Adtran

Adtran Operating System
R14.4.0 Release Notes

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Preface

To the Holder of this Document

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Revision History

Revision	Date	Description
Rev A	June 2024	Supports AOS version R14.4.0

Warranty and Contact Information

Warranty

Warranty information can be found at:

my.adtran.com/warranty.

Contact Information

For all customer support inquiries, please contact ADTRAN Customer Care:

Contact	Support	Contact Information
Customer Care	From within the U.S. From outside the U.S.	1.888.4ADTRAN (1.888.423.8726) +1.256.963.8716
	Technical Support:	www.adtran.com/support
	Training: Email: Web:	training@adtran.com www.adtran.com/training www.adtranuniversity.com
Sales	Pricing and Availability	1.800.827.0807

1. Introduction

AOS version R14.4.0 is a major system release that introduces new features and addresses bug fixes and customer issues that were uncovered in previous code releases.

This release is generally available code. Results obtained during internal testing have been evaluated and the code has been determined to be ready for general availability. Caveats discovered during testing but not addressed in this build are listed in 5. Errata.

Configuration guides, white papers, data sheets, and other documentation can be found on Adtran's Support Forum, https://supportforums.adtran.com. The contents of these release notes will focus on the platforms listed in 6. System Notes. Additional information specific to AOS is outlined in 6. System Notes.

2. Supported Platforms

Table 1 lists the platforms that are supported in AOS version R14.4.0. To confirm the Boot ROM version, Telnet or console to the unit and enter the **show version** command. The Boot ROM version will be listed as **Boot ROM version XX.XX.XX**. If you need a Boot ROM upgrade, contact Adtran Technical Support (support@adtran.com or 888-423-8726) for assistance.

Table 1: Supported Platforms

Platform	Standard Feature Pack	Enhanced Feature Pack	SBC Feature Pack	Minimum Boot ROM
NetVanta 3140	✓	✓	✓	R11.5.0
NetVanta 3148	✓	✓	✓	R11.3.0.B3
NetVanta 4148	✓	✓	✓	R11.3.0.B3
NetVanta 4430	✓	✓	✓	17.04.01.00
NetVanta 4660		✓	✓	R10.10.0.B5
NetVanta 6250		✓	✓	R10.9.0
Total Access 900 Series (3rd Gen)		✓		R13.7.0.B1
Total Access 900e Series (3rd Gen.)		✓	✓	R10.9.0

3. Features and Enhancements in Release R14.4.0

This section highlights the major features, commands, and behavioral changes for all products running AOS version R14.4.0.

AD-277426	Added support for public key authentication to the SSH client.
AD-274043	Added the ability to configure the enabled key exchange and host key algorithms for the SSH client.
AD-261240	Added the ability to configure the minimum and maximum SSH moduli lengths.
AD-251342	Added support for the diffie-hellman-group-exchange-sha256, diffie-hellman-group16-sha512, and ecdh-sha2-nistp256 key exchange algorithms to the SSH server. These algorithms are currently disabled by default.
AD-251341	Added support for the ecdsa-sha2-nistp256, ecdsa-sha2-nistp384, ecdsa-sha2-nistp521, and rsa-sha2-512 host key algorithms to the SSH server. These algorithms are currently disabled by default.

4. Fixes

General Bug Fixes in R14.4.0

This section highlights major bug fixes for all products running AOS version R14.4.0.

AOS-44108	Fixed an issue in which the GUI showed an incorrect number of installed licenses.
AOS-44059	Fixed an issue in which PPP IPCP negotiation would not complete on the NetVanta 3148 and 4148.
AOS-44040	Fixed an issue in which SCP and SFTP transfers failed when using the unit's DSA private key.
AOS-44032	Fixed multiple issues causing "test list weighted" to not function properly in tracks.
AOS-44018	Fixed an issue in which ETH-LM/DM replies did not mirror the proactive flag.
AOS-44017	Adjusted the PPPoE restart timer from 1 to 3 seconds on the NetVanta 4660 and 5660.

Carrier Ethernet Specific Bug Fixes in R14.4.0

This section highlights major bug fixes for all products running AOS version R14.4.0.

AOS-44013	Fixed an issue in which the 24-hour interval SHDSL performance monitoring counters did not roll to the next day at midnight.
AOS-43988	Fixed an issue in which it was possible to set an invalid interface on an Ethernet loopback.

Voice Specific Bug Fixes in R14.4.0

This section highlights voice specific bug fixes in AOS version R14.4.0.

AOS-44118	Fixed an issue in which TLS certificates longer than 4096 bytes were unable to be parsed, which prevented establishment of SIP TLS connections to servers using certificates larger than 4096 bytes.
AOS-44114	Fixed an issue in which a reboot may have occurred if VQM was used under heavy call load.
AOS-44092	Fixed an issue in which a reboot may have occurred during a call transfer.
AOS-44064	Fixed an issue in which a new SIP TLS session was not established after a WAN failover event when operating in client-only mode.
AOS-44037	Fixed an issue in which an error message stating "VQMManager could not create new stream" may have displayed on the CLI during call setup and VQM may not have collected statistics for all call legs.

