

# Aruba Instant 8.5.0.0



Release Notes

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## Revision History

The following table provides the revision history of this document.

**Table 1:** *Revision History*

Revision	Change Description
Revision 04	Updated the table of supported image file format for different Instant AP models in the <b>Upgrading an Instant AP</b> chapter.
Revision 03	Added Important Upgrade Information for 310 Series, 320 Series, 370 Series and AP-387 Access Points.
Revision 02	Added <b>Important Upgrade Information for AP-318 and 370 Series Access Points</b> to the <b>Release Overview</b> chapter.
Revision 01	Initial release.

This Aruba Instant release notes includes the following topics:

- [New Features and Enhancements on page 8](#)
- [Supported Hardware Platforms on page 13](#)
- [Regulatory Updates on page 15](#)
- [Resolved Issues on page 16](#)
- [Known Issues on page 19](#)
- [Upgrading an Instant AP on page 22](#)

For list of terms, refer [Glossary](#).

## 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
- Firefox 58 or later on Windows 7, Windows 8, Windows 10, and macOS
- Apple Safari 9.0 or later on macOS
- Google Chrome 67 and later on Windows 7, Windows 8, Windows 10, and macOS

## Contacting Support

**Table 2:** *Contact Information*

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

## 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](#)

This chapter describes the features and enhancements introduced in this release.

### Authentication

#### Enhancements to ZTP with Proxy Authentication

Starting from Instant 8.5.0.0, the proxy configuration for the HTTP server using DHCP option 148 includes a username and password. For more information, refer *HTTP Proxy Support through Zero Touch Provisioning* in the *Aruba Instant 8.5.0.0 Release Notes*.

#### Generating Default Certificates

Starting from Aruba Instant 8.5.0.0, you can now generate the Default Server Certificate, Default WebUI Server Certificate and Default Captive Portal Certificate locally using the CLI. This enables you to generate default certificates if your existing certificates have expired or are about to expire.

### BLE

#### Parse Aruba Sensor Values

Instant APs can now classify and parse the content of advertisement and scan response frames and report the BLE telemetry data to subscribers.

### Configuration

#### Support for REST API on Instant

Starting from Aruba Instant 8.5.0.0, you can configure and monitor Instant APs using REST APIs. The REST API serves as a programmable interface that can dynamically change the existing configuration on the Instant AP and also provides visibility to SLA monitoring. This feature is supported by Instant on both cluster and standalone modes.

### Aruba Central

#### Forwarding WebCC URL Hostname to Aruba Central

Starting from Instant 8.5.0.0, the webcc statistics sent to Aruba Central will include all the web URL hostnames associated with a particular data session. The Application ID sent as part of the datapath session will now be mapped to the associated URL hostname.



## Reporting Spectrum Device and Channel Information to Central

Starting from Instant 8.5.0.0, Instant allows scanning and reporting of spectrum devices and channels to Aruba Central. A new command **show ap debug spectrum-channel-details** is introduced to display all the spectrum channels from AM modules.



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This feature is currently not supported on 510 Series access points.

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## IoT

### Reporting Sensor Values

Some sensor values are reported periodically to the configured server. The reporting interval is configured in the IoT transport profile. However, some sensor values are reported immediately without waiting for the next reporting interval. For example, events based on intrusion, fire, water level, and so on are reported immediately.

### Support for Zigbee 802.15.4 SoluM USB Dongle

Instant supports Zigbee 802.15.4 SoluM USB dongles. A SoluM Zigbee dongle plugs into the USB port of an Aruba AP and transfers electronic shelf label data from computer, server, or cloud to electronic shelf label tags through the AP. The USB port of the AP works as a wired Ethernet port and supports bridge and tunnel modes.

## Firewall

### Client Isolation

Aruba Instant 8.5.0.0 introduces Client Isolation, which enables you to isolate clients and disable all client-to-client communication within a network. This feature enhances the security of the network infrastructure and protects it against vulnerabilities.

### Support for Session ACLs and Ethertype ACLs

Instant APs now supports Extended ACLs to configure firewall policies. The new ACL types, Session ACL and Ethertype ACL, allows you to configure rules for firewall policies based on source and destination IP address, port number, IP protocol, and ethertype.

## Instant AP Management and Monitoring

### Instant AP Hostname Included in Syslog Messages

Starting from Aruba Instant 8.5.0.0, the syslog messages sent by the Instant AP will include its hostname, in addition to the IP address and MAC address of the Instant AP.

