



RELEASE NOTES

AOS version R10.11.0
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Introduction

AOS version R10.11.0 is a major system release that adds new features and addresses 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 *Errata on page 8*.

A list of new or updated documents for this release appears in *Documentation Updates on page 16*.

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 R10.11.0. 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 (2nd Gen. only)	√			XB.01.02
NetVanta 1235P	√			R10.4.0.B1
NetVanta 1238/1238P (2nd Gen. only)	√			XB.01.02
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	√			17.06.03.00
NetVanta 1544 (2nd Gen.)	√			17.08.01.00
NetVanta 1544P (2nd Gen.)	√			17.09.01.00
NetVanta 1638	√			18.02.01.SC
NetVanta 1638P	√			18.02.01.SC
NetVanta 1335		√		15.01.00
NetVanta 3120		√		14.04.00
NetVanta 3130		√		14.04.00
NetVanta 3200/3205 (3rd Gen. only)	√	√		17.02.01.00
NetVanta 3305 (2nd Gen. only)	√	√		04.02.00
NetVanta 3430	√	√		13.03.SB
NetVanta 3430 (2nd Gen.)	√	√	√	17.05.01.00
NetVanta 3448	√	√	√	13.03.SB

Platform	Standard Feature Pack	Enhanced Feature Pack	SBC Feature Pack	Minimum Boot ROM
NetVanta 3450	√	√		17.06.01.00
NetVanta 3458	√	√		17.06.01.00
NetVanta 4305 (2nd Gen. only)	√	√		08.01.00
NetVanta 4430	√	√	√	17.04.01.00
NetVanta 4660		√		R10.10.0
NetVanta 5305	√	√		11.03.00
NetVanta 6240		√	√	A5.01.00
NetVanta 6250		√	√	R10.9.0
NetVanta 6310/6330		√	√	A3.01.B2
NetVanta 6355		√	√	14.06.00
Total Access 900 Series (2nd Gen. only)		√		14.04.00
Total Access 900e Series (2nd Gen. only)		√	√	14.05.00.SA
Total Access 900e Series (3rd Gen. only)		√	√	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 R10.11.0 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 R10.11.0 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](https://supportforums.adtran.com) available at <https://supportforums.adtran.com>.

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

Features and Enhancements

This section highlights the major features, commands, and behavioral changes for all Converged Access products running AOS version R10.11.0.

- Added the ability to ignore speed mismatch errors as reported by LLDP with the **no lldp receive 802.3-info mac-phy-config** command.
- Added the ability to set a global unicast IPv6 address as a VRRPv3 virtual address.
- Added support for 2048-bit SSH keys.
- Added multi-VRF support to the IpAddressTable in the IP MIB using context names.
- Added IPv4 support to VRRPv3.

- Added support for accessing SFP data via SNMP. This information was previously available with the **show sfp-info** commands.
- Added CLI privilege level support in which command sets and individual commands can be mapped to seven different privilege levels.
- The following enhancements were made to the auto-config feature:
 - Support for firmware downloads.
 - A polling timer was added so that the server can be polled on a specified interval.
 - An option was added to always reboot upon receipt of a SIP NOTIFY, even if there were no configuration changes.

This section highlights the Carrier Ethernet specific features, commands, and behavioral changes available in products running AOS version R10.11.0.

- Added Synchronous Ethernet (SyncE) support for Gigabit Ethernet and SHDSL to the NetVanta 4660.
- Added Layer 2 transparent mode support to the NetVanta 4660.
- Changed the Y.1731 LTM HWonly flag default to 1. It previously defaulted to 0.
- Added dynamic counters to the NetVanta 4660. Dynamic counters allow ingress packets, egress packets, and discards to be counted based on configurable criteria.
- Added the adGenAosFan MIB for SNMP traps on fan failures on the NetVanta 4660.
- Enhanced network monitoring to be able to track the following conditions:
 - Interface line protocol
 - EFM group upstream and downstream speeds
 - Y.1731 loss of continuity (LOC)
 - Y.1731 remote defect indication (RDI)
- Added SHDSL support to the NetVanta 4660.

