



AOS-W Instant 8.11.2.0

Release Notes

Alcatel·Lucent
Enterprise



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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 on page 8](#)
- [Supported Hardware Platforms on page 1](#)
- [Regulatory Updates on page 12](#)
- [Resolved Issues on page 13](#)
- [Known Issues and Limitations on page 14](#)
- [Upgrading an OAW-IAP on page 16](#)

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

Important Upgrade Information for Clusters that Include OAW-AP320 Series, OAW-AP330 Series, OAW-AP340 Series, and OAW-AP387 Series Access Points

Starting from AOS-W Instant 8.11.0.0, OAW-AP320 Series, OAW-AP330 Series, OAW-AP340 Series, and OAW-AP387 Series access points are no longer supported. However, the OAW-AP320 Series, OAW-AP340 Series, and OAW-AP387 Series access points use the Hercules and Draco images, which are also used by AP platforms that have not been deprecated in this release. As such, these images are available for upgrading to AOS-W Instant 8.11.0.0. Attempting to install AOS-W Instant 8.11.x.x firmware on the aforementioned APs may cause these APs to disconnect themselves from the current cluster and form a new cluster running the software version available in their partition.

Therefore, in addition to OAW-AP330 Series access points, please ensure that any OAW-AP320 Series, OAW-AP340 Series, and OAW-AP387 Series access points are removed from the cluster before upgrading it to AOS-W Instant 8.11.x.x.

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	<ul style="list-style-type: none">▪ Windows 10 or later▪ macOS
Firefox 107.0.1 or later	<ul style="list-style-type: none">▪ Windows 10 or later▪ macOS
Apple Safari 15.4 (17613.1.17.1.13) or later	<ul style="list-style-type: none">▪ macOS
Google Chrome 108.0.5359.71 or later	<ul style="list-style-type: none">▪ 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.

Support for OAW-AP654 Access Points

The OAW-AP654 access point is the external antenna platform variant of the OAW-650 Series, supporting two sets of antenna interfaces for 2.4 GHz and 5 GHz (A, left side) as well as 6 GHz (B, right side). The Alcatel-Lucent OAW-650 Series access points are high performance, multi-radio access points that can be deployed in either Switch-based (AOS-W) or Switch-less (AOS-W Instant) network environments. These APs deliver comprehensive tri-band coverage across 2.4 GHz, 5 GHz, and 6 GHz 802.11ax Wi-Fi (Wi-Fi 6E) functionality with concurrent 4x4 MU-MIMO radios for both uplink and downlink in the 5 GHz and 6 GHz bands, while also supporting 802.11a, 802.11b, 802.11g, 802.11n, 802.11ac, and 802.11ax wireless services.

Additional features include:

- Up to 7.8 Gbps combined peak data rate
- Dual wired 5 Gbps Smart Rate ethernet ports for hitless failover
- Orthogonal Frequency Division Multiple Access (OFDMA)
- Alcatel-Lucent Advanced Cellular Coexistence (ACC)
- IoT-ready (integrated Bluetooth 5 and 802.15.4 radio for Zigbee support)
- Ultra Tri-Band (UTB) filtering
- Maximum ratio combining (MRC)
- Intelligent Power Monitoring (IPM)
- Dynamic frequency selection (DFS)

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

Support for OAW-AP634 Access Points

The OAW-AP634 access point is the external antenna platform variant of the 630 Series, supporting two sets of antenna interfaces for 2.4 GHz and 5 GHz (A, left side) as well as 6 GHz (B, right side). The Alcatel-Lucent 630 Series access points are high performance, multi-radio access points that can be deployed in either Switch-based (AOS-W) or Switch-less (AOS-W Instant) network environments. These APs deliver comprehensive tri-band coverage across 2.4 GHz, 5 GHz, and 6 GHz 802.11ax Wi-Fi (Wi-Fi 6E) functionality with concurrent 2x2 MIMO radios for both uplink and downlink in the 5 GHz and 6 GHz bands, while also supporting 802.11a, 802.11b, 802.11g, 802.11n, 802.11ac, and 802.11ax wireless services.

