AOS-W Instant 6.4.3.4-4.2.1.0

Release Notes

AOS-W Instant 6.4.3.4-4.2.1.0 is a major software release that introduces new features and enhancements.

For information on upgrading OAW-IAPs to the new release version, refer to the *Upgrading an OAW-IAP* topic in the *AOS-W Instant 6.4.3.1-4.2.1 User Guide*.

Contents

Contacting Support

Table 1: *Contact Information*

Contact Center Online	
• Main Site	http://www.alcatel-lucent.com/enterprise
• Support Site	https://service.esd.alcatel-lucent.com
• Email	esd.support@alcatel-lucent.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 lists the regulatory information, features, enhancements, fixed issues, known issues and limitations identified in the AOS-W Instant 6.4.3.4-4.2.1.0 release.

Regulatory Domain Updates

The following table lists the DRT file versions supported by Instant 6.4.3.x-4.2.1.x releases:

Table 2: *DRT Versions*

Instant Release Version	Applicable DRT Version
6.4.3.4-4.2.1.0	1.0_52480

For a complete list of countries certified with different AP models, see the respective DRT release notes at service.esd.alcatel-lucent.com.

Features and Enhancements

The following new features and enhancements are introduced in this release:

Support for Cell Size Reduction feature on OAW-IAPs

The Cell Size Reduction feature allows you to manage dense deployments and to increase overall system performance and capacity by shrinking an OAW-IAP's receive coverage area, thereby minimizing co-channel interference and optimizing channel reuse. This feature can be configured using the OAW-IAP CLI.

For more information, see:

- *Configuring Cell Size Reduction using the CLI* in the *AOS-W Instant 6.4.3.4-4.2.1.0 User Guide*.
- **rf dot11a-radio-profile**, **rf dot11g-radio-profile**, and **show radio config** commands in the AOS-W Instant *6.4.3.4-4.2.1.0.* CLI Reference Guide.

Support for configuring up to 16 Captive Portal Profiles

Starting with Instant 6.4.3.4-4.2.1.0, you can configure up to 16 external captive portal profiles. A new option called **Switch IP** has been included to use the VC IP as the Switch IP in the external captive portal redirect URL.

For more information, see:

- *Creating a Captive Portal Profile* in the *AOS-W Instant 6.4.3.4-4.2.1.0 User Guide*.
- **wlan external-captive portal** command in the *AOS-W Instant 6.4.3.4-4.2.1.0 CLI Reference Guide*.

Time Based Services

Starting with Instant 6.4.3.4-6.2.1.0, users can configure time range profiles using the OAW-IAP UI and CLI. These Time Range Profiles can be enabled on an OAW-IAP to allow or deny access to an SSID only during a specific period of time.

For more information, see:

- *Configuring Time Range Profiles* in the *AOS-W Instant 6.4.3.4-4.2.1.0 User Guide*.
- **time-range**, **show time-profile** and **show time-range** commands in the *AOS-W Instant 6.4.3.4-4.2.1.0 CLI Reference Guide*.

XML-API Server Configuration Enhancement

Starting with Instant 6.4.3.4-4.2.1.0 release, users can now configure up to 8 XML API server entries on an OAW-IAP. You can also create XML API requests with appropriate authentication commands.

For more information, see *Configuring an OAW-IAP for XML API Integration* and *Creating an XML API Request* sections in the *AOS-W Instant 6.4.3.4-4.2.1.0 User Guide*.

Uplink Bandwidth Monitoring

OAW-IAP uses Iperf3 as a TCP or UDP client to run a speed test and measure the bandwidth on an uplink. Iperf3 runs on the VC IP of the cluster and the speed test results are published to ALE. You may choose to configure and execute a speed test during boot time and additionally at specific time intervals in the CLI configuration mode or execute the speed test at any preferred time using the CLI Privileged EXEC mode.

For more information, see:

- *Uplink Bandwidth Monitoring* in the *AOS-W Instant 6.4.3.4-4.2.1.0 User Guide*.
- **speed-test** and **speed-test <server>** commands in the *AOS-W Instant 6.4.3.4-4.2.1.0 CLI Reference Guide*.

