

RELEASE NOTES

NetVanta 7000 Series Products AOS version R10.2.M.5 June 6, 2012

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Introduction

AOS version R10.2.M.5 is a limited distribution feature release that also addresses customer issues that were uncovered in previous code releases.

This release is intended for limited distribution and passes all internal testing required for limited distribution. AOS version R10.2.M.5 is undergoing additional testing before becoming generally available. Caveats discovered during testing but not addressed in this build are listed in *Errata on page 12*.

A list of new or updated documents for this release appears in *Documentation Updates on page 13*.

Configuration guides, white papers, data sheets, and other documentation can be found in the ADTRAN Support Community, https://supportforums.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 R10.2.M.5.

- NetVanta 7100 IP Communication Platform
- NetVanta 7060 IP PBX

For a list of the software and firmware requirements, refer to the table in *Minimum Software or Firmware Summary on page 6*.

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.

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 hardware limitations, it may not always be possible. In such instances, customers are advised to upgrade the hardware (including phones, NetVanta 7000 Series chassis, and accompanying networking gear) while upgrading their software, because performance issues and erratic behavior could cause certain product features to become nonfunctional. ADTRAN provides field advice whenever 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 version will be installed.

There have been two revisions of NetVanta 7100 hardware. These are denoted by different part numbers: 1200796L1 (older) and 1200796E1 (newer). Beginning with AOS release A2.04, ADTRAN does not recommend using newer AOS versions on the older 1200796L1 units. These units continue to be field worthy and would continue to perform as expected for their useful lifetime on software revisions prior to A2.04. 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 greater 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 no further known constraints for 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. Contact your ADTRAN representative about the options available to you if you have a 1200796L1 unit, and want to use a newer release.

IP Phone Models

The legacy Polycom phones (IP 430, IP 501, IP 601 and IP 4000) will not support all the features available in the current AOS and phone firmware releases. Customers could experience sluggish behavior on these older generation phones when used in conjunction with newer software releases. If you experience sluggish behavior after an upgrade, contact ADTRAN Technical Support for a solution. This could involve either upgrading the phone hardware (to the equivalent newer generation phone, such as IP 450, IP 550, IP 650, or IP 6000) or scaling 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/non-volatile random access memory (NVRAM) as well as on CompactFlash® memory. However, it is recommended that the primary firmware image be stored on flash/NONVOL and the backup firmware be stored on CompactFlash. Beginning with AOS A2.01.00, there is insufficient memory on flash/NONVOL to store two versions of AOS firmware.

To copy the current image from flash/NVRAM to CompactFlash, use the **copy flash** *<filename>* **cflash** *<filename>* command.

Required AOS Bootcode Version

When upgrading to AOS version R10.2.M.5, an upgrade to bootcode version A2.06.B1.01 is required. Check the table in *Minimum Software or Firmware Summary on page 6* to verify you have the required minimum Boot ROM. Contact ADTRAN Technical Support for this bootcode version and instructions for loading it.

Required Phone Firmware

For AOS version R10.2.M.5, 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 R10.2.M.5, NetVanta Unified Communications (UC) Server 5.0.1 is the minimum required version 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/Total Access 900(e) Series	A2.06 or later	-
NetVanta UC Server (as part of BCS)	UCS 5.0.1	Not applicable
ADTRAN IP 706/IP 712 phones	R1.3.16	1.3.12
Polycom IP 321/IP 331 phones	3.1.3c	4.1.2b
Polycom IP 335, IP 450, IP 550/560, IP 650/670, IP 5000, IP 6000, IP 7000 phones	3.1.3b	4.1.2b
Polycom IP 430, IP 501, IP 601, IP 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.

Upgrading to AOS version R10.2.0 and Later

Beginning with AOS version R10.2.0, the syntax of certain commands was modified from previous AOS versions (such as AOS A2.x, A4.x and A5.x) 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 NetVanta 7000 Series product configured in AOS version R10.2.0 to a previous AOS version (such as AOS A2.x, A4.x and A5.x), could cause service disruption because the new syntax might not be recognized by the previous version. Upgrading a unit from an older AOS version to AOS version R10.2.0 will not cause service disruption because both the old and the new syntaxes are accepted. It is recommended that a full copy (data and voice settings) of the configuration be saved prior to upgrading to AOS R10.2.0 and above. This can be done from the Utilities > Configuration page in the GUI.

For more information on specific commands, refer to the <u>AOS Command Reference Guide</u> (article number 2219) available at https://supportforums.adtran.com.