## Support for REST API on Instant

Starting from Aruba Instant 8.5.0.0, you can configure and monitor Instant APs using REST APIs. This feature is supported by Instant on both cluster and standalone modes. For more information, see *Aruba Instant 8.5.0.x REST API Guide*.

## Platforms

### 530 Series Campus Access Points

The Aruba 530 Series Campus Access Points (AP-534 and AP-535) are high-performance, multi-radio wireless devices that can be deployed in either controller-based (ArubaOS) or controllerless (Aruba Instant) network environments. These APs deliver high performance concurrent 2.4 GHz and 5 GHz 802.11ax Wi-Fi (Wi-Fi 6) functionality with 4x4 MIMO radios, while also supporting legacy 802.11a, 802.11b, 802.11g, 802.11n, and 802.11ac wireless services.

Wired Ethernet ports located on the back of these APs are used to connect the device to the wired networking infrastructure (wired speeds up to 5 Gbps are supported by both ports) and to provide POE power (802.3at class 4 or 802.3bt class 5) to the device.

In addition to both the Wi-Fi radios, 530 Series Campus APs are equipped with Bluetooth Low Energy (BLE) and Zigbee radio that provide the following capabilities:

- Location beacon applications
- IoT gateway applications

For complete technical details refer *530 Series Campus APs Datasheet*. For installation instructions, refer *Aruba 530 Series Campus APs Installation Guide*.

### 550 Series Campus Access Points

The Aruba 550 Series Access Points (AP-555) are high-performance, multi-radio wireless devices that can be deployed in either controller-based (ArubaOS) or controllerless (Aruba Instant) network environments. These APs deliver high-performance concurrent 2.4 GHz 802.11ax Wi-Fi (Wi-Fi 6) functionality with 4x4 MIMO radio and 5 GHz 802.11ax Wi-Fi (Wi-Fi 6) functionality with 8x8 MIMO radio, while also supporting legacy 802.11a, 802.11b, 802.11g, 802.11n, and 802.11ac wireless services.

Wired Ethernet ports located on the back of these APs are used to connect the device to the wired networking infrastructure (wired speeds up to 5 Gbps are supported by both ports) and to provide POE power (802.3at class 4 or 802.3bt class 5) to the device. In addition to both the Wi-Fi radios, 550 Series Campus APs are equipped with Bluetooth Low Energy (BLE) and Zigbee radio that provide the following capabilities:

- Location beacon applications
- IoT gateway applications

For complete technical details refer *550 Series Campus APs Datasheet*. For installation instructions, refer *Aruba 550 Series Campus APs Installation Guide*.

## Configuring Preferred Uplink

Starting from Aruba Instant 8.5.0.0, you can configure either eth0 or eth1 as the preferred uplink port as necessary. This configuration is supported on the Sierra AP platform - AP-318, AP-374, AP-375, AP-377 access points.



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This feature affects the behavior of AP-318 and 370 Series access points after the upgrade to Instant 8.5.0.0. For more information see [Important Upgrade Information for and Access Points](#).

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## Enhancements to 510 Series Campus Access Points

The Aruba510 Series campus APs now support the following features:

- Orthogonal Frequency Division Multiple Access (OFDMA)
- ClientMatch
- Cellular modem support
- Hotspot
- Mesh

For complete technical details refer *510 Series Access Points Datasheet*. For installation instructions, refer *510 Series Access Points Installation Guide*.

## Newly Supported 4G Modems

Starting from Instant 8.5.0.0, Instant APs support the following 4G modems:

- ZTE MF823 4G modem
- Huawei 8372 4G modem
- Huawei K5160 4G modem

## Wi-Fi Uplink Support for 11ac Platform

ArubaInstant 8.5.0.0 adds Wi-Fi uplink support for 802.11ac platforms. This enables you to configure a Wi-Fi station profile and use Wi-Fi to provide internet backhaul for the Instant network. The supported platforms for Wi-Fi uplink now includes the following 802.11 ac platforms -AP-203H, AP-203R, AP-203RP, AP-207, 300 Series, 310 Series, 320 Series and 330 Series access points.

## Services

### FQDN for RTLS Server

The RTLS configuration setting is enhanced to allow users to enter either the IP address or the FQDN name of the RTLS server. Using the FQDN of the RTLS server allows you to easily scale and add resources to the application.

