

AOS-W Instant 8.10.0.0

Release Notes

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The following table provides the revision history of this document.

Table 1: *Revision History*

Revision	Change Description
Revision 01	Initial release.

This AOS-W Instant release notes includes the following topics:

- [What's New](#)
- [Supported Hardware Platforms on page 11](#)
- [Regulatory Updates on page 13](#)
- [Resolved Issues on page 14](#)
- [Known Issues and Limitations on page 15](#)
- [Upgrading an OAW-IAP on page 17](#)

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

Related Documents

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

- *Alcatel-Lucent AP Software Quick Start Guide*
- *AOS-W Instant User Guide*
- *AOS-W Instant CLI Reference Guide*
- *AOS-W Instant REST API Guide*
- *AOS-W Instant Syslog Messages Reference Guide*
- *Alcatel-Lucent OAW-IAP Troubleshooting Guide*

Supported Browsers

The following browsers are officially supported for use with the AOS-W 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 Alcatel-Lucent's commitment to racial justice, we are taking a much-needed step in overhauling Alcatel-Lucent 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 Alcatel-Lucent culture and moving forward, Alcatel-Lucent 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

Contact Center Online	
Main Site	https://www.al-enterprise.com
Support Site	https://myportal.al-enterprise.com
Email	ebg_global_supportcenter@al-enterprise.com
Service & Support Contact Center Telephone	
North America	1-800-995-2696
Latin America	1-877-919-9526
EMEA	+800 00200100 (Toll Free) or +1(650)385-2193
Asia Pacific	+65 6240 8484
Worldwide	1-818-878-4507

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

New Features and Enhancements

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

Captive Portal

Dynamic Control of Ports 8080 and 8081

Starting from AOS-W Instant 8.10.0.0, the ports 8080 and 8081 will be open or closed dynamically based on the AP configuration. Ports 8080 and 8081 are closed by default and will be opened only when the related features are configured.

The **show ap debug port-8080-status** command is used to view the current status of ports 8080 and 8081.

Datapath / Firewall

New CLI parameter Added in the VPN Tunnel Profile Command

A new parameter called **probe-ip** is introduced in the **vpn tunnel-profile** command. This parameter allows an IP address or hostname to probe connections, when VIG is enabled.

IDS

Ghost Tunnel Attack Detection

The Intrusion Detection System in OAW-IAPs can now detect ghost tunnel attacks and issue alerts. When enabled, OAW-IAP analyzes abnormal probe request behavior to detect attacks from the client side and analyzes abnormal beacon packets to detect attacks from the server side.

IoT

Configuring IoT Antenna Gain Value

A new CLI command **iot-ant-gain** is introduced to configure an antenna gain value for OAW-IAPs with external antennas.

DRT support for BLE and 802.15.4 Introduced in New Access Points

The output of the **show ap debug received-reg-table** command will now display the DRT information for BLE and 802.15.4 standard for OAW-580 Series access points.

Enhancement to Tx Power Value for IoT BLE or Zigbee Radio Profile

The maximum configurable value of Tx power for BLE and Zigbee-based radio profiles is increased from -40 to 20.

SES-Imagotag and Wi-Fi Co-Existence Support for Wi-Fi 6 and Wi-Fi 6E Access Points

AOS-W Instant now supports SES-Imagotag and Wi-Fi Co-existence for Wi-Fi 6 and Wi-Fi 6E access points.

SouthBound API Support for AP USB Dongle

A new show command **show ap debug ble-session-status device-mac <mac_address>** is added to display the current running Southbound API session status.

Support BSC Computer Version of the EnOcean USB Dongle

AOS-W Instant now supports the BSC computer version of the EnOcean USB dongle.

Zone Configuration for IoT Transport Profile and Radio Profile

A new parameter called **Zone** is introduced in the IoT Transport profile and Radio profile configuration. When a zone is defined in the transport profile or radio profile and the same zone name is defined on an OAW-IAP, the transport profile or radio profile is created on that OAW-IAP. This allows different IoT transport or radio profiles to work in different zones.

The **iot-zone <zone_name>** command is used to enable the IoT transport or radio profile zone on an OAW-IAP.

Platform

OAW-650 Series Access Points

The Alcatel-Lucent OAW-650 Series access points (OAW-AP655) are high performance, tri-radio, indoor access points that can be deployed in either Switch-based (AOS-W) or Switch-less (AOS-W Instant) network environments. These APs deliver high performance concurrent 2.4 GHz, 5 GHz, and 6 GHz 802.11ax Wi-Fi (Wi-Fi 6E) functionality with MIMO radios (4x4 in 2.4 GHz, 5 GHz, and 6 GHz), while also supporting 802.11a, 802.11b, 802.11g, 802.11n, and 802.11ac wireless services.