Fixes

This section highlights major bug fixes for all products running AOS version R10.11.0.

- Port channel interface counters would not update properly on NetVanta 1638 units that were not members of an ActivChassis.
- In some cases, the output of the command **show ssh-server mypubkey** was incorrect.
- Flooding a unit with invalid IPv4 packet fragments may have caused a reboot when the firewall was enabled.
- After an extended period of uptime on a NetVanta switch, LLDP-MED sometimes stopped functioning properly.
- If a switchport was configured as part of a monitor session, IGMP snooping would not function on that interface until the interface had been removed from the monitor session, and the switch was rebooted.
- On a NetVanta 1638 ActivChassis, if a linecard rebooted independently from the ActivChassis, hosts connected to that linecard were not able to communicate with hosts over a port channel.
- In rare cases, auto-link caused AOS units to lock up.

- In some cases, the GetResponse after an SNMP inform was rejected, causing a retransmission of the inform message.
- Email notifications may have failed when TLS was required by the mail server.
- In rare cases, ICMP probes transmitted faster than the configured period.
- On the NetVanta 3130, the **Multi No T.413** ADSL training mode option was not displayed in the GUI.
- On the NetVanta 3130, the **ADSL2+ Annex M** ADSL training mode option was not present in the GUI.
- Enabling **debug icmp probe** while **debug probe** was also enabled caused a slow memory leak.

This section highlights the Carrier Ethernet specific bug fixes in products running AOS version R10.11.0.

- Configuring the **men-pri** on the system-management EVC did not result in the 802.1p value being set in transmitted frames.
- When configured on a Gigabit Ethernet interface on the NetVanta 4660, the **s-tag-dei** command was not added to the running configuration.
- On the NetVanta 4660, with a large number of EVCs configured, traffic internal to the unit would egress the external interfaces. This also resulted in a performance issue when running only Layer 2 traffic with a large number of EVCs.
- On the NetVanta 4660, if a SHDSL module was installed and a circuit was connected while the interface was activated, the unit rebooted when the SHDSL loop began to train and an EFM group interface was not present.

This section highlights the voice specific bug fixes in products running AOS version R10.11.0, unless otherwise noted.

- The Total Access 900e Series (third generation) and NetVanta 6250 Series did not send MWI SUBSCRIBE messages when **subscribe message-summary** was configured and the SIP server was defined as an FQDN.
- On the Total Access 900e Series (third generation) and NetVanta 6250 Series, it was possible for the unit to reboot when the **show sip proxy users** command was issued.
- SNMP trunk registration failure traps were not being sent properly.
- In rare cases, RTP flows being handled by RTP firewall traversal would not be NATed to the ports specified in SDP.
- If two Diversion headers were appended with a comma, AOS only preserved the second Diversion header.
- When an FXS interface was configured for the neon message waiting indication (MWI), the FXS port locked up if a fault condition was experienced while the neon MWI was lit.
- Hairpinned TDM calls on a NetVanta 644 may have had one-way audio or no talkpath if an ACK was received before both 200 OKs were received when both sides of the hairpin call were connected.
- The **show ip rtp media sessions** command was not present in the NetVanta 644 and Total Access 900.
- In rare cases, the NetVanta 644 rebooted if a PRI interface went down and then came back up in quick succession.
- When **mwi-member** was configured on a ring group, received NOTIFY messages did not match against SIP identities/aliases configured on the ring group.

- In rare cases, it was possible for a DSP reboot to occur on the NetVanta 6240.
- If more than two Diversion headers that were appended with commas were received in a SIP message, that message would be rejected with a SIP parser error.

Errata

The following is a list of errata that still exist in all products running AOS version R10.11.0.

