RELEASE NOTES

AOS version R13.1.0.HA
October 20, 2017

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Pre-Sales Technical Support
(800) 615-1176
application.engineer@adtran.com

Corporate Office
901 Explorer Boulevard
P.O. Box 140000
Huntsville, AL 35814-4000
Phone: (256) 963-8000
www.adtran.com

Post-Sales Technical Support
(888) 423-8726
support.adtran.com

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Introduction

AOS version R13.1.0.HA is a maintenance release that addresses a customer issues that was uncovered in a previous code release.

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 *Errata on page 7*.

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 below.

Supported Platforms

The following platforms are supported in AOS version R13.1.0.HA. To confirm the Boot ROM version of the ADTRAN unit, Telnet or console to the unit and issue the **show version** command. In the command output, the Boot ROM version will be listed as **Boot ROM version XX.XX.XX**. If you require a Boot ROM upgrade, please contact ADTRAN Technical Support (support@adtran.com or 888-423-8726) for assistance.

Platform	Standard Feature Pack	Enhanced Feature Pack	SBC Feature Pack	Minimum Boot ROM
NetVanta 644		√		A5.01.B1
NetVanta 1234/1234P/1238/1238P (2nd and 3rd Gen.)	√			XB.01.02
NetVanta 1235P	√			R10.4.0.B1
NetVanta 1335		√		15.01.00
NetVanta 1531/1531P	√			R11.1.0
NetVanta 1534	√			17.06.03.00
NetVanta 1534 (2nd Gen.)	√			17.08.01.00
NetVanta 1534P (2nd Gen.)	√			17.09.01.00
NetVanta 1535P	√			17.08.01.00
NetVanta 1544/1544F	√			17.06.04.00
NetVanta 1544 (2nd Gen.)	√			17.08.01.00
NetVanta 1544P (2nd Gen.)	√			17.09.01.00
NetVanta 1550	√			BVS1.0
NetVanta 1638/1638P	√			18.02.01.SC
NetVanta 3140	√	√	√	R11.5.0
NetVanta 3200/3205 (3rd Gen.)	√	√		17.02.01.00
NetVanta 3305 (2nd Gen.)	√	√		04.02.00
NetVanta 3430	√	√		13.03.SB
NetVanta 3430 (2nd Gen.)	√	√	√	17.05.01.00
NetVanta 3448	√	√	√	13.03.SB
NetVanta 3450	√	√		17.06.01.00

Platform	Standard Feature Pack	Enhanced Feature Pack	SBC Feature Pack	Minimum Boot ROM
NetVanta 3458	√	√		17.06.01.00
NetVanta 4305 (2nd Gen.)	√	√		08.01.00
NetVanta 4430	√	√	√	17.04.01.00
NetVanta 4660		√	√	R10.10.0.B5
NetVanta 5305	√	√		11.03.00
NetVanta 5660		√	√	R11.4.1.B2
NetVanta 6240		√	√	A5.01.00
NetVanta 6250		√	√	R10.9.0
NetVanta 6310/6330		√	√	A3.01.B2
NetVanta 6355		√	√	14.06.00
NetVanta 6360		√	√	R11.2.0
NetVanta 6410			√	R11.3.0
Total Access 900 Series (2nd Gen.)		√		14.04.00
Total Access 900e Series (2nd Gen.)		√	√	14.05.00.SA
Total Access 900e Series (3rd Gen.)		√	√	R10.9.0

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 R13.1.0.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 R13.1.0.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://supportforums.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.

Features and Enhancements

This section highlights the major features, commands, and behavioral changes for all products running AOS version R13.1.0.

- Added the ability to set the region the unit reports to nCommand MSP using the **auto-link region** command.
- Added support for point-to-point VxLAN tunnels (VTEP) on the NetVanta 3140, 3430, 3448, 4430, 4660, 5660, 6250, 6360, and Total Access 900e (third generation).

This section highlights the major voice related features, commands, and behavioral changes for products running AOS version R13.1.0.

- Added support for SIP TLS and SRTP in the SIP proxy (stateful mode only) on the NetVanta 3140, 3430 (second generation), 3448, and 6250 SBCs and the Total Access 900e (third generation) SBCs.

Fixes

This section highlights major bug fixes for all products running AOS version R13.1.0.HA.

- When running AOS R13.1.0, a reboot occurred if a UDP fragment chain was sent to a local service running on the unit (e.g. SIP).

This section highlights major bug fixes for all products running AOS version R13.1.0.

