AOS-W Instant 8.6.0.6

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Enterprise

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Contents

Revision History

The following table provides the revision history of this document.

Table 1: *Revision History*

Revision	Change Description
Revision 01	Initial release.

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

For the list of terms, refer to the Glossary.

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

Contacting Support

Table 2: *Contact Information*

Contact Center Online	
Main Site	https://www.al-enterprise.com
Support Site	https://businessportal2.alcatel-lucent.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

There are no new features introduced in this release.

Supported OAW-IAPs

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
■ OAW-AP203H Series — OAW-AP203H	AOS-W Instant 6.5.3.0 or later
■ OAW-AP203R 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
■ OAW-AP207 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

Table 3: *Supported OAW-IAP Platforms*

OAW-IAP Platform	Minimum Required AOS-W Instant Software Version
■ 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
■ 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
■ OAW-RAP155 Series — OAW-RAP155 and OAW-RAP155P	AOS-W 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 OAW-IAP 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 service.esd.alcatel-lucent.com.

The following DRT file version is part of this release:

- DRT-1.0_76935

This chapter describes the issues resolved in this release.

Table 4: *Resolved Issues in AOS-W Instant 8.6.0.6*

Bug ID	Description	Reported Version
AOS-198275	Clients were not redirected to the captive portal page for authentication when the **radius-reauth-interval** defined in the network profile expired. This issue occurred when both 802.1X authentication and captive portal authentication were enabled in the AOS-W Instant network. The fix ensures that clients are redirected to the captive portal page when the **radius-reauth-interval** period expires. This issue was observed in APs running AOS-W Instant 8.3.0.7 or later versions.	AOS-W Instant 8.3.0.7
AOS-202837	An OAW-IAP sent additional MAC authentication requests to the RADIUS server. This issue occurred in networks configured with an external captive portal. The fix ensures that the AP does not send additional MAC authentication requests. This issue was observed in APs running AOS-W Instant 8.6.0.0 or later versions.	AOS-W Instant 8.6.0.0
AOS-204796	An OAW-RAP155 Series access point continuously rebooted with the reason: **System clock is too far ahead of NTP sync result**. The fix ensures that the OAW-RAP155 Series access point works as expected. This issue occurred due to NTP sync failure between the AP time and internal NTP server. This issue was observed in OAW-RAP155 Series access points running AOS-W Instant 8.5.0.6 or later versions.	AOS-W Instant 8.5.0.6
AOS-205389	A few APs in an AOS-W Instant cluster intermittently reported **config checksum** errors. The fix ensures that APs sync configurations from the master AP without any checksum errors. This issue occurred in OmniVista 3600 Air Manager managed AOS-W Instant networks. This issue was observed in APs running AOS-W Instant 8.5.0.7 or later versions.	AOS-W Instant 8.5.0.7
AOS-205932	Some client devices were disconnected from the network when roaming from one AP to another. This issue occurred when broadcast and multicast traffic for clients was blocked due to Group Transient Key (GTK) sync failure between the neighboring APs. The fix ensures that APs sync GTK sucessfully and clients can roam without any interruption in connection. This issue was observed in 802.11r enabled APs running AOS-W Instant 8.4.0.2 or later versions.	AOS-W Instant 8.4.0.2

Table 4: *Resolved Issues in AOS-W Instant 8.6.0.6*

Bug ID	Description	Reported Version
AOS-207070	Clients were unable to authenticate into the network using captive portal authentication configured with an external RADIUS server. This issue occurred when the duration of TCP handshake process with the RADIUS server exceeded 400ms due to WAN issues. The fix ensures that clients can connect to networks using captive portal authentication configured with an external RADIUS server. This issue is observed in APs running AOS-W Instant 8.5.0.0 or later versions.	AOS-W Instant 8.5.0.5
AOS-207893	Clients were unable to get an IP address. This occurred due to high memory utilization in the access point caused by the BLE daemon process. The fix ensures that memory utilization in the access point is regulated by the creation of a new boot log file at every restart instance of the BLE daemon process and the client receives the IP address as expected. This issue was observed in access points running AOS-W Instant 8.5.0.3 or later versions.	AOS-W Instant 8.5.0.3
AOS-208681	The AOS-W Instant webUI gets stuck on the uploading screen during firmware upgrade. This issue occurred when Internet Explorer was used to access the webUI. The fix ensures that the OAW-IAP webUI responds as expected in Internet Explorer. This issue was observed in access points running AOS-W Instant 8.6.0.5 or later versions.	AOS-W Instant 8.6.0.5

Known Issues and Limitations in AOS-W Instant 8.6.0.6

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

Limitations

Important Update on OAW-AP210 Series, OAW-AP220 Series, OAW-AP228, and OAW-AP270 Series 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 8.6.0.6*

Bug ID	Description	Reported Version
AOS-190560 AOS-201044	An OAW-AP515 access point reboots unexpectedly. The log file lists the reason for the reboot as **BadAddr:ffffffc60282e798 PC:asap_firewall_clear_all_stale_user+0x2cc/0xdd8 [asap_mod] Warm-reset.** This issue is observed in OAW-AP515 access points running AOS-W Instant 8.3.0.11 or later versions.	AOS-W Instant 8.3.0.11
AOS-192469	An AP 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 8.3.0.0
AOS-192604	Traffic between clients within the same subnet VLAN is subject to source NAT. This issue occurs because the master AP performs source NAT on local traffic. This issue is observed in APs running AOS-W Instant 8.6.0.0 or later versions.	AOS-W Instant 8.6.0.0
AOS-201150 AOS-201997 AOS-204328	A OAW-AP510 Series access point crashes and reboots unexpectedly. The log file lists the reason for the event as: **AP Reboot reason: External-WDT-reset.** This issue is observed in OAW-AP510 Series access points running AOS-W Instant 8.6.0.2 or later versions.	AOS-W Instant 8.6.0.2
AOS-201901	An AP 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 AP 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 AP is connected to the backup Switch after a failover event. This issue occurs when: ■ The AP attempts to connect to the primary Switch. ■ Fast failover is enabled on the AP. This issue is observed in OAW-AP203R Series access points running AOS-W Instant 8.3.0.0 or later versions.	AOS-W Instant 8.3.0.0
AOS-207756	The system status LED of a OAW-AP340 Series access point shows solid amber instead of solid green when powered with an 802.3at PoE supply. This issue is observed in OAW-AP340 Series access points running AOS-W Instant 8.6.0.0 or later versions.	AOS-W Instant 8.6.0.4

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

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.

