Aruba Instant 8.7.1.6

Release Notes

a Hewlett Packard
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Contents

The following table provides the revision history of this document.

Table 1: *Revision History*

Revision	Change Description
Revision 01	Initial release.

Chapter 1
Release Overview

This Aruba Instant release notes includes the following topics:

For the list of terms, refer to the Glossary.

Related Documents

The following guides are part of the complete documentation for the Aruba user-centric network:

- *Aruba AP Software Quick Start Guide*
- *Aruba Instant User Guide*
- *Aruba Instant CLI Reference Guide*
- *Aruba Instant REST API Guide*
- *Aruba Instant Syslog Messages Reference Guide*
- *Aruba Instant AP Troubleshooting Guide*

Supported Browsers

The following browsers are officially supported for use with the Instant WebUI:

- Microsoft Internet Explorer 11 on Windows 7 and Windows 8
- Microsoft Edge (Microsoft Edge 38.14393.0.0 and Microsoft EdgeHTML 14.14393) on Windows 10
- Mozilla Firefox 48 or later on Windows 7, Windows 8, Windows 10, and macOS
- Apple Safari 8.0 or later on macOS
- Google Chrome 67 or later on Windows 7, Windows 8, Windows 10, and macOS

Terminology Change

As part of advancing HPE's commitment to racial justice, we are taking a much-needed step in overhauling HPE engineering terminology to reflect our belief system of diversity and inclusion. Some legacy products and publications may continue to include terminology that seemingly evokes bias against specific groups of people. Such content is not representative of our HPE culture and moving forward, Aruba will replace racially insensitive terms and instead use the following new language:

Usage	Old Language	New Language
Campus Access Points + Controllers	Master-Slave	Conductor-Member
Instant Access Points	Master-Slave	Conductor-Member
Switch Stack	Master-Slave	Conductor-Member
Wireless LAN Controller	Mobility Master	Mobility Conductor
Firewall Configuration	Blacklist, Whitelist	Denylist, Allowlist
Types of Hackers	Black Hat, White Hat	Unethical, Ethical

Contacting Support

Table 2: *Contact Information*

Main Site	arubanetworks.com
Support Site	https://asp.arubanetworks.com/
Airheads Social Forums and Knowledge Base	community.arubanetworks.com
North American Telephone	1-800-943-4526 (Toll Free) 1-408-754-1200
International Telephone	arubanetworks.com/support-services/contact-support/
Software Licensing Site	lms.arubanetworks.com
End-of-life Information	arubanetworks.com/support-services/end-of-life/
Security Incident Response Team	Site: arubanetworks.com/support-services/security-bulletins/ Email: aruba-sirt@hpe.com

Chapter 2
New Features and Enhancements

There are no new features or enhancements in this release.

Chapter 3
Supported Hardware Platforms

The following table displays the Instant AP platforms supported in Aruba Instant 8.7.1.0 release.

Table 3: *Supported Instant AP Platforms*

Instant AP Platform	Minimum Required Instant Software Version
500H Series — AP-503H 560 Series — AP-565 and AP-567	Instant 8.7.1.0 or later
500H Series — AP-505H AP-518 — AP-518 570 Series — AP-574, AP-575, and AP-577 570EX Series — AP-575EX and AP-577EX	Instant 8.7.0.0 or later
500 Series — AP-504 and AP-505	Instant 8.6.0.0 or later
530 Series — AP-534 and AP-535 550 Series — AP-555	Instant 8.5.0.0 or later
303 Series — AP-303P 387 Series — AP-387 510 Series — AP-514 and AP-515	Instant 8.4.0.0 or later
303 Series — AP-303 318 Series — AP-318 340 Series — AP-344 and AP-345 370 Series — AP-374, AP-375, and AP-377 370EX Series — AP-375EX and AP-375EX	Instant 8.3.0.0 or later
203H Series — AP-203H	Instant 6.5.3.0 or later
203R Series — AP-203R and AP-203RP 303H Series — AP-303H and AP-303HR 360 Series — AP-365 and AP-367	Instant 6.5.2.0 or later
207 Series — IAP-207 300 Series — IAP-304 and IAP-305	Instant 6.5.1.0-4.3.1.0 or later
310 Series — IAP-314 and IAP-315 330 Series — IAP-334 and IAP-335	Instant 6.5.0.0-4.3.0.0 or later
320 Series — IAP-324 and IAP-325	Instant 6.4.4.3-4.2.2.0 or later

Chapter 4
Regulatory Updates

This chapter contains the Downloadable Regulatory Table (DRT) file version introduced in this release.