- When assigning IPv6 prefixes via DHCPv6 Prefix Delegation (PD), routes were not added for the prefixes assigned via PD.
- When the IPv4 firewall was configured in local traffic only mode, a reboot occurred if a packet destined for the unit required reassembly from fragments.
- In some cases, a reboot occurred if a child QoS map was modified after its parent QoS map had been removed.
- The AOS TWAMP client sent a non-zero value for the Number of Packets field in TWAMP requests, which violated RFC 5357.
- If a DNS query for a NTP server returned both A and AAAA records, NTP did not fall back to the IP address in the A record if IPv6 wasn't configured on the unit.
- When upgrading to R12.3 and later, if **http secure-server allow-sslv2** was configured the command resulted in an error on boot and the HTTPS would remain disabled because SSLv2 is no longer supported. Now if **http secure-server allow-sslv2** is configured, the **allow-sslv2** parameter is ignored and the HTTPS server will be enabled as configured.
- The **http secure-server allow-sslv3** command did not work when running AOS R12.3.0, R12.3.1, R12.3.2, and R12.4.0.
- AOS R12.3.0, R12.3.1, and R12.4.0 did not properly generate the HTTPS server TLS certificate on boot if it was not already present. As a result, if the unit was upgraded directly to one of the affected versions from a version of AOS prior to R11.7.0, the HTTPS GUI was unavailable. This applies to all AOS products except the NetVanta 1531, 1550, 1638, 3140, 4660, 5660, 6250, 6360, 6410, and Total Access 900e (third generation).
- The command **auto-link https allow tls1.0** was not properly restored on boot. Additionally, the command **autoconfig method https allow-tls1.0 allow-sslv3** was not added to the running configuration.
- In rare cases, if a flash error was detected and corrected, a reboot occurred.
- VRRPv3 traffic was not implicitly allowed through the IPv4 firewall.
- On units with a DBU installed, events output to the console resulted in a small memory leak for each event.

This section highlights the Carrier specific bug fixes in products running AOS version R13.1.0.

- SyncE SSM messages were transmitted when the ESMC process was disabled.

This section highlights Voice specific bug fixes in AOS version R13.1.0.

- On FXO to SIP calls, if a 183 Session Progress response was received, AOS did not respond to a received 200 OK response with an ACK.
- Escaped carriage return and new line characters (i.e., \r\n) in HMR modify statements prevented the parsing of HMR variable names from working properly.
- Invalid characters were not rejected in the called party number, calling party number, and redirecting number IEs in received ISDN messages.
- If the User-Agent of a SIP device registering to AOS contained one or more space characters, static **sip location** entries that could not be removed were added to the running configuration on boot if **sip location database** was configured.
- If a server reset a persistent SIP TLS connection, the unit would attempt to reconnect immediately without any rate limiting. AOS will now retry using a backoff algorithm of 1, 2, 4, and finally 8 seconds.
- On the NetVanta 3140, 4660, 5660, and 6360, the value of **voice system-country** was not saved.
- When using MGCP, if a SignalRequest for VMWI (L/vmwi) was received immediately after a SignalRequest for ring splash (L/rs), the FSK for VMWI was not delayed until after the ring splash, resulting in VMWI not being activated on the connected phone.

This section highlights Switch specific bug fixes in AOS version R13.1.0.

- The BRIDGE-MIB was not supported on the NetVanta 1550.
- QoS statistics did not work on ActivChassis line cards.

Errata

The following is a list of errata that still exist in all products running AOS version R13.1.0.HA.

- 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.
- A few legacy cellular interface commands were incorrectly removed when USB LTE support was added. The removed commands include:
    - **snmp trap cellular**
    - **snmp trap link-status**
    - **snmp trap threshold-ecio**
    - **snmp trap threshold-rssi**
- When using the Novatel USB 551L modem with a NetVanta 3140, a small number of lost frames will occur with packets smaller than 512 bytes. The loss occurs in the modem and not the NetVanta 3140.
- Assigning the IP address 192.168.190.1 to a NetVanta 160 AP from an AOS controller prevents the AP from pulling a full configuration from the controller.
- On the NetVanta 6410, HTTP file transfers to the unit's flash memory can be up to 10 times slower than TFTP.
- 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 the interface is up. This issue does not affect the NetVanta 4660, 5660, or 6360. **Workaround:** Track the line protocol of the subinterface.

