

ArubaOS 8.4.0.5



Release Notes

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Contents	3
Revision History	5
Release Overview	6
Related Documents	6
Important Points	6
Supported Browsers	8
Contacting Support	8
New Features and Enhancements	9
Supported Platforms	11
Mobility Master Platforms	11
Mobility Controller Platforms	11
AP Platforms	11
Regulatory Updates	14
Resolved Issues	15
Known Issues and Limitations	16
Upgrade Procedure	27
Important Points to Remember	27

Memory Requirements	28
MIB Files	29
Syslog Files	29
Backing up Critical Data	29
Upgrading ArubaOS	31
Downgrading ArubaOS	34
Before Calling Technical Support	36

Revision History

The following table provides the revision history of this document.

Table 1: *Revision History*

Revision	Change Description
Revision 02	Removed the Migrating from ArubaOS 6.x to ArubaOS 8.x section from Upgrade Procedure chapter as the Migration Tool is no longer supported.
Revision 01	Initial release.

This ArubaOS release notes includes the following topics:



Throughout this document, branch controller and local controller are termed as managed device.

- [New Features and Enhancements on page 9](#)
- [Supported Platforms on page 11](#)
- [Regulatory Updates on page 14](#)
- [Resolved Issues on page 15](#)
- [Known Issues and Limitations on page 16](#)
- [Upgrade Procedure on page 27](#)

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

Related Documents

The following guides are part of the complete documentation for the Aruba user-centric network:

- [ArubaOS Getting Started Guide](#)
- [ArubaOS User Guide](#)
- [ArubaOS CLI Reference Guide](#)
- [ArubaOS API Guide](#)
- [Aruba Mobility Master Licensing Guide](#)
- [Aruba Virtual Appliance Installation Guide](#)
- [Aruba Mobility Master Hardware Appliance Installation Guide](#)

Important Points

This section describes the important points to remember before you upgrade the managed device to this release of ArubaOS.

- If you use an image server to upgrade the managed device from the CLI, you must configure an upgrade profile on the Managed Network node.
- Ensure that the IANA timezone is configured exactly the same for each managed device. All the network nodes have to be NTP synchronized.

- Time changed manually in a managed device is not automatically adjusted for a scheduled upgrade.
- DST time change hour is not automatically adjusted for a scheduled upgrade.

Supported Browsers

The following browsers are officially supported for use with the ArubaOS 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 58 or later on Windows 7, Windows 8, Windows 10, and macOS
- Apple Safari 9.0 or later on macOS
- Google Chrome 67 or later on Windows 7, Windows 10, and macOS

Contacting Support

Table 2: *Contact Information*

Main Site	arubanetworks.com
Support Site	support.arubanetworks.com
Airheads Social Forums and Knowledge Base	community.arubanetworks.com
North American Telephone	1-800-943-4526 (Toll Free) 1-408-754-1200
International Telephone	arubanetworks.com/support-services/contact-support/
Software Licensing Site	lms.arubanetworks.com
End-of-life Information	arubanetworks.com/support-services/end-of-life/
Security Incident Response Team	Site: arubanetworks.com/support-services/security-bulletins/ Email: aruba-sirt@hpe.com

This chapter describes the features and enhancements introduced in this release.

AP Platform

510 Series Campus Access Points

The Aruba510 SeriesCampus APs (AP-514 and AP-515) are high-performance, multi-radio wireless devices that can be deployed in either controller-based (ArubaOS) or controller less (ArubaInstant) network environments. These APs deliver high performance concurrent 2.4 GHz and 5 GHz 802.11ax Wi-Fi functionality with MIMO radios (2x2 in 2.4 GHz, 4x4 in 5 GHz), while also supporting legacy 802.11 a/b/g/n/ac wireless services.

The Aruba510 SeriesCampus APs are equipped with an integrated BLE and Zigbee radio that provide the following capabilities:

- Location beacon applications
- Wireless console access
- IoT gateway applications

Ethernet ports on the access points are used to connect the device to the wired networking infrastructure and provide (802.3at class 4) PoE power to the device. The access points are equipped with a USB-A port that is compatible with selected cellular modems and other peripherals. When active, this port can supply up to 5W/1A to a connected device.



The 510 Series Campus Access Points do not support UL MU-MIMO and DL MU-MIMO.

The following features are targeted for future releases and are currently not supported on the Aruba510 SeriesCampus APs:

- Orthogonal Frequency Division Multiple Access (OFDMA)
- Transmit Beam Forming (TxBF)
- BSS Coloring
- Target Wait Time (TWT)
- Multi Band Operation (MBO)
- Spectrum analysis
- Mesh
- Cellular modem support
- 512 associated clients per radio (currently limited to 230 clients)

For complete technical details see the *Aruba510 Series Campus APs Datasheet*. For installation instructions, see the *Aruba510 Series Campus APs Installation Guide*.

WebUI

Support for IP domain lookup

From this ArubaOS version, the IP version for Domain Name Server is set using the **IP Domain lookup** parameter using the **Configuration> System> General> Domain name system** page in the WebUI. The **IP version** parameter is now changed to **IP Domain lookup**.

This chapter describes the platforms supported in this release.

Mobility Master Platforms

The following table displays the Mobility Master platforms that are supported in this release.

Table 3: *Supported Mobility Master Platforms in ArubaOS 8.4.0.5*

Mobility Master Family	Mobility Master Model
Hardware Mobility Master	MM-HW-1K, MM-HW-5K, MM-HW-10K
Virtual Mobility Master	MM-VA-50, MM-VA-500, MM-VA-1K, MM-VA-5K, MM-VA-10K

Mobility Controller Platforms

The following table displays the controller platforms that are supported in this release.

Table 4: *Supported Mobility Controller Platforms in ArubaOS 8.4.0.5*

Controller Family	Controller Model
7000 Series	7005, 7008, 7010, 7024, 7030
7200 Series	7205, 7210, 7220, 7240, 7240XM, 7280

AP Platforms

The following table displays the AP platforms that are supported in this release.