- On the NetVanta 4660, PIM-Sparse will not establish a neighbor relationship with an adjacent PIM router because it is not properly processing the PIM Hello messages from the neighbor.
- On a NetVanta 1638, hardware access lists may not block IP traffic destined for the management interface even though they will block traffic being switched through the unit.
- If 2 CLI Privilege level commands are configured with the **all** keyword, only the least specific of the two commands will take effect. For example, with the following configuration all **show ip** commands would inadvertently be set to level 7:

privilege exec all level 7 show

privilege exec all level 6 show ip

- On the NetVanta 1335 and the NetVanta 3200, removing a NIM is sometimes not resulting in the creation of an exception report.
- 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.
- When TACACS+ accounting is enabled, it is possible for a long duration brute force SSH attack to cause the unit to run out of memory and reboot.
- When using a copper SFP forced to 100/full on Gigabit Ethernet interface 0/2 on a NetVanta 1235P, roughly 2 to 3 percent of the data traversing that port is dropped in a bursty manner.
- In rare cases, DHCP relay may not forward offers back to the correct host.
- 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.
- After extended periods of time, idle SSH sessions may become unresponsive.
- On the Total Access 900e (third generation), NetVanta 6250, and NetVanta 4660, the output of the **show processes cpu** command may incorrectly display the system load as higher than it actually is. This issue is purely cosmetic.
- 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.
- Naming a hardware ACL the same name as a previously created and deleted IP ACL will result in the creation of an IP ACL with an implicit permit.
- Configuring a NetVanta 160's channel setting to **least-congested** may not properly adjust to the least congested channel available.
- The Total Access 900e (third generation) and NetVanta 6250 send a cold start SNMP trap on reload instead of a warm start trap.
- Executing a TCL script that issues the command **show tech** may inhibit the ability to further run **show tech** commands until the AOS device has been rebooted.

- On the NetVanta 6250 and Total Access 900e Series (third generation), when running a large amount of traffic across a VPN tunnel with crypto FFE disabled, the unit will occasionally reboot citing a memory issue. Enabling the **ip crypto ffe** command prevents this reboot from occurring and is the desired setting when configuring VPN due to the performance increase of the FFE functionality.
- Configuring a port mirror with the **no-isolate** function will sometimes fail.
- 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 a NetVanta 6310, if a SHDSL circuit with a detected bad splice retrains to a different line rate, the distance of the bad splice will display incorrectly.
- 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.
- The T1 EFM counters do not increment as traffic passes through the device.
- With the SHDSL ATM NIM2, the NetVanta 6310 drops approximately 1 out of every 15K packets from the SHDSL to Ethernet direction.
- Performance throughput for 66 byte packets on the NetVanta 6355 4 T1/NAT test cases has decreased approximately 40 percent. All other packet sizes, including IMIX traffic, have acceptable throughput.
- 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.
- Removing port channels from the configuration of an ActivChassis device while under a heavy load can cause the ActivChassis device to reboot.
- In redundant Ethernet mode, if the Ethernet interface is configured with subinterfaces, the NetVanta 644 will reboot when one of the Ethernet cables is removed.
- Copying a file larger than 20 MB from flash memory of an AOS device via HTTP can cause the AOS device to reboot.
- In rare cases, SFP ports on a NetVanta 1535P could get stuck in an up/up state even when physically disconnected. Shutting down the port and re-enabling it resolves the issue.
- The GUI of a NetVanta device acting as a wireless access controller can not display the software currently running on a connected access point.
- The command **boot config flash** *<filename>* does not function properly on many AOS platforms.
- A host name entry in an ACL may fail to resolve to the correct IP address even though the router's host table reflects the correct IP address. Workaround: Use IP addresses instead of a host name when creating an ACL.
- In a 3G demand interface configuration, Syslog traffic can intermittently be sourced from an incorrect IP address.
- When command authorization is enabled, issuing a **show** command with the **realtime** parameter does not display the statistics in real time.
- The IP Top Talkers Graphs in the GUI will sometimes truncate IP addresses.
- 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 displays **Tracked by: Nothing** in the **show probe** command output. This is only a display error; the probes still function correctly.