Please note that the NetVanta 7000 series does not support IPv6 at this time. If you envision needing any IPv6 features natively on the NetVanta 7000 series, then contact your ADTRAN representative with your request. In general, we recommend using an IPv6 capable ADTRAN router with the NetVanta 7000 series for any IPv6 features.

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 access control policy (ACP) 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 ACP 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 inbound SIP traffic (destined for UDP port 5060). These configurations should be modified before
 deployment. Guidelines for this configuration are given in the <u>NetVanta 7000 Series Security Guide</u>
 available from the ADTRAN Support Community, https://supportforums.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 CompactFlash card to a larger card is not supported and will not result in more voicemail storage. Should you need to replace a failed CompactFlash card, contact ADTRAN Technical Support for assistance.

System Notes

This section explains changes pertaining to the system installation for AOS version R10.2.M.5.

- Caller ID does not display on pickup *52xxxx*.
- Calls with caller IDs that contain special characters can be disconnected when placed on hold by an Advatel IP Console.

- 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 R10.2.0.

- Enabled VLAN filtering by default for Polycom phones.
- Added configuration and phone support for Polycom phone model VVX-500.
- Improved the FindMe-FollowMe user's experience by allowing configuration of contact groups that will match unknown caller ID types and handle the calls as the user desires.
- Enabled the display of Call Queue Statistics in Personal Phone Manager for non-administrator users.
- Call flow handling of ring group calls was improved to minimize answer delays. A call to a ring group on the NetVanta 7000 Series typically goes through a couple of reINVITEs. Depending upon whether the ring group users are (a) on the NetVanta 7000 Series unit itself or (b) on a branch office product connected to the unit, the number of reINVITEs can add up and lead to delayed audio. This feature improves user's experience by eliminating or reducing these delay cases.
- Added the ability to inform the SIP user on which trunk a call was received using either a different ring tone or other distinguishing feature.
- Added support for administrative configuration of forced account code entry on a per user basis. This
 feature applies to SIP and analog endpoints and supports applications that require an account code entry
 for every call.
- Added the ability to transfer directly to Voicemail using SPRE code *86 plus the voice mailbox number. This feature improves the receptionist user's experience for transferring calls directly to voicemail.
- Added the administrative ability to email Call Queue statistics for the last 24 hours using CLI options. This enables administrative reports to be pushed rather than having to be checked periodically.
- Improved the Personal Phone Manager user's experience by organizing Caller ID and Dialed Number lists to place the most recent entry at the top.
- Added administrative configuration of FindMe-FollowMe for each user on the system. The number of simultaneous calls using FindMe-FollowMe remains limited to 10 in order to preserve system resources.
- Enhanced system VoIP security by using randomly generated SIP authorization password for IP phones.
- Added support for deployments in Ireland with localized system prompts.
- Added enhanced features to allow the NetVanta 7000 Series hardware to support using a NetVanta 6355 firmware image. This enhances customer options for blending and extending NetVanta 7000 Series deployments with other ADTRAN products and hosted VoIP.

- Added support for G.711 a-law for music on hold and system prompts. This feature enhancement improves international CODEC interoperability.
- Added administrative configuration of release timers for analog trunks. This new configurable support allows adjustments to call disconnect and trunk release timers for the specific application and country requirements.
- Added configuration support for multiple versions of Polycom phone firmware. This feature allows
 administrators to select the optimal firmware version for each Polycom phone model, based on their
 application.
- Added GUI support for enabling and disabling Ring Group Call Waiting.
- Added the ability to override the inbound Caller ID name/number when delivering FindMe-FollowMe to external coverage. This feature helps the called party quickly identify whether the call being received is a FindMe-FollowMe call.
- Added the **Press to Accept** option (by default) for FindMe-FollowMe when using analog trunks. This setting allows for a positive notification that a call was answered.



AOS version R10.2.M.5 also includes Features and Fixes up to AOS versions R10.1.0/18.03.01. For a complete list of Features and Fixes, refer to the Release Notes for Converged Access Products AOS version R10.1.0 and Release Notes for NetVanta Internetworking Products AOS version 18.03.01, available on the ADTRAN Support Forums, https://supportforums.adtran.com.

Fixes

This section highlights major bug fixes in AOS version R10.2.M.5.

