milliwar		or an the model IAPS p		
VisualRF	•							

**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).

aruba   AirWave	NEW DEVICES	UP ↑ 0	Down ↓ 0	ROGUE	CLIENTS	ALERTS		
Home <								
Groups	Supported Firmware Versio	and Feature						
Devices	Supported Firmware Versio	ons and reacu	es					
Clients								Aruba Device (Any Model)
Reports	Description:							IAP_515
System	<ul> <li>Upload firmware files (and us)</li> </ul>	e built-in firmware	file server) 🔵 Use a	n external firmware	file server			
Device Setup	Server Protocol:							TFTP
Discover	Firmware Filename:						(c) 👉	Choose File Arubalnstan6.0.2_73853
Add							Add	Cancel
Communication							<b>.</b>	
ZTP Orchestrator BETA								
<b>Upload Firmware &amp; Files</b>							(d)	
Certificates								
AMP Setup								

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.

(a) <del>(</del>	aruba   AirW	/ave		NEW DEVICES	5	up ↑ 3	DOM V	0	rogue Ø 53	CLIENTS		ALERTS	
	Home	<											
(a) 🥌	Groups List Config & Audit Jobs		Add N Compare 1 1-2  v of 2 G	ew Group two groups iroups Pa	s ge 1 <b>v</b> c	of 1 Choose co	lumns	Export CSV					
	Devices		N	AME 🔺	SSID	TOTAL DEVICES	DOWN	MISMATCHE	D IGNORED	CLIENTS	USAGE	VPN SESSIONS	UP/DOWN STATUS POLLING PERIOD
	Clients		🗌 🔦 Acc	ess Points	-	0	0	0	0	0	-	0	5 minutes
	Reports	(b)		sic		3	0	0	0	0	-	0	5 minutes
	System		1-2 <b>v</b> of Ter Select ADR	mplates Pe mware T File	) (c)	F 1							
	Device Setup		Delete										
	AMP Setup												
	RAPIDS												
	VisualRF												





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.

aruba   AirWave	NEW DEVICES	up ↑ 3	Down U	ROGUE	CLIENTS	ALERTS		
Home <								
Groups								
List	Firmware Upgrade O	ptions						
Config & Audit Jobs	Configure the File Server IP Addres	s to use when upgr	ading devices in this gr	oup. The firmware file	definition must be cor	nfigured to use the per-group set	ting.	
Monitor	Firmware File Server:					Enter a Value		
Basic	Enforce Group Firmware	Version:				🔵 Yes 💿 No		
Templates	Devices already in the group will be	upgraded now or l	by schedule. Devices a	dded to the group will b	oe upgraded			
Firmware	Allow Downgrade Of Dev	ices:				🔿 Yes 💿 No		
DRT File	Ū					$\mathbf{O}$		
Devices	Desired Version							
Clients	Choose the desired firmw	are version to	be applied to the	devices in this gr	oup. Upload firm	ware files on the Device	Setup Upload Firmwa	are & Files page.
Reports	Update List of Aruba Imag	ge Versions:	Update					
System	Aruba Instant Virtual Co	ntroller:			8.6.0.2-8.0	5.0.2_73853 local 🗸 🗸		
Device Setup								
AMP Setup					Save Save	and Upgrade Devices	-	
RAPIDS				-				
VisualRF								



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

aruba	AirWave	NEW DEVICES	uр ↑ 3	Down ↓ 0	ROGUE	CLIENTS	ALERTS			
Home	<									
Groups										
List		Firmware Upgrade Jo	ob Options							
Config & Auc	dit Jobs	Job name:							Firmware up	ograde job (Thu Jan )
Monitor		Number of devices to int	wever only one							
Basic		device will be actively downloading	Never, only one	20						
Templates		Number of failures befor		1						
Firmware DRT File		Failure Timeout (mins) (5		60						
Devices	_	Number of retries when	failed (0-4, zer	o disables):					1	
Clients	-	Periodic run failed upgra	des interval:					ſ	Disabled	~
Reports		Use "/safe" flag for Cisco	IOS firmware	upgrade comma	ind:			(	Yes 💿	No
System		Reboot immediately afte	er image down	load:				(	• Yes 🔵	No
Device Setup		Sequential Reboot: (Beta)	Supported only for a	Aruba Instant				(	Yes 💿	No
AMP Setup		Fast Download: (Beta) Suppo	Yes •	No						
RAPIDS		Allow Firmware Upgrade is same as Device FW version. Else	Yes 💿	No						
VisualRF		Failure Notification	Options							
		To be notified when upgra Separate multiple address	ades fail and w ses by spaces, o	hen a job is stopp commas, or semio	ed, enter email ac colons.	ldresses of the fo	rm user@domain.			
		raj.vinodkumar@hpe.com							G	
		Sender Address:				raj.vinodkumar	@hpe.com			
		Start or Schedule Firmware	Upgrade Job	Upgrade Ca	incel					

