AOS-W Instant 8.6.0.22

Release Notes

Alcatel·Lucent

Enterprise

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:

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:

Web Browser	Operating System
Microsoft Edge (Microsoft Edge 92.0.902.62 and Microsoft EdgeHTML 18.19041) or later	- Windows 10 or later - macOS
Firefox 107.0.1 or later	- Windows 10 or later - macOS
Apple Safari 15.4 (17613.1.17.1.13) or later	macOS
Google Chrome 108.0.5359.71 or later	- Windows 10 or later - 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, 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://businessportal.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.

Enhancement to IDS Rogue Classification

Both wireless and wired MAC addresses are recorded for IDS rogue detection, thus ensuring that the OAW-IAP provides more details on IDS rogue classification to the user.

Enhancements to Technical Support Logs

The **show tech-support** command has been modified to reduce response time and improve customer experience. This change adds **show ap regular** and **show drt status** in **show tech-support supplemental** command.

Support for SSL Throttling

SSL throttle can now be configured manually using the **set-sysctl ssl_throttle_table** command to a value between 1–32; the default value is 16. The **get-sysctl ssl_throttle_table** command can be used to view the configured SSL throttle value.

Behavioral Changes

This release does not introduce any changes in AOS-W Instant behaviors, resources, or support that would require you to modify the existing system configurations after updating to 8.6.0.22.

The following table displays the OAW-IAP platforms supported in AOS-W Instant 8.6.x release.

Table 3: *Supported OAW-IAP Platforms*

OAW-IAP Platform	Minimum Required AOS-W Instant Software Version
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-AP303H Series — OAW-AP303H 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
OAW-AP228 Series — OAW-IAP228 OAW-AP270 Series — OAW-IAP277	AOS-W Instant 6.4.3.1-4.2.0.0 or later
OAW-AP210 Series — OAW-IAP214 and OAW-IAP215	AOS-W Instant 6.4.2.0-4.1.1.0 or later

Table 3: *Supported OAW-IAP Platforms*

OAW-IAP Platform	Minimum Required AOS-W Instant Software Version
OAW-AP270 Series — OAW-IAP274 and OAW-IAP275	AOS-W Instant 6.4.0.2-4.1.0.0 or later
OAW-AP220 Series — OAW-IAP224 and OAW-IAP225	AOS-W Instant 6.3.1.1-4.0.0.0 or later
RAP 155 Series — OAW-RAP155 and OAW-RAP155P	AOS-W Instant 6.2.1.0-3.3.0.0 or later

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 OAW-IAP Command Line Interface (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 myportal.al-enterprise.com.

The following DRT file version is part of this release:

- DRT-1.0_87407

This chapter describes the issues resolved in this release.

Table 4: *Resolved Issues in AOS-W Instant 8.6.0.22*

Bug ID	Description	Reported Version
AOS-236052	An OAW-IAP did not update its IP address and retained its original IP address. This issue occurred when the AP switched to a different VLAN using ClearPass during AP bootup. This issue was observed in APs running AOS-W Instant 8.6.0.0 or later versions. The fix ensures that the OAW-IAP updates its IP address as expected.	AOS-W Instant 8.6.0.0
AOS-237413	High memory utilization was observed in some OAW-AP515 access point clusters, running AOS-W Instant 8.6.0.18 or later versions. The issue occurred when the **snmpd_sap** process did not get a valid response from the SNMP server, causing the memory leak. The fix ensures responses from the SNMP server are handled correctly.	AOS-W Instant 8.6.0.18
AOS-241743 AOS-242212 AOS-244549	Users were unable to connect to the cloud guest SSID, and were being redirected to the Captive Portal page. The log file listed the following reason for the error: **Internal Error while getting request ID in radsec server**. The fix ensures that users are able to connect to cloud guest SSID without issues. This issue was observed in APs running AOS-W Instant 8.10.0.5 or later versions.	AOS-W Instant 8.10.0.6
AOS-242628	The **MIB_WLAN_INDEX** entry displayed an incorrect value in **MIB_WAP_TABLE**. As a result, the correct ESSID of the OAW-IAPs was not displayed in the OmniVista 3600 Air Manager WebUI. The fix ensures that the correct ESSID is displayed. This issue was observed in OmniVista 3600 Air Manager-managed OAW-IAP clusters running AOS-W Instant 8.3.0.0 or later versions.	AOS-W Instant 8.3.0.0
AOS-244068	Rogue OAW-IAP containment did not function as expected when detecting rogue APs with different channels. The fix ensures that the rogue AP containment is attempted on detected rogue APs with different channels. This issue was observed in OAW-IAPs running AOS-W Instant 6.5.4.0 or later versions.	AOS-W Instant 8.11.0.1
AOS-245753	An OAW-IAP was unable to establish a RadSec connection with the cloud CPPM server. The output of the **show radius state** command displays the status of the RadSec server as **INIT**. The fix ensures that the AP connects to the cloud server as expected. This issue was observed in APs running AOS-W Instant 8.6.0.0 or later versions.	AOS-W Instant 8.6.0.20

