



# RELEASE NOTES

AOS Converged Access

AOS version R11.10.0

December 4, 2015

## Trademarks

Any brand names and product names included in this manual are trademarks, registered trademarks, or trade names of their respective holders.

## To the Holder of the Manual

The contents of this manual are current as of the date of publication. ADTRAN reserves the right to change the contents without prior notice.

In no event will ADTRAN be liable for any special, incidental, or consequential damages or for commercial losses even if ADTRAN has been advised thereof as a result of issue of this publication.

## Toll Fraud Liability

Be advised that certain security risks are inherent in the use of any telecommunications or networking equipment, including but not limited to, toll fraud, Denial of Service (DoS) attacks, loss or theft of data, and the unauthorized or illegal use of said equipment. ADTRAN OFFERS NO WARRANTIES, EITHER

EXPRESSED OR IMPLIED, REGARDING THE PREVENTION, DETECTION, OR DETERRENCE OF TOLL FRAUD, NETWORKING ATTACKS, OR UNAUTHORIZED, ILLEGAL, OR IMPROPER USE OF ADTRAN EQUIPMENT OR SOFTWARE. THEREFORE, ADTRAN IS NOT LIABLE FOR ANY LOSSES OR DAMAGES RESULTING FROM SUCH FRAUD, ATTACK, OR IMPROPER USE, INCLUDING, BUT NOT LIMITED TO, HUMAN AND DATA PRIVACY, INTELLECTUAL PROPERTY, MATERIAL ASSETS, FINANCIAL RESOURCES, LABOR AND LEGAL COSTS.

Ultimately, the responsibility for securing your telecommunication and networking equipment rests with you, and you are encouraged to review documentation regarding available security measures, their configuration and implementation, and to test such features as is necessary for your network.

## ADTRAN Technical Support Community

For information on installing and configuring ADTRAN products, visit the ADTRAN Support Community, <https://supportforums.adtran.com>.



**Pre-Sales Technical Support**  
(800) 615-1176  
[application.engineer@adtran.com](mailto:application.engineer@adtran.com)

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

**Post-Sales Technical Support**  
(888) 423-8726  
[support.adtran.com](http://support.adtran.com)

Copyright © 2015 ADTRAN, Inc.  
All Rights Reserved.

## Contents

<i>Introduction</i> .....	4
<i>Supported Platforms</i> .....	4
<i>System Notes</i> .....	6
<i>Features and Enhancements</i> .....	6
<i>Fixes</i> .....	7
<i>Errata</i> .....	9
<i>Upgrade Instructions</i> .....	14
<i>Documentation Updates</i> .....	14

## Introduction

AOS version R11.10.0 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 9](#).

A list of new or updated documents for this release appears in [Documentation Updates on page 14](#).

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 R11.10.0. 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](mailto: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 3120		√		14.04.00
NetVanta 3130		√		14.04.00
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

<b>Platform</b>	<b>Standard Feature Pack</b>	<b>Enhanced Feature Pack</b>	<b>SBC Feature Pack</b>	<b>Minimum Boot ROM</b>
NetVanta 3430 (2nd Gen.)	√	√	√	17.05.01.00
NetVanta 3448	√	√	√	13.03.SB
NetVanta 3450	√	√		17.06.01.00
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 R11.10.0 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 R11.10.0 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.
- MGCP is not supported on the NetVanta 6360.

## Features and Enhancements

**This section highlights the major features, commands, and behavioral changes for all Converged Access products running AOS version R11.10.0.**

- Added support for battery status monitoring on the Total Access 900e (third generation) Battery Enhanced model. This feature provides the user with notifications of various battery status events, such as a disconnected, low, or aged battery. It also allows the user to view information relating to the battery status at any time. The user can set the battery install date, which will be stored in non-volatile memory so that it is preserved even if the configuration is erased.
- Added RapidRoute service assurance features. Commands were added to show the current FFE peak session count and peak history. Also added is the ability to track whether the number of FFE sessions on an interface is below a configured value.
- The **bandwidth** command on a Layer 3 interface will now update the RFC 1213 MIB ifSpeed variable.