Modulation Rates Configuration

In Instant 6.4.3.4-4.2.1.0, the OAW-IAP CLI allows you to enable and disable modulation rates for a radio band, High Throughput (HT) Modulation and Coding Scheme (MCS) set, and a combination of VHT MCS and spatial streams as a VHT MCS rate set for a WLAN SSID profile. For example, the 802.11g band supports the modulation rate including 1, 2, 5, 6, 9, 11, 12, 18, 24, 36, 48, 54Mbps and 802.11a band supports a modulation rate set including 6, 9, 12, 18, 24, 36, 48, 54Mbps. The OAW-IAP CLI now allows you to configure the modulation rates for these bands.

You can also configure an HT MCS rate set, so that the SSID does not broadcast the disabled MCS rates list for 802.11n clients. For 802.11ac clients, only 10 MCS rates supported in the 802.11ac mode and OAW-IAPs use a combination of VHT MCS and spatial streams to convey the supported MCS rates.

The following configuration parameters are introduced in the **wlan ssid-profile** command to allow the administrators to configure modulation rates, HT MCS, and VHT MCS.

- a-basic-rates
- a-tx-rates
- g-basic-rates
- g-tx-rates
- supported-mcs-set
- vht-support-mcs-map

Short Preamble Configuration

In Instant the 6.4.3.4-4.2.1.0, the OAW-IAP CLI allows you to enable or disable the transmission and reception of short preamble frames. By default, short preamble frames are enabled for all WLAN SSID clients.

To disable short preamble frames, use the **short-preamble-disable** parameter in the **wlan ssid-profile** command.

Support for New Modems

Starting from Instant 6.4.3.4-4.2.1.0, OAW-IAPs support Huawei E3372 and Alcatel L800 4G modems.

Very High Throughput Configuration

In Instant 6.4.3.4-4.2.1.0, OAW-IAPs allow you to enable or disable Very High Throughput (VHT) function on devices that support VHT. VHT is enabled by default on 802.11ac series OAW-IAPs. However, you can disable VHT if you want the 802.11ac IAPs to function as 802.11n OAW-IAPs.

You can configure VHT on SSID or a 5 GHz radio profile. If you enable or disable VHT on an SSID, the configuration is applicable only to the clients connecting through that SSID. To disable or enable VHT on all SSIDs, configure VHT on the 5 GHz radio profile.

For more information, see:

- *Configuring WLAN Settings for an SSID Profile* and *Configuring Radio Settings* in *AOS-W Instant 6.4.3.4-4.2.1.0 User Guide*
- The **wlan ssid-profile** and **rf dot11a-radio-profile** commands in *AOS-W Instant 6.4.3.4-4.2.1.0 CLI Reference Guide*

FCC Compliance Statement

The **About** tab in the Maintenance window now displays FCC compliance statement for the OAW-IAPs operating in the US regulatory domain.

Cellular SIM PIN Locking Feature Enhancements

In the previous Instant release, the SIM PIN lock and PIN renewal commands were available in the **cellular-uplink-profile** configuration mode in the OAW-IAP CLI. In Instant 6.4.3.4-4.2.1.0, the following commands for locking, unlocking, and renewing SIM PIN are removed from the **cellular-uplink-profile** configuration mode and added under the configuration mode:

- **pin-enable** and **no pin-enable**
- **pin-puk**
- **pin-renew**

For more information, see *AOS-W Instant 6.4.3.4-4.2.1.0 CLI Reference Guide*

U-APSD Support for WMM Clients

To extend the battery life and enable powersaving on WLAN clients, OAW-IAPs now support Unscheduled Automatic Power Save Delivery (U-APSD) for the clients that support WMM. The U-APSD or the WMM power save feature is enabled by default on all SSIDs.

For more information on U-APSD configuration, see:

- *Configuring WMM U-APSD* in *AOS-W Instant 6.4.3.4-4.2.1.0 User Guide*
- The **wlan ssid-profile** command in *AOS-W Instant 6.4.3.4-4.2.1.0 CLI Reference Guide*

DHCP Enforcement

The administrators can now block traffic for OAW-IAP clients that do not obtain IP address from DHCP by using the **enforce-dhcp** parameter in the **wlan ssid-profile** command.

For more information, see:

- *Enforcing DHCP* in *AOS-W Instant 6.4.3.4-4.2.1.0 User Guide*
- The **wlan ssid-profile** command in *AOS-W Instant 6.4.3.4-4.2.1.0 CLI Reference Guide*

RADIUS Server IP Configuration for Balancing CPPM Server Load

To improve the guest user experience and balance the CPPM server load, the administrators can now configure the IP address of a RADIUS server when configuring additional parameters for guest registration on the ClearPass Guest Login page.