## UAP

### Behavioral Changes to Default SetMeUp provisioning SSID

Starting from Aruba Instant 8.5.0.0, the default SetMeUp SSID used for AP provisioning will be disabled if the AP discovers the controller IP during the discovery process.

## VC Management

### Enhancements to VOIP Calling

A new CLI command **net service svc-sip** is introduced to configure port, protocol, and timeout values for NAT sessions. You can configure a maximum of up to 10 net service port entries.

## WebUI

### New Default Management UI Password on Instant

Starting from Instant 8.5.0.0, the default management password to login to the local Instant WebUI, SSH, or Console is changed to the Serial Number of the Instant AP. In a cluster setup, you may choose to enter the Serial Number of any of the APs in the cluster as the default login password. This change applies to any AP in its factory default state running Instant 8.5.0.0 or a later version.

## Wi-Fi Driver

### Display SFB Optical Module Transceiver Information in AP

Instant 8.5.0.0, allows displaying of SFB optical module transceiver information in APs that support fiber port. A new show command **show port transceiver** is introduced to display the optical module details on the Instant AP console.

### Support for 802.11a and 802.11g only Legacy Devices

Aruba Instant 8.5.0.0 introduces the High Throughput knob that allows you to toggle the high throughput (802.11n) functionality on SSIDs. This enables the network infrastructure to be tailored to serve both old - 802.11a and 802.11g only legacy clients, and new devices based on their capabilities.

This chapter describes the hardware platforms supported in this release.

### Supported Instant APs

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

**Table 3:** *Supported Instant AP Platforms*

Instant AP Platform	Minimum Required Instant Software Version
<ul style="list-style-type: none"> <li>■ 530 Series</li> <li>■ 550 Series</li> </ul>	Instant 8.5.0.0 or later
<ul style="list-style-type: none"> <li>■ AP-303P</li> <li>■ AP-387</li> <li>■ 510 Series — AP-514 and AP-515</li> </ul>	Instant 8.4.0.0 or later
<ul style="list-style-type: none"> <li>■ 303 Series</li> <li>■ 318 Series</li> <li>■ 340 Series — AP-344 and AP-345</li> <li>■ 370 Series — AP-374, AP-375, and AP-377</li> </ul>	Instant 8.3.0.0 or later
<ul style="list-style-type: none"> <li>■ AP-203H</li> </ul>	Instant 6.5.3.0 or later
<ul style="list-style-type: none"> <li>■ AP-203R and AP-203RP</li> <li>■ AP-303H</li> <li>■ AP-365 and AP-367</li> </ul>	Instant 6.5.2.0 or later
<ul style="list-style-type: none"> <li>■ IAP-207</li> <li>■ IAP-304 and IAP-305</li> </ul>	Instant 6.5.1.0-4.3.1.0 or later
<ul style="list-style-type: none"> <li>■ IAP-314 and IAP-315</li> <li>■ IAP-334 and IAP-335</li> </ul>	Instant 6.5.0.0-4.3.0.0 or later
<ul style="list-style-type: none"> <li>■ IAP-324 and IAP-325</li> </ul>	Instant 6.4.4.3-4.2.2.0 or later

**Table 3:** *Supported Instant AP Platforms*

Instant AP Platform	Minimum Required Instant Software Version
■ IAP-228 ■ IAP-277	Instant 6.4.3.1-4.2.0.0 or later
■ IAP-214 and IAP-215	Instant 6.4.2.0-4.1.1.0 or later
■ IAP-274 and IAP-275	Instant 6.4.0.2-4.1.0.0 or later
■ IAP-224 and IAP-225	Instant 6.3.1.1-4.0.0.0 or later
■ RAP-155 and RAP-155P	Instant 6.2.1.0-3.3.0.0 or later

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 Instant AP CLI and execute the **show ap allowed-channels** 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 [support.arubanetworks.com](https://support.arubanetworks.com).

The following DRT file version is part of this release:

- DRT-1.0\_70076

This chapter describes the issues resolved in this release.



Since we have migrated to a new defect tracking tool, we have listed both, the old and the new bug ids for tracking purposes.