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

Limitations

Airtime Fairness Mode

Airtime Fairness Mode is not supported in 802.11ax access points.

Important Update on Deprecated Access Points

The OAW-AP210 Series, OAW-AP220 Series, OAW-AP228, and OAW-AP270 Series access points will be deprecated for future releases and include the following limitations in AOS-W Instant 8.6.0.x, which is the last supported software version for these access points:

- No support for BLE interface (with USB).
- The DPI engine used for AppRF will have limitations in terms of enhancements and fixes in the future.
- These APs use WolfSSL libraries in AOS-W Instant 8.6.0.0 and not OpenSSL.
- No support for WPA3 security.

All of these platforms have already been marked as end-of-sale. Please review the end-of-sale and end-of-support dates for these platforms here.

Known Issues

Following are the known issues observed in this release.

Table 5: *Known Issues in AOS-W Instant 8.6.0.22*

Bug ID	Description	Reported Version
AOS-192469 AOS-207381	An OAW-IAP does not tag voice and video traffic with the WMM values defined in the SSID profile. Instead, the AP uses the default DSCP tags of 48 and 40 for voice and video traffic respectively. This issue is observed in APs running AOS-W Instant 8.3.0.0 or later versions.	AOS-W Instant 8.6.0.0
AOS-192604 AOS-207381	An OAW-IAP does not tag voice and video traffic with the WMM values defined in the SSID profile. Instead, the AP uses the default DSCP tags of 48 and 40 for voice and video traffic respectively. This issue is observed in OAW-IAPs running AOS-W Instant 8.3.0.0 or later versions.	AOS-W Instant 8.6.0.0
AOS-195769 AOS-234168	In some OAW-IAPs set up with dynamic VLAN assignment, ARP or GARP traffic is unexpectedly sent to wireless clients, even if they are connected to a different VLAN and VAP. This issue is observed in the following scenarios: ■ When the broadcast packets from VLAN 1 and all of the clients on	AOS-W Instant 8.6.0.0

Table 5: *Known Issues in AOS-W Instant 8.6.0.22*

Bug ID	Description	Reported Version
	the SSID are on VLAN 2, the packets are sent to all VAPs belonging to the same SSID. ■ When the SSID has two VAPs that belong to the same VLAN, but only one VAP has clients on that VLAN, the traffic is forwarded to both VAPs. ■ When all of the VAPs of a given SSID have clients on different VLANs, the packets are broadcasted to all VLANs. This issue is observed in OAW-IAPs running AOS-W Instant 8.6.0.0 or later versions.	
AOS-197400	An OAW-IAP fails to switch uplink interfaces during an uplink failover event. This issue occurs when the OAW-IAP is configured with two Ethernet uplinks. This issue is observed in OAW-IAPs running AOS-W Instant 8.6.0.1 or later versions.	AOS-W Instant 8.6.0.1
AOS-201901	An OAW-IAP changes all access rules to **deny** when the configuration is restored through the CLI from a Windows TFTP server. This issue occurs when the Windows configuration retrieved from the TFTP server includes newline (\n) and carriage return (\r) characters. This issue is observed in APs running AOS-W Instant 8.5.0.0 or later versions.	AOS-W Instant 8.5.0.0
AOS-203766	An OAW-IAP fails to commit AirGroup settings configured using the AOS-W Instant WebUI. This issue occurs under the following conditions: ■ When the number of **AirGroup services** exceeds 16. ■ When the number of **service IDs** exceeds 32. This issue is observed in APs running AOS-W Instant 8.6.0.0 or later versions.	AOS-W Instant 8.6.0.0
AOS-204171	Clients intermittently experience high latency when the OAW-IAP is connected to the backup controller after a failover event. This issue occurs under the following scenarios: ■ The AP attempts to reconnect to the primary Switch. ■ Fast failover is enabled on the AP. This issue is observed in 203R Series access points running AOS-W Instant 8.3.0.0 or later versions.	AOS-W Instant 8.3.0.0
AOS-209051	Clients are unable to send traffic when the AOS-W 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 AOS-W Instant 8.6.0.4 or later versions.	AOS-W Instant 8.6.0.4
AOS-210440	Administrator authentication fails when accessing the OAW-IAP through the WebUI. This issue occurs when the administrator password includes special characters such as **"** or **'**. This issue is observed in APs running AOS-W Instant 8.6.0.5 or later versions. **Workaround:** Create a different administrator password without special characters.	AOS-W Instant 8.6.0.5