Table 5: Supported AP Platforms in ArubaOS 8.4.0.5

AP Family	AP Model
100 Series	AP-104, AP-105
103 Series	AP-103
110 Series	AP-114, AP-115
130 Series	AP-134, AP-135
170 Series	AP-175AC, AP-175AC-F1, AP-175DC, AP-175DC-F1, AP-175P, AP-175P-F1
200 Series	AP-204, AP-205
203H Series	AP-203H
205H Series	AP-205H
207 Series	AP-207
203R Series	AP-203R, AP-203RP
210 Series	AP-214, AP-215
220 Series	AP-224, AP-225
228 Series	AP-228
270 Series	AP-274, AP-275, AP-277
300 Series	AP-304, AP-305
303 Series	AP-303, AP-303P
303H Series	AP-303H
310 Series	AP-314, AP-315
318 Series	AP-318

Table 5: *Supported AP Platforms in ArubaOS 8.4.0.5*

AP Family	AP Model
320 Series	AP-324, AP-325
330 Series	AP-334, AP-335
340 Series	AP-344, AP-345
360 Series	AP-365, AP-367
370 Series	AP-374, AP-375, AP-377
—	AP-387
510 Series	AP-514, AP-515
RAP 155 Series	RAP-155, RAP-155P
RAP 100 Series	RAP-108, RAP-109
RAP 3 Series	RAP-3WN, RAP-3WNP

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 controller 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 support.arubanetworks.com.

The following DRT file version is part of this release:

- DRT-1.0_72500

This chapter describes the issues resolved in this release.



We have migrated to a new defect tracking tool and for tracking purposes, we will list both, the old and the new bug ids.

Table 6: Resolved Issues in ArubaOS 8.4.0.5

New Bug ID	Old Bug ID	Description	Component	Platform	Reported Version
AOS-186076 AOS-187884 AOS-189850 AOS-191866 AOS-192310 AOS-193177 AOS-193387	—	<p>Symptom: The Station Management process crashed unexpectedly in a managed device. The fix ensures that the managed device works as expected.</p> <p>Scenario: This issue occurred because some memory allocated for the client was not released after some clients disconnect from their UAC (User Anchor Controller) in a cluster. This issue was observed in managed devices running ArubaOS 8.4.0.0 or later versions.</p>	Station Management	All platforms	ArubaOS 8.4.0.0
AOS-192745	—	<p>Symptom: The Station Management process crashed unexpectedly in a managed device. This issue is resolved by increasing the buffer size of the mesh AP.</p> <p>Scenario: This issue occurred because the buffer size for mesh AP was small. This issue was observed in managed devices running ArubaOS 8.4.0.0 or later versions.</p>	Station Management	All platforms	ArubaOS 8.4.0.0

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



We have migrated to a new defect tracking tool and for tracking purposes, we will list both, the old and the new bug ids.

Known Issues

Following are the known issues observed in this release.

Table 7: *Known Issues in ArubaOS 8.4.0.5*

New Bug ID	Old Bug ID	Description	Component	Platform	Reported Version
AOS-141831	172680	<p>Symptom: The MIB files and IDS logs have references to an unnecessary URL.</p> <p>Scenario: This issue is observed in MIB files and IDS logs of managed devices running ArubaOS 8.2.0.0.</p> <p>Workaround: None.</p>	SNMP	All platforms	ArubaOS 8.2.0.0
AOS-144684 AOS-184346	176339	<p>Symptom: Managed devices are getting log files that contain incorrect or garbled ESSID and BSSID values.</p> <p>Scenario: This issue is observed in managed devices running ArubaOS 8.2.1.0 or later versions.</p> <p>Workaround: None.</p>	Station Management	All platforms	ArubaOS 8.2.1.0
AOS-145566	177559	<p>Symptom: A Mobility Master is unable to forward the traffic that is sourced from an IP interface in the gateway.</p> <p>Scenario: This issue occurs when netdestinations are used in the routing ACL rule. This issue is observed in Mobility Masters running ArubaOS 8.0.1.0 or later versions.</p> <p>Workaround: None.</p>	Policy-Based Routing	All platforms	ArubaOS 8.0.1.0

Table 7: Known Issues in ArubaOS 8.4.0.5

New Bug ID	Old Bug ID	Description	Component	Platform	Reported Version
AOS-145876 AOS-157877	177969 194648	Symptom: On a 2.4 GHz radio, channel utilization is very low for few APs. Scenario: This issue is observed in AP-203R, AP-207, AP-315, and 340 Series access points running ArubaOS 8.3.0.0 or later versions. Workaround: None.	AP-Wireless	AP-203R, AP-207, AP-315, and 340 Series access points	ArubaOS 8.3.0.0
AOS-145910	178014	Symptom: Managed devices send RADIUS accounting request packets to ClearPass without class attributes. Scenario: This issue is observed in managed devices running ArubaOS 8.2.0.2. Workaround: None.	Base OS Security	All platforms	ArubaOS 8.2.0.2
AOS-146118	178291	Symptom: CLI dir command is missing some basic options like sorting by date, name, size, and filtering by keyword Scenario: This issue is observed in managed devices running ArubaOS 8.2.0.0 or later versions Workaround: None.	Controller-Platform	All platforms	ArubaOS 8.2.1.0
AOS-146720	179107	Symptom: A stand-alone controller displays the Module licensmgr is busy. Please try later error message while adding licenses. Scenario: This issue is observed in stand-alone controllers running ArubaOS 8.1.0.4 in a master-local topology. Workaround: None.	Licensing	All platforms	ArubaOS 8.1.0.4
AOS-147018	179516	Symptom: An AP crashes and reboots unexpectedly. The log file lists the reason for the event as Kernel panic - not syncing: softlockup: hung tasks . Scenario: This issue is observed in AP-203H access points running ArubaOS 8.3.0.2. Workaround: None.	AP-Wireless	AP-203H access points	ArubaOS 8.3.0.2
AOS-147511	180406	Symptom: Clients are receiving IPv6 router advertisements randomly from different VLANs. Scenario: This issue is observed in managed devices running ArubaOS 8.2.1.0 or later versions. Workaround: None.	IPv6	All platforms	ArubaOS 8.2.1.0