**Table 4:** Resolved Issues in Instant 8.5.0.0

New Bug ID	Old Bug ID	Description	Component	Platform	Reported Version
AOS-155307 AOS-156104 AOS-156587 AOS-177427 AOS-178581 AOS-179542 AOS-180782 AOS-183814	190964 192143 192814 174940 180455 185374 191142 —	<p><b>Symptom:</b> An Instant AP crashed and rebooted unexpectedly. The log file listed the reason for the reboot as: <b>AP rebooted caused by external watchdog reset</b>. The fix ensures that the Instant AP does not crash and reboot unexpectedly.</p> <p><b>Scenario:</b> This issue occurred in 200 Series access points running Aruba Instant 8.3.0.6 or later versions.</p>	Wi-Fi Driver	200 Series access points	Aruba Instant 8.3.0.6
AOS-155747 AOS-181054	191640 192017	<p><b>Symptom:</b> SAPD process crashed often with signal, SIGSEV. This issue was resolved by checking for non-zero packet lengths prior to processing packet payload.</p> <p><b>Scenario:</b> The issue occurred when a frame of 0 packet length was forwarded from the wireless driver to the SAPD process. This issue was observed in access points running Aruba Instant 8.3.0.0 or later versions.</p>	IDS	All platforms	Aruba Instant 8.3.0.0
AOS-156104 AOS-156587 AOS-180782	192143 192814 191142	<p><b>Symptom:</b> An Instant AP rebooted unexpectedly. The log file listed the reason for the event as <b>Reboot caused by external watchdog reset</b>. The fix ensures that the AP works as expected.</p> <p><b>Scenario:</b> This issue was observed in AP-207 and AP-203RP access points running Aruba Instant 8.3.0.0 or later versions.</p>	Wi-Fi Driver	AP-207 and AP-203RP access points	Aruba Instant 8.3.0.0



**Table 4:** Resolved Issues in Instant 8.5.0.0

New Bug ID	Old Bug ID	Description	Component	Platform	Reported Version
AOS-157437 AOS-157439 AOS-182926	193965 193967 —	<b>Symptom:</b> Instant AP was unable to detect the U730L 4G modem. This issue is resolved by adding support for the U730L modem on the Instant AP. <b>Scenario:</b> This issue was observed in AP-203RP and AP-303H access points running Aruba Instant 8.4.0.0 or later versions.	3G/4G Management	AP-203RP and AP-303H access points	Aruba Instant 8.4.0.0
AOS-173722 AOS-181571	155978 194116	<b>Symptom:</b> An Instant AP crashed and rebooted unexpectedly. The log file listed the reason for the event as: <b>Reboot caused by kernel panic: Rebooting the AP because of FW ASSERT and Reboot caused by kernel panic: L2 single-bit error detected.</b> The fix ensures that the Instant AP does not crash and reboot. <b>Scenario:</b> This issue was observed in IAP-325 access points running Aruba Instant 8.3.0.0 or later versions.	Wi-Fi Driver	IAP-325 access points	Aruba Instant 8.3.0.0
AOS-177168 AOS-180497	173779 189867	<b>Symptom:</b> Instant AP did not send RADIUS Accounting stop messages while roaming from network to another. The fix ensures that the Instant AP sends the RADIUS Accounting stop messages. <b>Scenario:</b> This issue occurred because the station management sent a disassociation request to the Instant AP instead of a deauthenticate request. This issue was observed in Instant APs running Aruba Instant 8.3.0.0 or later versions.	Authentication	All platforms	Aruba Instant 8.3.0.0
AOS-179710 AOS-181640	186191 194391	<b>Symptom:</b> The certificate validity displayed by the Instant AP exceeded the year 2038. The fix ensures that the validity is set until the year 2038. <b>Scenario:</b> This issue was observed in Instant APs running Aruba Instant 8.3.0.5 or later versions.	Authentication	All platforms	Aruba Instant 8.3.0.5
AOS-180446 AOS-181220	189466 192676	<b>Symptom:</b> An Instant AP intermittently disconnected from AirWave. The fix ensures that the Instant AP stays connected to AirWave. <b>Scenario:</b> This issue was observed in AP-325 access points running Aruba Instant 8.3.0.0 or later versions.	AirWave	AP-325 access points	Aruba Instant 8.3.0.0
AOS-180611 AOS-183542	190428 —	<b>Symptom:</b> Users were sometimes unable to access the VC from a different subnet. The fix ensures that the VC can be reached without any issues. <b>Scenario:</b> This issue was observed in Instant APs running Aruba Instant 8.3.0.0 or later versions.	Datapath	All platforms	Aruba Instant 8.3.0.0

