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RELEASE NOTES

Xirrus AOS

System Release 8.7.0 Rev E

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April 2023

Contents

NEW FEATURES

No new features are added in this release.

Fixed Problems

This section lists the fixed issues in this release:

Tracking	Description
AOS-1009	With AOS 8.7.0-8173 the exported AP configuration files now contain masked passwords, causing importing files to change passwords to "*******".
AOS-999	Xirrus AOS APs showing as “offline” in cnMaestro.
AOS-973	XR-4836 reboots after upgrade to AOS 8.5.11.
FLCN-12903	Improved roaming between Xirrus AOS APs and Wi-Fi 6/6E APs with Easypass portals.

Known Issues

This section lists the known issues in this release:

Tracking	Description
33141, 33399	Clients associated with 802.11 AC Wave 1 APs with arp-filter proxy configured are unable to IPv6 ping each other.
33398	802.11 AC Wave 1 APs with arp-filter set to the proxy are rebroadcasting ARP request packets from wireless clients.
33595/AOS-262	(XR620) When the RF-Monitor is in Timeshare mode and Dot11g-only is on, beacons are sent at a data rate of 1 Mbps rather than 6 Mbps.
33663	On 802.11 AC Wave 1 APs, stations may get disassociated due to a radio reset. The Syslog shows "Low activity condition detected on IAP iap1. Resetting IAP."
33821	EAP stations may stop passing traffic until the client re-associates.
33827/AOS-399	EAP clients on wave2 APs may stop passing traffic until the client re-associates.
33833	XD2-230 may send unnecessary CTS packets when 802.11g devices are present in the environment.
33851	Some stations are unable to pass traffic when MU-MIMO is enabled.
33878	Beacon Intervals and RSSI levels on 802.11 AC are not consistent in 2.4 GHz.
33893	On 802.11 AC Wave 2 APs, changing the 802.11k (Radio Resource Management) in global settings doesn't take effect until after a reboot.
33896	802.11r capable iPads are not able to associate with an SSID when 802.11r (fast roaming) and .11w (Protected Management Frames) are enabled.
33924	Stations connected to Wave 2 APs occasionally can't pass traffic. On the station, turning Wi-Fi off and on will fix the problem.
33926	WDS Link recovery is slow on Wave 2 APs after replacing a WDS client or host AP - it takes a long time to re-establish a WDS link. After the configuration of the new unit is complete, reboot the APs on both sides of the link to prevent this delay.
AOS-208, AOS-223	Hotspot Shield, Psiphon, and Ultrasurf cannot be detected reliably.
AOS-316, 33998	Some clients on Wave 1 APs with a bonded channel of 40 MHz may not rate back up past 81.0 Mbps. A de-authentication of the client clears this condition.
AOS-337, 33817	On 802.11 AC Wave 2 APs, stations may get disassociated due to a radio reset. The Syslog shows "Low activity condition detected on IAP iap2. Resetting IAP".
AOS-360, 34053, 34059	Management Engine Restarts occur.
AOS-389	Multiple XR-620s (running AOS 8.4.9) are experiencing network connectivity loss. Rebooting fixes this, but it may recur.

Tracking	Description
AOS-412	XD2-240 shows WDS Link as 11an when both sides are 11anac capable.
AOS-419	Watchdog triggers errors on XR-2000/4000 series AP after upgrading to AOS 8.5.5, due to the processing of large numbers of unassociated stations.
AOS-437	When WDS is configured, a SYSLOG message is generated that should be ignored - the problem it refers to has been fixed in AOS 8.5.6. After an AP reboot, ignore this message: “CTaskMacRcv(3710) taking lapRdLock(7) lock @mib.cpp:getEntry:7369 out of order holding: stationMutex(18)”.
AOS-656	When Station moves from EasyPass Portal SSID to SSID configured for WPA/2 PSK, for the first time the end User enters the passphrase they will get an “Invalid Password” message on their device. Recommendation – Cancel out and reconnect to the SSID again, then re-enter the passphrase and it will work.
AOS-725	Unrealistic RX IAP stats values are occasionally being displayed. Many times on refresh it does re-display correctly.
AOS-727	APs are not passing Username/VLAN assignment/User Group when WPR STA is roaming.
AOS-739	Email syslogging does not email any syslogs.
AOS-742	mDNS traffic for airplayit service is not being passed from the wired side to the wireless on.
AOS-743	Running powerup autochannel on 802.11ac wave-2 AP does not change the channel on 2.4 GHz radio.
AOS-752	Using XD2-230 APs, users occasionally experience client connectivity issues with AOS version 8.5.7 or higher due to decryption errors.