Table 7: Known Issues in ArubaOS 8.4.0.5

New Bug ID	Old Bug ID	Description	Component	Platform	Reported Version
AOS-148642 AOS-156454 AOS-158502 AOS-158515	182031 192618 195518 195534	Symptom: The Postgres process crashes on a managed device unexpectedly. Scenario: This issue is observed in 7210 controllers running ArubaOS 8.5.0.0 or later versions. Workaround: None.	Logging	7210 controllers	ArubaOS 8.5.0.0
AOS-148675	182073	Symptom: An AP crashes and reboots unexpectedly. The log file lists the reason for the event as Kernel panic - not syncing: Rebooting the AP because of FW ASSERT: rcRateFind+229; ratectrl_11ac.c:2394 . Scenario: This issue is observed in AP-315 access points running ArubaOS 8.2.1.0. Workaround: None.	AP-Wireless	AP-315 access points	ArubaOS 8.2.1.0
AOS-149543	183200	Symptom: During upgrade process, the image files are left on the flash drive and the user is unable to upgrade the ArubaOS image. Scenario: This issue is observed in managed devices running ArubaOS 8.2.0.0 or later versions. Workaround: None.	Controller-Platform	All platforms	ArubaOS 8.2.1.1
AOS-150797	184849	Symptom: Clients are unable to make or receive calls. A Network busy error message is displayed. Scenario: This issue occurs when WMM is disabled on the managed device. This issue is observed in AP-315 access points running ArubaOS 8.2.1.1. Workaround: None.	WMM	AP-315 access points	ArubaOS 8.2.1.1
AOS-151012 AOS-146980	185165	Symptom: A managed device crashes unexpectedly. The log file lists the reason for this event as Reboot Cause: Reboot by Upgrade Manager Intent:cause:register 60:86:50:60 . Scenario: This issue is observed in managed devices running ArubaOS 8.2.1.1 or later versions. Workaround: None.	Controller-Platform	All platforms	ArubaOS 8.2.1.1
AOS-151275	185499	Symptom: Managed devices at the branch office are unable to receive IP address from the branch uplink pool. Scenario: This issue is observed in managed devices running ArubaOS 8.2.1.0 or later versions. Workaround: None.	IPsec	All platforms	ArubaOS 8.2.1.0

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New Bug ID	Old Bug ID	Description	Component	Platform	Reported Version
AOS-151355	185602	<p>Symptom: Managed Devices are unable to pass traffic to the nexthop VPN concentrator (VPNC) using policy-based routing.</p> <p>Scenario: This issue is observed in managed devices running ArubaOS 8.0.1.0 or later versions.</p> <p>Workaround: None.</p>	Policy-Based Routing	All platforms	ArubaOS 8.0.1.0
AOS-152076 AOS-150739	186605 184774 185405	<p>Symptom: A managed device fails to establish IPsec tunnel on its primary uplink.</p> <p>Scenario: This issue occurs because the socket descriptor slots are not reused when the IP address is flapped in the isakmpd process. This issue is observed in managed devices running ArubaOS 8.0.1.0.</p> <p>Workaround: None.</p>	Controller-Datapath	All platforms	ArubaOS 8.0.1.0
AOS-152745	187566	<p>Symptom: Some APs detect false radar signals and changes radio channels frequently.</p> <p>Scenario: This issue is observed in AP-228, AP-305, 320 Series, and 340 Series access points running ArubaOS 8.3.0.1 or later versions.</p> <p>Workaround: None.</p>	AP-Wireless	AP-228, AP-305, 320 Series, and 340 Series access points	ArubaOS 8.3.0.1
AOS-152827	187685	<p>Symptom: A user is unable to delete banner via configuration using CLI or WebUI.</p> <p>Scenario: This issue is observed in managed devices running ArubaOS 8.3.0.2 or later versions.</p> <p>Workaround: None.</p>	Configuration	All platforms	ArubaOS 8.3.0.2
AOS-153169	188130	<p>Symptom: An AP crashes and reboots unexpectedly. The log files lists the reason for the event as kernel panic: softlockup: hung tasks.</p> <p>Scenario: This issue occurs because the firewall processes too many packets in one batch. This issue is observed in AP-303H access points running ArubaOS 8.3.0.1 or later versions.</p> <p>Workaround: None.</p>	AP Datapath	AP-303H access points	ArubaOS 8.3.0.1
AOS-155801	191726	<p>Symptom: SNMP walk performed from AirWave does not produce correct results.</p> <p>Scenario: This issue is observed in managed devices running ArubaOS 8.3.0.3.</p> <p>Workaround: None.</p>	SNMP	All platforms	ArubaOS 8.3.0.3

Table 7: Known Issues in ArubaOS 8.4.0.5

New Bug ID	Old Bug ID	Description	Component	Platform	Reported Version
AOS-155879	191818	<p>Symptom: User is unable to delete or edit guest provisioning user on WebUI and CLI.</p> <p>Scenario: This issue occurs due to a trailing space that is added when adding a user. This issue is observed in Mobility Master Virtual Appliances running ArubaOS 8.2.0.2.</p> <p>Workaround: None</p>	Base OS Security	All platforms	ArubaOS 8.2.0.2
AOS-155880	191821	<p>Symptom: Mobility Controller Virtual Appliance crashes and reboots unexpectedly. The log file lists the reason for the event as mcallsolverstart processerror.</p> <p>Scenario: This issue is observed in Mobility Controller Virtual Appliances running ArubaOS 8.3.0.0 or later versions.</p> <p>Workaround: None.</p>	AirMatch	All platforms	ArubaOS 8.3.0.0
AOS-155927	191876	<p>Symptom: Clients are getting de-authenticated when the User Anchor Controller (UAC) is down.</p> <p>Scenario: This issue is observed in managed devices running ArubaOS 8.2.1.1 or later versions.</p> <p>Workaround: None.</p>	Station Management	All platforms	ArubaOS 8.2.1.1
AOS-155987 AOS-157010	191958 193361	<p>Symptom: The ap_name field appears blank in reporting_radio, radio_history, and ap_info collection parameters.</p> <p>Scenario: This issue is observed in APs running ArubaOS 8.3.0.3 or later versions.</p> <p>Workaround: None.</p>	AirMatch	All platforms	ArubaOS 8.3.0.3
AOS-156079	192111	<p>Symptom: The BTM request disassociation timer is incorrectly set to the value of 25600 instead of the default value of 100.</p> <p>Scenario: This issue is observed in managed devices running ArubaOS 8.4.0.0.</p> <p>Workaround: None.</p>	ARM	All platforms	ArubaOS 8.4.0.0
AOS-156085 AOS-157704	192119 194393	<p>Symptom: Managed devices are unable to get the controller-IP address during boot up after an upgrade.</p> <p>Scenario: This issue is observed in managed devices running ArubaOS 8.1.0.0 or later versions.</p> <p>Workaround: None.</p>	Configuration	All platforms	ArubaOS 8.1.0.0