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 Alcatel-Lucent 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:

■ Select the **Image file** option. This method is only available for single-class OAW-IAPs.

The following table describes the supported image file format for different OAW-IAP models:

Access Points	Image File Format
OAW-RAP155 Series — OAW-RAP155, OAW-RAP155P	AlcatelInstant_Aries_8.6.0.x_xxxx
OAW-AP210 Series — OAW-IAP214, OAW-IAP215 OAW-AP220 Series — OAW-IAP224, OAW-IAP225 OAW-IAP228 OAW-AP270 Series — OAW-IAP274, OAW-IAP275, OAW-IAP277	AlcatelInstant_Centaurus_8.6.0.x_xxxx
OAW-AP310 Series — OAW-IAP314, OAW-IAP315 OAW-AP318 Series — OAW-AP318 OAW-AP320 Series — OAW-IAP324, OAW-IAP325 OAW-AP370 Series — OAW-AP374, OAW-AP375, OAW-AP377	AlcatelInstant_Hercules_8.6.0.x_xxxx
OAW-AP330 Series — OAW-IAP334, OAW-IAP335	AlcatelInstant_Lupus_8.6.0.x_xxxx
OAW-RAP100 Series — OAW-RAP108, OAW-RAP109 OAW-AP100 Series — OAW-IAP103 OAW-AP110 Series — OAW-IAP114, OAW-IAP115	AlcatelInstant_Pegasus_8.6.0.x_xxxx
OAW-AP303 Series — OAW-AP303, OAW-AP303P OAW-AP303H Series — OAW-AP303H OAW-AP300 Series — OAW-IAP304, OAW-IAP305 OAW-AP360 Series — OAW-AP365, OAW-AP367	AlcatelInstant_Ursa_8.6.0.x_xxxx
OAW-AP203H Series — OAW-AP203H OAW-AP203R Series — OAW-AP203R, OAW-AP203RP OAW-AP207 Series — OAW-IAP207	AlcatelInstant_Vela_8.6.0.x_xxxx
OAW-AP340 Series — OAW-AP344, OAW-AP345 OAW-AP510 Series — OAW-AP514, OAW-AP515	AlcatelInstant_Draco_8.6.0.x_xxxx
OAW-AP530 Series — OAW-AP534, OAW-AP535 OAW-AP550 Series — OAW-AP535	AlcatelInstant_Scorpio_8.6.0.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>/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. Under **Manual** section, perform the following steps:

- Select the **Image file** option. This method is only available for single-class OAW-IAPs.

The following table describes the supported image file format for different OAW-IAP models:

Access Points	Image File Format
OAW-RAP155 Series — OAW-RAP155, OAW-RAP155P	AlcatelInstant_Aries_8.6.0.x_xxxx
OAW-AP210 Series — OAW-IAP214, OAW-IAP215 OAW-AP220 Series — OAW-IAP224, OAW-IAP225 OAW-IAP228 OAW-AP270 Series — OAW-IAP274, OAW-IAP275, OAW-IAP277	AlcatelInstant_Centaurus_8.6.0.x_xxxx
OAW-AP310 Series — OAW-IAP314, OAW-IAP315 OAW-AP318 Series — OAW-AP318 OAW-AP320 Series — OAW-IAP324, OAW-IAP325 OAW-AP370 Series — OAW-AP374, OAW-AP375, OAW-AP377	AlcatelInstant_Hercules_8.6.0.x_xxxx
OAW-AP330 Series — OAW-IAP334, OAW-IAP335	AlcatelInstant_Lupus_8.6.0.x_xxxx

Access Points	Image File Format
OAW-RAP100 Series — OAW-RAP108, OAW-RAP109 OAW-AP100 Series — OAW-IAP103 OAW-AP110 Series — OAW-IAP114, OAW-IAP115	AlcatelInstant_Pegasus_8.6.0.x_xxxx
OAW-AP303 Series — OAW-AP303, OAW-AP303P OAW-AP303H Series — OAW-AP303H OAW-AP300 Series — OAW-IAP304, OAW-IAP305 OAW-AP360 Series — OAW-AP365, OAW-AP367	AlcatelInstant_Ursa_8.6.0.x_xxxx
OAW-AP203H Series — OAW-AP203H OAW-AP203R Series — OAW-AP203R, OAW-AP203RP OAW-AP207 Series — OAW-IAP207	AlcatelInstant_Vela_8.6.0.x_xxxx
OAW-AP340 Series — OAW-AP344, OAW-AP345 OAW-AP510 Series — OAW-AP514, OAW-AP515	AlcatelInstant_Draco_8.6.0.x_xxxx
OAW-AP530 Series — OAW-AP534, OAW-AP535 OAW-AP550 Series — OAW-AP535	AlcatelInstant_Scorpio_8.6.0.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>/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. 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.
4. Click **Upgrade Now** to upgrade the OAW-IAP to the newer version.
5. 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 https://businessportal2.alcatel-lucent.com.
3. Verify the affected serial numbers of the OAW-IAP units.