Additional features include:

- IEEE 802.11a, IEEE 802.11b, IEEE 802.11g, IEEE 802.11n, IEEE 802.11ac, and IEEE 802.11ax operation as a wireless access point.
- IEEE 802.11a, IEEE 802.11b, IEEE 802.11g, IEEE 802.11n, IEEE 802.11ac, and IEEE 802.11ax spectrum monitor.
- Two Ethernet ports, ENET0 and ENET1, each capable of data rates up to 5 Gbps.
- Compatible with IEEE 802.3bt, IEEE 802.3at, and IEEE 802.3af PoE standards on both Ethernet ports.
- Mesh
- Thermal management

For complete technical details and installation instructions, see *Alcatel-Lucent 650 Series Access Points Installation Guide*.

Automatic Opening and Closing of Ports Used by AP Services

OAW-IAPs now automatically open and close the TCP/UDP ports used by various AP services. When an AP service is initialized, the AP opens the required TCP/UDP port and closes the port when the service operation is completed. This enhances the security of the AP by ensuring that the ports used by services remain closed when the services are inactive.

Enhancements to Intelligent Power Management and Intelligent Thermal Management

Additional reduction steps are introduced in the **ipm** command that allows you to reduce the power consumption and the operating temperature of the AP when IPM is enabled. The following are the reduction steps introduced in this release:

Reductions	CLI Commands
Disabling radios	radio_2ghz_disable radio_5ghz_disable radio_5ghz_2_disable radio_6ghz_disable
Disabling power supply ports	disable_pse1 disable_pse2
Additional radio chain reductions in the 5 GHz radio	radio_5ghz_chain_4x4
Radio chain reductions in the secondary 5 GHz radio	radio_5ghz_2_chain_1x1 radio_5ghz_2_chain_2x2 radio_5ghz_2_chain_3x3
Power reductions in the secondary 5 GHz radio	radio_5ghz_2_power_3dB radio_5ghz_2_power_6dB
Radio chain reductions in the 6 GHz radio	radio_6ghz_chain_1x1 radio_6ghz_chain_2x2 radio_6ghz_chain_3x3
Power reductions in the 6 GHz radio	radio_6ghz_power_3dB radio_6ghz_power_6dB

These reduction steps can be configured only using the CLI and are available in the **ipm** command. For more information on these parameters, see the *AOS-W Instant 8.x CLI Reference Guide*.

New Command to View the List of Radio Mode Changes in the AP

A new command, **show radio-mode-history**, that displays the list of changes to the radio mode of the AP radios is introduced. This allows users to see the log of radio mode changes since the last AP boot.

Support for Alcatel-Lucent USB LTE Modems

AOS-W Instant supports the new Alcatel-Lucent USB LTE modem that connects the AP to the Internet through a 3G or 4G cellular connection. The USB modem supports plug and play provisioning which allows the AP to connect to the Internet without any manual configuration.

Support for EAP with TLS 1.3

AOS-W Instant 8.10.0.0 supports EAP with TLS 1.3 in data packet transmission between the supplicant and the RADIUS server.

EAP with TLS 1.3 is not supported with the following AP functions in this release:

- Internal RADIUS server functions.
- EAP-Termination.
- Internal 802.1X authentication (AP1X).

Station Management

Advertise Wide Channel Bandwidth Information Element in Neighbor Report Responses

The wide channel bandwidth information element is included in the neighbor report responses by default, when the **dot11k** setting is enabled on the OAW-IAP as part of the **dot11k-profile** configuration. The **disable-nb-resp_wide-band-ie** parameter in the **dot11k-profile** command can be used to disable the setting when dot11k is enabled and stop the wide channel bandwidth information element from being included in the neighbor report responses.

Wi-Fi Driver

Enhancements to Hotspot 2.0 Profile

OAW-IAPs now automatically send Chargeable User Identity attribute as defined by RFC 4372 and RADIUS location data as defined by RF 5580 to the RADIUS server for clients connecting to an Hotspot 2.0 profile. These attributes are enabled by default and can be turned off using the **radius-cui-disable** and **radius-loc-disable** parameters in the Hotspot profile using the **hotspot hs-profile** command.

For more information on these parameters, see the *AOS-W Instant 8.x CLI Reference Guide*.

Behavioral Changes

This section describes the changes that take effect on the OAW-IAP on upgrading to this release.

Authentication

Change in Key Exchange Method for SSH Communications

Starting from Aruba Instant 8.10.0.0, Instant APs no longer use DH key exchange for SSH communications. Instead, ECDH key exchange will be used for SSH communications.