Table 5: *Known Issues in AOS-W Instant 8.6.0.22*

Bug ID	Description	Reported Version
AOS-213641 AOS-239097	An OAW-IAP fails to resolve DNS properly for control and management traffic. This issue occurs under the following scenarios: ■ After the client switches from cellular modem to Ethernet uplink. ■ When IPv6 DNS fails in a dual stack network. This issue is observed in APs running AOS-W Instant 8.3.0.11 or later versions.	AOS-W Instant 8.3.0.11
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 Switch. ■ Some APs in the cluster are rebooted. This issue is observed in APs running AOS-W Instant 8.6.0.4 or later versions.	AOS-W Instant 8.6.0.4
AOS-218974	iPhone clients running iOS 14 or later versions are unable to connect to SSIDs when a Hotspot 2.0 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 AOS-W Instant 8.6.0.4 or later versions. **Workaround:** Configure a Hotspot 2.0 profile in the iOS device.	AOS-W Instant 8.6.0.4
AOS-219576	Clients connected to an OAW-IAP are randomly disconnecting from the network with the reason: **internal only**. Clients rejoin the network immediately after the disconnection. This issue is observed in APs running AOS-W Instant 8.6.0.8 or later versions.	AOS-W Instant 8.6.0.8
AOS-219592	Clients receive router advertisement packets from VLANs other than their assigned VLAN. This issue is observed in SSIDs configured with Dynamic VLAN assignment. This issue is observed in APs running AOS-W Instant 8.6.0.7 or later versions.	AOS-W Instant 8.6.0.7
AOS-220890	MPSK-Local SSID is broadcasted as Open SSID in OAW-IAPs when the software version is downgraded to AOS-W Instant versions lower than 8.7.0.0. This issue is observed in APs running AOS-W Instant 8.6.0.8 or later versions.	AOS-W Instant 8.6.0.8
AOS-220896	An OAW-IAP generates internal system error messages. The output of the **show log system** command displays: **An internal system error has occurred at file rc_acct_instant.c function clear_client_stats_by_mac line 238**. This issue is observed in APs running AOS-W Instant 8.6.0.7 or later versions.	AOS-W Instant 8.6.0.7
AOS-224170 AOS-225601	Some member OAW-IAPs in a cluster appear as down in the OmniVista 3600 Air Manager UI. This issue is observed in OmniVista 3600 Air Manager-managed APs running AOS-W Instant 8.6.0.0 or later versions.	AOS-W Instant 8.6.0.0
AOS-225567	Clients connected to a member AP disconnect with the deauthentication reason: **Internal only**. Clients reconnect to the OAW-IAPs immediately after disconnection. When this issue occurs the status of clients in the OAW-IAP is shown as **disconnected**. This issue occurs when a large number of SNMP requests are sent to the Virtual Switch. This issue is observed in APs running AOS-W Instant 8.6.0.8 or later versions.	AOS-W Instant 8.6.0.8

Table 5: *Known Issues in AOS-W Instant 8.6.0.22*

Bug ID	Description	Reported Version
AOS-229903	The **Match MAC** information is not displayed in the **Rogue Device Info** page of the OmniVista 3600 Air Manager UI. This issue occurs when the OAW-IAP fails to send the match MAC information to OmniVista 3600 Air Manager. This issue is observed in APs running AOS-W Instant 8.6.0.4 or later versions.	AOS-W Instant 8.6.0.4
AOS-231019 AOS-232063	An OAW-IAP fails to reconnect after an LTE outage. The output of the **show cell status** command is missing information. This issue is observed in APs running AOS-W Instant 8.6.0.16 or later versions.	AOS-W Instant 8.7.1.7
AOS-238100 AOS-239419	The eth0 link of an OAW-IAP appears offline in the OmniVista 3600 Air Manager UI. This issue is observed in OmniVista 3600 Air Manager-managed APs running AOS-W Instant 8.6.0.18 or later versions.	AOS-W Instant 8.6.0.18

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

NOTE | While upgrading anOAW-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

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.