**Table 4:** Resolved Issues in Instant 8.5.0.0

New Bug ID	Old Bug ID	Description	Component	Platform	Reported Version
AOS-180954	191655	<p><b>Symptom:</b> The dpi-error-page-url redirect function was not working for iOS devices. This issue is resolved after modifying the skb length with an appropriate header size.</p> <p><b>Scenario:</b> This issue occurred because the skb length of the newly formed redirect packet was not set correctly. This issue was observed in Instant APs running Aruba Instant 8.3.0.0 or later versions.</p>	AppRF	All platforms	Aruba Instant 8.3.0.0
AOS-180969 AOS-180921 AOS-181404 AOS-181453 AOS-181786 AOS-183136 AOS-183499	191696 191501 193587 193816 195009 — —	<p><b>Symptom:</b> An Instant AP crashed and rebooted unexpectedly. The log file listed the reason for the event as: <b>Reboot caused by kernel panic: Rebooting the AP because of FW ASSERT.</b> The fix ensures that the Instant AP does not crash and reboot.</p> <p><b>Scenario:</b> This issue was observed in 300 Series, 310 Series, and 320 Series access points running Aruba Instant 8.3.0.0 or later versions.</p>	Wi-Fi Driver	300 Series, 310 Series, and 320 Series access points	Aruba Instant 8.3.0.0
AOS-181698	194634	<p><b>Symptom:</b> The 3G/4G modems connected to the Instant AP were not getting the reserved IP address from the service provider. The fix ensures that the modem gets the reserved IP address.</p> <p><b>Scenario:</b> This issue was observed in Instant APs running 8.4.0.0 or later versions.</p>	3G/4G Management	All platforms	Aruba Instant 8.4.0.0
AOS-182115	—	<p><b>Symptom:</b> An Instant AP lost connectivity to Central due to incorrect inbound firewall configuration. The fix ensures that the Instant AP does not lose connectivity to Central.</p> <p><b>Scenario:</b> This issue occurred due to the inbound firewall DNAT rule added to ACL 105. This issue was observed in Instant APs running Aruba Instant 8.4.0.0 release or later versions.</p>	Firewall	All platforms	Aruba Instant 8.4.0.0

This chapter describes the known issues and limitations identified in Aruba Instant 8.5.0.0.

### Limitations

This section describes the limitations in Aruba Instant 8.5.0.0.

#### DNS Traffic Policy Limitation

In releases prior to Aruba Instant 8.4.0.0, different traffic policies could be applied to AP DNS traffic and client DNS traffic. This meant, the AP DNS traffic would always take the next-hop through the management network or VLAN.

In Aruba Instant 8.5.0.0, due to a new NAT model implemented, whenever a configured client data path subnet route (not a default route) overlaps with the AP DNS server, the AP DNS traffic will take the same next-hop path as the client DNS server or data traffic instead of the management VLAN. This behavior will be addressed in a future Instant release.

#### Fast BSS Transition

802.11r feature is not supported in WLAN SSIDs using WPA3 security.

### Known Issues

The following known issues are observed in Aruba Instant 8.5.0.0.



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Since we have migrated to a new defect tracking tool, we have listed both, the old and the new bug ids for tracking purposes.

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**Table 5: Known Issues in Instant 8.5.0.0**