Periodic regulatory changes may require modifications to the list of channels supported by an AP. For a complete list of channels supported by an AP using a specific country domain, access the controller Command Line Interface (CLI) and execute the **show ap allowed-channels country-code <country-code> ap-type <ap-model>** command.

For a complete list of countries and the regulatory domains in which the APs are certified for operation, refer to the Downloadable Regulatory Table or the DRT Release Notes at asp.arubanetworks.com.

The following DRT file version is part of this release:

- DRT-1.0_81660

Chapter 5
Resolved Issues

This chapter describes the issues resolved in this release.

Table 4: *Resolved Issues in Aruba Instant 8.7.1.6*

Bug ID	Description	Reported Version
AOS-225862 AOS-225901	Some Instant APs failed to discover the controller and convert to a Campus AP when the controller IP was provided through the DHCP and DNS server. The fix ensures that the AP discovers the controller as expected and provisions itself as a Campus AP. This issue was observed in APs running Aruba Instant 8.6.0.10 or later versions.	Aruba Instant 8.6.0.10

This chapter describes the known issues and limitations observed in this release.

Limitations

This section describes the limitations in Aruba Instant 8.7.1.6.

AP Hostname Character Limit Extension

The number of ASCII characters allowed in the Instant AP hostname is increased from 32 to 128 characters. The following configuration settings do not support the new limit of 128 ASCII characters in Instant 8.7.1.6:

- The AP Name field in Role Derivation or VLAN Derivation.
- The AP Name field in beacon and probe response frames.
- The AP Name field in the **show ap mesh link** and **ap mesh neighbor** commands.

Dynamic Multicast Optimization Unsupported with VLAN Derivation

Aruba Instant does not support Dynamic Multicast Optimization when the SSID is configured with VLAN derivation.

Unified Communications Manager

UCM does not prioritize NAT traffic.

Known Issues

Following are the known issues observed in this release.

Table 5: *Known Issues in Aruba Instant 8.7.1.6*

Bug ID	Description	Reported Version
AOS-192604	Traffic between clients within the same subnet VLAN is subject to source NAT. This issue occurs because the master AP performs source NAT on local traffic. This issue is observed in APs running Aruba Instant 8.6.0.0 or later versions.	Aruba Instant 8.6.0.0
AOS-197400	An Instant AP fails to switch uplink interfaces during an uplink failover event. This issue occurs when the Instant AP is configured with two Ethernet uplinks. This issue is observed in APs running Aruba Instant 8.6.0.1 or later versions.	Aruba Instant 8.6.0.1
AOS-204171	Clients intermittently experience high latency when the AP is connected to the backup controller after a failover event. This issue occurs under the following scenarios:	Aruba Instant 8.3.0.0