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:

aruba   AirWave	NEW DEVICES	up ↑ 3	down ↓ 0	ROGUE	CLIENTS	ALERTS 0	
Home <							
Groups List Config & Audit Jobs Montor Basic Templates Firmware	Confirm changes: Controller *S Version 84.0.6.84.0.6.73542 Apply Changes Now	etMeUp-CA:74:6C" 8.6.0.2-8 Cancel	1.6.0.2_73853				
DRT File	Scheduling Options						
Devices Clients	Specify numeric dates with optional Current Local Time: Desired Start Date/Time:	24-hour times (like 7/4	1/2003 or 2003-07-04 fi	or July 4th, 2003, or 7	/4/2003 13:00 for July 4	th, 2003 at 1:00 PM.), or specify rela	the times (like tomorrow at noon or next tuesday at 4am). Any unsupported time format will schedule the job immediately January 30, 2020 7:05 pm UTC
Reports	Colored and Colore						
System	Schedule						
Device Setup							
AMP Setup							
RAPIDS							
VisualRF							





# 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.

aruba	AirWave	NEW D	evices 0	UP ↑ 3	DOWN ↓ 0	ROGUE	CLIENTS	ALERTS									I
Home	<																
Groups		Add now firmura	o filos on the l	Elemenare & Ell	Lipload page in	itiato a firmularo u	ogrado job										
Devices	6	Firmware Server	some the a bit means things page of a device of from the Modily Devices actions on a list of devices. Through Device Use and Device of thom the Modily Devices actions of a list of devices.														
Clients		I - I + of I - Infitiate upgrade loos rage I + of I. Lnoose countris Export CV Planning upgrade loos rage I + of I. Lnoose countris Export CV															
Reports		NAME A	grade Jops		ROLE USERNAM	AE CREATED	STATUS	SCHEDULED START TIME	TOTAL DEVICES	PENDING	IN PROGRESS	COMPLETED	FAILED	MAX INTERLEAVED DEVICES	FAST DOWNLOAD	SEQUENTIAL REBOOT	REBOOT NOW
System		Firmware upgr	ade job (Thu Jan 3	30 19:02:57 2020)	Admin admin	1/30/2020 9:32 Pi	UTC Pending		1	1	0	0	0	20	No	No	Yes
Status		1-1 - of 1 Firmwa	are Upgrade Jol	bs Page 1 🗸 o	f 1												
Syslog & T	fraps	Select All - Unse	lect All														
Event Log		Cancel and Del	ete Jobs														
Triggers		4															
Alerts																	
Backups																	
Configura	tion Change Jobs																
Firmware	Upgrade Jobs																
DRT Upgr.	ade Jobs																

