

# **AOS-W Instant 8.9.0.2**

## **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:

- [New Features and Enhancements on page 7](#)
- [Supported Hardware Platforms on page 8](#)
- [Regulatory Updates on page 9](#)
- [Resolved Issues on page 10](#)
- [Known Issues and Limitations on page 11](#)
- [Upgrading an OAW-IAP on page 14](#)

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	<a href="https://www.al-enterprise.com">https://www.al-enterprise.com</a>
Support Site	<a href="https://myportal.al-enterprise.com">https://myportal.al-enterprise.com</a>
Email	<a href="mailto:ebg_global_supportcenter@al-enterprise.com">ebg_global_supportcenter@al-enterprise.com</a>
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

## Chapter 2

# New Features and Enhancements

There are no new features or enhancements introduced in this release.

The following table displays the OAW-IAP platforms supported in AOS-W Instant 8.9.0.x release.

**Table 3:** *Supported OAW-IAP Platforms*

OAW-IAP Platform	Minimum Required AOS-W Instant Software Version
630 Series — OAW-AP635	AOS-W Instant 8.9.0.0 or later
500H Series — AP-503H 560 Series — AP-565 and AP-567	AOS-W Instant 8.7.1.0 or later
500H Series — OAW-AP505H OAW-AP518 — OAW-AP518 OAW-AP570 Series — OAW-AP574, OAW-AP575, and OAW-AP577 570EX Series — AP-575EX and AP-577EX	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 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](http://myportal.al-enterprise.com).

The following DRT file version is part of this release:

- DRT-1.0\_82868

This chapter describes the issues resolved in this release.

**Table 4:** *Resolved Issues in AOS-W Instant 8.9.0.2*

Bug ID	Description	Reported Version
AOS-229972 AOS-229991 AOS-230192 AOS-230290 AOS-230416 AOS-230554 AOS-230604 AOS-230721 AOS-230725 AOS-230871	Clients were unable to connect to SSIDs that had the 802.11r option enabled. During this period, commands run in the CLI of the affected AP returned the following error message: <b>Module AP STM Low Priority is busy. Please try later.</b> The fix ensures that SSIDs configured with 802.11r option service the client as expected. This issue was observed in APs running AOS-W Instant 8.3.0.0 or later versions.	AOS-W Instant 8.7.1.6

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

### Limitations

This section describes the limitations in AOS-W Instant 8.9.0.2.

#### OAW-AP635 Access Points

OAW-AP635 access points do not support Wi-Fi uplink.

#### 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 8.9.0.2:

- 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.

#### Uplink Failover Limitation

Uplink failover or pre-emption between eth0 and Wi-Fi uplink is currently not supported.

#### 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 8.9.0.2**

Bug ID	Description	Reported Version
AOS-204171	<p>Clients intermittently experience high latency when the AP is connected to the backup Switch after a failover event. This issue occurs in the following scenarios:</p> <ul style="list-style-type: none"> <li>■ The AP attempts to re-connect to the primary Switch.</li> <li>■ Fast failover is enabled on the AP.</li> </ul> <p>This issue is observed in 203R Series access points running AOS-W Instant 8.3.0.0 or later versions.</p>	AOS-W Instant 8.3.0.0
AOS-218436 AOS-219302	Zebra scanners are unable to connect to some OAW-AP510 Series access points. This issue is observed in OAW-AP510 Series access points running AOS-W Instant 8.5.0.7 or later versions.	AOS-W Instant 8.5.0.7
AOS-218704 AOS-220857	<p>Some VoIP calls are not sent to the server to be recorded. This issue occurs when:</p> <ul style="list-style-type: none"> <li>■ The server recording the calls is behind the Switch.</li> <li>■ Some APs in the cluster are rebooted.</li> </ul> <p>This issue is observed in APs running AOS-W Instant 8.6.0.4 or later versions.</p>	AOS-W Instant 8.6.0.4
AOS-219998	The NTP module of an OAW-IAP is stuck in the <b>INIT</b> state. This issue occurs when the NTP server returns an IPv6 address. This issue is observed in APs running AOS-W Instant 8.7.1.2 or later versions.	AOS-W Instant 8.7.1.2
AOS-220815 AOS-225844	The output of the <b>show ip route</b> command in the conductor AP displays duplicate default routes. This issue is observed in APs running AOS-W Instant 8.8.0.0 or later versions.	AOS-W Instant 8.8.0.0
AOS-222562	An OAW-IAP generates random station management errors when operating in standalone mode. This issue is observed in APs running AOS-W Instant 8.8.0.0 or later versions.	AOS-W Instant 8.8.0.0
AOS-222756	An OAW-IAP uses the IP address of the virtual Switch as the source IP for outgoing client traffic in guest SSIDs configured with NAT. This issue is observed in APs running AOS-W Instant 8.7.1.5 or later versions.	AOS-W Instant 8.7.1.5
AOS-222843	The Captive Portal page for some Linux clients display an <b>Authentication failed</b> message after a user enters the login credentials. This issue occurs when the AP does not hijack the DNS response. This issue is observed in APs running AOS-W Instant 8.7.1.2 or later versions.	AOS-W Instant 8.7.1.2
AOS-222909	The <b>show usb-enet</b> command fails to display the list of all USB devices connected to an OAW-IAP cluster. This issue is observed in OAW-IAP clusters running AOS-W Instant 8.6.0.6 or later versions.	AOS-W Instant 8.6.0.6
AOS-223701	An OAW-IAP crashes and reboots unexpectedly. The log file lists the reason for reboot as: <b>WARNING: CPU: 3 PID: 0 at mm/slab.h:308 kfree+0x128/0x148()</b> . This issue is observed in APs running AOS-W Instant 8.7.1.4 or later versions.	AOS-W Instant 8.7.1.4

