RELEASE NOTES

NetVanta 7000 Series Products
AOS version A4.10.00
January 6, 2012

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ADTRAN Technical Support Knowledge Base

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Introduction

AOS version A4.10.00 is a feature release that also addresses customer issues that were uncovered in previous code releases.

This release is generally available code, meaning that it has been subjected to both design verification and product qualification testing. Results obtained during this 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 12*.

Configuration guides, white papers, data sheets, and other documentation can be found on ADTRAN's Knowledge Base, http://kb.adtran.com. The contents of these release notes will focus on the ADTRAN's IP telephony products.

Supported Platforms

The following platforms are supported in AOS version A4.10.00. 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.

- NetVanta 7100 – IP Communication Platform
- NetVanta 7060 – IP PBX

Hardware Requirements and Limitations

In an effort to maximize customer experience, whenever possible and applicable, ADTRAN will advertise the minimum hardware requirements for running the recommended software versions. While ADTRAN strives to support the newer software revisions on existing hardware, due to CPU, RAM and other HW limitations, it may not always be the case. In such instances, the customers are advised to upgrade the hardware (including phones, NV7000 series chassis and accompanying networking gear) while upgrading their software, lest they could see performance issues and erratic behavior, necessitating them to stop using certain product features. ADTRAN provides field advisory wherever possible in these cases. Resellers and customers are advised to periodically check with ADTRAN Technical support and Field staff for these advisories, especially when upgrading to newer software revisions.

NetVanta 7100 Hardware

New features included with any AOS release warrant some attention before use by the customers, specifically the choice of the hardware platform on which the new AOS will be installed.

There have been two revisions of NetVanta 7100 hardware. These are denoted by different part numbers: 1200796L1 (old) and 1200796E1 (new). Starting with AOS release A2.04, ADTRAN does not recommend using newer AOS on the 1200796L1 (old) units. These units continue to be field worthy and would continue to perform as expected for their useful life on previous to A2.04 software revisions. However, due to differences in hardware, some or all of the new features might not be supported on the older hardware (1200796L1).

The 1200796L1 is explicitly NOT recommended for use for the following features:

- Support for more than 50 users (DSP resources were increased on 1200796E1 units, allowing additional TDM to IP conversions). The user limit on the 1200796L1 remains unchanged.
- SIP trunks that require the NetVanta 7100 to perform transcoding. (This conversion is required if the SIP trunk provider does not support G.729.)
- Use of the Echo Return Loss (ERL) tool.

While there are not any further known constraints for the other features at this time, keep updated on any future advisory by ADTRAN. The recommended hardware for the AOS A2.05 and later features is 1200796E1. Feel free to discuss with your ADTRAN representative on what options are available if you have a 1200796L1 unit, and want to use a newer release.

IP Phone Models

The legacy Polycom phones (namely SPIP 430, SPIP 501, SPIP 601 and SPIP 4000) will not support all the features available in the recent AOS and phone firmware releases. Customers could experience sluggish behavior on these older generation hardware when used in conjunction with some of the newer software releases. If you experience any such behavior after an upgrade, consult with ADTRAN technical support for a solution, which will either involve upgrading the phones hardware (to the equivalent newer generation phone, such as 450, 550, 650 or 6000) or scale back the feature load on the older generation phones.

Software Requirements and Limitations

This section defines the recommended firmware/software versions necessary for the related aspects of the NetVanta Unified Communications solution.

AOS Firmware Image location(s)

AOS firmware images can be stored on FLASH/NONVOL as well as on CFLASH memory. However, it is recommended that the Primary firmware image be stored on FLASH/NONVOL and the backup firmware be stored on CFLASH. Beginning with AOS A2.01.00, there is not enough space on FLASH/NONVOL to store two versions of AOS firmware.

To copy the current image from FLASH/NONVOL to CFLASH, use the **copy flash** <*filename*> **cflash** <*filename*> command.

Required AOS Bootcode Version

When upgrading to AOS A4.07.00 or later, an upgrade to Bootcode version A2.06.B1.01 is required. Contact ADTRAN Technical Support for this Bootcode version and instructions for loading it.

Required Phone Firmware

For AOS version A4.10.00, the following phone firmware is required to address issues found in the field and to support new features.

- ADTRAN IP 700 Series Phones – Version 1.3.16 with 1.3.12 bootcode

- Polycom IP 321/331 Phones – Version 3.1.3C and version 4.1.2b bootrom.
  (This version is available as a supplemental download and not necessary if IP 321/331 phones are not installed.)
- Other ADTRAN approved Polycom Phones – Version 3.1.3b application and version 4.1.2b bootrom
- For legacy Polycom phones (IP 601, 501, 430, 4000) – Version 3.1.7

These files can be downloaded from http://www.adtran.com/support, select **Software Downloads**, and choose the appropriate phone model from the **IP 700 Series**. Contact ADTRAN Post Sales Technical Support at (888) 423-8726 or email: support@adtran.com, if you are unable to download these files.