5. Errata

General Errata

The errata listed below exist in all products running AOS version R14.4.0.

IN-25468	The "called-number" command on a Demand Interface does not function properly.
IN-24433	When using XAUTH with a VPN client, an AOS device requests CHAP authentication from the client, but does not send a CHAP challenge payload. This can cause issues with some VPN clients that expect to receive this payload.
IN-22458	With FFE enabled, passing traffic from the Ethernet 0/1 interface out an Ethernet NIM2 could cause the Ethernet 0/1 interface to go down. The interface is recoverable with a reboot. Disabling FFE on the Ethernet 0/1 interface prevents the issue.
IN-10479	The name of a deleted IPv4 ACL cannot be used to name a new IPv6 ACL.
AOS-44066	When using the diffie-hellman-group-exchange-sha256 and diffie-hellman-group16-sha512 key exchange algorithms with moduli larger than 3072 bits, traffic flow may be interrupted for several seconds during SSH negotiation on all platforms other than the NetVanta 3148, 4148 and 5660.
AOS-44038	When a VPN local ID is configured as an ASN.1 DN, the string is improperly capitalized by AOS. Because ASN.1 DN comparison is case sensitive, this will result in ID/cert mismatches when the ASN.1 DN in the cert contains lowercase characters.
AOS-43222	A SNMP walk may be unable to return some input or output QoS policies assigned to interfaces if multiple interfaces have both input and output QoS policies assigned.
AOS-42891	On the NetVanta 3148 and 4148, the output of "show power inline" lists 12 gigabit-switchports instead of 8.

AOS-42633	A reboot may occur when running line rate traffic on the NetVanta 3148 and 4148 through an interface that has an access-policy assigned that contains discard entries.
AOS-42583	On the Total Access 900 Third Generation, a remote payload loopback initiated from the DSX interface (t1 0/2) does not function properly.
AOS-42582	On the Total Access 900 Third Generation, the Network (t1 0/1) and DSX (t1 0/2) interfaces transmit B8ZS coded signals when configured for AMI coding.
AOS-42208	The sequence number in the TCP RST generated by the firewall when clearing a policy-session entry does not comply with RFC 793. This issue occurs when clearing a policy-session entry manually via the CLI and during failover if "ip firewall fast-nat-failover" and/or "ip firewall fast-allow-failover" are configured.
AOS-41261	Router advertisements for delegated prefixes assigned to a interface do not use the valid lifetime specified in the received IA_PD Prefix option. Workaround: Configure "ipv6 nd prefix named-prefix <prefix name> <prefix sub-bits>" for each delegated prefix assigned to the interface.
AOS-39470	Making any changes in the GUI for an Ethernet interface configured for DHCP causes the DHCP client to perform a DHCP release/renew on that interface when the changes are applied.
AOS-30561	If a track is configured to monitor the line-protocol of an interface configured for 802.1Q, the track will never go into a passing state even if the interface is up. This issue does not affect the NetVanta 4660, 5660, or 6360. A workaround is to track the line-protocol of the subinterface.
AOS-28378	The "clear sip tls session" command does not function.
AOS-25916	In some command sets, the "exit" command is not visible even though it still functions properly.
AOS-20612	Speed and duplex settings are displayed on mef-ethernet interfaces in "show running-config verbose", even though those options are not valid or configurable for that type of interface.
AOS-19531	In the VQM RTP Monitoring menu, the refresh button refreshed the displayed graphic, but it also duplicated information in the lower part of the menu. Also, when the cursor hovered over a data point, it displayed multiple instances of the same data.
AOS-19492	In the VQM RTP Monitoring menu, the Source IPs and Interfaces menus have invisible data points that appear and display data when the cursor hovers over them. The invisible data point information duplicates a visible data point and can usually be found hidden above the visible data point.

AOS-14421	The output of "show qos map interface <interface>" shows "ce-vlan-id" instead of "vlan-id" and "ce-vlan-pri" instead of "cos" on products other than the NetVanta 4660, 5660, and 6360.
AOS-12266	SFP information for an SFP inserted into a NetVanta 4430 does not display correctly.
AOS-10823	Ethernet interfaces in 3rd generation TA 900Es can not be seen from the Data > IP Interfaces page in the GUI. These interfaces can be configured from the System > Physical Interfaces page instead.
AOS-8519	The 3rd Gen. Total Access 900e and NetVanta 6250 send a cold start SNMP trap on reload instead of a warm start trap.
AOS-5580	If the top level ATM interface on a SHDSL ATM NIM2 module is disabled and re-enabled, the ATM circuit will no longer be able to pass traffic. The ADTRAN unit must be rebooted to correct the problem.
AOS-1653	Having more than two entries in a Network Monitor ICMP probe test list displays Tracked by: Nothing in the show probe command output. This is only a display error; the probes still function correctly.
AOS-1124	VQM may show a loopback interface in the GUI when a loopback interface is not configured.
AD-255105	Traffic shaping on VLAN interfaces is not supported on the NetVanta 3148 and 4148.