The following table displays the OAW-IAP platforms supported in AOS-W Instant 8.10.0.x release.

Table 3: *Supported OAW-IAP Platforms*

OAW-IAP Platform	Minimum Required AOS-W Instant Software Version
OAW-650 Series — OAW-AP655	AOS-W Instant 8.10.0.0 or later
OAW-630 Series — OAW-AP635	AOS-W Instant 8.9.0.0 or later
OAW-500H Series — OAW-AP503H OAW-560 Series — OAW-AP565 and OAW-AP567	AOS-W Instant 8.7.1.0 or later
OAW-500H Series — OAW-AP505H 518 Series — OAW-AP518 OAW-AP570 Series — OAW-AP574, OAW-AP575, and OAW-AP577 OAW-570EX Series — OAW-AP575EX and OAW-AP577EX	AOS-W Instant 8.7.0.0 or later
OAW-AP500 Series — OAW-AP504 and OAW-AP505	AOS-W Instant 8.6.0.0 or later
OAW-AP530 Series — OAW-AP534 and OAW-AP535 OAW-AP550 Series — OAW-AP535	AOS-W Instant 8.5.0.0 or later
OAW-AP303 Series — OAW-AP303P OAW-AP510 Series — OAW-AP514 and OAW-AP515	AOS-W Instant 8.4.0.0 or later
OAW-AP303 Series — OAW-AP303 OAW-AP318 Series — OAW-AP318 OAW-AP340 Series — OAW-AP344 and OAW-AP345 OAW-AP370 Series — OAW-AP374, OAW-AP375, and OAW-AP377	AOS-W Instant 8.3.0.0 or later
203H Series — OAW-AP203H	AOS-W Instant 6.5.3.0 or later
203R Series — OAW-AP203R and OAW-AP203RP OAW-AP360 Series — OAW-AP365 and OAW-AP367	AOS-W Instant 6.5.2.0 or later
207 Series — OAW-IAP207 OAW-AP300 Series — OAW-IAP304 and OAW-IAP305	AOS-W Instant 6.5.1.0-4.3.1.0 or later
OAW-AP310 Series — OAW-IAP314 and OAW-IAP315 OAW-AP330 Series — OAW-IAP334 and OAW-IAP335	AOS-W Instant 6.5.0.0-4.3.0.0 or later
OAW-AP320 Series — OAW-IAP324 and OAW-IAP325	AOS-W Instant 6.4.4.3-4.2.2.0 or later

This chapter provides information on the Alcatel-Lucent products that are not supported for a particular release.

AOS-W Instant 8.10.x.x is the last release that supports the following AP platforms:

- 203H Series
- 203R Series
- 207 Series
- OAW-AP320 Series
- OAW-AP330 Series
- OAW-AP340 Series
- OAW-AP387

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 Switch 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 myportal.al-enterprise.com.

The following DRT file version is part of this release:

- DRT-1.0_83672

The following issues are resolved in this release.

Table 4: Resolved Issues in AOS-W Instant 8.10.0.0

New Bug ID	Description	Reported Version
AOS-211699 AOS-212564 AOS-212567 AOS-212599 AOS-215978 AOS-217452 AOS-229376	A few OAW-IAPs crashed and rebooted unexpectedly. The log file listed the reason for the crash as: Kernel panic - not syncing: jiffies stall (pc is at __schedule+0x78/0x360) . The fix ensures that the APs work as expected. This issue was observed in APs running AOS-W Instant 8.5.0.10 or later versions.	AOS-W Instant 8.6.0.5
AOS-216839	The RTLS/Wi-Fi Data Forwarding feature was not disabled when the configurations were reset. This issue occurred because BLE data forwarding was incorrectly added as an sxdm parameter in the PAPI message to AM. The fix ensures that the RTLS/Wi-Fi Data Forwarding feature is disabled when the configuration is reset. This issue was observed in OAW-IAPs running AOS-W Instant 8.8.0.0 or later versions.	AOS-W Instant 8.8.0.0
AOS-222203 AOS-228442	Some OAW-AP500 Series access points crashed and rebooted unexpectedly. The log file listed the reason for reboot as: Panic:Out of memory Warm-reset . The fix ensures that the AP works as expected. This issue was observed in OAW-AP500 Series access points running AOS-W Instant 8.6.0.8 or later versions.	AOS-W Instant 8.6.0.8
AOS-226816	The iBeacon configurations received through the Beacon Management API was not sent to APB. This issue was resolved after a missing code was added to send the iBeacon configurations from Beacon Management to APB. This issue was observed in OAW-IAPs running AOS-W Instant 8.9.0.0 or later versions.	AOS-W Instant 8.9.0.0
AOS-226674	The Alcatel-Lucent Meridian Beacons Management server type was not functioning as expected. This issue occurred as the local APB and nearby APBs were not included in the updates sent to the Meridian editor as part of beacons management. The fix ensures that the Alcatel-Lucent Meridian Beacons Management server type works as expected. This issue was observed in OAW-IAPs running AOS-W Instant 8.8.0.0 or later versions.	AOS-W Instant 8.8.0.0

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

Limitations

This section describes the limitations in AOS-W Instant 8.10.0.0.