- In the GUI, VQM may display a loopback interface when no loopback interface is configured.
- When configured for **terminal length 0** certain **show** commands will not provide complete output.
- The VNS verification process does not remove inconsistent A-type records from the host table after the configured number of attempts.
- Configuring over 1200 VNS entries on the NetVanta 3448 causes a SIP pre-parse error.
- If the **ethernet-cfm** command is configured on a MEF Ethernet interface, the output of the following CLI commands is not formatted properly:
 1. **show ethernet cfm association**
 2. **show ethernet cfm stack**
 3. **show ethernet cfm mep local**
 4. **show ethernet cfm mep local detail**
- Wi-Fi multimedia (WMM), configured with the command **qos-mode wmm**, does not function properly on NetVanta 150 Access Points.
- When configured with two port channels, each with more than two members, one of the port channels may not evenly distribute traffic sent over the aggregated link.
- A NetVanta 1638 may occasionally display the following message on boot: HTTP_CLIENT_CONNECT_TO_HTTP_SERVER errorCode 251. This does not cause a functional problem.
- The **called-number** command on a demand interface does not function properly.
- An ActivChassis stack cannot pass a full 10 Gbps of 64-byte frames over a single 10 Gb fiber link in a NetVanta Dual SFP+ XIM.
- It is possible to create a standard MAC ACL with the same name as an existing extended MAC ACL.
- If a line card has the same VCID as another line card, it cannot be added to the ActivChassis stack. The command **show ac detail** does not adequately point out the reason for this failure.
- If there are spanning tree topology changes in the network, spanning tree will reconverge at rates lower than rapid spanning tree (about 30 seconds).
- The NetVanta 1638 cannot boot from a firmware image stored on a connected USB flash drive.
- If an ActivChassis line card has NetVanta APs physically attached and if the line card is removed and re-added to the ActivChassis stack, the NetVanta APs will not properly indicate the AC that is controlling them. Bouncing the switchport on the line card or rebooting the ActivChassis master will resolve this issue.
- 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.
- WEP encryption does not function properly on NetVanta 160s.
- Legacy switch stacking can not be configured if VLAN 2386 is created prior to enabling stacking.
- 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.