Required NetVanta Unified Communications Server software

For AOS version A4.10.00, ADTRAN recommends NetVanta Unified Communications Server 5.01 for use with the NetVanta 7000 series as part of the NetVanta Business Communication System (BCS).

Minimum Software or Firmware Summary

Product or Phone Model	Minimum Software or Firmware	Minimum Boot ROM
NetVanta 7000 Series	A4.09 or later	A2.06.B1.01
NetVanta 6355/TA9xx	A2.06 or later	-
NetVanta UC Server (as part of BCS)	UC 5.01	Not applicable
IP706/IP712 phones	R1.3.16	1.3.12
IP321/IP331 phones	3.1.3c	4.1.2b
IP 335, IP 450, IP550/560, IP 650/670, IP 5000, 6000, 7000 phones	3.1.3b	4.1.2b
IP 430, 501, 601, 4000 phones	3.1.7	-

Important Notices

The following important notices are provided in addition to the previous *Supported Platforms*, *Hardware Requirements and Limitations*, and *Software Requirements and Limitations* sections to ensure successful deployment.

Default Firewall Configuration Changes

Changes were made to the default firewall configuration to increase security of voice platforms when connected to the Internet. These changes can impact remote phones and SIP trunking applications, but do not impact local phones on the NetVanta 7000 series.

- In AOS versions A2.01.00 through A2.03.00.SC, the default Public policy class allowed SIP traffic (destined for UDP port 5060) inbound. For AOS A2.04.00.SC and above, this traffic is no longer allowed by the factory default configuration. Instead, the installer is required to selectively customize the Public policy class to allow SIP traffic from remote sites and SIP Trunking providers.
- Units that were shipped with AOS versions through A2.03.00.SC contain a default configuration that allows this SIP traffic. These configurations should be modified before deployment. Guidelines for this configuration are given in the **NetVanta 7000 Series Security Guide** available from ADTRAN's Knowledge Base, http://kb.adtran.com (article number 3399).

Notice of Defined Voicemail File Limit

Beginning with AOS A2.04.00.SC, the NetVanta 7000 Series products can maintain a maximum of 3000 voicemails per system. The implementation of voicemail message expiration allows the system to remain within the defined limit. Upgrading the CFLASH card to a larger card will not result in more voicemail storage and is not supported. Should you need to replace a failed CFLASH card, contact ADTRAN Technical Support for assistance.

Notice for High Volume Voicemail Usage

The NetVanta 7000 series UC appliances store voicemail and auto attendant prompts on a 1GB compact flash card. Product quality testing utilizing high call volumes going to voicemail found that the compact flash cards could exhibit corruption of some files, which could cause the system to become unresponsive or reboot. Applications that are at risk for experiencing this problem are systems with high voicemail usage. ADTRAN recommends that customer applications at risk for experiencing this problem be upgraded to the recommended software versions to eliminate the corruption from occurring.

A fix in AOS A4.10 will prevent further corruption from happening. Additionally, the fix included in AOS A5.03 not only prevents corruptions, but automatically deletes any corrupted files as well. Customers are advised to follow these recommendations or consult ADTRAN technical support if they observe file corruption on their systems. The corruption, if any, can be observed during regular maintenance cycles in which the CFLASH contents are backed-up.

System Notes

This section explains changes pertaining to the system installation for AOS version A4.10.00.

- IP 700 Series phones will not play the ringback tone when they receive a 180 Ringing response after a 183 Session Progress response.
- Adding a T1/E1 link to an existing Multilink PPP bundle using the GUI causes the PPP link to bounce when applied. The PPP link will go down and immediately recover; however, some packets could be lost. To work around this issue, a T1/E1 can be added using the CLI, and the link will stay up while the addition is applied.
- FindMe-FollowMe treats all calls from the auto attendant as internal calls.
- SNOM M3 phones do not support attended transfer at this time. This and other caveats will be documented in a future configuration guide for using the SNOM phones with the NetVanta 7000 Series.

Features and Enhancements

This section highlights the major features, commands, and behavioral changes for AOS version A4.10.00.

- Added support for Registration Rate Adaption through SIP proxy.
- Added international impedance and tone support for UAE and Belgium.
- Added support for NetVanta E1/FE1 and E1/FE1 + G.703 NIMs on the NetVanta 7100 for delivering a bonded MLPPP service.