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New Bug ID	Old Bug ID	Description	Component	Platform	Reported Version
AOS-156087	192121	Symptom: Some devices incorrectly trigger roaming behavior due to the static value of the BTM request disassociation timer. Scenario: This issue is observed in managed devices running ArubaOS 8.4.0.0. Workaround: None.	ARM	All platforms	ArubaOS 8.4.0.0
AOS-156182	192248	Symptom: AP crashes and reboots unexpectedly. The log file lists the reason for the event as Kernel panic: softlockup: hung tasks . Scenario: This issue is observed in AP-205 access points running ArubaOS 8.3.0.2 Workaround: None.	AP-Wireless	AP-205 access points	ArubaOS 8.3.0.2
AOS-156742 AOS-156977	193031 193319	Symptom: After pushing a complete configuration via API, the user is unable to make any change to IP Probe configuration. Scenario: This issue is observed in managed devices running ArubaOS 8.0.1.0. Workaround: None.	Configuration	All platforms	ArubaOS 8.0.1.0
AOS-156838	193158	Symptom: User is unable to reprovision an AP. Scenario: This issue occurs when a special character in a German keypad is used in the AP name. This issue is observed in APs connected to managed devices running ArubaOS 8.2.2.1. Workaround: Hard reset the AP.	Configuration	All platforms	ArubaOS 8.2.2.1
AOS-156899	193229	Symptom: Multiple processes crash on a Mobility Master. The log files lists the reason for the event as PROCESS_NOT_RESPONDING_CRITICAL . Scenario: This issue is observed in Mobility Masters running ArubaOS 8.2.1.0 or later versions. Workaround: None.	Controller-Platform	All platforms	ArubaOS 8.2.1.0
AOS-157011	193362	Symptom: The output of show datapath papi counters command displays invalid tunnel endpoint information. Scenario: This issue is observed in Mobility Masters running ArubaOS 8.3.0.3. Workaround: None.	Controller-Datapath	All platforms	ArubaOS 8.3.0.3

Table 7: Known Issues in ArubaOS 8.4.0.5

New Bug ID	Old Bug ID	Description	Component	Platform	Reported Version
AOS-157056	193423	<p>Symptom: The Authentication module on a managed device crashes and the APs reboot.</p> <p>Scenario: This issue occurs when clients that are in bridge forwarding mode, communicate with a managed device, in the split-tunnel-mode. This issue is observed in managed devices running ArubaOS 8.2.1.0.</p> <p>Workaround: None.</p>	Base OS Security	All platforms	ArubaOS 8.2.1.0
AOS-157233	193662	<p>Symptom: The device model name is displayed incorrectly in the Dashboard > Controllers > Model page in the WebUI.</p> <p>Scenario: This issue is observed in managed devices running ArubaOS 8.2.2.0 or later versions.</p> <p>Workaround: None.</p>	VRRP	All platforms	ArubaOS 8.2.2.0
AOS-157326	193781	<p>Symptom: Users are unable to perform cluster upgrade using a specific file server.</p> <p>Scenario: This issue is observed in managed devices running ArubaOS 8.4.0.0 or later versions.</p> <p>Workaround: None.</p>	Upgrade	All platforms	ArubaOS 8.4.0.0
AOS-157343 AOS-186055	193800	<p>Symptom: The Mesh SSIDs are broadcasted and can be viewed by the clients.</p> <p>Scenario: This issue is observed in managed devices running ArubaOS 8.4.0.0 or later versions.</p> <p>Workaround: None.</p>	Mesh	All platforms	ArubaOS 8.4.0.0
AOS-157492	194064	<p>Symptom: VRRP authentication fails in a managed device.</p> <p>Scenario: This issue is observed in managed devices running ArubaOS 8.2.1.0 or later versions.</p> <p>Workaround: None.</p>	VRRP	All platforms	ArubaOS 8.2.1.0
AOS-157770	194484	<p>Symptom: The managed devices send TACACS login requests using OSPF IP instead of the loopback IP.</p> <p>Scenario: This issue is observed in managed devices running ArubaOS 8.4.0.0.</p> <p>Workaround: None.</p>	TACACS	All platforms	ArubaOS 8.4.0.0

Table 7: Known Issues in ArubaOS 8.4.0.5

New Bug ID	Old Bug ID	Description	Component	Platform	Reported Version
AOS-158274	195201	Symptom: The Override icon in the WPA passphrase and Retype fields in Configuration > System > Profiles > SSID profile appears even after manually entering the passphrase and enabling Remove Override . Scenario: This issue is observed in Mobility Masters running ArubaOS 8.4.0.0 or later versions. Workaround: None.	WebUI	All platforms	ArubaOS 8.4.0.0
AOS-158285	195212	Symptom: The Health status of the Mobility Master in the dashboard displays as poor with the reason, At least 10% of this controller APs are down , although the managed device's health status is displayed as good . Scenario: This issue occurs as the Mobility Master lists standby APs as well in a cluster setup. This issue was observed in managed devices running ArubaOS 8.4.0.1 in a cluster setup. Workaround: None.	WebUI	All platforms	ArubaOS 8.4.0.1
AOS-158299	195239	Symptom: The profmgr process crashes and the Mobility Master restarts unexpectedly. Scenario: This issue is observed in Mobility Masters running ArubaOS 8.0.1.0. Workaround: None.	Configuration	All platforms	ArubaOS 8.0.1.0
AOS-158350 AOS-157797 AOS-158521	195313 194518 195540	Symptom: mDNS process crashes in a managed device. Scenario: This issue is observed in managed devices running ArubaOS 8.4.0.0 or later versions. Workaround: None.	AirGroup	All platforms	ArubaOS 8.4.0.0
AOS-158497	195513	Symptom: An AP reboots unexpectedly. The log file lists the reason for the event as Reboot caused by kernel panic: softlockup: hung tasks . Scenario: This issue is observed in AP-303H access points running ArubaOS 8.2.2.3. Workaround: None.	AP Datapath	AP-303H access points	ArubaOS 8.2.2.3
AOS-181925	195713	Symptom: The Dashboard > Access Points page of the Mobility Master WebUI does not display the AP Name, Status, IP address of an AP that is displayed as UP on the managed device. Scenario: This issue is observed in Mobility Masters running ArubaOS 8.2.1.1 or later versions. Workaround: None.	WebUI	All platforms	ArubaOS 8.2.1.1