Table 5: *Known Issues in Aruba Instant 8.7.1.6*

Bug ID	Description	Reported Version
	■ The AP attempts to re-connect to the primary controller. ■ Fast failover is enabled on the AP. This issue is observed in 203R Series access points running Aruba Instant 8.3.0.0 or later versions.	
AOS-206000 AOS-223537	Some member APs generate a core file when the Instant AP is rebooted. This issue occurs when AppRF is enabled on the Instant cluster. This issue is observed in APs running Aruba Instant 8.6.0.9 or later versions.	Aruba Instant 8.6.0.9
AOS-208474	An Instant AP frequently disconnects itself from the cluster and then rejoins it. The log file lists the reason for the event as: **stm | PAPI_Send failed, send_papi_message_with_args, 1215: Resource temporarily unavailable**. This issue is observed in APs running Aruba Instant 8.6.0.5 or later versions.	Aruba Instant 8.6.0.5
AOS-208648	The system log of an Instant AP has a lot of **Swarm quit factory default status by : ssid_config** messages. This issue is observed in APs running Aruba Instant 8.7.0.0 or later versions.	Aruba Instant 8.7.0.0
AOS-209051	Clients are unable to send and receive traffic when Instant clusters are configured with L3 mobility. This issue occurs under the following scenarios: ■ The client is connected to a cluster other than the home cluster. ■ The network experiences high latency due to an overload caused by a broadcast storm. This issue is observed in APs running Aruba Instant 8.6.0.4 or later versions.	Aruba Instant 8.6.0.4
AOS-210290	An Instant AP fails to update the service ID of AirGroup services when the service ID is configured through the Instant WebUI and Central. This issue occurs when the name of the service ID contains a "**.**" character. This issue is observed in APs running Aruba Instant 8.7.0.0 or later versions.	Aruba Instant 8.7.0.0
AOS-210440	Administrator authentication fails when accessing the Instant AP through the WebUI. This issue occurs when the administrator password includes special characters such as **"** or **'**. This issue is observed in APs running Aruba Instant 8.6.0.5 or later versions. **Workaround:** Create an administrator password without special characters.	Aruba Instant 8.6.0.5
AOS-210688	Apple devices are unable to connect to IAP-225 access points operating as Virtual Controllers in mesh deployments. This issue occurs when the AP advertises a Channel Switch Announcement and remains in the same channel. This issue is observed in IAP-225 access points running Aruba Instant 8.6.0.5 or later versions.	Aruba Instant 8.6.0.5
AOS-210717 AOS-212956	The **Client-view heatmap** window in **Dashboard > Clients** page of the Instant WebUI does not display any data. This issue occurs when the number of client match history records exceeds 300. This issue is observed in APs running Aruba Instant 8.7.0.0 or later versions.	Aruba Instant 8.7.0.0

Table 5: *Known Issues in Aruba Instant 8.7.1.6*

Bug ID	Description	Reported Version
AOS-211665	An Instant AP is unable to connect to Aruba Central using a proxy server. The output of **show ap debug cloud-server** command lists the reason as **HTTPS proxy error**. This issue occurs when FreeProxy is used as the proxy server. This issue is observed in APs running Aruba Instant 8.5.0.7 or later versions.	Aruba Instant 8.5.0.7
AOS-215571	An Instant AP recommends an 80 MHz channel in ARM when 80 MHz channels are disabled in the cluster. This blocks the AP from selecting a different channel. This issue is observed in Aruba Central-managed APs running Aruba Instant 8.6.0.5 or later versions.	Aruba Instant 8.6.0.5
AOS-216114 AOS-218476	Instant APs in a cluster report the signal value as 0 in the output of **show clients** command. This issue occurs when **disable-arm-wids-functions** is turned on in the cluster. This issue is observed in APs running Aruba Instant 8.7.1.1 or later versions.	Aruba Instant 8.7.1.1
AOS-217468	The webUI of an Instant AP freezes when a new configuration change is applied through the webUI or the CLI. When this issue occurs, the CLI of the conductor AP and the member APs become inaccessible. This issue is observed in APs running Aruba Instant 8.7.1.1 or later versions.	Aruba Instant 8.7.1.1
AOS-217829	The new webUI in Instant APs does not update the status of member APs when they are disconnected from the network. This issue is observed in APs running Aruba Instant 8.6.0.4 or later versions.	Aruba Instant 8.6.0.4
AOS-218704 AOS-220857	Some VoIP calls are not sent to the server to be recorded. This issue occurs when: ■ The server recording the calls is behind the controller. ■ Some APs in the cluster are rebooted. This issue is observed in APs running Aruba Instant 8.6.0.4 or later versions.	Aruba Instant 8.6.0.4
AOS-218761 AOS-224026	The webUI of the Instant AP fails to sort APs according to client count when clicking on the **Clients** column label in the **Dashboard > Access Points** page of the Instant webUI. This issue is observed in APs running Aruba Instant 8.7.1.1 or later version.	Aruba Instant 8.7.1.1
AOS-218919	The Instant UI allows a VLAN to be configured as both the VC VLAN and CL2 VLAN. This issue occurs when the CL2 VLAN is configured first and the same VLAN is configured as the VC VLAN. This issue is observed in APs running Aruba Instant 8.6.0.4 or later versions.	Aruba Instant 8.6.0.4
AOS-218974	iPhone clients running iOS 14 or later versions are unable to connect to SSIDs when a HotSpot2.0 profile is mapped to it. This issue occurs when a HotSpot 2.0 profile is not configured on the iOS device. This issue is observed in APs running Aruba Instant 8.6.0.4 or later versions. **Workaround:** Configure a Hotspot 2.0 profile in the iOS device.	Aruba Instant 8.6.0.4
AOS-218997	Users connected to SSIDs configured with a **Centralized, L2** DHCP profile experience lower bandwidth speeds when compared to users connected to SSIDs with **Distributed, L3** DHCP profile. This issue is observed in Aruba Central-managed APs running Aruba Instant 8.7.0.0 or later versions.	Aruba Instant 8.7.0.0