OAW-AP635 and OAW-AP655 Access Points

OAW-AP635 and OAW-AP655 access points do not support Wi-Fi uplink on the 6 GHz radio channel.

AP Hostname Character Limit Extension

The number of ASCII characters allowed in the OAW-IAP hostname is increased from 32 to 128 characters. The following configuration settings do not support the new limit of 128 ASCII characters in AOS-W Instant 8.8.0.0:

- 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

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

Inbound Firewall

The **apip-all** configuration is not supported by the **inbound-firewall** command in OAW-IAP cluster deployments. It is only supported in standalone or single-AP modes of deployment.

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 AOS-W Instant 8.10.0.0

Bug ID	Description	Reported Version
AOS-224500	An OAW-IAP is unable to pass traffic and service clients when both dual Ethernet uplink and Wi-Fi uplink are configured. This issue is observed in APs running AOS-W Instant 8.9.0.0.	AOS-W Instant 8.9.0.0
AOS-224517	An OAW-AP635 access point fails to update DRT when the update process is carried out locally through the webUI. The webUI returns the error message: drt_grade_drt_file_error . This issue is observed in OAW-AP635 access points running AOS-W Instant 8.9.0.0. Workaround: Update the DRT file using a webserver.	AOS-W Instant 8.9.0.0
AOS-232757	The BLE southbound API connection is terminated when the characteristic discovery is interrupted. This issue is observed in OAW-IAPs running AOS-W Instant 8.10.0.0.	AOS-W Instant 8.10.0.0
AOS-227814 AOS-232336	Clients were unable to connect to wireless networks configured with WPA3 Personal security. This issue occurs when the 4-way handshake between the client and the AP fails. This issue is observed in APs running AOS-W Instant 8.8.0.4 or later versions.	AOS-W Instant 8.9.0.0
AOS-232843	An OAW-IAP fails to translate the source IP address of its clients for outgoing traffic. This issue occurs: <ul style="list-style-type: none">■ with clients connected to the conductor AP.■ when the Client IP assignment is set to Virtual Controller managed.■ when the conductor Instant AP is configured with a static IP address. This issue is observed in APs running Aruba Instant 8.9.0.3 or later versions.	AOS-W Instant 8.9.0.3

This chapter describes the AOS-W Instant software upgrade procedures and the different methods for upgrading the image on the OAW-IAP.



While upgrading an OAW-IAP, you can use the image check feature to allow the OAW-IAP to find new software image versions available on a cloud-based image server hosted and maintained by Alcatel-Lucent. 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 AOS-W Instant software.

Topics in this chapter include:

- [Upgrading an OAW-IAP Using OmniVista 3600 Air Manager Management Platform on page 17](#)
- [Upgrading an OAW-IAP Image Manually Using the WebUI on page 18](#)
- [Upgrading an OAW-IAP Image Manually Using CLI on page 19](#)
- [Upgrade from AOS-W Instant 6.4.x.x-4.2.x.x to AOS-W Instant 8.10.0.x on page 20](#)

Upgrading an OAW-IAP Using OmniVista 3600 Air Manager Management Platform

If the multi-class OAW-IAP network is managed by OmniVista 3600 Air Manager, image upgrades can only be done through the OmniVista 3600 Air Manager WebUI. The OAW-IAP images for different classes must be uploaded on the AMP server. If new OAW-IAPs joining the network need to synchronize their software with the version running on the virtual Switch, and if the new OAW-IAP belongs to a different class, the image file for the new OAW-IAP is provided by OmniVista 3600 Air Manager. If OmniVista 3600 Air Manager does not have the appropriate image file, the new OAW-IAP will not be able to join the network.



The virtual Switch communicates with the OmniVista 3600 Air Manager server if OmniVista 3600 Air Manager is configured. If OmniVista 3600 Air Manager is not configured on the OAW-IAP, the image is requested from the Image server.

HTTP Proxy Support through Zero Touch Provisioning

OAW-IAPs experience issues when connecting to OmniVista 3600 Air Manager, 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 OAW-IAP through a DHCP server.