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New Bug ID	Old Bug ID	Description	Component	Platform	Reported Version
AOS-182073 AOS-183743	—	<p>Symptom: AP crashes and reboots unexpectedly. The log files lists the reason for the event as Reboot caused by kernel panic: Rebooting the AP because of FW ASSERT.</p> <p>Scenario: This issue is observed in AP-315 access points running ArubaOS 8.3.0.5.</p> <p>Workaround: None.</p>	AP-Wireless	AP-315 access points	ArubaOS 8.3.0.5
AOS-182893	—	<p>Symptom: The standby Mobility Master information is retained in the WebUI although the redundancy configuration is deleted on the active Mobility Master.</p> <p>Scenario: This issue is observed in Mobility Masters running ArubaOS 8.4.0.1.</p> <p>Workaround: None.</p>	WebUI	All platforms	ArubaOS 8.4.0.1
AOS-183536	—	<p>Symptom: Users are unable to connect to the wireless network.</p> <p>Scenario: This issue occurs as the RADIUS requests are not sent to authentication server from the managed device. This issue is observed in managed devices running ArubaOS 8.4.0.0.</p> <p>Workaround: None.</p>	RADIUS	All platforms	ArubaOS 8.4.0.0
AOS-184051	—	<p>Symptom: Mobility Master keeps sending NTP sync packets every 15 seconds to NTP server.</p> <p>Scenario: This issue is observed in Mobility Masters running ArubaOS 8.4.0.0.</p> <p>Workaround: None.</p>	VLAN	All platforms	ArubaOS 8.4.0.0
AOS-184801	—	<p>Symptom: Managed devices crashe and reboot unexpectedly. The log files lists the reason for the event as Datapath exception.</p> <p>Scenario: This issue is observed in managed devices running ArubaOS 8.4.0.0.</p> <p>Workaround: None.</p>	Controller - Datapath	All platforms	ArubaOS 8.4.0.0
AOS-184519	—	<p>Symptom: User is unable to delete the VLAN even though the VLAN is not mapped on any node or group.</p> <p>Scenario: This issue is observed in managed devices running ArubaOS 8.3.0.4.</p> <p>Workaround: None.</p>	Configuration	All platforms	ArubaOS 8.3.0.4

Table 7: Known Issues in ArubaOS 8.4.0.5

New Bug ID	Old Bug ID	Description	Component	Platform	Reported Version
AOS-184545	—	Symptom: An AP crashes and reboots unexpectedly. The log file lists the reason for this event as kernel panic: softlockup: hung tasks . Scenario: This issue is observed in AP-303H access points running ArubaOS 8.0.0.0 or later versions.	AP Datapath	AP-303H access points	ArubaOS 8.0.0.0
AOS-185500 AOS-186325	—	Symptom: The sapd process crashes in a managed device unexpectedly. Scenario: This issue is observed in managed devices running ArubaOS 8.3.0.6. Workaround: None.	AP-Wireless	All platforms	ArubaOS 8.3.0.6
AOS-186035	—	Symptom: Managed devices disconnected from the VPNC for 30 minutes unexpectedly. The log files lists the reason for the event as Bad LSA Checksum . Scenario: This issue is observed in managed devices running ArubaOS 8.2.2.0 or later versions. Workaround: None.	OSPF	All platforms	ArubaOS 8.2.2.3
AOS-186133	—	Symptom: Managed devices display abnormally high multicast traffic in Performance Summary > All Radios in the Monitoring page. Scenario: This issue is observed in 320 Series access points running ArubaOS 8.3.0.6. Workaround: None.	AP-Wireless	320 Series access points	ArubaOS 8.3.0.6
AOS-186304	—	Symptom: User is unable to connect to the Remote AP over IPv6 network. Scenario: This issue occurs because the AP is waiting to receive AP regulatory domain information from the managed device. This issue is observed in managed devices running ArubaOS 8.3.0.6. Workaround: None.	IPv6	All platforms	ArubaOS 8.3.0.6
AOS-186422	—	Symptom: Clients are unable to get IP addresses. Scenario: This issue occurs when the clients are connected to APs with forward mode set to Tunnel. This issue is observed in managed devices running ArubaOS 8.3.0.1 or later versions. Workaround: None.	Controller - Datapath	All platforms	ArubaOS 8.3.0.1

Table 7: Known Issues in ArubaOS 8.4.0.5

New Bug ID	Old Bug ID	Description	Component	Platform	Reported Version
AOS-186526	—	Symptom: The profmgr process in a Mobility Master crashes unexpectedly. Scenario: This issue is observed in Mobility Masters running ArubaOS 8.4.0.0. Workaround: None.	IPsec	All platforms	ArubaOS 8.4.0.0
AOS-186860	—	Symptom: RADIUS Authentication requests are sent in IP address of the managed device although they are configured to go through the loopback IP. Scenario: This issue is observed in managed devices running ArubaOS 8.4.0.1. Workaround: None.	IPsec	All platforms	ArubaOS 8.4.0.1
AOS-186969	—	Symptom: Acct-Authentic radius attribute is not sent from the managed device. Scenario: This issue occurs when the managed devices are upgraded to ArubaOS 8.4.0.2. This issue is observed in managed devices running ArubaOS 8.4.0.1. Workaround: None.	Radius	All platforms	ArubaOS 8.4.0.1
AOS-186979	—	Symptom: APs are unable to reboot automatically after an uplink or WAN link status change. Scenario: This issue is observed in APs running ArubaOS 8.3.0.6 or later versions. Workaround: None.	AP-Platform	All platforms	ArubaOS 8.3.0.6
AOS-187115	—	Symptom: Application name in the policy configuration is incorrect in the Configuration > Roles & Policies > Policies > <Policy name> WebUI page. Scenario: This issue occurs when the WebUI is accessed for the first time. This issue is observed in Mobility Masters running ArubaOS 8.2.2.0 or later versions. Workaround: None.	WebUI	All platforms	ArubaOS 8.2.2.0

This chapter details software upgrade procedures. Aruba best practices recommend that you schedule a maintenance window for the upgrade.