- In some command sets, the **exit** command is not visible even though it still functions properly.
- On the NetVanta 5305, VPN performance for 64 and 256 byte packets decreased moderately compared to R11.2.0.
- Speed and duplex settings are displayed with on MEF Ethernet interfaces in **show running-config verbose** command output, even though those options are not valid and cannot be configured for that type of interface.
- In the VQM RTP Monitoring menu, the refresh button refreshes the displayed graphic, but it also duplicates information in the lower part of the menu. In addition, when the cursor hovers over a data point, multiple instances of the same data display.
- 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.
- On the NetVanta 3430, the setup wizard in the GUI can freeze with a **Please Wait** message.
- 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.
- On the NetVanta 6240, SNMP traps for warm start and cold start are reversed.
- On a NetVanta 4430, information for an inserted SFP does not display correctly.
- Ethernet interfaces in third generation Total Access 900e units are not visible in the Data > IP Interfaces GUI menu. These interfaces are visible and can be configured from the System > Physical Interfaces menu instead.
- The Total Access 900e (third generation) and NetVanta 6250 send a cold start SNMP trap on reload instead of a warm start trap.
- On very rare occasions, port T1 3/3 on an Octal T1 NIM can stop negotiating LCP when it is part of an MLPPP bundle. Rebooting the device will restore the interface.
- On the NetVanta 6310 or 6330, if a SHDSL circuit with a detected bad splice retrains to a different line rate, the distance of the bad splice will display incorrectly.
- On the NetVanta 6310 or 6330, 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.
- When using a T1/E1 EFM NIM2 in the NetVanta 6310 or 6330, the EFM counters do not increment as traffic passes through the device.
- Removing a USB modem from the USB NIM while active could cause the AOS device to reboot. Shutting down the demand interface being used by the modem prior to removing the modem will prevent this reboot.
- Event messages indicating a firmware upgrade was attempted may appear in the AOS event log for NetVanta 160 APs that are not being upgraded.
- Having more than two entries in a Network Monitor ICMP probe test list will display **Tracked by: Nothing** in the **show probe** command output. This is merely a display error; the probes still function correctly.
- VQM may show a loopback interface in the GUI when a loopback interface is not configured.
- The **called-number** command on a demand interface does not function properly.

- 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 VPN clients that expect to receive this payload.
- If a USB modem is physically disconnected from a USB WWAN NIM while active NIM is active, the demand interface being used by the modem will not automatically shut down. The demand interface should be disabled before removing the modem to prevent this issue.
- On the NetVanta 6310/6330, with FFE enabled, passing traffic from the Ethernet 0/1 interface out an Ethernet NIM2 can cause the Ethernet 0/1 interface to fail. The interface is recovered with a reboot. Disabling FFE on the Ethernet 0/1 interface prevents the issue.
- The **vap-reference** command will not replicate VLAN IDs for an AP unless 802.1q encapsulation has been manually enabled on the AP expecting to receive the replicated configuration.
- Updating PRL values on a Sprint NetVanta 3G NIM may not function properly.
- A NetVanta 5305 can stop passing traffic for brief intervals when negotiating frequent VPN tunnels using Diffie Hellman Group 5.
- EAP Identity Responses from a wireless client that do not contain an Identity field can result in the NetVanta 150 creating a malformed RADIUS packet.
- NetVanta 150s may not properly handle immediate Access-Accept responses to Access-Request messages.
- The name of a deleted IPv4 ACL cannot be used to name a new IPv6 ACL.
- When a switchport on a NetVanta 3458 is configured for **port-security**, it does not receive BPDUs. If multiple connections between the NetVanta 3458 and another switch are made, a switching loop could occur because both ports will automatically enter a forwarding state even though the Spanning Tree protocol should cause one port to enter a blocking state.
- The output of the command **show ethernet cfm mep loca**l may display an incorrect maintenance association for a MEP ID if multiple maintenance associations are configured on the unit.
- The NetVanta 6240 should send warm_start SNMP traps when the unit is told to reboot by software. It should only send cold_start traps when the power is cycled. Instead, it is sending cold_start traps, even when reloaded by software.

The following is a list of Carrier Ethernet specific errata that exist in products running AOS version R13.1.0.HA.

- The **efm-group** interface type option is missing from the **tunnel source** command on tunnel interfaces.

The following is a list of Voice specific errata that exist in products running AOS version R13.1.0.HA.

- If two different FQDNs are used for SIP TLS with persistent connections and the FQDNs both resolve to the same IP address, the persistent connection will be continuously torn down and re-established.
- If a voice trunk is removed while calls are active, a reboot may occur.
- 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.
- 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 called party during a call.