**This section highlights the Carrier Ethernet specific features, commands, and behavioral changes available in products running AOS version R11.10.0.**

- Added the ability to specify a class 1 multicast address as a target MAC address for Y.1731. An OAM frame destined for a class 1 multicast address is an OAM frame that is addressed to all peer MEPs in a MEG. There are 8 specific multicast addresses that can be used, 01:80:C2:00:00:3X where X is the level of the MEG (0-7). Class 1 multicast addresses are now accepted as the target MAC address for continuity check messages (CCM), loop back messages (LBM), single ended synthetic loss measurement message (SLM), single ended frame-loss measurement messages (LMM), one-way delay measurement messages (1DM), and two-way delay measurement messages (DMM).

**This section highlights the Voice specific features, commands, and behavioral changes available in products running AOS version R11.10.0.**

- Added warm line functionality in which a number can be dialed automatically by a FXS voice user if no digits are received within the configured amount of time.
- Added the ability to monitor the registration state of a SIP voice user in tracks.

- Added the ability to configure an analog loop voltage holdover time on the Total Access 900e (third generation) Battery Enhanced model. This feature allows the unit to continue to apply loop voltage during boot. Loop voltage is applied until the holdover time expires or the unit boots and the applied configuration takes over.

## Fixes

### **This section highlights major bug fixes for all products running AOS version R11.10.0.**

- If the running configuration was downloaded from the device using the GUI, the file name was too long to be uploaded to the unit.
- If a **startup-delay** was configured on a VRRPv3 group and it had not yet gone through another state (as would be the case on a reboot or the interface being **shutdown** then **no shutdown**), the startup delay timer was not canceled on a received secondary advertisement.
- In AOS R11.8.0 and R11.9.0, output from CLI commands in a Tcl script may have only returned partial results.
- On the NetVanta 6250, 6360, and Total Access 900e (third generation), if the CPU was under 100 percent load for a long duration of time, a reboot may have occurred.
- GRE over IPsec performance was poor on the NetVanta 3140, 4660, 5660, 6250, 6360, and Total Access 900e (third generation).
- On the NetVanta 3140, if the CPU was under 100 percent load for a long duration of time, a reboot may have occurred.
- When using NHRP and the hold time was less than or equal to 60 seconds, a resolution request was not sent during the proactive lookup time.
- If a Tcl script was added to the configuration that followed a track, was then removed, and then re-added to follow a different track, it was not added to the running configuration.
- If two SNMP communities were configured and only one community had an access class applied to it, the access class was applied to both communities.
- The power rollover SNMP trap did not contain the correct OIDs for the adGenAOSPowerRolloverOnAC and adGenAOSPwrRollovrEvtSecSinceEpoch varbinds. AOS would send an enumeration value that ranged from 0 to 4 for the adGenAOSPowerRolloverOnAC value, rather than the TruthValue of 1 or 2 that the MIB specifies.
- If the GUI was used to disable port security and sticky MAC addresses were present, the unit locked up.
- 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 would occasionally reboot citing a memory issue.

### **This section highlights the Carrier Ethernet specific bug fixes in products running AOS version R11.10.0.**

- When using the Quad VDSL Carrier Ethernet module, vectoring error samples were not sent properly which prevented vectoring from functioning properly.
- The Y.1731 loopback unicast verbose command did not display details in the loopback test results.
- The Y.1731 performance monitoring data file names were changed to use a UTC time stamp that matches the UTC time stamp used in the data inside the files.

- If Y.1731 was in use and multiple CE VLAN IDs were present in a **match ce-vlan-id** statement on an EVC map, certain configurations resulted in the unit running out of internal resources causing either Y.1731 to fail or the unit to lock up.

**This section highlights the Voice specific bug fixes in products running AOS version R11.10.0.**

- If an MGCP call received an MDCX that set the ConnectionMode to sendonly and then another MDCX later changed the ConnectionMode to sendrecv, the connection remained in the sendonly mode.
- When using ground start, linear hunt ring groups did not roll to the next line.
- When using SIP TLS in client/server mode, if a received Contact URI did not contain the port but did specify TLS in the transport parameter, AOS attempted to initiate a TLS connection to TCP port 5060 instead of 5061.
- When using the SIP proxy, if a reINVITE without SDP was received in the opposite direction of the original call, one-way audio occurred. This issue only affected R11.7.1 and R11.9.0.
- In some cases, if SIP proxy rollover was triggered by a 503 Service Unavailable response, a reboot occurred.
- Under certain conditions, a CANCEL destined to a SIP proxy user failed to be forwarded by the SIP proxy.
- In rare cases, a reboot occurred while processing a reINVITE.
- If the caller ID number received via MGCP was surrounded by quotation marks, the number displayed as **out of area**.
- When **ringback override 180** or **ringback override 183** were configured on a SIP trunk, modem passthrough did not function properly on calls involving that trunk.
- The output of the **show rtp quality-monitoring interface summary** command listed more completed calls than the unit was configured to store.
- In some cases, removing a voice trunk while calls were active resulted in the unit rebooting.