Table 5: *Known Issues in Aruba Instant 8.7.1.6*

Bug ID	Description	Reported Version
AOS-219592	Clients receive router advertisement packets from VLANs other than the assigned VLAN. This issue is observed in SSIDs configured with Dynamic VLAN assignment. This issue is observed in APs running Aruba Instant 8.6.0.7 or later versions.	Aruba Instant 8.6.0.7
AOS-219784	An Instant AP randomly transmits beacons in the wrong channel. This issue is observed in APs running Aruba Instant 8.6.0.8 or later versions.	Aruba Instant 8.6.0.8
AOS-219797	An Instant AP fails to download the firmware update and returns the error message: **ERROR 400: Bad Request**. This issue occurs when a firmware upgrade is attempted from the webUI. This issue is observed in APs running Aruba Instant 8.3.0.0 or later versions. **Workaround:** Use the Instant CLI to download the firmware update.	Aruba Instant 8.7.1.0
AOS-219843	Clients with Intel Wireless AC 9560 Wi-Fi cards become unresponsive in approximately 10 minutes after connection when connected to SSIDs configured with hybrid spectrum monitoring mode. This issue is observed with 510 Series access points running Aruba Instant 8.7.1.3 or later versions. **Workaround:** Disable the **spectrum-monitor** parameter in the radio profile using the CLI.	Aruba Instant 8.7.0.0
AOS-219998	The NTP module of an Instant AP is stuck in the **INIT** state. This issue occurs when the NTP server returns an IPv6 address. This issue is observed in APs running Aruba Instant 8.7.1.2 or later versions.	Aruba Instant 8.7.1.2
AOS-220385	Clients randomly lose internet connectivity. During this period the affected clients are only able to pass Layer 2 traffic. This issue is observed in APs running Aruba Instant 8.7.1.3 or later versions. **Workaround:** Enable the **he-mu-mimo-disable** parameter in the SSID profile using the CLI.	Aruba Instant 8.7.0.0
AOS-220622	An Instant AP randomly generates **mini_httpd error** messages. These messages are displayed in the output of **show log debug** command and are also sent to the syslog server. This issue is observed in APs running Aruba Instant 8.7.1.3 or later versions.	Aruba Instant 8.7.1.3
AOS-220990	An Instant AP fails to download firmware when a destination NAT rule for incoming http traffic is applied in the inbound firewall rule. Similarly, the Instant AP loses connectivity with Aruba Central when the AP reloads after a destination NAT rule for incoming https traffic is applied in the inbound firewall rule. This issue is observed in Aruba Central-managed Instant APs running Aruba Instant 8.6.0.9 or later versions.	Aruba Instant 8.6.0.9
AOS-222157 AOS-222841	Some AP-345 access points randomly become unresponsive and the APs report high memory utilization during this period. This issue was observed in AP-345 access points running Aruba Instant 8.6.0.7 or later versions.	Aruba Instant 8.6.0.7
AOS-222756	An Instant AP uses the IP address of the virtual controller as the source IP for outgoing client traffic in guest SSIDs configured with NAT. This issue is observed in APs running Aruba Instant 8.7.1.5 or later versions.	Aruba Instant 8.7.1.5