CAUTION

Read all the information in this chapter before upgrading your Mobility Master, managed device, master controller, and/or stand-alone controller.

Topics in this chapter include:

- [Important Points to Remember on page 27](#)
- [MIB Files on page 29](#)
- [Syslog Files on page 29](#)
- [Memory Requirements on page 28](#)
- [Backing up Critical Data on page 29](#)
- [Upgrading ArubaOS on page 31](#)
- [Downgrading ArubaOS on page 34](#)
- [Before Calling Technical Support on page 36](#)

Important Points to Remember

To upgrade your managed device or Mobility Master:

- Schedule the upgrade during a maintenance window and notify your community of the planned upgrade. This prevents users from being surprised by a brief wireless network outage during the upgrade.
- Avoid making any changes to your network, such as configuration changes, hardware upgrades, or changes to the rest of the network during the upgrade. This simplifies troubleshooting.
- Know your network and verify the state of the network by answering the following questions:
 - How many APs are assigned to each managed device? Verify this information by navigating to the **Dashboard > Access Points** page in the WebUI, or by executing the **show ap active** or **show ap database** commands.
 - How are those APs discovering the managed device (DNS, DHCP Option, Broadcast)?
 - What version of ArubaOS runs on your managed device?
 - Are all managed devices running the same version of ArubaOS?
 - What services are used on your managed device (employee wireless, guest access, Remote AP, wireless voice)?

- Resolve any existing issues (consistent or intermittent) before you upgrade.
- If possible, use FTP to load ArubaOS images to the managed device. FTP is faster than TFTP and offers more resilience over slow links. If you must use TFTP, ensure the TFTP server can send over 30 MB of data.
- Always upgrade the non-boot partition first. If you encounter any issue during the upgrade, you can restore the flash, and switch back to the boot partition. Upgrading the non-boot partition gives you a smoother downgrade path, if required.
- Before you upgrade to this version of ArubaOS, assess your software license requirements and load any new or expanded licenses that you might require. For a detailed description of these new license modules, refer *Aruba Mobility Master Licensing Guide*.

Memory Requirements

All Aruba managed devices store critical configuration data on an onboard compact flash memory module. Ensure that there is always free flash space on the managed device. Loading multiple large files such as JPEG images for RF Plan can consume flash space quickly. Following are the best practices for memory management:

- Do not proceed with an upgrade unless 100 MB of free memory is available. Execute the **show memory** command to identify the available free memory. To recover memory, reboot the managed device. After the managed device comes up, upgrade immediately.
- Do not proceed with an upgrade unless 150 MB of flash space is available. Execute the **show storage** command to identify the available flash space. If the output of the **show storage** command indicates that there is insufficient flash memory, free some used memory. Copy any log file, crash data, or flash backups from your managed device to a desired location. Delete the following files from the managed device to free some memory:
 - **Crash data:** Execute the **tar crash** command to compress crash files to a file named **crash.tar**. Use the procedures described in [Backing up Critical Data on page 29](#) to copy the **crash.tar** file to an external server. Execute the **tar clean crash** command to delete the file from the managed device.
 - **Flash backups:** Use the procedures described in [Backing up Critical Data on page 29](#) to back up the flash directory to a file named **flash.tar.gz**. Execute the **tar clean flash** command to delete the file from the managed device.
 - **Log files:** Execute the **tar logs** command to compress log files to a file named **logs.tar**. Use the procedures described in [Backing up Critical Data on page 29](#) to copy the **logs.tar** file to an external server. Execute the **tar clean logs** command to delete the file from the managed device.



In certain situations, a reboot or a shutdown could cause the managed device to lose the information stored in its compact flash card. To avoid such issues, it is recommended that you execute the **halt** command before power cycling.

Deleting a File

You can delete a file using the WebUI or the CLI.

In the WebUI

From the Mobility Master, navigate to **Diagnostic > Technical Support > Delete Files** and remove any aging log files or redundant backups which may have been created by administrator.

In the CLI

```
(host) #delete filename <filename>
```

MIB Files

To access ArubaOS MIB files:

1. Log in to the Aruba Support site.
2. Navigate to **Download Software > ArubaOS**.
3. Navigate to the desired release folder.
4. Download the MIB file corresponding to the release.
5. Uncompress the MIB file to a local directory.

Syslog Files

To generate syslog file:

1. Log in to CLI of Mobility Master.
2. Switch to config mode.
3. Configure the logging command. Example: `logging <ipv4addr> facility local0`. For additional information, see ArubaOS 8.4.0.0 Command-Line Interface Reference Guide.
4. Execute the `show logging` command. For additional information, see ArubaOS 8.4.0.0 Command-Line Interface Reference Guide.

Backing up Critical Data

It is important to frequently back up all critical configuration data and files on the flash memory to an external server or mass storage device. You should include the following files in these frequent backups:

- Configuration data
- WMS database
- Local user database
- Licensing database
- Custom captive portal pages

- x.509 certificates
- Log files
- Flash backup

Backing up and Restoring Flash Memory

You can backup and restore the flash memory using the WebUI or CLI.

In the WebUI

The following steps describe how to back up and restore the flash memory:

1. In the Mobility Master node hierarchy, navigate to the **Maintenance > Configuration Management > Backup** page.
2. Click **Create Backup** to backup the contents of the flash memory to the **flashbackup.tar.gz** file.
3. Click **Copy Backup** to copy the file to an external server.
You can copy the backup file from the external server to the flash memory using the file utility in the **Diagnostics > Technical Support > Copy Files** page.
4. To restore the backup file to the Compact Flash file system, navigate to the **Maintenance > Configuration Management > Restore** page and click **Restore**.