Additional features include:

- Up to 3.9 Gbps combined peak data rate
- Dual wired 2.5 Gbps Smart Rate ethernet ports for hitless failover
- Orthogonal Frequency Division Multiple Access (OFDMA)
- Alcatel-Lucent Advanced Cellular Coexistence (ACC)
- IoT-ready (integrated Bluetooth 5 and 802.15.4 radio for Zigbee support)
- Ultra Tri-Band (UTB) filtering
- Maximum ratio combining (MRC)
- Intelligent Power Monitoring (IPM)
- Dynamic frequency selection (DFS)

For complete technical details and installation instructions, see the *Alcatel-Lucent OAW-630 Series Access Points Installation Guide*.

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.

Enhanced Support for OAW-IAP IPv6 Address Generation

In the updated IPv6 address generation process, users can now seamlessly switch between address generation methods. While the default method remains the OAW-IAP MAC address (EUI-64) format, an option to change to the Stable Privacy method is now available. This update introduces a new set of commands for easy switching between these methods. This enhancement introduces the following set of commands.

- **ipv6 addr-gen-mode eui64**
- **ipv6 addr-gen-mode stable-privacy**
- **no ipv6 addr-gen-mode**

Regulatory Information Added to show tech-support Command

The output of the **show tech-support** command is enhanced to include the AP regulatory information.

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 8.11.2.0.

Chapter 3

Supported Hardware Platforms

The following table displays the OAW-IAP platforms supported in AOS-W Instant 8.11.2.x release.

Table 3: *Supported OAW-IAP Platforms*

OAW-IAP Platform	Minimum Required AOS-W Instant Software Version
OAW-630 Series — OAW-AP634 OAW-650 Series — OAW-AP654	AOS-W Instant 8.11.2.0 or later
OAW-AP500 Series — OAW-AP503	AOS-W Instant 8.11.1.0 or later
OAW-AP610 Series — OAW-AP615	AOS-W Instant 8.11.0.0 or later
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 OAW-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-AP370 Series — OAW-AP374, OAW-AP375, and OAW-AP377	AOS-W Instant 8.3.0.0 or later
OAW-AP360 Series — OAW-AP365 and OAW-AP367	AOS-W Instant 6.5.2.0 or later
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	AOS-W Instant 6.5.0.0-4.3.0.0 or later

Deprecated OAW-IAPs

The following OAW-IAPs are no longer supported from AOS-W Instant 8.11.0.0 onwards:

- OAW-AP203H Series — OAW-AP203H
- OAW-AP203R Series — OAW-AP203R and OAW-AP203RP
- OAW-AP207 Series — OAW-IAP207
- OAW-AP320 Series — OAW-IAP324 and OAW-IAP325
- OAW-AP330 Series — OAW-IAP334 and OAW-IAP335
- OAW-AP340 Series — OAW-AP344 and OAW-AP345

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

The following issues are resolved in this release.

Table 4: Resolved Issues in AOS-W Instant 8.11.2.0

Bug ID	Description	Reported Version
AOS-244395	An OAW-IAP failed to decapsulate fragmented EAP-TLS packets when Wi-Fi offload was enabled. The AP experienced defragmentation failure in the NSS FW. The fix ensures that fragmented EAP-TLS packets are reassembled as expected in the NSS FW. This issue was observed in APs running AOS-W Instant 8.6.0.0 or later versions.	AOS-W Instant 8.10.0.6
AOS-243107	Clients could not connect to the MAC+ enhanced open SSID after the connection switched from Dot1x/WPA3-SAE to the MAC+ enhanced open SSID. This issue occurred when the 4-way handshake failed due to a missing PMK cache entry. The issue was resolved by retaining the PMK cache entry after switching to the SSID through the CLI. This issue was observed in APs running AOS-W Instant 8.10.0.0 or later versions.	AOS-W Instant 8.10.0.0
AOS-245401	HE capabilities were configured on the beacon and probe response for 2.4GHz radio even though the HE knob was disabled. The fix ensures that HE capabilities are not configured on the beacon and probe response when the HE knob is disabled. This issue was observed in OAW-AP500 Series access points running AOS-W Instant 8.9.0.0 or later versions.	AOS-W Instant 8.10.0.6

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

Limitations

This section describes the limitations in AOS-W Instant 8.11.2.0.