2. Recent AMP Device events will also give further information on the series of events for the upgrade, as shown below:

aruba	AirWave	NEW DEVICES		UP ↑ 0	DOWN ↓ 3	ROGUE	CLIENTS	ALERTS 0						L
Home	<													
Groups														
Devices		Refresh TIME	USER	TYPE	EVENT						DEVICE ID	IP ADDRESS	FOLDER	GROUP
Clients		Thu Jan 30 21:34:25 2020	System	Device	Aruba Insta	ant Virtual Controller S	ietMeUp-CA:74:6C CI	luster upgrade image co	mplete, rebooting now III.		1	10.30.156.56	Top > Raj_IAP_Cluster	Raj_IAP_Cluster
		Thu Jan 30 21:34:22 2020	System	Device	Aruba AP 3	25 a8:bd:27:ca:74:6c l	Master upgrade imag	e completell checking	aps in the cluster to complete.		2	10.30.156.56	Top > Raj_IAP_Cluster	Raj_IAP_Cluster
Reports		Thu Jan 30 21:34:22 2020	System	Device	Aruba AP 5	15 9c:8c:d8:c9:47:d0 5	ilave upgrade image	complete!!!			3	10.30.156.59	Top > Raj_IAP_Cluster	Raj_IAP_Cluster
System		Thu Jan 30 21:34:09 2020	System	Device	Aruba AP 3	25 a8:bd:27:ca:74:6c I	Master is upgrading i	mage			2	10.30.156.56	Top > Raj_IAP_Cluster	Raj_IAP_Cluster
	_	Thu Jan 30 21:34:06 2020	System	Device	Aruba AP 3	25 a8:bd:27:ca:74:6c l	Master download ima	age done, and verify im	ige success.		2	10.30.156.56	Top > Raj_IAP_Cluster	Raj_IAP_Cluster
Status		Thu Jan 30 21:34:03 2020	System	Device	Aruba AP 5	15 9c:8c:d8:c9:47:d0 5	ilave download imag	e success.			3	10.30.156.59	Top > Raj_IAP_Cluster	Raj_IAP_Cluster
Syslog & Traps	_	Thu Jan 30 21:34:00 2020	System	Device	Aruba AP 5	15 9c:8c:d8:c9:47:d0 [	Download image from	n url https://10.30.156.1	82/flash/ArubaInstant_Draco_8_6_0_2_73853_0.bi	in, with proxy option Disable, with apinfo True.	3	10.30.156.59	Top > Raj_IAP_Cluster	Raj_IAP_Cluster
Evention		Thu Jan 30 21:33:55 2020	System	Device	Aruba AP 3	25 a8:bd:27:ca:74:6c 5	Status changed to 'Co	ontroller is Down'			2	10.30.156.56	Top > Raj_IAP_Cluster	Raj_IAP_Cluster
the second second		Thu Jan 30 21:33:55 2020	System	Device	Aruba AP 3	25 a8:bd:27:ca:74:6c I	Down				2	10.30.156.56	Top > Raj_IAP_Cluster	Raj_IAP_Cluster
Triggers		Thu Jan 30 21:33:55 2020	System	Device	Aruba AP 3	25 a8:bd:27:ca:74:6c I	Download image from	m url https://10.30.156.1	82/flash/Arubainstant_Hercules_8_6_0_2_73853_0	0.bin, with proxy option Disable, with apinfo True.	2	10.30.156.56	Top > Raj_IAP_Cluster	Raj_IAP_Cluster
Alerts		Thu Jan 30 21:33:55 2020	System	Device	Aruba AP 5	15 9c:8c:d8:c9:47:d0 5	itatus changed to 'Co	ontroller is Down'			3	10.30.156.59	Top > Raj_IAP_Cluster	Raj_IAP_Cluster
Backups		Thu Jan 30 21:33:55 2020	System	Device	Aruba AP 5	15 9c:8c:d8:c9:47:d0 [	Down				3	10.30.156.59	Top > Raj_IAP_Cluster	Raj_IAP_Cluster
Backaps		Thu Jan 30 21:33:55 2020	System	Device	Aruba Insta	ant Virtual Controller 9	ietMeUp-CA:74:6C D	evice is upgrading			1	10.30.156.56	Top > Raj_IAP_Cluster	Raj_IAP_Cluster
Configuration C	Thange Jobs	Thu Jan 30 21:33:55 2020	System	Device	Aruba Insta	ant Virtual Controller S	ietMeUp-CA:74:6C St	atus changed to 'Applyi	ng new firmware'		1	10.30.156.56	Top > Raj_IAP_Cluster	Raj_IAP_Cluster
Firmware Upgra	ade Jobs	Thu Jan 30 21:33:55 2020	System	Device	Aruba Insta	ant Virtual Controller S	ietMeUp-CA:74:6C D	own			1	10.30.156.56	Top > Raj_IAP_Cluster	Raj_IAP_Cluster
DRT Llograde lo	abe	Thu Jan 30 21:33:55 2020	System	Device	Aruba Insta	ant Virtual Controller S	ietMeUp-CA:74:6C At	ttempted firmware upg	ade to 8.6.0.2-8.6.0.2_73853 (IAP_515)		1	10.30.156.56	Top > Raj_IAP_Cluster	Raj_IAP_Cluster
Divi ohBiage lo	/05	Thu Jan 30 21:33:55 2020	System	Device	Aruba Insta	ant Virtual Controller S	ietMeUp-CA:74:6C N	eeds firmware update			1	10.30.156.56	Top > Raj_IAP_Cluster	Raj_IAP_Cluster
Performance		Thu Jan 30 21:32:59 2020	admin	Device	Aruba Insta	ant Virtual Controller S	ietMeUp-CA:74:6C: U	Ipdated			1	10.30.156.56	Top > Raj_IAP_Cluster	Raj_IAP_Cluster
Download Log F	Files	Thu Jan 30 18:45:38 2020	admin	Device	Aruba AP 3	25 a8:bd:27:ca:74:6c (	Configuration change	e submitted			2	10.30.156.56	Top > Raj_IAP_Cluster	Raj_IAP_Cluster

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