



# RELEASE NOTES

Switch Products  
AOS version R11.5.0  
November 24, 2014

## 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](mailto:support@adtran.com)

Copyright © 2014 ADTRAN, Inc.  
All Rights Reserved.

---

## Contents

<i>Introduction</i> .....	4
<i>Supported Platforms</i> .....	4
<i>System Notes</i> .....	5
<i>Features and Enhancements</i> .....	5
<i>Fixes</i> .....	5
<i>Errata</i> .....	6
<i>Upgrade Instructions</i> .....	8
<i>Documentation Updates</i> .....	8

## Introduction

AOS version R11.5.0 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 6*.

A list of new or updated documents for this release appears in *Documentation Updates on page 8*.

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 R11.5.0. 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	Minimum Boot ROM
NetVanta 1234/1234P (2nd and 3rd Gen.)	XB.01.02
NetVanta 1235P	R10.4.0.B1
NetVanta 1238/1238P (2nd Gen. only)	XB.01.02
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 1638/1638P	18.02.01.SC

## 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 R11.5.0 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 R11.5.0 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.

## Features and Enhancements

**This section highlights the major features, commands, and behavioral changes in all products running AOS version R11.5.0.**

- The **show lldp neighbor detail** and **show lldp neighbor interface <name> detail** commands now display the LLDP Inventory TLV information when present.
- Added the ability to increase the event history size to up to 256 KB.

**This section highlights the major Switch specific features, commands, and behavioral changes in products running AOS version R11.5.0.**

- Added the ability for IGMP snooping in AOS switches to immediately begin filtering multicast traffic out a switchport upon receipt of an IGMP leave message. This is configurable with the non-default command **ip igmp snooping immediate-leave vlan <vlan id>**.
- Added the MAC Authentication Bypass feature that can be used to statically allow devices to bypass 802.1X port authentication.
- When all switchports associated with a VLAN are down, the VLAN interface associated with that VLAN will be shut down, removing the connected route for that VLAN from the switches routing table.
- Added spanning tree root guard functionality to AOS switches, which can be used to prevent a rogue or misconfigured switch from taking over the role of the spanning tree root.

## Fixes

**This section highlights major bug fixes for all products running AOS version R11.5.0.**

- Copying a file larger than 16 MB from flash memory of an AOS device via HTTP/HTTPS (including using Auto-Link) caused the AOS device to reboot.
- Using certain software packages, compiling AdGenAosCommon.mib resulted in an error.
- In rare cases, the unit would get into a state where the flash file system could not be accessed properly until the unit was rebooted.

**This section highlights the Switch specific bug fixes in products running AOS version R11.5.0.**

- When a device connecting through a NetVanta switch across a port channel moved to another location and began transmitting across a different port channel, the MAC address table entry for that device did not always update properly.
- An ActivChassis could fail to update L3 switching tables if the backup switch failed.

**Errata****The following is a list of errata that still exist in all products running AOS version R11.5.0.**

- Wi-Fi multimedia (WMM), configured with the command **qos-mode wmm**, does not function properly on NetVanta 150 Access Points.
- WEP encryption does not function properly on NetVanta 160s.
- 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 **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.
- A large enough drift in the system clock can cause an error when the NTP server attempts to synchronize.
- The VLAN ID for an access point cannot be changed using the GUI.
- 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.
- The name of a deleted IPv4 ACL cannot be used to name a new IPv6 ACL.
- The pass phrase for the Wireless Wizard does not persist across reboots.
- An AOS configuration file over 256 Kb cannot be backed up to n-Command MSP.
- Copying a file larger than 16 MB from flash memory of an AOS device via HTTP/HTTPS (including using Auto-Link) will fail.
- Support for SSL 3.0 cannot currently be disabled in AOS to mitigate the SSL 3.0 "POODLE" vulnerability.
- In some command sets, the **exit** command is not visible even though it still functions properly.
- Rebooting a NetVanta 160 after editing an associated MAC access list causes the AP to transmit SSID **Wireless11**.
- Configuring a NetVanta 160's channel setting to **least-congested** may not properly adjust to the least congested channel available.
- The **show interface dot11ap <number>** command may show an incorrect radio channel for a NetVanta 160.
- The GUI of a NetVanta device acting as a wireless access controller can not display the software currently running on a connected access point.
- An AOS device may print an event message in the CLI reporting a successful NetVanta 160 software upgrade, even if the upgrade has failed.

- 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.
- 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.
- Accessing the GUI via HTTPS may be slow.

**The following is a list of Switch specific errata that exist in products running AOS version R11.5.0.**

- When configured with two port channels, each with greater than two members, one of the port channels may not evenly distribute traffic sent over the aggregated link.
- A NetVanta 1638 will occasionally print out the following message when booting: **HTTP\_CLIENT CONNECT\_TO\_HTTP\_SERVER errorCode 251**. This does not cause a functional problem.
- An ActivChassis stack is not able to pass 10 Gb of 64-byte frames over a single 10 Gb fiber link in an SFP+ XIM.
- A standard MAC ACL can be created 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, and output from **show ac detail** command does not adequately point out the reason for this failure.
- 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.
- The NetVanta 1638 cannot boot from a firmware image stored on a connected USB drive.
- 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.
- Legacy switch stacking can not be configured if VLAN 2386 is created prior to enabling stacking.
- When a switchport on a NetVanta 1535P is running forced speed 100 Mbps in standard mode (not ActivReach mode), jumbo frames with size greater than 9000 bytes are 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.
- 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.
- L3 switch statistics incorrectly report forwarded frames 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.
- A VLAN interface for a VLAN that is not accessed by other switchports will not be advertised by GVRP.
- Switch platforms count input discards on the ingress interface when receiving 802.3x pause frames.
- Port mirroring on a NetVanta 1544 switch may not mirror traffic in both directions.
- The L3 Switch Header Error and Discard counters on the NetVanta 1544P (second generation) do not increment.

- Booting a second generation NetVanta 1534 or a NetVanta 1535P that is acting as an access controller for more than 20 directly connected NetVanta 160 Access Points can cause some of the Access Points to pull incomplete configuration data from the NetVanta switch.
- In rare instances, if a line card is disconnected from an ActivChassis, when it reconnects to the ActivChassis, it may not receive its configuration from the ActivChassis master. Workaround: Rebooting the linecard will resolve the issue.
- In the GUI of a NetVanta switch, if an EPS was not connected, the AOS switch would indicate an EPS fan status of unknown.
- Receiving a flood of multicast traffic can prevent a NetVanta 1531 from responding to management traffic, even from the console interface.
- Files with file names greater than 32 characters in length are accepted and written to flash memory on NetVanta switch products but the files may not behave correctly.
- The command **boot config flash** <filename> does not function properly on NetVanta switches.
- In R11.1.0, when attempting to apply a backup firmware image to a NetVanta 1531 from bootstrap, the switch will print out benign errors indicating packets are being dropped due to congestion.
- The ActivChassis feature can only be disabled via the CLI.
- Creating a hardware ACL with the same name as a previously created and deleted IP ACL results in the creation of an IP ACL with an implicit permit.
- Removing port channels from the configuration of an ActivChassis device while under a heavy load can cause the ActivChassis device to reboot.

## 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 R11.5.0 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*
- *Configuring QoS in AOS*
- *Carrier Ethernet Services in AOS*
- *Carrier Ethernet Services QoS Guide*
- *Network Monitoring in AOS*
- *SNMP in AOS*
- *Configuring Ethernet OAM for Y.1731*
- *IPv6 in AOS*
- *SIP Signaling and Media Security in AOS*
- *DHCPv6 in AOS*