For more information, see *Configuring RADIUS Attribute for CPPM Server Load Balancing* in *AOS-W Instant 6.4.3.4-4.2.1.0 User Guide*.

Dynamic TACACS Proxy

A new checkbox called TACACS has been included under Dynamic Proxy which allows the Virtual Controller network to use the VC IP address for communication with external TACACS servers.

When dynamic-tacacs-proxy is enabled on the OAW-IAP, the TACACS server cannot identify the slave OAW-IAP that generates the TACACS traffic as the source IP address is changed.

For more information, see *Configuring System Parameters* in *AOS-W Instant 6.4.3.4-4.2.1.0 User Guide*

Dynamic TACACS Proxy command in the *AOS-W Instant 6.4.3.3.4-4.2.1.0 CLI Reference Guide*

Traps to Notify the Status of the External Captive Portal Server

In Instant 6.4.3.4-4.2.1.0, two new traps are added to notify OmniVista Management Platform (AMP) and Central about the status of the external captive portal server.

- wlsxPortalServerDown — This trap is generated when the external captive portal server is down.
- wlsxPortalServerUp — This trap is generated when the external captive portal server comes up.

For more information on these traps, see **aruba-instant.my** MIB file.

Resolved Issues in this Release

The following issues are fixed in the Instant 6.4.3.4-4.2.1.0 release.

Datapath/Firewall

Table 3: *Datapath/Firewall Fixed Issue*

Bug ID	Description
126377	**Symptom**: OAW-IAPs were dropping client ARP packets when the client VLAN was deleted from the VLAN multicast table. This issue is resolved if the client exists on the OAW-IAP, since the OAW-IAP does not delete the client VLAN from the VLAN multicast table. **Scenario**: This issue was not limited to a specific OAW-IAP model or Instant software version.

Mesh

Table 4: *Mesh Fixed Issue*

Bug ID	Description
122099	**Symptom**: When the 5 GHz radio of an OAW-IAP was configured to run in the legacy-mode (non-802.11n mode), the 802.11ac mesh link was still working in the VHT mode. This issue is resolved by adding check logic to notify the OAW-IAP when the legacy mode is changed. **Scenario**: This issue was found in OAW-IAP2xx series access points running Instant 6.4.3.1-4.2.0.0 release.

Platform

Table 5: *Platform Fixed Issue*

Bug ID	Description
126717	**Symptom**: OAW-IAP crashed with a fatal exception due to kernel panic. This issue is resolved by forwarding the valid ACE parameters to the sp_log. **Scenario**: In datapath, the maximum number of Access Control Entries (ACE) that can be programmed is 512. In this scenario, the SWARM_MAX_ACE_PER_ACL size was extended to 1024, as there were multiple DHCP servers and domain name Access Control Lists (ACL). This issue was observed in all OAW-IAPs running Instant 6.4.3.1-4.2.0.2 release.

Wi-Fi Driver

Table 6: *Wi-Fi Driver Fixed Issue*

Bug ID	Description
126767	**Symptom**: An OAW-IAP-205 device crashed due to Kernel panic. This issue is resolved by making a change in the OAW-IAP code to identify the action frames with invalid pointers and dropping those packets. **Scenario**: This issue was observed in OAW-IAP205 and OAW-IAP215 access points running Instant 6.4.3.1-4.2.0.0 release.

Known Issues and Limitations

The following known issues and limitations are identified in the Instant 6.4.3.4-4.2.1.0 release.

Maximum Configurable Year for Absolute Time Range Profiles

When creating an absolute time-range profile, the year selected for the Start Day and End Day cannot exceed 2037.

Known Issues

The following Known Issue is identified in the Instant 6.4.3.4-4.2.1.0 release:

VC Management

Table 7: *VC Management Known Issue*

Bug ID	Description
128737	**Symptom**: When assigning a time-range profile to an SSID, the OAW-IAP UI throws a "Profile Not Found" error if the time-range profile name is configured with a special character " or a blank space. **Scenario**: This issue is found on OAW-IAPs running Instant 6.4.3.4-4.2.1.0 release. **Workaround**: Avoid configuring the time-range profile names with a special character " or blank space.