- An SNMP walk of the NetVanta 6355 lists the physical address for the first interface index only.
- When a switchport on a NetVanta 1535P is running forced speed 100 Mbps in standard mode (not ActivReach mode), jumbo frames greater than 9000 bytes will be dropped.
- The chassis fans in some NetVanta PoE switches oscillate at a higher frequency than expected during periods when the switch is not being heavily utilized.
- The current AOS implementation of DHCP message construction may result in Windows XP machines not adopting the DNS servers defined in the DHCP Offer. A workaround using a numbered IP/hex option will allow the message to be constructed in a manner that Windows XP will accept. Microsoft also offers a hotfix to resolve this Windows issue.
- The system clock may drift and lose synchronization with higher stratum devices when NTP is enabled. This issue only affects the NetVanta 3448, 3458, and 6240 products.
- NetVanta 1500 and NetVanta 1600 Series switches may not properly prioritize traffic across port channels.
- Certain OIDs in the Bridge-MIB may not return a value on a second generation NetVanta 123X switch.
- The Layer 3 switch incorrectly reports forwarded frames statistics when subjected to a traffic stream consisting of invalid IPv4 header checksum values. The frames are properly dropped by the switch, but the statistics counter erroneously reports frames being forwarded
- 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 3G CDMA NIM may not function properly.
- The parent map QoS statistics must be cleared in order to clear the child map statistics.
- The NetVanta 7100 and the NetVanta 6355 platforms fail to reset QoS map statistics for applied QoS maps when the **clear counters** command is executed.
- A specific QoS map entry cannot be cleared without the entire map being cleared.
- In rare cases, when an IP PBX and IP phones are both passing through a NAT and the SIP proxy on an AOS device, some call flows can enter a one-way-audio state. Enabling the **ip rtp firewall-traversal enforce-symmetric-ip** command from the Global Configuration mode works around the issue.
- A large enough drift in the system clock can cause an error when the NTP server attempts to synchronize.
- On a NetVanta 1335, a switchport that is configured as a port channel cannot change the edge port mode and cannot be changed from a port channel to another configuration using the GUI.
- The **show interfaces** command output for multilink Frame Relay interfaces will display an incorrect available bandwidth value when a physical link residing in the bundle is down.
- When a QoS map is applied to a VLAN interface, the NetVanta 3448 and 3458 platforms fail to reset QoS map statistics after the **clear counters** command is issued. The **clear qos map** command will clear the statistics properly.
- The VLAN ID for an access point cannot be changed using the GUI.
- The **show atm pvc** counters do not increment.
- The **show bridge <number>** command might not show any entries.
- Using SCEP, AOS devices can fail to enroll certificates to a Red Hat Certificate Authority.
- On a NetVanta 1534, if an interface is configured as a port mirror destination (**monitor session 1 destination interface gigabit-switchport <slot/port>**), then port authentication will no longer be configurable on that port, even after removal of the **port mirror** command from the configuration.

- A VLAN interface for a VLAN that is not accessed by other switchports will not be advertised by GVRP.
- The NetVanta 1638 fails to count output discards when throttling down the transmission of traffic (as a result of receiving pause frames).
- The input/output rate counters for a T1 interface are exaggerated for approximately 15 seconds after clearing them.
- The GUI statistics page for the SHDSL interface does not refresh when in 4-wire mode.
- The GUI shows invalid line rate options for a SHDSL interface in 2-wire mode.
- The GUI line rate options for a SHDSL interface do not match those of the CLI.
- Adding an IPv6-enabled PPP interface to a bridge group does not require the user to first remove the IPv6 address from the PPP interface.
- Configuring a port channel on a NetVanta 3448 can cause the STP topology to become unstable.
- Switch platforms count input discards on the ingress interface when receiving 802.3x pause frames.
- Sierra Wireless USB305 3G modems are sometimes not recognized by the USB WWAN NIM.
- Changing the route metric value using **ipv6 address autoconfig default metric <value>** command does not change the administrative distance of the default route.
- The NetVanta 5305 can drop some traffic prioritized by class-based weighted fair queuing (CBWFQ) on a MLPPP interface when a stand-alone QoS map is applied.
- A NetVanta 5305 can stop passing traffic for brief intervals when negotiating frequent VPN tunnels using Diffie Hellman Group 5.
- The output queue statistics on an Ethernet interface can fail to display output queue drops when FIFO is enabled.
- Prioritized traffic can be dropped at a significant rate on PPP interfaces when using a parent QoS map (that references a child map with priority allocation), if the shaped rate is configured for more than 75 percent of the line rate.
- The CLI does not display the correct value for Required Bandwidth in the event message generated by applying a QoS map.
- The output from **show qos map interface ppp 1** displays incorrect values for the number of packets sent.
- The NetVanta 5305 can fail to generate an event message to confirm that a QoS map has been applied.
- EAP Identity responses from a wireless client that do not contain an Identity field can result in a malformed RADIUS packet created by the NetVanta 150.
- NetVanta 150s might not properly handle immediate Access-Accept responses to Access-Request messages.
- In certain instances, an SFP port on a NetVanta 1544 will not function with RAD MiRiCi-E3T3 SFPs.
- 3G connections using a NetVanta USB WWAN NIM and a Sierra Lightning modem can fail.
- The name of a deleted IPv4 ACL cannot be used to name a new IPv6 ACL.
- The cellular interface can trigger a core dump on a NetVanta 3448 when changing states.
- Port mirroring on a NetVanta 1544 switch may not mirror traffic in both directions.
- Proxy user templates cannot modify SDP IP addresses correctly in certain applications.
- Browsing to the Switchports menu from the Port Security menu on the NetVanta 1335 WiFi GUI results in a 503 Service Unavailable error.