Table 5: *Known Issues in Aruba Instant 8.7.1.6*

Bug ID	Description	Reported Version
AOS-222843	The Captive Portal page for some Linux clients display an **Authentication failed** message after a user enters the login credentials. This issue occurs when the AP does not hijack the DNS response. This issue is observed in APs running Aruba Instant 8.7.1.2 or later versions.	Aruba Instant 8.7.1.2
AOS-222909	The **show usb-enet** command fails to display the list of all USB devices connected to an Instant AP cluster. This issue is observed in Instant AP clusters running Aruba Instant 8.6.0.6 or later versions.	Aruba Instant 8.6.0.6
AOS-223269 AOS-223720	Instant APs send mesh debug messages of **EMERGENCY** status to the syslog server when only messages of **CRITICAL** and **WARNING** are configured in the syslog server. This issue is observed in APs running Aruba Instant 8.7.0.0 or later versions.	Aruba Instant 8.7.1.4
AOS-223701	An Instant AP crashes and reboots unexpectedly. The log file lists the reason for reboot as: **WARNING: CPU: 3 PID: 0 at mm/slab.h:308 kfree+0x128/0x148()**. This issue is observed in APs running Aruba Instant 8.7.1.4 or later versions.	Aruba Instant 8.7.1.4
AOS-223754	An Instant AP crashes and reboots unexpectedly. The log file lists the reason for reboot as: **SomeCrash Warm-reset / PC is at wlc_wnm_is_wnmsleeping+0x40/0xd8 [wl_v6**]. This issue is observed in APs running 8.7.1.4 or later versions.	Aruba Instant 8.7.1.4
AOS-224801	Clients were unable to pass traffic when the IPSec tunnel switched from the primary server to the secondary server after a failover event. This issue occurs when **Centralized, L2** DHCP scope is used. This issue is observed in APs running Aruba Instant 8.7.1.1 or later version.	Aruba Instant 8.7.1.1
AOS-225567	Clients connected to a member AP are getting disconnected with the deauthentication reason: **Internal only**. Clients reconnect to the APs immediately after disconnection. When this occurs the status of clients in the Instant AP is shown as **disconnected**. This issue occurs when a large number of SNMP requests are sent to the Virtual Controller. This issue is observed in APs running Aruba Instant 8.6.0.8 or later versions.	Aruba Instant 8.6.0.8

Chapter 7
Upgrading an Instant AP

This chapter describes the Instant software upgrade procedures and the different methods for upgrading the image on the Instant AP.

While upgrading anInstant AP, you can use the image check feature to allow the Instant AP to find new software image versions available on a cloud-based image server hosted and maintained by Aruba. The location of the image server is fixed and cannot be changed by the user. The image server is loaded with the latest versions of the Instant software.

Topics in this chapter include:

Upgrading an Instant AP and Image Server

Instant supports mixed Instant AP class Instant deployment with all Instant APs as part of the same virtual controller cluster.

Image Management Using AirWave

If the multi-class Instant AP network is managed by AirWave, image upgrades can only be done through the AirWave WebUI. The Instant AP images for different classes must be uploaded on the AMP server. If new Instant APs joining the network need to synchronize their software with the version running on the virtual controller, and if the new Instant AP belongs to a different class, the image file for the new Instant AP is provided by AirWave. If AirWave does not have the appropriate image file, the new Instant AP will not be able to join the network.

The virtual controller communicates with the AirWave server if AirWave is configured. If AirWave is not configured on the Instant AP, the image is requested from the Image server.

Image Management Using Cloud Server

If the multi-class Instant AP network is not managed by AirWave, image upgrades can be done through the Cloud-Based Image Check feature. If a new Instant AP joining the network needs to synchronize its software version with the version on the virtual controller and if the new Instant AP belongs to a different class, the image file for the new Instant AP is provided by the cloud server.

Configuring HTTP Proxy on an Instant AP

If your network requires a proxy server for Internet access, ensure that you configure the HTTP proxy on the Instant AP to download the image from the cloud server. The **Username** and **Password** configuration is

supported only for cloud services. After setting up the HTTP proxy settings, the Instant AP connects to the Activate server, AMP, Central, OpenDNS, or web content classification server through a secure HTTP connection. The proxy server can also be configured and used for cloud services. You can also exempt certain applications from using the HTTP proxy (configured on an Instant AP) by providing their host name or IP address under exceptions.

