AOS-W Instant 8.6.0.2

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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 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

AOS-W Instant Certificate Expiry Issue

Instant Access Points (IAP) fail to load the Trust Anchor (TA) certificate bundle if it encounters an expired certificate within the bundle, because of an error in the AOS-W Instant software. This error impacts IAPs' ability to setup a secure SSL connection to Activate and OmniVista 3600 Air Manager, resulting in loss of connectivity to management platforms.

To avoid this issue, upgrade to the latest version of AOS-W Instant Software, before February 7, 2020.

NOTE	This issue is observed when the existing connection between IAP and the management platform is lost or if Activate or OmniVista 3600 Air Manager services are reset.

For more information, see Aruba Support Advisory ARUBA-SA-20191219-PLVL08.

This chapter describes the platforms supported in this release.

Supported OAW-IAPs

The following table displays the OAW-IAP platforms supported in this 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-AP303P ■ OAW-AP387 ■ OAW-AP510 Series — OAW-AP514 and OAW-AP515	AOS-W Instant 8.4.0.0 or later
■ OAW-AP303 Series ■ OAW-AP318 Series ■ 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	AOS-W Instant 6.5.3.0 or later
■ OAW-AP203R and OAW-AP203RP ■ OAW-AP303H ■ OAW-AP365 and OAW-AP367	AOS-W Instant 6.5.2.0 or later
■ 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

Table 3: *Supported OAW-IAP Platforms*

OAW-IAP Platform	Minimum Required AOS-W Instant Software Version
■ OAW-AP320 Series — OAW-IAP324 and OAW-IAP325	AOS-W Instant 6.4.4.3-4.2.2.0 or later
■ OAW-IAP228 ■ 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-AP 220 Series — OAW-IAP224 and OAW-IAP225	AOS-W Instant 6.3.1.1-4.0.0.0 or later
■ 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 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_73702

This chapter describes the issues resolved in this release.

Table 4: *Resolved Issues in AOS-W Instant 8.6.0.2*

New Bug ID	Old Bug ID	Description	Reported Version
AOS-198355	—	An OAW-IAP did not connect to OmniVista 3600 Air Manager. This issue occurred in OAW-IAPs that used certificate based authentication to connect to OmniVista 3600 Air Manager. The fix ensures that APs connect to OmniVista 3600 Air Manager using certificate based authentication. This issue was observed in access points running AOS-W Instant 8.6.0.0 or later versions.	AOS-W Instant 8.6.0.0

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

Important Update on OAW-AP210 Series, OAW-AP 220 Series, OAW-AP228, and OAW-AP270 Series Access Points

The OAW-AP210 Series, OAW-AP 220 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.

OAW-AP535 Mesh Portal Limitation

The OAW-AP535 access points operating as a mesh portal reboot automatically when **split-5ghz-mode** is enabled.

Known Issues

Following are the known issues observed in this release.

Table 5: *Known Issues in AOS-W Instant 8.6.0.2*

New Bug ID	Old Bug ID	Description	Reported Version
AOS-187268 AOS-196356	—	An OAW-IAP crashes and reboots randomly. This issue occurs when SSIDs enabled with Management Frame Protection (MFP) are broadcast by the AP. This issue is observed in OAW-AP 220 Series and OAW-AP510 Series access points running AOS-W Instant 8.3.0.0 or later versions. **Workaround:** Disable **mfp-capable** on the SSID.	AOS-W Instant 8.3.0.0
AOS-190089	—	An OAW-IAP classifies YouTube application traffic as UDP traffic and not YouTube app traffic. This issue is observed in access points running AOS-W Instant 8.4.0.3 or later versions.	AOS-W Instant 8.4.0.3
AOS-192604	—	Client to client traffic within the same subnet VLAN is subject to source NAT. This issue occurs because the master OAW-IAP performs source NAT on local traffic. This issue is observed in access points running AOS-W Instant 8.6.0.0.	AOS-W Instant 8.6.0.0
AOS-195350	—	An OAW-AP535 access point crashes unexpectedly. The log file lists the reason for the event as: **Kernel panic - not syncing: Fatal exception**. This issue is observed in OAW-AP550 Series access points running AOS-W Instant 8.6.0.0.	AOS-W Instant 8.6.0.0
AOS-195400	—	An OAW-AP535 access point crashes unexpectedly. This issue occurs when creating or deleting a WLAN SSID. This issue is observed in OAW-AP550 Series access points running AOS-W Instant 8.6.0.0.	AOS-W Instant 8.6.0.0
AOS-195491	—	An OAW-IAP randomly generates **OFALD** messages, which affects the quality of the network. This issue is observed in access points running AOS-W Instant 8.3.0.7 or later versions.	AOS-W Instant 8.3.0.7
AOS-195564 AOS-196892	—	A client loses its IP address when roaming from one OAW-IAP to another. This issue occurs when the client connects to the mesh portal and roams to a mesh point when no other client is connected to the AP acting as the mesh portal. This issue is observed in access points running AOS-W Instant 8.3.0.7 or later versions. **Workaround:** Connect a new client to the AP acting as the mesh portal.	AOS-W Instant 8.3.0.7

Table 5: *Known Issues in AOS-W Instant 8.6.0.2*

New Bug ID	Old Bug ID	Description	Reported Version
AOS-195948	—	An OAW-AP535 access point crashes unexpectedly. This issue occurs when **Split 5 GHz Radio** is enabled on the access point. This issue is observed in OAW-AP550 Series access points running AOS-W Instant 8.6.0.0.	AOS-W Instant 8.6.0.0
AOS-196109	—	Some slave OAW-IAPs are unable to join a cluster with DTLS enabled and keep attempting to reconnect. This issue is observed in access points running AOS-W Instant 8.6.0.0.	AOS-W Instant 8.6.0.0
AOS-196704	—	An OAW-IAP acting as a mesh portal crashes and reboots. The log file lists the reason as: **Reboot caused by kernel panic: Rebooting the AP because of FW ASSERT**. This issue is observed in access points running AOS-W Instant 8.5.0.2 or later versions.	AOS-W Instant 8.5.0.2

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 to achieve this goal. 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 and OAW-RAP155P	AlcatelInstant_Aries_8.6.0.x_xxxx
OAW-IAP214, OAW-IAP215, OAW-IAP224, OAW-IAP225, OAW-IAP228, OAW-IAP274, OAW-IAP275 and OAW-IAP277	AlcatelInstant_Centaurus_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

Access Points	Image File Format
OAW-RAP108, OAW-RAP109,OAW-IAP103, OAW-IAP114 and OAW-IAP115	AlcatelInstant_Pegasus_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
OAW-AP344, OAW-AP345, OAW-AP514 and OAW-AP515	AlcatelInstant_Draco_8.6.0.x_xxxx
OAW-AP534, OAW-AP535 and 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 and OAW-RAP155P	AlcatelInstant_Aries_8.6.0.x_xxxx
OAW-IAP214, OAW-IAP215, OAW-IAP224, OAW-IAP225, OAW-IAP228, OAW-IAP274, OAW-IAP275 and OAW-IAP277	AlcatelInstant_Centaurus_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-RAP108, OAW-RAP109,OAW-IAP103, OAW-IAP114 and OAW-IAP115	AlcatelInstant_Pegasus_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
OAW-AP344, OAW-AP345, OAW-AP514 and OAW-AP515	AlcatelInstant_Draco_8.6.0.x_xxxx
OAW-AP534, OAW-AP535 and 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.