- Connecting a Novatel U547 USB modem to the NetVanta USB WWAN NIM can cause the router to reboot.
- A startup configuration with greater than 2743 IPv6 prefixes on a VLAN interface causes the NetVanta 3448 to reboot.
- A Spanning Tree L2 broadcast storm lasting several hours can cause the NetVanta 1335 to reboot.
- The L3 Switch Header Error and Discard counters on the NetVanta 1544P (second generation) do not increment.
- The pass phrase for the Wireless Wizard does not persist across reboots.
- Removing and restoring cross-connects multiple times can cause the PC configuration thread depth to reach 100 percent.
- Rapidly removing and adding cross-connects using the CONSOLE port and SSH at the same time can result in a reboot.
- 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.
- Booting a second generation NetVanta 1534 or NetVanta 1535 with greater than 20 NetVanta 160 Access Points (APs) attached can cause some of the APs to pull incomplete configuration from the NetVanta switch, if they are being used as an access controller for the APs.
- Using the command **debug ethernet cfm loopback request domain** <domain name> to filter Ethernet CFM loopback debugs may not display the debug output to the console. Removing the filter and using the **debug ethernet cfm loopback request** command will function properly.
- The output of the command **show ethernet cfm mep local** 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.
- 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.
- 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. Also, when the cursor hovers over a data point, it displays multiple instances of the same data.

The following is a list of Carrier Ethernet specific errata that exist in products running AOS version R10.11.0.

- On the NetVanta 4660, some **set** parameters in qos maps do not show up in a **show qos map**. A workaround is to use **show run qos**.
- If a subinterface that is administratively shut down due to observing a failed track is given the **no shutdown** command, it will not come out of the administrative down state. If the **shutdown** command followed by a **no shutdown** command is issued on the subinterface, it will clear the administrative down condition, but the subinterface status will not come up. The subinterface must be deleted and then re-added to clear the condition. If the track is added or removed while it is in a passing state, the subinterface will not enter this state.

- The system management and system control EVCs will show an **EVC Status** of **Running**, even if all of the required attributes are not configured.
- The NetVanta 4660 cannot discard 802.3 PAUSE frames when running a transparent Layer 2 service.
- The sorted linktrace Y.1731 application mode command does not properly sort the results by hop count.
- On the NetVanta 4660, it is not possible to disable **snmp trap link-status** on the system-control and system-management EVCs, as well as on Gigabit Ethernet, SHDSL, and EFM group interfaces.
- VRRP version 2 is not supported on EFM group interfaces.
- The **clear counters** command does not clear the dynamic counters. Dynamic counters can be cleared using the **clear counters dynamic** command.
- If a track applied to the **ccm-enabled** statement on a Y.1731 MEP is removed and then re-added, the state of the track will no longer have an effect on the transmission of CCMs.
- On the NetVanta 4660, packets discarded due to a bad IPv4 header checksum are not properly counted by the subinterface counters.
- On the NetVanta 4660, issuing the **ip dhcp release all** command does not release the IP addresses received from DHCP.
- On the NetVanta 4660, frame counts for broadcast and multicast traffic may not increment.
- On the NetVanta 4660, it is not possible to create an EVC map that begins with lowercase t, u, v, w, x, y, or z.
- When using 802.3ah Link OAM over SHDSL on the NetVanta 4660 and the all SHDSL links go down or are shut down, OAM frames are queued up and sent after the SHDSL links come back up.
- On the NetVanta 4660, if an EFM group interface is shut down, traffic is still allowed to flow over the EFM group.
- On the NetVanta 4660, IPv6 multicast traffic matches **match broadcast** instead of **match multicast** in an EVC map.
- On the NetVanta 4660, the **show qos map interface efm-group <slot/port>** command is not present.
- When using SHDSL on the NetVanta 4660, weighted fair queuing does not function properly unless a shaper is applied to the EFM group.
- On the NetVanta 4660, EFM group interfaces do not report all of the same information via the IF MIB as Gigabit Ethernet interfaces. In ifTable, differences include ifSpeed, ifPhysAddress, and counters. In ifXTable, differences include ifHighspeed and counters.
- On the NetVanta 4660, the link speed on Gigabit Ethernet interface 0/1 is reported as 1 Gbps from the ifTable when the interface speed is 10 Mbps or 100 Mbps.