In the Old WebUI

To configure the HTTP proxy settings:

1. Navigate to **System** > **Proxy**. The **Proxy configuration** window is displayed.
2. Enter the HTTP proxy server IP address in the **Server** text box.
3. Enter the port number in the **Port** text box.
4. If you want to set an authentication username and password for the proxy server, select the **Proxy requires authentication** checkbox.
5. Enter a username in the **Username** text box.
6. Enter a password in the **Password** text box.
7. If you do not want the HTTP proxy to be applied for a particular host, click **New** to enter that IP address or domain name of that host in the **Exceptions** section.

In the New WebUI

To configure the HTTP proxy settings:

1. Navigate to **Configuration** > **System** > **Proxy**.
2. Enter the HTTP proxy server IP address in the **Auth Server** text box.
3. Enter the port number in the **Port** text box.
4. If you want to set an authentication username and password for the proxy server, enable the **Proxy requires authentication** toggle switch.
5. Enter a username in the **Username** text box.
6. Enter a password in the **Password** text box.
7. If you do not want the HTTP proxy to be applied for a particular host, click **+** to enter that IP address or domain name of that host in the **Exceptions** section.
8. Click **Save**.

In the CLI

To configure the HTTP proxy settings:

```
(Instant AP)(config)# proxy server 192.0.2.1 8080 example1 user123
(Instant AP)(config)# proxy exception 192.0.2.2
(Instant AP)(config)# end
(Instant AP)# commit apply
```

HTTP Proxy Support through Zero Touch Provisioning

Instant APs experience issues when connecting to AirWave, Central, or Activate through the HTTP proxy server which requires a user name and password. The ideal way to provide seamless connectivity for these cloud platforms is to supply the proxy information to the Instant AP through a DHCP server.

Starting with Aruba Instant 8.4.0.0, besides being able to authenticate to the HTTP proxy server, the factory default Instant APs can also communicate with the server through a HTTP proxy server DHCP which does not require authentication.

In order for the factory default Instant AP to automatically discover the proxy server, you need to configure the HTTP proxy information in the DHCP server option. The Instant AP will receive the proxy information and store it in a temporary file.

To retrieve the port and the proxy server information, you need to first configure the DHCP **option 60** to **ArubaInstantAP** as shown below:

```
(Instant AP)(config)# ip dhcp <profile_name>
(Instant AP)("IP DHCP profile-name")# option 60 ArubaInstantAP
```

Secondly, use the following command to configure the proxy server:

```
(Instant AP)(config)# proxy server <host> <port> [<username> <password>]
```

Use the text string **option 148 text server=host_ip,port=PORT,username=USERNAME,password=PASSWORD** to retrieve the details of the proxy server.

Rolling Upgrade on Instant APs with AirWave

Starting from Aruba Instant 8.4.0.0, Rolling Upgrade for Instant APs in standalone mode is supported with AirWave. The upgrade is orchestrated through NMS and allows the Instant APs deployed in standalone mode to be sequentially upgraded such that the APs upgrade and reboot one at a time. With Rolling Upgrade, the impact of upgrading a site is reduced to a single AP at any given point in time. This enhances the overall availability of the wireless network. For more information, see *AirWave 8.2.8.2 Instant Deployment Guide* and *AirWave 8.2.8.2 Release Notes*.

Upgrading an Instant AP Using the Automatic Image Check

You can upgrade an Instant AP by using the Automatic Image Check feature. The automatic image checks are performed once, as soon as the Instant AP boots up and every week thereafter.

If the image check locates a new version of the Instant software on the image server, the New version available link is displayed on the Instant main window.

If AirWave is configured, the automatic image check is disabled.

In the Old WebUI

To check for a new version on the image server in the cloud:

1. Go to **Maintenance** > **Firmware**.
2. In the **Automatic** section, click **Check for New Version**. After the image check is completed, one of the following messages is displayed:
   - No new version available—If there is no new version available.
   - Image server timed out—Connection or session between the image server and the Instant AP is timed out.
   - Image server failure—If the image server does not respond.
   - A new image version found—If a new image version is found.
3. If a new version is found, the **Upgrade Now** button becomes available and the version number is

displayed.

4. Click **Upgrade Now**.

The Instant AP downloads the image from the server, saves it to flash, and reboots. Depending on the progress and success of the upgrade, one of the following messages is displayed:

- Upgrading—While image upgrading is in progress.
- Upgrade successful—When the upgrade is successful.
- Upgrade failed—When the upgrade fails.