**Table 5: Known Issues in AOS-W Instant 8.9.0.2**

Bug ID	Description	Reported Version
AOS-225092	<p>AP does not route the destination traffic through the specified VLAN route. This issue occurs when the conductor OAW-IAP reloads or when the member OAW-IAP takes over the role of the conductor after a failover. In these scenarios, the user configured VLAN route in the kernel route table is lost. This issue is observed in APs running AOS-W Instant 8.9.0.0 or later versions.</p> <p><b>Workaround:</b> Specify the preferred conductor.</p>	AOS-W Instant 8.9.0.0
AOS-225116	<p>The backup tunnel's default route does not take effect when the primary VPN tunnel loses connectivity. This issue occurs in the following scenarios:</p> <ul style="list-style-type: none"><li>■ The default VLAN route and the default tunnel route are coexisting.</li><li>■ The default tunnel route's metric value is smaller than the metric value of the default VLAN tunnel route.</li></ul> <p>This issue is observed in APs running AOS-W Instant 8.9.0.0 or later versions.</p>	AOS-W Instant 8.9.0.0
AOS-225120	<p>Some OAW-IAPs fail to communicate with the Switch in IAP-VPN deployments. This occurs when the AP includes the following configuration:</p> <ul style="list-style-type: none"><li>■ <b>vpn gre-outside</b> is enabled on the AP.</li><li>■ <b>per-ap-tunnel</b> is enabled in the VPN tunnel profile.</li></ul> <p>This issue is observed in OAW-AP340 Series, AP-503H, OAW-AP505H, and OAW-AP510 Series access points running AOS-W Instant 8.8.0.0 or later versions.</p>	AOS-W Instant 8.9.0.0

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



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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.

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Topics in this chapter include:

- [Upgrading an OAW-IAP Using OmniVista 3600 Air Manager Management Platform on page 14](#)
- [Upgrading an OAW-IAP Image Manually Using the WebUI on page 15](#)
- [Upgrading an OAW-IAP Image Manually Using CLI on page 16](#)
- [Upgrade from AOS-W Instant 6.4.x.x-4.2.x.x to AOS-W Instant 8.9.0.x on page 17](#)

## 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.



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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.

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## 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, AP-575EX, OAW-AP577, and AP-577EX	AlcatelInstant_Draco_8.9.0.x_xxxx
AP-503H, OAW-AP504, OAW-AP505, OAW-AP505H, AP-565, and AP-567.	AlcatelInstant_Gemini_8.9.0.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_8.9.0.x_xxxx
OAW-IAP334 and OAW-IAP335	AlcatelInstant_Lupus_8.9.0.x_xxxx
OAW-AP534, OAW-AP535, and OAW-AP535	AlcatelInstant_Scorpio_8.9.0.x_xxxx
OAW-AP303, OAW-AP303H, 303P Series, OAW-IAP304, OAW-IAP305, OAW-AP365, and OAW-AP367	AlcatelInstant_Ursa_8.9.0.x_xxxx
OAW-AP203H, OAW-AP203R, OAW-AP203RP, and OAW-IAP207	AlcatelInstant_Vela_8.9.0.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\_8.9.0.x\_xxxx
    - TFTP - tftp://<IP-address>/<image-file>. For example, tftp://<IP-address>/AlcatelInstant\_Hercules\_8.9.0.x\_xxxx
    - FTP - ftp://<IP-address>/<image-file>. For example, ftp://<IP-address>/AlcatelInstant\_Hercules\_8.9.0.x\_xxxx
    - FTP - ftp://<user name:password>@<IP-address>/<image-file>. For example, ftp://<alcatel:123456>@<IP-address>/AlcatelInstant\_Hercules\_8.9.0.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_8.9.0.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/AlcatelInstant_Hercules_8.9.0.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 8.9.0.x

Before you upgrade an OAW-IAP running AOS-W Instant 6.5.4.0 or earlier versions to AOS-W Instant 8.9.0.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](http://myportal.al-enterprise.com).
3. Verify the affected serial numbers of the OAW-IAP units.