RELEASE NOTES

AOS Converged Access
AOS version R11.12.0
March 18, 2015

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Introduction

AOS version R11.12.0 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 10*.

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 R11.12.0. 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/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

Platform	Standard Feature Pack	Enhanced Feature Pack	SBC Feature Pack	Minimum Boot ROM
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 R11.12.0 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 R11.12.0 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* 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 R11.12.0.

- Added signal to noise ratio (SNR) information to the output of **show interface cellular** <*slot/port*> for supported USB LTE modems.
- Added support for the Sprint Netgear 341U USB LTE modem on the NetVanta 3140.
- Added support for the AT&T Beam Netgear 340U USB LTE modem on the NetVanta 3140.
- Added the ability to run Auto-Link in a named VRF using the **auto-link vrf** <*name*> command. When configured to use a named VRF, all Auto-Link messages will be transmitted on the specified VRF. If the Auto-Link server is specified as an FQDN, the DNS queries will also occur on the specified VRF.

There are no Carrier Ethernet specific features, commands, or behavioral changes in AOS version R11.12.0.

This section highlights Voice specific features, commands, or behavioral changes in AOS version R11.12.0.

- Added the ability query values listed in **show sip trunk-registration** and **show sip trunk-registration registrar** via SNMP.

There are no Switch specific features, commands, or behavioral changes in AOS version R11.12.0.

Fixes

This section highlights major bug fixes for all products running AOS version R11.12.0.

- When attempting to push a large configuration via the Push Config feature on n-Command MSP, the configuration push failed with an error stating that Chunked Transfer was not supported.
- In some cases when NTP started, an event stating **NTP Frequency format error in .ntp.drift** displayed.
- When issuing the **no privilege** <*command set name*> **all level** <*1-7*>, the first **privilege** entry in the running configuration that used the **all** keyword was removed instead of the matching entry.

- Added the **fragments** keyword to **permit ip** and **deny ip** statements in IPv4 ACLs. If this keyword is used, that ACL entry will only match non-initial fragments, allowing the user to block non-initial IPv4 fragments.

  If the **fragments** keyword is omitted from a **permit ip** or **deny ip** statement in an IPv4 ACL, both initial and non-initial IPv4 fragments will match if the Layer 3 addressing matches the ACL entry.

  If an IPv4 ACL entry specifies a protocol or Layer 4 information, that entry will not match non-initial IPv4 fragments.

  If no ACL entries match, non-initial IPv4 fragments will be implicitly permitted.
- If an interface was configured with both an IPv4 and a global unicast IPv6 address, NTP would not listen on the global unicast IPv6 address.
- Added the **fragments** keyword to **permit ipv6** and **deny ipv6** statements in IPv6 ACLs. If this keyword is used, that ACL entry will only match non-initial fragments, allowing the user to block non-initial IPv6 fragments.

  If the **fragments** keyword is omitted from a **permit ipv6** or **deny ipv6** statement in an IPv6 ACL, both initial and non-initial IPv6 fragments will match if the Layer 3 addressing matches the ACL entry.

  If an IPv6 ACL entry specifies a protocol or Layer 4 information, that entry will not match non-initial IPv6 fragments.

  If no ACL entries match, non-initial IPv6 fragments will be implicitly permitted.
- If an internal application such as the **ping** command queried a hostname (as opposed to an FQDN) and the name server had only an A or AAAA record for the hostname with the configured domain name appended (i.e. an FQDN) but not both, the command failed with a DNS related error.
- The reliability of exception report creation on the NetVanta 6410 was improved.
- When creating or editing a track on a unit running R11.10.0 or later, a 503 Server Error response was returned if the unit did not support voice.
- On products that do not support IPv6, it was not possible to remove SNMPv3 users.
- In rare cases, issuing the command **show dot11 access-point detail** on an AOS access controller caused the controller to reboot.
- In some cases, if a NetVanta 3140 was under a heavy packet load, especially if a traffic shape rate was configured, the unit would reboot.
- The SysObjID value sent by the NetVanta 6360 and 6410 was incorrect.
- Clearing an NHRP entry with the **clear ip nhrp** <*address*> command for a spoke behind NAT failed.
- The **privilege interface-tunnel** command was no longer accepted in R11.9.0 and R11.10.0.
- If an AS_SET with multiple ASNs from 2-byte ASN BGP speaker was received, a reboot occurred.
- Sending packets larger than the MTU when an FFE entry did not exist caused an erroneous flow entry to be created reflecting the traffic back out the ingress interface instead of sending the appropriate ICMP message.
- Routing performance on the NetVanta 4430 decreased by 6 percent compared to R11.9.0. This was corrected.
- When using PPPoE or PPP over Frame Relay (PPPoFR), QoS did not function properly if the QoS policy was applied to the lowest level interface.

- If a user configured the same VLAN ID on the dot11ap subinterface that was configured on the parent dot11ap interface as the native VLAN, the configured VLAN would not be shown on the subinterface in the running configuration. This issue did not affect the x/y.1 subinterface.
- On the NetVanta 3140, the GUI listed USB LTE modems as configurable WAN interfaces even though they cannot be configured through the GUI.
- On R11.8.0 and later, products that do not support voice showed a Voice option in the GUI.
- In rare cases, if the command **no auto-link server** was issued without specifying the IP address or FQDN of the server, a reboot occurred.

This section highlights Carrier Ethernet specific bug fixes in AOS version R11.12.0.