- Enhanced the NetVanta ucCompanion client. This consolidated client provides all previously existing ucCompanion functionality along with a new client desktop presence that provides information for all NetVanta UC Server users configured on the Business Communications System. This feature can be used with either a single NetVanta 7000 Series unit and a server computer with the NetVanta UC Server software installed, or with multiple NetVanta 7000 Series units registering back to a single UC server computer, allowing presence information for users on different NetVanta 7100s to be monitored from any user's desktop. The new functionality includes the following benefits:
  - Click-to-dial from the desktop, IM (texting), status notes, and configuration settings Search and groups management
  - Colored icons indicate status
  - Status options: Available, Not Available, Busy, Away, Do Not Disturb, Out of Office
  - General Business Instant Messaging (This is not a replacement for corporate or social networking IMs.)
- Added software support for the second generation Dual T1 NIM on the NetVanta 7100.
- Added support for the SIP UPDATE method.
- Added support to configure SIP re-INVITE's as the preferred signaling in certain call scenarios if not required.
- Added support for the Advatel IP Console attendant console solution. This solution provides an operator with the ability to use a Windows-based PC as the operator console station for answering calls, transferring calls using drag/drop, and monitoring users, park zones, and the BLF status of other users. A maximum of 32 BLF entries can be monitored. This solution does not require the NetVanta BCS (NetVanta UC Server software), rather it functions like a softphone registered to a standard NetVanta 7000 series unit. This solution is only approved for use with a NetVanta 7000 Series unit (and not with a BCS).

  A trial license for the software is available directly from Advatel by sending an email to sales@advatel.com.au with **Request Trial Software - PhoneEasy IP Console** in the subject line. Alternatively, reseller partners can contact Phillip Wong, Director of Business Development, Advatel at phillipw@advatel.com.au or +61 3 8695 8662 to gain access to trial licenses.
- Added support for RFC 4028 SIP Session Timers.

Fixes

This section highlights major bug fixes in AOS version A4.10.00.

- High usage over an extended number of days in a lab environment corrupted files on CompactFlash cards manufactured by Western Digital.

- When an invalid call state or memory corruption occurred with debug commands enabled, a reboot was possible.
- When the ISDN layer one bounced, it caused packets to leak.
- Issuing the **show voice call summary active** command would cause a reboot if certain memory was corrupted.

- On occasion, an analog trunk would not connect to a new call on another analog trunk if the digit actions were used in auto attendant.
- Call coverage to an external number (incoming FXO, outgoing FXO) did not always succeed.
- The Slot LED for an FXO/FXS VIM always remained red.
- A blank Ring Group Caller ID Prefix prevented the caller ID number from being displayed on an IP Phone.
- Voicemails received over a SIP trunk could have been garbled if Annex B was not explicitly set to **no.**
- The music on hold feature would not function on an inbound call transferred from another NetVanta 7100.
- When more than one DSP resource was active on an interface at the same time, there was a mismatch in the way that resources were allocated/deallocated that lead to the wrong resource being deallocated. This resulted in a device reboot.

Errata

The following is a list of errata that still exist in AOS version A4.10.00.

- Directed call pickup fails when a pickup group is not configured on the system.
- Toll-free numbers cannot be used for external call coverage unless they are configured in the dial plan template as a **long-distance** rather than **toll-free** number.
- Conditions exist where if a call does not clear properly it can remain active but in an incorrect state on the NetVanta 7100.
- The Sync Phones/Update Directory feature does not function from the IP Phone Configs menu on the web GUI.
- Park Return calls are dropped if a pickup group attempts to answer.
- The talk path may be lost on calls to or from an ISDN trunk when **modem-passthrough** is enabled and calls are received while other calls are active.
- Turning on a large amount of debug information adversely affects the performance of the unit.
- The NetVanta 7100 leaks a miniscule amount of memory with every inbound call to a queue.
- INVITEs sent from the NetVanta 7100 contain an extra quotation mark causing the IP phones to be unresponsive.
- The **ring-voltage** command does not appear as an option for FXS interfaces in the AOS CLI.
- Issuing the **ip sip inbound-trunk-matching prefer trunk-routing** command causes the unit to be unable to use a remote gateway as a transparent proxy and PSTN trunk gateway simultaneously.
- When a caller ID name is not included in an external call, the NetVanta 7100 adds **Unknown** in the name field by default. Because ADTRAN phones ignore Caller-ID name fields with **Unknown**, configured ring group prefixes are not displayed on the phone when the call is delivered.
- Portal Lists could be created with invalid characters.
- The NetVanta 7100 adds an extra set of quotation marks to the FROM field for certain call flows.
- When a voice user's standard greeting stored on the CompactFlash becomes corrupted, the voicemail system does not failover to the voice user's default greeting.