Carrier Ethernet Specific Errata

The following is a list of Carrier Ethernet specific errata that exist in products running AOS version R14.4.0.

AOS-44169	The 15-minute interval SHDSL performance monitoring counters reset at midnight.
AOS-43266	Y.1731 Ethernet Continuity Check (ETH-CC) frames may not be sent at the configured interval if NTP is not configured or synchronized.
AOS-43265	On the NetVanta 4660, a small percentage of frames may be discarded if NTP is not configured or synchronized.
AOS-41517	The Invalid CE VLAN ID counter does not function on the GigabitEthernet 0/1 interface on the NetVanta 4660, 5660, and 6360 because GigabitEthernet 0/1 is not intended for use as a UNI interface for Layer 2 services on these platforms.
AOS-22021	The "efm-group" interface type option is missing from the "tunnel source" command on Tunnel interfaces.

Voice Specific Errata

The following is a list of voice specific errata that exist in products running AOS version R14.4.0.

AOS-44135	RTP may be sourced from the wrong port after processing a 302 Moved Temporarily response in an SBC application.
AOS-41155	If a voice trunk is removed while calls are active, a reboot may occur.
AOS-37978	Enabling the SIP stack on a device allocates numerous resources. If this resource allocation fails, the device will reboot. Multiple sockets must be available and local SIP ports, typically UDP and TCP 5060, must be available as well, otherwise the resource allocation will fail and the device will reboot.
AOS-31081	When using the SIP proxy with media anchoring, VQM reports incorrect information for LocalURI, RemoteURI, and LocalCaller if a reINVITE that modifies the SDP is received from the callee during a call.
AOS-24657	Issuing the command "clear voice call active" with MGCP calls up may result in a reboot.
AOS-22835	If "sip tls" is configured and "sip" is disabled, you must first issue "no sip tls" to enable "sip", otherwise the following error will be displayed: "%Error: Failed to modify SIP Access-class with new VRF."
AOS-22597	If a CA profile is removed while SIP TLS calls using that profile are active, BYE messages will not be sent for any of those active calls.
AOS-20871	Receiving an initial INVITE with SDP that contains both audio and T.38 media descriptions will result in the call being on hold.
AOS-10594	In AOS R10.4.0 and higher, modem-passthrough will fail to send a reINVITE to G.711 if the endpoint is configured with a codec-list that does not contain G.711.
AOS-10216	The command "ip mgcp qos dscp <value>" will not take effect until either "ip mgcp" is disabled and then enabled or until the AOS device is reset.
AOS-7738	When the SIP-server monitor clears the primary SIP server from a delayed state due to a failure of the secondary SIP server, there will be a sixty second delay until a SIP registration is attempted to the primary SIP server. This delay will not occur if the SIP-server monitor is clearing the secondary SIP server from a delayed state due to a failure of the primary SIP server.
AOS-6995	On the 3rd Gen. Total Access 900e and NetVanta 6250, SIP must be enabled in the running configuration whenever MGCP is used for voice.
AOS-1136	If an ADTRAN unit is configured with single call appearance mode, forwarded calls on a PRI trunk will fail.

AOS-1120	Receiving a 183 after a 183 on hairpin calls when using media anchoring could result in no early media if the SDP in the second 183 differs from the first.
AOS-1115	Echo cancellation is not enabled on 3-way calls when using the local conferencing feature.
AOS-1036	With the ADTRAN unit set for voice flashhook mode transparent, the conference originator must wait for the third party to answer before executing the flashhook to initiate the conference.

6. System Notes

Beginning with AOS version 17.09.01, the syntax of certain commands was modified from previous AOS versions by either removing or adding the **ip** keyword. In general, when the **ip** keyword appears in a command, it signifies that the command is only applicable to IPv4 functionality. As more features introduce IPv6 support, the **ipv6** keyword is added to signify the command is only applicable to IPv6 functionality. The **ip** keyword has been removed from several commands to signify that the command has both IPv4 and IPv6 functionality.

Due to this syntax change, downgrading a unit configured in AOS version R14.3.1.HA to a previous AOS version, could cause service disruption because the new syntax might not be recognized by the previous version. Upgrading a unit from an older AOS version to AOS version R14.3.1.HA will cause no service disruption because both the old and the new syntaxes are accepted. For more information on specific commands, refer to the AOS Command Reference Guide available at https://supportcommunity.adtran.com.

It is recommended that your browser's cache be cleared before viewing the GUI after an upgrade.

MGCP is not supported on the NetVanta 6360.

As of R14.3.0 (or earlier), a valid SBC call capacity license is required for SIP B2BUA functionality on the following products:

- NetVanta 3140
- NetVanta 3148/4148
- NetVanta 6250
- Total Access 900e (third generation)

7. Upgrade Instructions

Upgrading Adtran products to the latest version of AOS firmware is explained in detail in the configuration guide Upgrading Firmware in AOS, available at https://supportcommunity.adtran.com.