New Bug ID	Old Bug ID	Description	Component	Platform	Reported Version
AOS-179168	183383	<p><b>Symptom:</b> The Instant UI currently does not have an option to enable the default dhcp option82 xml file.</p> <p><b>Scenario:</b> This issue is observed in Instant APs running ArubaInstant 8.4.0.0 or later versions.</p> <p><b>Workaround:</b> None.</p>	WebUI	All platforms	Aruba Instant 8.3.0.0
AOS-180490	189842	<p><b>Symptom:</b> Clients are unable to access Instant APs intermittently.</p> <p><b>Scenario:</b> This issue is observed in IAP-115 access points running ArubaInstant 8.3.0.0 or later versions.</p> <p><b>Workaround:</b> None.</p>	Configuration	IAP-115 access points	Aruba Instant 8.3.0.0
AOS-181361	193397	<p><b>Symptom:</b> IPv4 GRE fragmentation packet is sent out without ESP encapsulation.</p> <p><b>Scenario:</b> This issue occurs when the rap-gre-mtu value is greater than or equal to 1236. This issue is observed in Instant APs running Aruba Instant8.4.0.0.</p> <p><b>Workaround:</b> None.</p>	GRE	All platforms	Aruba Instant 8.4.0.0
AOS-181668	194533	<p><b>Symptom:</b> The eth0 port does not support loop-protect and storm-control detection when the eth1 port is used as the uplink.</p> <p><b>Scenario:</b> This issue is observed in Instant APs running Aruba Instant 8.5.0.0.</p> <p><b>Workaround:</b> None.</p>	Platform	All platforms	Aruba Instant 8.5.0.0
AOS-185299 AOS-185381	—	<p><b>Symptom:</b> The operational status of the eth0 and eth1 ports sent to AirWave is incorrect.</p> <p><b>Scenario:</b> This issue occurs when LACP is configured with an uplink switch on the Instant AP. This issue is observed in Instant APs running Aruba Instant 8.5.0.0.</p> <p><b>Workaround:</b> None.</p>	AirWave	All platforms	Aruba Instant 8.5.0.0
AOS-185367 AOS-185369	—	<p><b>Symptom:</b> The output of the <b>show interface counters</b> command displays an incorrect value for the <b>Admin-State</b> of the eth0 and eth1 ports.</p> <p><b>Scenario:</b> This issue is observed in IAP-325 access points running Aruba Instant 8.5.0.0.</p> <p><b>Workaround:</b> None.</p>	Platform	IAP-325 access points	Aruba Instant 8.5.0.0

**Table 5: Known Issues in Instant 8.5.0.0**

New Bug ID	Old Bug ID	Description	Component	Platform	Reported Version
AOS-183620	—	<p><b>Symptom:</b> A slave Instant AP cannot join the cluster when the master Instant AP uses eth1 as the uplink.</p> <p><b>Scenario:</b> This issue occurs when DTLS is enabled on the slave Instant AP. This issue is observed in Instant APs running Aruba Instant 8.5.0.0.</p> <p><b>Workaround:</b> None.</p>	VC Management	All platforms	Aruba Instant 8.5.0.0
AOS-184921	—	<p><b>Symptom:</b> A wired client does not come up on a master Instant AP when the master Instant AP is powered with PoE.</p> <p><b>Scenario:</b> This issue occurs when a wired client is connected to the Eth1 port of an Instant AP which acts as the master of the Instant AP cluster and draws power on PoE. This issue is observed in 200 Series, 210 Series, 270 Series, 310 Series, 320 Series, 330 Series, 340 Series, 370 Series, 510 Series, 530 Series, and 550 Series access points.</p> <p><b>Workaround:</b> Connect a DC power source to the master Instant AP.</p>	Platform	200 Series, 210 Series, 270 Series, 310 Series, 320 Series, 330 Series, 340 Series, 370 Series, 510 Series, 530 Series, and 550 Series access points	Aruba Instant 8.5.0.0
AOS-185115	—	<p><b>Symptom:</b> Some clients are getting disconnected from the APs when the 2.4 GHz radio is reset.</p> <p><b>Scenario:</b> This issue occurs when multiple APs are configured across 2.4 GHz and 5 GHz radios. This issue is observed in Instant APs running Aruba Instant 8.5.0.0.</p> <p><b>Workaround:</b> None</p>	ARM	All platforms	Aruba Instant 8.5.0.0

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



NOTE

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While upgrading an Instant 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.

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Topics in this chapter include:

- [Upgrading an Instant AP and Image Server on page 22](#)
- [Upgrading an Instant AP Using the Automatic Image Check on page 24](#)
- [Upgrading an Instant AP Image Using CLI on page 28](#)
- [Upgrade from Instant 6.4.x.x-4.2.x.x to Instant 8.5.0.x on page 29](#)

## 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.



NOTE

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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.

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### 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** check box.
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 to achieve this goal. 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.



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

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## 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 upgrading is successful.
- Upgrade failed—When the upgrading 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 upgrading is successful.

- Upgrade failed—When the upgrading fails.

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

## Upgrading to a New Version Manually

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:
  - Select the **Image file** option. This method is only available for single-class Instant APs.