If the upgrade fails and an error message is displayed, retry upgrading the Instant AP.

In the New WebUI

To check for a new version on the image server in the cloud:

1. Go to **Maintenance** > **Firmware**.
2. In the **Automatic** section, click **Check for New Version**. After the image check is completed, one of the following messages is displayed:
   - No new version available—If there is no new version available.
   - Image server timed out—Connection or session between the image server and the Instant AP is timed out.
   - Image server failure—If the image server does not respond.
   - A new image version found—If a new image version is found.
3. If a new version is found, the **Upgrade Now** button becomes available and the version number is displayed.
4. Click **Upgrade Now**.

The Instant AP downloads the image from the server, saves it to flash, and reboots. Depending on the progress and success of the upgrade, one of the following messages is displayed:

- Upgrading—While image upgrading is in progress.
- Upgrade successful—When the upgrade is successful.
- Upgrade failed—When the upgrade fails.

If the upgrade fails and an error message is displayed, retry upgrading the Instant AP.

Upgrading to a New Version Manually Using the WebUI

If the Automatic Image Check feature is disabled, you can manually obtain an image file from a local file system or from a remote server accessed using a TFTP, FTP or HTTP URL.

In the Old WebUI

To manually check for a new firmware image version and obtain an image file:

1. Navigate to **Maintenance** > **Firmware**.
2. Under **Manual** section, perform the following steps:
   a. To update firmware using a downloaded image file:
      i. Select the **Image file** option. This method is only available for single-class Instant APs.
      ii. Click on **Browse** and select the image file from your local system. The following table describes the supported image file format for different AP models:

Access Points	Image File Format
AP-344, AP-345, AP-514, AP-515, AP-518, AP-574, AP-575, AP-575EX, AP-577, and AP-577EX	ArubaInstant_Draco_8.7.1.x_xxxx
AP-503H, AP-504, AP-505, AP-505H, AP-565, and AP-567.	ArubaInstant_Gemini_8.7.1.x_xxxx
IAP-314, IAP-315, IAP-324, IAP-325, AP-374, AP-375, AP-377, AP-318, and AP-387	ArubaInstant_Hercules_8.7.1.x_xxxx
IAP-334 and IAP-335	ArubaInstant_Lupus_8.7.1.x_xxxx
AP-534, AP-535, and AP-555	ArubaInstant_Scorpio_8.7.1.x_xxxx
AP-303, AP-303H, 303P Series, IAP-304, IAP-305, AP-365, and AP-367	ArubaInstant_Ursa_8.7.1.x_xxxx
AP-203H, AP-203R, AP-203RP, and IAP-207	ArubaInstant_Vela_8.7.1.x_xxxx

   b. To upgrade firmware using the URL of an image file:
   c. Select the **Image URL** option to obtain an image file from a HTTP, TFTP, or FTP URL.
   d. Enter the image URL in the **URL** text field. The syntax to enter the URL is as follows:
      - HTTP - http://<IP-address>/<image-file>. For example, http://<IP-address>/ArubaInstant_Hercules_8.7.1.x_xxxx
      - TFTP - tftp://<IP-address>/<image-file>. For example, tftp://<IP-address>/ArubaInstant_Hercules_8.7.1.x_xxxx
      - FTP - ftp://<IP-address>/<image-file>. For example, ftp://<IP-address>/ArubaInstant_Hercules_8.7.1.x_xxxx
      - FTP - ftp://<user name:password>@<IP-address>/<image-file>. For example, ftp://<aruba:123456>@<IP-address>/ArubaInstant_Hercules_8.7.1.x_xxxx

The FTP server supports both **anonymous** and **username:password** login methods.

Multiclass Instant APs can be upgraded only in the URL format, not in the local image file format.

3. Clear the **Reboot all APs after upgrade** check box if required. This check box is selected by default to allow the Instant APs to reboot automatically after a successful upgrade. To reboot the Instant AP at a later time, clear the **Reboot all APs after upgrade** check box.
4. Click **Upgrade Now** to upgrade the Instant AP to the newer version.