Limitations and Conditions

This section lists the Limitations and Conditions in this release:

Tracking	Description
30392	Bonjour – AppleTV is not able to service a client on SSID with VLAN when AppleTV is on the Bridged wired network. It is not recommended that you place AppleTV on the Bridged Management LAN segment. This will cause a lot of multicast traffic to be processed by the Array on the Management VLAN and can affect the performance of the Array. Isolation of Multicast Traffic is recommended to be handled in VLANs that are not part of the Array Management VLAN.
33828	When there are many stations associated with radio1 on an XD2-230, they are experiencing poor performance, high ping loss and delay, and video freezes. This occurs on adjacent 5GHz channels which are not recommended. Correct channel separation is recommended and when this occurs performance degradation will not occur.
34006	iPad Air (first generation) cannot associate with channels 140 or 144 on 802.11 AC Wave 2 APs platforms. Later generations do not have this problem.
AOS-295, 33974	802.11u, and Hotspot 2.0 are not available on 802.11 AC Wave 2 APs, and they cannot be enabled.
AOS-617	WPA2/Radius Mac Encryption/Authentication option. This is not available on the XMS-C profile setting. Here is a cli snippet that can be used from XMS-cloud: • ssid edit KJD-RadiusMAC_PSK • encryption wpa2 unique-settings • passphrase 1234567890 • psk on • auth radius-mac
AOS-772	SSID containing a backslash character may not be handled correctly by XMS-cloud.
AOS-713	Aeroscout/Stanley will disable the timeshare monitor on the same radio/IAP as the wifi-tags are enabled.

- **WDS**: When doing a software upgrade, WDS client (remote) APs must be upgraded before WDS host (network-connected) APs. XMS-cloud will not automatically apply upgrades in this order for you.
- **WDS**; Using WDS between different families of APs (e.g., WDS between an XD AP and an XR AP, or between Wave 1 and Wave 2 XD APs) is not recommended. If you must create a link between different radio types, set the most advanced AP type as the host.
- **External WPR (PAP to CHAP)**

Found that using CHAP has to have two lines uncommented in the .cgi file. These two work with Windows 2012 R2 NPS/IIS server.

wpr.cgi

Uncomment Line 13:

```
line 9 - # NOTE: If printf is not installed on the server, md5sum will fail. In
that

line 10 - # case, uncomment the line directly below, comment out the mdsum calls,
and

line 11 - # uncomment the md5 & md5_hex calls.

line 13 - # use Digest::MD5 qw(md5 md5_hex md5_base64); <--- was

line 13 - use Digest::MD5 qw(md5 md5_hex md5_base64); <--- needs to be
```

Second change:

Was:

```
Line 135 - if ($userpassword == CHAP) {

Line 136 - $passvar = 'response=' . md5sum("\0" . $password . $newchal);

Line 137 - # $passvar = 'response=' . md5_hex("\0" . $password . $newchal);
```

Change To:

```
Line 135 - if ($userpassword == CHAP) {

Line 136 - # $passvar = 'response=' . md5sum("\0" . $password . $newchal);

Line 137 - $passvar = 'response=' . md5_hex("\0" . $password . $newchal);
```

Once this was changed then CHAP started to work.

Hardware and Software Requirements

- XI-AC3470 is equipped with 4 Tx chains, Rx chains, and 4 spatial streams. Depending on the Access Point capacity, the AOS will automatically configure each radio module to obtain optimal functionality. The table below lists different operating modes based on the HD modular AP and the number of radios installed.

- Wave 2 Radio Module Operating Modes.

Model	Tx Chains	Rx Chains	Streams	Tx power per radio	
XR-2247	4	4	4	No Tx power restrictions	
XR-2447	3	4	3	Mon + 5G + 5G + 2.4G 5G + 5G + 5G + Mon 5G + 5G + 5G + 5G 5G + 5G + 5G + 2.4G 5G + 5G + 2.4G + 2.4G 5G + 2.4G + 2.4G + 2.4G	13 dBm(default) 12 dBm 12 dBm 13 dBm 14 dBm 15 dBm
XR-4447	4	4	4	No Tx power restrictions	
XR-4847	4	4	4	No Tx power restrictions	
XR-6847	4	4	4	Mon + 2 2.4G + 5 5G All configurations + Mon All radios with no Mon	18 dBm (default) 18 dBm No Tx power restrictions
XR-7247	4	4	4	Mon + 3 2.4G + 8 5G All configurations + Mon All radio with no Mon	18 dBm (default) 18 dBm No Tx power restrictions
XR-7647	4	4	4	Mon + 3 2.4G + 12 5G Mon + 2 2.4G + 13 5G Mon + 1 2.4G + 14 5G Mon + 15 5G	12 dBm (default) 10 dBm 8 dBm 6 dBm

- Wave 2 Radio Module Upgrade Configurations. The table below summarizes power requirements and configurations for installing XI-AC3470 radios in an XR modular AP.

Model Series	Upgraded Model No	# Radios after Upgrade	Which Slots to Use (RF Slot #s)	Watts / Injector Models
XR-2000	XR-2247	2	0, 2	30W, PoE+ XP1-MSI-30, XP1-MSI-75M, XP8-MSI-70M, XT-5024/5048
XR-2000	XR-2447	4	All slots	40W XP8-MSI-70M, XP1-MSI-75/75M
XR-4000	XR-4447	4	1, 3, 5, 7	75W XP8-MSI-70M, XP1-MSI-75/75M
XR-4000	XR-4847	8	All slots	75W XP1-MSI-75/75M
XR-6000	XR-6847	8	0, 2, 4, 6, 8, 10, 12,14	95W XP2-MSI-95M (one port)
XR-7000	XR-7247	12	0, 1, 2, 4, 5, 6, 8, 9,10, 12,13,14	95W XP2-MSI-95M (two ports)
XR-7000	XR-7647	16	All Slots	95W XP2-MSI-95M (two ports)

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