The following table describes the supported image file format for different Instant AP models:

Access Points	Image File Format
RAP-155 and RAP-155P	ArubaInstant_Aries_8.5.0.x_xxxx
IAP-214, IAP-215, IAP-224, IAP-225, IAP-228, IAP-274, IAP-275 and IAP-277	ArubaInstant_Centaurus_8.5.0.x_xxxx
IAP-314, IAP-315, IAP-324, IAP-325, AP-374, AP-375, AP-377, AP-318 and AP-387	ArubaInstant_Hercules_8.5.0.x_xxxx
IAP-334 and IAP-335	ArubaInstant_Lupus_8.5.0.x_xxxx
RAP-108, RAP-109, IAP-103, IAP-114 and IAP-115	ArubaInstant_Pegasus_8.5.0.x_xxxx
AP-303, AP-303H, 303P Series, IAP-304, IAP-305, AP-365 and AP-367	ArubaInstant_Ursa_8.5.0.x_xxxx
AP-203H, AP-203R, AP-203RP and IAP-207	ArubaInstant_Vela_8.5.0.x_xxxx
AP-344, AP-345, AP-514 and AP-515	ArubaInstant_Draco_8.5.0.x_xxxx
AP-534, AP-535 and AP-555	ArubaInstant_Scorpio_8.5.0.x_xxxx

- Select the **Image URL** option. Select this option to obtain an image file from a HTTP, TFTP, or FTP URL.
  - HTTP - http://<IP-address>/<image-file>. For example, http://<IP-address>/ArubaInstant\_Hercules\_8.5.0.x\_xxxx

- TFTP - tftp://<IP-address>/<image-file>. For example, tftp://<IP-address>/ArubaInstant\_Hercules\_8.5.0.x\_xxxx
- FTP - ftp://<IP-address>/<image-file>. For example, ftp://<IP-address>/ArubaInstant\_Hercules\_8.5.0.x\_xxxx
- FTP - ftp://<user name:password>@<IP-address>/<image-file>. For example, ftp://<aruba:123456>@<IP-address>/ArubaInstant\_Hercules\_8.5.0.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. Under **Manual** section, perform the following steps:
  - Select the **Image file** option. This method is only available for single-class Instant APs.

The following table describes the supported image file format for different Instant AP models:

Access Points	Image File Format
RAP-155 and RAP-155P	ArubaInstant_Aries_8.5.0.x_xxxx
IAP-214, IAP-215, IAP-224, IAP-225, IAP-228, IAP-274, IAP-275 and IAP-277	ArubaInstant_Centaurus_8.5.0.x_xxxx
IAP-314, IAP-315, IAP-324, IAP-325, AP-374, AP-375, AP-377, AP-318 and AP-387	ArubaInstant_Hercules_8.5.0.x_xxxx
IAP-334 and IAP-335	ArubaInstant_Lupus_8.5.0.x_xxxx
RAP-108, RAP-109, IAP-103, IAP-114 and IAP-115	ArubaInstant_Pegasus_8.5.0.x_xxxx
AP-303, AP-303H, 303P Series, IAP-304, IAP-305, AP-365 and AP-367	ArubaInstant_Ursa_8.5.0.x_xxxx

Access Points	Image File Format
AP-203H, AP-203R, AP-203RP and IAP-207	ArubaInstant_Vela_8.5.0.x_xxxx
AP-344, AP-345, AP-514 and AP-515	ArubaInstant_Draco_8.5.0.x_xxxx
AP-534, AP-535 and AP-555	ArubaInstant_Scorpio_8.5.0.x_xxxx

- Select the **Image URL** option. Select this option to obtain an image file from a HTTP, TFTP, or FTP URL.
  - HTTP - http://<IP-address>/<image-file>. For example, http://<IP-address>/ArubaInstant\_Hercules\_8.5.0.x\_xxxx
  - TFTP - tftp://<IP-address>/<image-file>. For example, tftp://<IP-address>/ArubaInstant\_Hercules\_8.5.0.x\_xxxx
  - FTP - ftp://<IP-address>/<image-file>. For example, ftp://<IP-address>/ArubaInstant\_Hercules\_8.5.0.x\_xxxx
  - FTP - ftp://<user name:password>@<IP-address>/<image-file>. For example, ftp://<aruba:123456>@<IP-address>/ArubaInstant\_Hercules\_8.5.0.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. 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.
4. Click **Upgrade Now** to upgrade the Instant AP to the newer version.
5. 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_8.5.0.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_8.5.0.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 8.5.0.x

Before you upgrade an Instant AP running Instant 6.5.4.0 or earlier versions to Instant 8.5.0.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](#).
3. Verify the affected serial numbers of the Instant AP units.