NOTE | 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 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.

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 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, AP-575EX, OAW-AP577, and AP-577EX	AlcatelInstant_Draco_8.6.0.x_xxxx
AP-503H, OAW-AP504, OAW-AP505, OAW-AP505H, AP-565, and AP-567.	AlcatelInstant_Gemini_8.6.0.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	AlcatelInstant_Hercules_8.6.0.x_xxxx
OAW-IAP334 and OAW-IAP335	AlcatelInstant_Lupus_8.6.0.x_xxxx
OAW-AP534, OAW-AP535, and OAW-AP535	AlcatelInstant_Scorpio_8.6.0.x_xxxx
OAW-AP303, OAW-AP303H, 303P Series, OAW-IAP304, OAW-IAP305, OAW-AP365, and OAW-AP367	AlcatelInstant_Ursa_8.6.0.x_xxxx
OAW-AP203H, OAW-AP203R, OAW-AP203RP, and OAW-IAP207	AlcatelInstant_Vela_8.6.0.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>/AlcatelInstant_Hercules_8.6.0.x_xxxx
- TFTP - tftp://<IP-address>/<image-file>. For example, tftp://<IP-address>/AlcatelInstant_Hercules_8.6.0.x_xxxx
- FTP - ftp://<IP-address>/<image-file>. For example, ftp://<IP-address>/AlcatelInstant_Hercules_8.6.0.x_xxxx
- FTP - ftp://<user name:password>@<IP-address>/<image-file>. For example, ftp://<alcatel:123456>@<IP-address>/AlcatelInstant_Hercules_8.6.0.x_xxxx

> **NOTE**
>
> 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.

3. Clear the **Reboot all APs after upgrade** check box if required. This check box is selected 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.
4. Click **Upgrade Now** to upgrade the OAW-IAP to the newer version.

In the New WebUI (AOS-W 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 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, AP-575EX, OAW-AP577, and AP-577EX	AlcatelInstant_Draco_8.6.0.x_xxxx
AP-503H, OAW-AP504, OAW-AP505, OAW-AP505H, AP-565, and AP-567.	AlcatelInstant_Gemini_8.6.0.x_xxxx
OAW-IAP314, OAW-IAP315, OAW-IAP324, OAW-IAP325, OAW-AP374, OAW-AP375, OAW-AP377, OAW-AP318, and OAW-AP387	AlcatelInstant_Hercules_8.6.0.x_xxxx
OAW-IAP334 and OAW-IAP335	AlcatelInstant_Lupus_8.6.0.x_xxxx
OAW-AP534, OAW-AP535, and OAW-AP535	AlcatelInstant_Scorpio_8.6.0.x_xxxx
OAW-AP303, OAW-AP303H, 303P Series, OAW-IAP304, OAW-IAP305, OAW-AP365, and OAW-AP367	AlcatelInstant_Ursa_8.6.0.x_xxxx
OAW-AP203H, OAW-AP203R, OAW-AP203RP, and OAW-IAP207	AlcatelInstant_Vela_8.6.0.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>/AlcatelInstant_Hercules_8.6.0.x_xxxx
  - TFTP - tftp://<IP-address>/<image-file>. For example, tftp://<IP-address>/AlcatelInstant_Hercules_8.6.0.x_xxxx
  - FTP - ftp://<IP-address>/<image-file>. For example, ftp://<IP-address>/AlcatelInstant_Hercules_8.6.0.x_xxxx
  - FTP - ftp://<user name:password>@<IP-address>/<image-file>. For example, ftp://<alcatel:123456>@<IP-address>/AlcatelInstant_Hercules_8.6.0.x_xxxx

> **NOTE**
>
> 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

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_8.6.0.x_xxxx
```

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/AlcatelInstant_Hercules_
8.6.0.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 AOS-W Instant 6.4.x.x-4.2.x.x to AOS-W Instant 8.6.0.x

Before you upgrade an OAW-IAP running AOS-W Instant 6.5.4.0 or earlier versions to AOS-W Instant 8.6.0.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.