In the New WebUI (Instant 8.4.0.0 or later versions)

To manually check for a new firmware image version and obtain an image file:

1. Navigate to **Maintenance** > **Firmware**.
2. Expand **Manual** section.
3. The firmware can be upgraded using a downloaded image file or a URL of an image file.
   a. To update firmware using a downloaded image file:
      i. Select the **Image file** option. This method is only available for single-class Instant APs.
      ii. Click on **Browse** and select the image file from your local system. The following table describes the supported image file format for different Instant AP models:

Access Points	Image File Format
AP-344, AP-345, AP-514, AP-515, AP-518, AP-574, AP-575, AP-575EX, AP-577, and AP-577EX	ArubaInstant_Draco_8.7.1.x_xxxx
AP-503H, AP-504, AP-505, AP-505H, AP-565, and AP-567.	ArubaInstant_Gemini_8.7.1.x_xxxx
IAP-314, IAP-315, IAP-324, IAP-325, AP-374, AP-375, AP-377, AP-318, and AP-387	ArubaInstant_Hercules_8.7.1.x_xxxx
IAP-334 and IAP-335	ArubaInstant_Lupus_8.7.1.x_xxxx
AP-534, AP-535, and AP-555	ArubaInstant_Scorpio_8.7.1.x_xxxx
AP-303, AP-303H, 303P Series, IAP-304, IAP-305, AP-365, and AP-367	ArubaInstant_Ursa_8.7.1.x_xxxx
AP-203H, AP-203R, AP-203RP, and IAP-207	ArubaInstant_Vela_8.7.1.x_xxxx

   b. To upgrade firmware using the URL of an image file:
      i. Select the **Image URL** option to obtain an image file from a HTTP, TFTP, or FTP URL.
      ii. Enter the image URL in the **URL** text field. The syntax to enter the URL is as follows:
         - HTTP - http://<IP-address>/<image-file>. For example, http://<IP-address>/ArubaInstant_Hercules_8.7.1.x_xxxx
         - TFTP - tftp://<IP-address>/<image-file>. For example, tftp://<IP-address>/ArubaInstant_Hercules_8.7.1.x_xxxx
         - FTP - ftp://<IP-address>/<image-file>. For example, ftp://<IP-address>/ArubaInstant_Hercules_8.7.1.x_xxxx
         - FTP - ftp://<user name:password>@<IP-address>/<image-file>. For example, ftp://<aruba:123456>@<IP-address>/ArubaInstant_Hercules_8.7.1.x_xxxx

The FTP server supports both **anonymous** and **username:password** login methods.

Multiclass Instant APs can be upgraded only in the URL format, not in the local image file format.

4. Disable the **Reboot all APs after upgrade** toggle switch if required. This option is enabled by default to allow the Instant APs to reboot automatically after a successful upgrade. To reboot the Instant AP at a later time, clear the **Reboot all APs after upgrade** check box.
5. Click **Upgrade Now** to upgrade the Instant AP to the newer version.
6. Click **Save**.

Upgrading an Instant AP Image Using CLI

To upgrade an image using a HTTP, TFTP, or FTP URL:

```
(Instant AP)# upgrade-image <ftp/tftp/http-URL>
```

The following is an example to upgrade an image by using the FTP URL :

```
(Instant AP)# upgrade-image ftp://192.0.2.7/ArubaInstant_Hercules_8.7.1.x_xxxx
```

To upgrade an image without rebooting the Instant AP:

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

The following is an example to upgrade an image without rebooting the Instant AP:

```
(Instant AP)# upgrade-image2-no-reboot ftp://192.0.2.7/ArubaInstant_Hercules_
8.7.1.x_xxxx
```

To view the upgrade information:

```
(Instant AP)# 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 Hercules image-ok image file none
Auto reboot :enable
Use external URL :disable
```

Upgrade from Instant 6.4.x.x-4.2.x.x to Instant 8.7.1.x

Before you upgrade an Instant AP running Instant 6.5.4.0 or earlier versions to Instant 8.7.1.x, follow the procedures mentioned below:

1. Upgrade from Instant 6.4.x.x-4.2.x.x or any version prior to Instant 6.5.4.0 to Instant 6.5.4.0.
2. Refer to the *Field Bulletin AP1804-1* at asp.arubanetworks.com.
3. Verify the affected serial numbers of the Instant AP units.