In the CLI

The following steps describe how to back up and restore the flash memory:

1. Execute the following command in the **enable** mode.
`(host) # write memory`
2. Execute the following command to backup the contents of the flash memory to the **flashbackup.tar.gz** file.
`(host) # backup flash`
Please wait while we take the flash backup.....
File flashbackup.tar.gz created successfully on flash.
Please copy it out of the controller and delete it when done.
3. Execute either of the following command to transfer the flash backup file to an external server or storage device.
`(host) copy flash: flashbackup.tar.gz ftp: <ftphost> <ftpusername> <ftpuserpassword> <remote directory>`
`(host) copy flash: flashbackup.tar.gz usb: partition <partition-number>`

You can transfer the flash backup file from the external server or storage device to the flash memory by executing the following command.

- ```
(host) # copy tftp: <tftphost> <filename> flash: flashbackup.tar.gz
```
- ```
(host) # copy usb: partition <partition-number> <filename> flash: flashbackup.tar.gz
```
4. Execute the following command to untar and extract the **flashbackup.tar.gz** file to the flash memory.
`(host) # restore flash`
Please wait while we restore the flash backup.....

Flash restored successfully.
Please reload (reboot) the controller for the new files to take effect.

Upgrading ArubaOS

Upgrade ArubaOS using WebUI or CLI. Follow the below recommendations while upgrading:

- ArubaOS 8.4.0.0 supports only a maximum of 3 network adapters for Mobility Master and 4 network adapters for Mobility Master Virtual Appliance. If you have 4 network adapters on your ArubaOS 8.0.0.0 Mobility Master Virtual Appliance, you must remove one before upgrading to ArubaOS 8.4.0.0 to avoid upgrade failure. To remove a network adapter from ArubaOS 8.0.0.0 Mobility Master Virtual Appliance:



Before you remove the additional network adapter from the Mobility Master Virtual Appliance, ensure that you copy the ArubaOS 8.0.0.0 image on the system partition of Mobility Master Virtual Appliance.

1. Log in to the vSphere client.
 2. Select the Mobility Master VM instance and click **Shut down the virtual machine**.
 3. Click **Edit Virtual machine settings**.
 4. From the **Hardware** tab, select and remove a network adapter that is not active.
- Before upgrading to ArubaOS 8.4.0.0 from ArubaOS 8.0.0.0, ensure that you configure the MAC address of the management interface as the peer MAC address, if the peer is a Mobility Master Virtual Appliance or Mobility Master. Before reloading the new image on Mobility Master, alter the peer MAC address using the following procedure in the WebUI:
 1. From the **Managed Network** node hierarchy, select the managed device.
 2. Navigate to **Configuration > Controllers** and enter the management interface MAC address in the **Peer MAC address of master** field.
 3. Click **Submit**, and then click **Continue** in the reload popup.
 4. Click **Pending Changes**.
 5. In the **Pending Changes** window, select the check box and click **Deploy changes**.

Alternatively, you can execute the following CLI command on the Mobility Master at the device level:

```
(host) [<device-mac-address>] (config) #masterip <ipaddr> ipsec <key> peer-mac-1 <mgmt-interface-mac> peer-mac-2 <mgmt-interface-mac> interface vlan <id>
```

- Before upgrading to ArubaOS 8.4.0.0, you must share the licenses within the global licensing pool by executing the **license-pool-profile-root** command:

```
(host) [mm] (config) #license-pool-profile-root  
(host) [mm] (License root(/) pool profile) #acr-license-enable
```



Ensure that there is enough free memory and flash space on your Mobility Master or managed device. For details, see [Memory Requirements on page 28](#).



When you navigate to the **Configuration** tab in the WebUI, the managed device might display the **Error getting information: command is not supported on this platform** message. This message occurs when you upgrade using the WebUI and navigate to the **Configuration** tab after the managed device reboots. This message disappears after clearing the Web browser cache.

In the WebUI

The following steps describe how to upgrade ArubaOS a TFTP server, FTP server, or local file:

1. Download the ArubaOS image from the customer support site.
2. Upload the new software image to a PC or workstation on your network.
3. Validate the SHA hash for the ArubaOS image:
 - a. Download the **Aruba.sha256** file from the download directory.
 - b. Load the ArubaOS image to a Linux system and execute the **sha256sum <filename>** command. Alternatively, use a suitable tool for your operating system that can generate a **SHA256** hash of a file.
 - c. Verify that the output produced by this command matches the hash value found on the customer support site.



The ArubaOS image file is digitally signed, and is verified using RSA2048 certificates preloaded at the factory. The Mobility Master or managed device will not load a corrupted ArubaOS image.

4. Log in to the ArubaOS WebUI from the Mobility Master.
5. Navigate to the **Maintenance > Software Management > Upgrade** page.
 - a. Select the **Local File** from the **Upgrade using** drop-down list.
 - b. Click **Browse** from the **Image file name** to navigate to the saved image file on your PC or workstation.
6. Select the downloaded image file.
7. Choose the partition from the **Partition to Upgrade** option.
8. Enable the **Reboot Controller After Upgrade** toggle switch to automatically reboot after upgrading. If you do not want to reboot immediately, disable this option.



The upgrade does not take effect until reboot. If you chose to reboot after upgrade, the Mobility Master or Managed device reboots automatically.

9. Select the **Save Current Configuration**.
10. Click **Upgrade**.
11. Click **OK**, when **Changes were written to flash successfully** message is displayed.

In the CLI

The following steps describe how to upgrade ArubaOS from a TFTP server, FTP server, or local file:

1. Download the ArubaOS image from the customer support site.
2. Open an SSH session to your Mobility Master.
3. Execute the **ping** command to verify the network connection between the Mobility Master and the SCP server, FTP server, or TFTP server.

```
(host)# ping <ftphost>
```

or

```
(host)# ping <tftphost>
```

or

```
(host)# ping <scphost>
```

4. Execute the **show image version** command to check if the ArubaOS image is loaded on the flash partitions. The partition number appears in the **Partition** row; **0:0** is partition 0, and **0:1** is partition 1. The active boot partition is marked as **Default boot**.

```
(host) #show image version
```

5. Execute the **copy** command to load the new image to the non-boot partition.

```
(host)# copy ftp: <ftphost> <ftpusername> <image filename> system: partition <0|1>
```

or

```
(host)# copy tftp: <tftphost> <image filename> system: partition <0|1>
```

or

```
(host)# copy scp: <scphost> <scpusername> <image filename> system: partition <0|1>
```

or

```
(host)# copy usb: partition <partition-number> <image filename> system: partition <0|1>
```

6. Execute the **show image version** command to verify that the new image is loaded.

```
(host)# show image version
```

7. Reboot the Mobility Master.

```
(host)# reload
```

Verifying the ArubaOS Upgrade

Verify the upgrade using the WebUI or CLI.