**This section highlights the Switch specific bug fixes in products running AOS version R11.10.0.**

- Sending jumbo frames to a NetVanta 1531 or NetVanta 1550 through a switchport configured with port-security caused the switches to become unresponsive until the jumbo frame traffic was removed.
- In R11.9.0, link LEDs on NetVanta 1531s did not change status after the switch was booted, although the switchports still functioned properly.
- If the VCID was changed on a line card in an ActivChassis stack, and the master was not rebooted afterward, configuration changes that would effect the previous VCID caused the master to reboot.
- Management traffic between line cards in an ActivChassis was given higher priority over other traffic. Without this added priority, certain types of traffic, when sent at high throughput rates, caused line cards to lose connectivity to the master. In certain cases, this caused a reboot of the ActivChassis master and backup switches.
- In rare cases, clearing a single dynamic MAC address entry using the **clear mac address-table dynamic address <MAC>** command caused the switch to become unresponsive and require a reboot.
- In rare cases, an ActivChassis could get into a state where some traffic would be routed via the CPU (rather than Layer 3 switched), which resulted in latency for that traffic.
- Hardware ACLs could not be used to block traffic destined for the management interface of a NetVanta 1638.



## Errata

The following is a list of errata that still exist in all products running AOS version R11.10.0.

- Clearing a NHRP entry with the **clear ip nhrp** <address> command for a spoke behind NAT fails.
- The **privilege interface-tunnel** command is no longer accepted in R11.9.0 and later.
- Routing performance on the NetVanta 4430 decreased by 6 percent compared to R11.9.0.
- When using PPPoE or PPP over Frame Relay, QoS does not function properly if the QoS policy is applied to the lowest level interface.
- 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, 5660, and 6360.
- 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.
- Accessing the GUI via HTTPS may be slow.
- 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 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.

**The following is a list of Carrier Ethernet specific errata that exist in products running AOS version R11.10.0.**

- If a MEG is configured for double-tagged service, Y.1731 traffic will not be received on that MEG.
- On the NetVanta 6360, in rare cases a reboot may be seen when a VDSL Carrier Ethernet module is installed.
- 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 R11.10.0.**

- If the Contact URI host in a received SIP message resolves to an IP address that will be reached through a different interface than the one on which the SIP message arrives, SDP will be populated with an incorrect IP address when using media anchoring. This occurs even if the address specified in the maddr parameter is reached through the interface on which the SIP message arrived.
- 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.
- The **Busy Mins** and **Busy %** values in the Trunk Statistics GUI report inaccurate values.
- SNMP OID 1.3.6.1.4.1.664.5.53.5.2.1.1.1.3 returns a value of 4 for an active call, which does not match the MIB.
- TLS negotiation will fail when using ECDSA ciphers for SIP TLS.
- 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.
- Call waiting caller ID does not function properly on the NetVanta 6240.
- Receiving an initial INVITE with both audio and T.38 SDP will result in the call being placed on hold.

- On the Total Access 900e Series (third generation) and NetVanta 6250 Series, if the second CODEC listed in the MGCP Local Connection Options is not one of the CODECs defined in the CODEC list assigned to the MGCP endpoint, the unit will respond with 534 Transaction Failed response resulting in a failed call.
- 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.
- On the Total Access 900e (third generation) and NetVanta 6250, if the remote voice gateway changes the SSRC in an RTP stream received by the AOS unit, and the sequence numbers are not contiguous, VQM and the output of the **show voice quality-stats** command will log lost packets for the number of packets between the last sequence number of the first stream and the first sequence number of the new stream. The output of **show voice quality-stats** <ID> will also not reflect that the SSRC value changed on the call.
- 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 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.

- 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 R11.10.0.**

- 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.
- The active CPU process load percentages on a NetVanta 1531, visible via the command **show processes cpu**, do not properly add up to 100 percent.
- 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>.

## Documentation Updates

The following documents were updated or newly released for AOS version R11.10.0 or later. 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](#)
- [Configuring IPv6 in AOS](#)
- [Configuring Network Monitor in AOS](#)
- [RapidRoute Service Features in AOS](#)
- [Configuring Ethernet OAM Using Y.1731 in AOS](#)