OAW-AP615, OAW-AP635, and OAW-AP655 Access Points

The OAW-AP615, OAW-AP635, and OAW-AP655 access points have the following limitations:

- All radios for these APs currently do not support spectrum analysis.
- 802.11mc responder and initiator functionality, Hotspot configuration, and Air Slice configuration are not supported on the 6 GHz radio.
- Users can configure only up to 4 VAPs on the 6 GHz radio, instead of 16 VAPs.

OAW-AP654 and OAW-AP634 Access Points

For the current release of AOS-W Instant, OAW-AP654 and OAW-AP634 access points do not support 6 GHz band operation. Support for 6 GHz will be enabled in a future software release, and will depend on the local regulatory status reflected in the DRT file.

Air Slice

Air Slice is partially enabled on OAW-AP500 Series and OAW-AP510 Series access points. However, WMM boost will be functional even if Air Slice high-priority queuing is disabled.

Airtime Fairness Mode

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

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 8.11.1.0:

- 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 8.11.2.0*

Bug ID	Description	Reported Version
AOS-245510	OAW-IAPs reboot unexpectedly. The log file lists the reason for reboot as Panic:Out of memory Warm-reset . This issue is observed in APs running AOS-W Instant 8.10.0.0 or later versions.	AOS-W Instant 8.10.0.5

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 16](#)
- [Upgrading an OAW-IAP Image Manually Using the WebUI on page 17](#)
- [Upgrading an OAW-IAP Image Manually Using CLI on page 18](#)
- [Upgrade from AOS-W Instant 6.4.x.x-4.2.x.x to AOS-W Instant 8.11.0.x on page 19](#)

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 username 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-AP514, OAW-AP515, OAW-AP518, OAW-AP574, OAW-AP575, OAW-AP575EX, OAW-AP577, and OAW-AP577EX	AlcatelInstant_Draco_8.11.0.x_xxxx
OAW-AP503H, OAW-AP504, OAW-AP505, OAW-AP505H, OAW-AP565, and OAW-AP567.	AlcatelInstant_Gemini_8.11.0.x_xxxx

Access Points	Image File Format
OAW-IAP314, OAW-IAP315, OAW-AP374, OAW-AP375, OAW-AP377, and OAW-AP318.	AlcatelInstant_Hercules_8.11.0.x_xxxx
OAW-AP534, OAW-AP535, OAW-AP535, OAW-AP584, OAW-AP585, OAW-AP585EX, OAW-AP587, and OAW-AP587EX	AlcatelInstant_Scorpio_8.11.0.x_xxxx
OAW-AP303, OAW-AP303H, OAW-AP303P Series, OAW-IAP304, OAW-IAP305, OAW-AP365, and OAW-AP367	AlcatelInstant_Ursa_8.11.0.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_8.11.0.x_xxxx
 - TFTP - tftp://<IP-address>/<image-file>. For example, tftp://<IP-address>/AlcatelInstant_Hercules_8.11.0.x_xxxx
 - FTP - ftp://<IP-address>/<image-file>. For example, ftp://<IP-address>/AlcatelInstant_Hercules_8.11.0.x_xxxx
 - FTP - ftp://<user name:password>@<IP-address>/<image-file>. For example, ftp://alcatel:123456@<IP-address>/AlcatelInstant_Hercules_8.11.0.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_8.11.0.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_8.11.0.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 8.11.0.x

Before you upgrade an OAW-IAP running AOS-W Instant 6.5.4.0 or earlier versions to AOS-W Instant 8.11.0.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.