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

In order for the factory default OAW-IAP to automatically discover the proxy server, you need to configure the HTTP proxy information in the DHCP server option. The OAW-IAP 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 OAW-IAPs with OmniVista 3600 Air Manager

Starting from AOS-W Instant 8.4.0.0, Rolling Upgrade for OAW-IAPs in standalone mode is supported with OmniVista 3600 Air Manager. The upgrade is orchestrated through NMS and allows the OAW-IAPs 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 *OmniVista 3600 Air Manager 8.2.8.2 AOS-W Instant Deployment Guide* and *OmniVista 3600 Air Manager 8.2.8.2 Release Notes*.

Upgrading an OAW-IAP Image Manually Using the WebUI

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.

The following procedure describes how to manually check for a new firmware image version and obtain an image file using the webUI:

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 OAW-IAPs.
 - ii. Click on **Browse** and select the image file from your local system. The following table describes the supported image file format for different OAW-IAP models:

Access Points	Image File Format
OAW-AP344, OAW-AP345, OAW-AP514, OAW-AP515, OAW-AP518, OAW-AP574, OAW-AP575, OAW-AP575EX, OAW-AP577, and OAW-AP577EX	Alcatel Instant_Draco_8.10.0.x_xxxx
OAW-AP503H, OAW-AP504, OAW-AP505, OAW-AP505H, OAW-AP565, and OAW-AP567.	Alcatel Instant_Gemini_8.10.0.x_xxxx

Access Points	Image File Format
OAW-IAP314, OAW-IAP315, OAW-IAP324, OAW-IAP325, OAW-AP374, OAW-AP375, OAW-AP377, OAW-AP318, and OAW-AP387	Alcatel Instant_Hercules_8.10.0.x_xxxx
OAW-IAP334 and OAW-IAP335	Alcatel Instant_Lupus_8.10.0.x_xxxx
OAW-AP534, OAW-AP535, OAW-AP535, OAW-AP-584, OAW-AP585, OAW-AP585EX, OAW-AP587, OAW-AP587EX	Alcatel Instant_Scorpio_8.10.0.x_xxxx
OAW-AP303, OAW-AP303H, 303P Series, OAW-IAP304, OAW-IAP305, OAW-AP365, and OAW-AP367	Alcatel Instant_Ursa_8.10.0.x_xxxx
OAW-AP203H, OAW-AP203R, OAW-AP203RP, and OAW-IAP207	Alcatel Instant_Vela_8.10.0.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>/Alcatel Instant_Hercules_8.10.0.x_xxxx
 - TFTP - tftp://<IP-address>/<image-file>. For example, tftp://<IP-address>/Alcatel Instant_Hercules_8.10.0.x_xxxx
 - FTP - ftp://<IP-address>/<image-file>. For example, ftp://<IP-address>/Alcatel Instant_Hercules_8.10.0.x_xxxx
 - FTP - ftp://<user name:password>@<IP-address>/<image-file>. For example, ftp://<alcatel:123456>@<IP-address>/AlcatelInstant_Hercules_8.10.0.x_xxxx



The FTP server supports both **anonymous** and **username:password** login methods. Multiclass OAW-IAPs 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 OAW-IAPs to reboot automatically after a successful upgrade. To reboot the OAW-IAP at a later time, clear the **Reboot all APs after upgrade** check box.
5. Click **Upgrade Now** to upgrade the OAW-IAP to the newer version.
6. Click **Save**.

Upgrading an OAW-IAP Image Manually Using CLI

The following procedure describes how 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/AlcatelInstant_Hercules_8.10.0.x_xxxx
```

The following procedure describes how to upgrade an image without rebooting the OAW-IAP:

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

The following is an example to upgrade an image without rebooting the OAW-IAP:

```
(Instant AP)# upgrade-image2-no-reboot ftp://192.0.2.7/Alcatel Instant_Hercules_8.10.0.x_xxxx
```

The following command describes how 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 AOS-W Instant 6.4.x.x-4.2.x.x to AOS-W Instant 8.10.0.x

Before you upgrade an OAW-IAP running AOS-W Instant 6.5.4.0 or earlier versions to AOS-W Instant 8.10.0.x, follow the procedures mentioned below:

1. Upgrade from AOS-W Instant 6.4.x.x-4.2.x.x or any version prior to AOS-W Instant 6.5.4.0 to AOS-W Instant 6.5.4.0.
2. Refer to the *Field Bulletin AP1804-1* at myportal.al-enterprise.com.
3. Verify the affected serial numbers of the OAW-IAP units.