- Issuing the command **clear voice call active** with active MGCP calls may result in a reboot.
- If **sip tls** is configured while **sip** is disabled, **no sip tls** must be issued before **sip** can be enabled, otherwise the following error will be displayed: %Error: Failed to modify SIP Access-class with new VRF.
- If a CA profile is removed while SIP TLS calls using that profile are active, BYE messages will not be sent for any of the active calls.
- The ERL tool is not functional on the NetVanta 6360.
- On the NetVanta 6360, if the onboard FXO port is configured to receive digits, a 500 ms delay is required after answering before receiving the first DTMF digit.
- Receiving an initial INVITE with both audio and T.38 SDP will result in the call being placed on hold.
- 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 doesn't contain G.711.
- The command **ip mgcp qos dscp** <*value*> will not take effect until either **ip mgcp** is disabled and then re-enabled or the AOS device is reset.
- 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 60-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.
- On the Total Access 900e (third generation) and NetVanta 6250, SIP must be enabled in the running configuration whenever MGCP is used for voice.
- If an ADTRAN unit is configured with single call appearance mode, forwarded calls on a PRI trunk will fail.
- When using media anchoring, receiving a 183 Session Progress after a previous 183 on hairpinned calls can result in no early media if the SDP in the second 183 differs from the first.
- Echo cancellation is not enabled on three-way calls when using the local conferencing feature.
- On NetVanta 644 and NetVanta 6240 Series units, V.21 messages will sound overly amplified when listening to the TX output of a T.38 DSP capture. This is a flaw of the capture utility and does not represent how the audio actually sounds.
- DSP captures on the NetVanta 6240 and 644 platforms consume large amounts of memory while in progress. The unit could become unstable if a DSP capture is active for an unusually long period of time.
- 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.
- On the NetVanta 6240 Series, over an extended period of use, T.38 calls can cause DSP channels to cease producing a dial tone and have poor voice quality. Rebooting the unit will correct the problem.
- NetVanta 6240 only: While running 29 or more simultaneous calls using E&M Immediate, Wink, or Feature Group D, it is possible to get in a state where DTMF tone detection will not function on any outbound (DSX to SIP) call using DSP 0/1.15 or higher. While in this failed state, all calls will continue to function in either call direction on DSP 0/2, as well as all calls on DSP0/1 in the inbound direction. With a load of 28 or fewer calls, all calls will function reliably in both directions on both DSPs. No consistent work around has been identified at this time. A unit reboot will typically solve the problem.
- The NetVanta 6240 Series IP business gateways can reboot if 60 simultaneous calls are placed through the DSP.

- The Total Access 900e Series (second generation) cannot properly handle more than 40 simultaneous E&M RBS calls. More than 40 simultaneously active calls could result in no dial tone or no audio on the last 8 channels.
- On the NetVanta 6310/6330 Series, if a SIP trunk is trying to register a large number of users and the registration fails, activating **debug sip trunk-registration** will cause the Telnet and console connection to become unresponsive. A reboot clears the condition.

The following is a list of Switch specific errata that exist in products running AOS version R13.1.0.HA.

- On a NetVanta 1544F, a switchport interface with a connected SFP interconnect cable cannot be shut down properly.
- The idle process on a NetVanta 1638, visible with the command **show processes cpu**, is named **procnto-600-,** rather than **Idle**, like other AOS platforms.
- Certain NetVanta PoE switches require the command **power inline 2-point** be configured on applicable switchports in order to power Polycom VVX phones with three attached color expansion modules.
- In an ActivChassis configuration utilizing port channels that are distributed among individual line cards, if more than 1 Gbps is sent across the port channel the ActivChassis will sometimes discard some traffic.
- Traffic destined for devices that match static ARP entries in a Layer 3 switch will experience extra latency if a static MAC entry is not present for the same device.
- ICMP responses from a VLAN interface on the NetVanta 1531 may be periodically latent. ICMP routed or switched through the unit is not affected.
- When running R11.1.0 boot ROM on a NetVanta 1531 and attempting to apply a backup firmware image from bootstrap, the switch will print out benign errors indicating packets are being dropped due to congestion.
- Creating a hardware ACL with the same name as a previously created and deleted IP ACL will result in the creation of an IP ACL with an implicit permit.
- Removing port channels from the configuration while an ActivChassis is under a heavy load could cause the ActivChassis to reboot.
- On NetVanta 1638s in ActivChassis mode, spanning tree will reconverge at non-rapid spanning tree rates (about 30 seconds) if there are spanning tree topology changes in the network.
- If an ActivChassis line card has NetVanta APs physically attached, and the line card is removed and added back to the ActivChassis stack, the NetVanta APs will not properly indicate the AC that controls them. Bouncing the switchport on the line card or rebooting the ActivChassis master will resolve this issue.
- Certain OIDs in the Bridge-MIB may not return a value on AOS switches.
- Port mirroring on a NetVanta 123x (second and third generation) 1534, and 1544 cannot send transmit mirrored frames without a VLAN tag.

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://supportforums.adtran.com.