In the WebUI

Log in to the WebUI and navigate to the **Dashboard > WLANs** page to verify the ArubaOS image version. The following steps describe how to verify that the Mobility Master is functioning as expected:

1. Log in to the WebUI to verify all the managed devices are up after the reboot.
2. Navigate to the **Dashboard > Access Points** page to determine if your APs are up and ready to accept clients.

3. Verify that the number of access points and clients are as expected.
4. Test a different type of client in different locations, for each access method used.
5. Complete a backup of all critical configuration data and files on the flash memory, to an external server or mass storage facility. See [Backing up Critical Data on page 29](#) for information on creating a backup.

In the CLI

Execute the **show version** command to verify the ArubaOS image version. The following steps describe how to verify that the Mobility Master is functioning as expected:

1. Log in to the CLI and verify that all your managed devices are up after the reboot.
2. Execute the **show ap active** command to determine if your APs are up and ready to accept clients.
3. Execute the **show ap database** command to verify that the number of APs and clients are as expected.
4. Test a different type of client in different locations, for each access method used.
5. Complete a backup of all critical configuration data and files on the flash memory to an external server or mass storage facility. See [Backing up Critical Data on page 29](#) for information on creating a backup.

Downgrading ArubaOS

If necessary, you can return to your previous version of ArubaOS.

Pre-requisites

A Mobility Master or a managed device has two partitions, 0 and 1. If the upgrade fails on one of the partitions, you can reboot the Mobility Master or the managed device from the other partition. Before you reboot the Mobility Master or with the pre-upgrade ArubaOS version, you must perform the following steps:

1. Back up your Mobility Master or managed device. For details, see [Backing up Critical Data on page 29](#).
2. Verify that the control plane security is disabled.
3. Set the Mobility Master or managed device to boot with the previously saved configuration file.
4. Set the Mobility Master or managed device to boot from the partition that contains the pre-upgrade ArubaOS version.

When you specify a boot partition or copy an image file to a system partition, Mobility Master or managed device checks if the ArubaOS version is compatible with the configuration file. An error message is displayed if the boot parameters are incompatible with ArubaOS version and configuration files.

5. After switching the boot partition, perform the following steps:
 - Pre-upgrade flash backup from the file stored on the Mobility Master or managed device. Do not restore the ArubaOS flash backup file.
 - Do not import the WMS database.

- If the RF plan was changed before switching the boot partition, the changed RF plan does not appear in the downgraded ArubaOS version.
- If any new certificates were added in the upgraded ArubaOS version, reinstall these certificates in the downgraded ArubaOS version.

Downgrade ArubaOS version using the WebUI or CLI.

In the WebUI

The following steps describe how to downgrade the ArubaOS version:

1. If the saved pre-upgrade configuration file is on an external FTP/TFTP server, copy the file to the Mobility Master or managed device by navigating to the **Diagnostics > Technical Support > Copy Files** page.
 - a. From **Select source file** drop-down list, select FTP or TFTP server, and enter the IP address of the FTP or TFTP server and the name of the pre-upgrade configuration file.
 - b. From **Select destination file** drop-down list, enter a file name (other than default.cfg).
 - c. Click **Copy**.
2. Determine the partition on which your previous ArubaOS version stored by navigating to the **Maintenance > Software Management > Upgrade** page. If a pre-upgrade ArubaOS version is not stored on your system partition, load it into the backup system partition by performing the following steps:



You cannot load a new image into the active system partition

- a. Enter the FTP/TFTP server address and image file name.
 - b. Select the backup system partition.
 - c. Enable **Reboot controller after upgrade**.
 - d. Click **Upgrade**.
3. Navigate to the **Maintenance > Software Management > Reboot** page. Select **Save configuration before reboot** option and click **Reboot**. The Mobility Master or managed device reboots after the countdown period.
 4. When the boot process is complete, verify that the Mobility Master or managed device is using the correct ArubaOS version by navigating to the **Maintenance > Software Management > About** page.

In the CLI

The following steps describe how to downgrade the ArubaOS version:

1. If the saved pre-upgrade configuration file is on an external FTP/TFTP server, use the following command to copy it to the Mobility Master or managed device:

```
(host) # copy ftp: <ftphost> <ftpusername> <image filename> system: partition 1
```

or

- ```
(host) # copy tftp: <tftphost> <image filename> system: partition 1
```
2. Set the Mobility Master or managed device to boot with your pre-upgrade configuration file.  

```
(host) # boot config-file <backup configuration filename>
```
  3. Execute the **show image version** command to view the partition on which your pre-upgrade ArubaOS version is stored. You cannot load a new image into the active system partition (the default boot).  

```
#show image version
```
  4. Set the backup system partition as the new boot partition.  

```
(host) # boot system partition 1
```
  5. Reboot the Mobility Master or managed device.  

```
(host) # reload
```
  6. When the boot process is complete, verify that the Mobility Master or managed device is using the correct ArubaOS version.  

```
(host) # show image version
```

## Before Calling Technical Support

Provide the following information when you call Technical Support:

- The status of installation (new or existing) and recent changes to network, device, or AP configuration. If there was a configuration change, list the exact configuration steps and commands used.
- A detailed network topology including all the devices in the network with IP addresses Interface numbers.
- The make and model number of the wireless device and NIC, driver date, version, and configuration of the NIC, and the OS version including any service packs or patches.
- The logs and output of the **show tech-support** command.
- The syslog file at the time of the problem.
- The date and time when the problem occurred. If the problem is reproducible, list the exact steps taken to re-create the problem.
- Any wired or wireless sniffer traces taken during the time of the problem.
- The device site access information, if possible.