- If **ethernet y1731 file-save** commands were present in the running configuration and the configuration was saved, the commands were not restored upon rebooting the unit.
- If a MEG was configured for double-tagged service, Y.1731 traffic was not received on that MEG.
- If an EVC map matched on multiple CE VLAN IDs and Y.1731 was being used on the EVC referenced by the EVC map, the CLI would become unresponsive for a few minutes while Y.1731 was coming up.
- On the NetVanta 6360, in rare cases a reboot occurred when a VDSL Carrier Ethernet module was installed.

This section highlights the Voice specific bug fixes in products running AOS version R11.12.0.

- When using the SIP proxy in transparent mode on R11.10.1 or R11.11.0, an out of memory reboot may have occurred.
- In R11.8.0 and later, ring groups did not function without a valid SBC license.
- When in survivability, the SIP proxy sent received PUBLISH requests to the B2BUA instead of responding with a 480 Temporarily Unavailable response.
- When running R11.11.0, if an outbound proxy was configured on a SIP trunk and the SIP server and/or registrar was configured as an IP address or FQDN that resolved to an A or AAAA record, 0 was used for the port in the Request-URI, From, and To URIs instead of the correct port.
- In R11.8.0 and later, voice loopback accounts using RTP media loopback did not function without a valid SBC license.
- In R11.11.0, **voice speed-dial 0** through **voice speed-dial 99** entries appeared in the running configuration even though they had not been configured by the user.
- SIP proxy user database information was not updated properly upon receipt of a REGISTER when a phone changed key registration information such as its IP address. This led to database lookup failures and calls being routed improperly.
- When a media stream was rejected the port is set to 0. If the media description (m=) contained connection data (c=), it was erroneously set to 0.0.0.0 as well. This led to the stream being incorrectly identified as being on hold.
- If a port was specified on a SIP server that was configured with an FQDN that resolved via a SRV record, the Request-URI, From URI, and To URI in REGISTER messages listed the configured port instead of the port from the SRV record.
- In R11.9.0 and R11.10.0, calls matching a **sip proxy emergency-call-routing accept** template were not routed to the switchboard.

- On R11.10.1 and R11.11.0, if VQM was enabled and the unit was under heavy SIP to SIP call load, a reboot may have occurred.
- On the NetVanta 6250, 6360, and Total Access 900e (third generation), only the lower 16 bits of the SSRC were being changed for new streams. As a result, the probability of repeating an SSRC between two streams over a short period of time was high.
- On a call between two SIP trunks, transcoding could not be forced by CODEC lists if the received SDP offer on the inbound call and the received SDP answer of the outbound call shared a common CODEC.
- Improved the clarity of the SIP proxy debug when a device using the SIP proxy in transparent mode rolled to a new Layer 3 destination.
- When using the SIP proxy in transparent mode with Layer 3 source address spoofing, during failover the media gateway IP address was used as the Layer 3 source address instead of the most recently contacted server's address.
- After issuing the **test line** command on an FXS port on a NetVanta 6250, NetVanta 6360, or Total Access 900e (third generation), the unit no longer provided a dial tone after the line test was complete until the unit was rebooted.
- If the Contact URI host in a received SIP message resolved to an IP address that would be reached through a different interface than the one on which the SIP message arrived, SDP was populated with an incorrect IP address when using media anchoring. This occurred even if the address specified in the maddr parameter was reached through the interface on which the SIP message arrived.
- The **Busy Mins** and **Busy %** Trunk Statistics values in the GUI reported inaccurate values.
- SNMP OID 1.3.6.1.4.1.664.5.53.5.2.1.1.1.3 returned a value of 4 for an active call, which does not match the MIB. The MIB has been updated to match the value sent by the unit.
- Call waiting caller ID did not function properly on the NetVanta 6240.
- On the Total Access 900e (third generation) and NetVanta 6250, if the remote voice gateway changed the SSRC in an RTP stream received by the AOS unit, and the sequence numbers were not contiguous, VQM and the output of the show voice quality-stats command would 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*> also did not reflect that the SSRC value changed on the call.

This section highlights Switch specific bug fixes in AOS version R11.12.0.

- PoE+ (IEEE 802.3at) capable switches sent a power class of 0 instead of 4 (specified by a value of 5) in LLDP.
- When inserted, the following SFP+ interconnect cables were reported as unsupported by NetVanta 1550 series switches, but the cables still functioned properly otherwise:

  1710484F1 - 1M Volex VSFPP30H-1M 10G DAC

  1710484F3 - 3M Volex VSFPP30H-3M 10G DAC

  1710484F5 - 5M Volex VSFPP26H-5M 10G DAC

Errata

The following is a list of errata that still exist in all products running AOS version R11.12.0.

- If the **startup-config.bak** file is not present when copying a file from an HTTP/HTTPS server to the startup configuration, the file will not be successfully written to flash memory.
- 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 on Total Access 900e (third generation) 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 R11.12.0.

- 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 R11.12.0.

- In rare cases when using MGCP on the NetVanta 6250 and Total Access 900e (third generation), the unit may fail to properly construct a CODEC string, resulting in the unit not sending RTP.
- 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.
- TLS negotiation will fail when using ECDSA ciphers for SIP TLS.
- When using the SIP proxy with media anchoring, VQM will report incorrect information for LocalURI, RemoteURI, and LocalCaller if a reINVITE that modifies the SDP is received from the callee 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.
- 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.

- 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 R11.12.0.

- 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 R11.12.0 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 Autolink in AOS for n-Command MSP*
- *Configuring Packet Capture in AOS*
- *USB LTE Modem Support in AOS*