- In the NetVanta 7100, when placing a call in the ETSI PRI to SIP direction, the call failed to connect and the B channel(s) became stuck in an active state. When placing a call in the SIP to ETSP PRI direction, calls functioned normally.
- The Update Directories GUI action does not update all of the selected Polycom IP phones; only the first one checked.
- The firewall is not blocking traffic from devices on the LAN that are spoofing the NetVanta 7100's WAN IP address.
- Loss in connectivity between a NetVanta 150 Access Point and a NetVanta access controller may cause the access controller to reboot.
- The GUI option to **Upload Firmware** from **Default Firmware** selection tab under **IP Phone Globals** > **Boot Settings** fails with an error.
- New phone configurations created using the manual input method for existing users with nondefault SIP authentication passwords will not be created with the correct password.
- The clock source for a WAN T1 cannot be configured from the GUI.
- A SIP 200 OK response to SIP INVITE with the sendonly media attribute does not contain SDP attribute for recvonly or inactive.
- The Maximum Transmission Unit (MTU) cannot be changed on the eth 0/0 interface. An error occurs stating that an IP address must be configured first even if an IP address has already been assigned to that interface.
- A reboot occurred if bad or latent RTP packets were received.
- In the Personal Phone Manager when configuring FindMe-FollowMe when **Ring Extension** was the first option and the second option was **And Ring Extension**, the second option was deleted when applied.
- In the Personal Phone Manager when configuring FindMe-FollowMe when **Ring Extension** was the first option and the second option was **And Ring Extension**, the second option was deleted when applied.
- The **debug sip stack messages notify** command does not show the full message body.
- The **debug sip stack messages publish** command does not show the message body.
- 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 problem can be cleared up by clicking **RTP Monitoring** in the side navigation bar, but any subsequent refresh data clicks results in the same condition.
- Occasionally, fax/modem tone detection fails on analog trunks, preventing modem passthrough from working.
- A 503 Service Unavailable response is received if a NetVanta 7100 is configured for MLPPP, the user deletes the PPP interface, then goes to a T1 interface that shows a PPP connection, and clicks on the PPP link.
- An unknown error occurs when applying changes to RTP monitoring in the WEB GUI.
- If a voicemail message is forwarded from one SIP user to another, the Fast Forward and Rewind operations cannot be used to manipulate the voicemail message

- When email logging is configured and excessive events are being logged, the AOS unit's memory can become depleted causing a reboot.
- SIP authentication using a 16-digit password fails.
- T.38 FAX call tests fail after T1 PRI loss and system timing shifts. A reboot is required to clear the condition.
- In some instances, incoming calls to a SIP trunk would be disconnected when attempting a blind transfer from one SIP phone to another.
- With an NTP server configured, the Summary GUI page will only show the status of the SNTP server as not configured.
- Setting the Registration Expire Time in the GUI's SIP trunk configuration to **Server Default** results in an invalid configuration. This setting will be ignored upon reboot and revert back to the default value of 3600.
- When using call coverage, setting the Ring Extension to **Never** results in a 3-second delay delivering voice traffic to the ADTRAN phone.
- A received PPP PAP Authen-Ack packet with a lot of padding, is detected as an invalid packet.
- Enabling **ip ffe** on an AOS voice product can cause the caller to hear silence for the first few seconds of a call.
- A five-digit ring group cannot be created through the GUI. A workaround is to configure the ring group from the CLI.
- If a fax call is received through a SIP to TDM gateway in front of the NetVanta 7100, the call might not process between the NetVanta UC Server and the NetVanta 7100 after the 7100 sends T.38 reINVITE. This is only relevant when using the UC server Remote Party Detection service element.
- Polycom phone configurations were created with incorrect dial plans.
- If a call to a ring group comes in a PRI interface with redirecting number enabled and it is transferred back out of the same PRI, the ISDN redirecting number will contain the extension of the ring group member that answered the call instead of the number that was originally called. This will likely cause the call to be rejected.
- An ISDN redirecting number does not function properly with DID configurations. Using DIDs causes the redirecting number to contain the extension of the voice user that was called instead of the number that was originally dialed. Aliases rather than DIDs must be used for the ISDN redirecting number to function properly.
- The NetVanta 7100 does not send SDP in the PRACK request when FindMe-FollowMe calls an external number and the softswitch sends a 183 Session Progress response with SDP. A workaround is to use the **no grammar supported 100rel** command on the SIP trunk.

Upgrade Instructions

Upgrading ADTRAN products to the latest version of AOS firmware is explained in detail in the configuration guide *Upgrading Firmware in AOS* (ADTRAN's Knowledge Base article 1630), available at http://kb.adtran.com. Firmware upgrades are available on the *Support/Software Downloads* section of ADTRAN's website at http://www.adtran.com.

Documentation Updates

The following documents were updated or newly released for AOS version A4.10.00 specifically for the IP Telephony products.

- There were no updated or newly released documents for AOS version A4.10.00.