The following is a list of voice specific errata that exist in products running AOS version R10.11.0, unless otherwise noted.

- Intermittently, an AOS unit with a PRI may not wait for calling party name to be sent in a FACILITY message after being instructed to do so in the SETUP message.
- FXS users that are members of a Metaswitch Business Group cannot transfer calls when the Music on Hold feature is enabled on the Business Group.
- SIP proxy failover may not function correctly when a SIP access class is applied to inbound SIP traffic.
- When outbound requests pass through the proxy and UDP is the specified transport, the transport-param may be removed.

- Call waiting caller ID may not function properly when received via a SIP INFO message instead of a new INVITE.
- 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.
- When using **ringback override 180**, it is possible to have one-way or no audio after an inbound call completes due to the AOS device resending stale SDP.
- On the Total Access 900e Series (third generation) and NetVanta 6250, SIP must be enabled in the running configuration whenever MGCP is used for voice.
- Invalid characters are allowed in a host name for the SIP server on a voice trunk.
- If a call is ringing due to a SIP 180 response for longer than the value of **ip rtp session timeout** (45 seconds by default), there will be no talk path in the SIP to TDM direction when the call is answered.
- When **voice codec-priority user** is configured, calls to a ring group can result in a less preferable CODEC being selected.
- Local three-way conference calls against a Metaswitch will fail if one of the calls in conference is a hairpin call between two FXS users.
- If an ADTRAN unit is configured with single call appearance mode, forwarded calls on a PRI trunk will fail.
- 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.
- Echo cancellation is not enabled on 3-way calls when using the local conferencing feature.
- On 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 not representative of how the audio actually sounds.
- DSP captures on the NetVanta 6240 and the NetVanta 644 platforms consume large amounts of memory while in progress. The unit can 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 less 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.
- In either the voice trunk or voice user configuration modes where a CODEC list is configured, entering the command **no codec-list** <list name> <direction> will remove the <list name>, no matter which <direction> is configured.
- 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.
- Using the HEAD acoustics test suite, certain G.168 echo cancellation test cases fail on the NetVanta 6240 and NetVanta 644. These same tests pass on Total Access 900 Series units. There is no reason to believe this will affect a customer in the field.
- NetVanta 6310/6330 Series only: If a SIP trunk is attempting 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.

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>.

Documentation Updates

The following documents were updated or newly released for AOS version R10.11.0 or later specifically for the AOS products. These documents can be found on ADTRAN's Support Forum available at <https://supportforums.adtran.com>. You can select the hyperlink below to be immediately redirected to the document.

- *AOS Command Reference Guide*
- *Layer 2/Layer 3 Carrier Ethernet Service in AOS*
- *Configuring Network Synchronization in AOS*
- *Configuring Privilege Levels in AOS CLI*
- *Configuring SNMP in AOS*
- *Configuring Ethernet OAM Using Y.1731*
- *Configuring Network Monitor in AOS*
- *Configuring SSH Public Key Authentication*
- *VRRPv3 for AOS*