- Outbound route maps configured with the **set local-preference command** and advertised to iBGP peers were not backwardly compatible.
- DNS proxy would cause the pcconfig process to lock up which caused traffic to stop passing and the console to stop responding.
- The processing of non-TCP broadcasts with the firewall enabled (excluding DHCP broadcasts), caused a memory leak that eventually lead to a reboot.
- In units running 18.01.03 with TACACS configured, the unit would reboot during authentication.
- In a PSTN gateway application, if an attended transfer is initiated towards the ADTRAN gateway the transfer-or will send a REFER with Replaces to the gateway. The ADTRAN gateway should be responding with an INVITE with Replaces back out the SIP trunk. If the transfer-or was the party that initiated the original call to the transferee, the INVITE is not sent. However, if the transferee initiates the original call, the INVITE is sent and the transfer executes properly.
- When using SIP over TCP, the source port displayed in the output of **debug sip stack messages** command was incorrect.
- Polycom configuration files referenced an incorrect version of the SIP configuration file. This prevented
 the phones from booting due to a mismatch in the SIP configuration versions. This only occurred if a
 NetVanta 7000 Series unit was upgraded to R10.2.0 and then the configuration of a Polycom phone was
 modified.
- NetVanta 7100 units rebooted when a SIP call was placed between a NetVanta 7100 with NAT and another NetVanta 7100 without NAT.

- After upgrading to R10.1, the VQM reporter grammar options always show up after booting, even if they are not configured.
- The informational text on the Route Table GUI menu did not display correctly.
- When attempting to create a new extension and phone configuration file using the IP Phone menu on the GUI, the password for the voice user did not match the password in the IP phone configuration.
- The Upload Phone Firmware dialog box for uploading ADTRAN firmware would not display when using Internet Explorer version 8.
- In the GUI, a 503 Service Unavailable response was delivered when selecting any trunk account type other than SIP.
- If a local user was transferred to a remote user with a 10-digit number using attended transfer, the resulting connection had one way audio. If the local, 4-digit extension is used, or if a blind transfer is used, the call would function as expected.
- Uploading a CSV file that contained Polycom SoundPoint IP 550/560 (a deprecated phone type) caused the GUI to become unresponsive.
- Under very specific circumstances (for example, a specific DNS server and name to resolve), the unit would reboot.
- In some cases, the nonce count was improperly parsed by the SIP stack, which caused authentication failures when using the SIP proxy.
- Random SIP authentication password would not function when adding a second extension to an IP phone configuration.
- Using the auto attendant to change the Dial By Name prompt language to Irish was only partially successful. Some of the prompts would remain in English.
- In certain cases, the ISDN caller ID name was not delivered when configured for delivery in a Facility message after the Call Proceeding message instead of a Setup message.
- Configuring a nondefault PRI response code mapping for a 403 Forbidden response to a 100 PRI cause code would not function properly.
- If an unsupported packetization period was presented to the ADTRAN unit in an SDP answer, no indication that the presented ptime was not supported by the ADTRAN unit was sent to the remote user agent. This resulted in no talk path.

This section highlights major bug fixes in AOS Version R10.2.0.

- After an external call was blind transferred and then retrieved by a Pickup Group, no audio was heard.
- Calls from an auto attendant to an extension could not be retrieved using Directed Call Pickup.
- The GUI would allows a user name with an apostrophe to be added to a status group. An error should have been presented since apostrophes are not supported in a status group.
- Using the Update Directories action from the GUI deleted the speed dial setting from Polycom IP phones.
- Event logs showed false positives for 911 emergency calls.
- The Rebuild All and Update Directories actions caused all Polycom phones to be removed from IP Phone Configs GUI menu.
- When an E1 configuration in the GUI was modified, the unit could have become unresponsive and rebooted.

- A 503 Service Unavailable response to a Notify message caused unattended transfers to fail.
- Altering the line key default values in the GUI would not change the value in the config files for ADTRAN 7xx Series IP Phones.
- Polycom phones could have locked up when resubscribing to a particularly large status group.
- Directed Call Pickup failed when a Pickup Group was not configured on the unit.
- Callers could not be forwarded to toll-free numbers from Call Coverage unless toll-free numbers were added to the dial plan templates as a long-distance number.
- The NetVanta 7100 would not properly clear calls with an invalid call state.
- Parked calls were dropped if a member of a Pickup Group attempted pick them up.
- The talk path was lost on calls to or from an ISDN trunk when **modem passthrough** was enabled and the calls were received while other calls were active.
- Turning on a large amount of debug information would adversely affect the performance of the unit.
- The NetVanta 7100 leaked a miniscule amount of memory with every inbound call to a queue.
- INVITEs sent from the NetVanta 7100 contained an extra quotation mark which caused the IP phones to not respond to the INVITE.
- The **ring-voltage** command was removed as an option for an FXS interface.
- The **ip sip inbound-trunk-matching prefer trunk-routing** command interfered with the ability to use a remote gateway as a transparent proxy and PSTN trunk gateway simultaneously.
- On the Personal Phone Manager FindMe-FollowMe menu, modified **Ring External** durations were not applied correctly. The value was accepted, but reverted to the previously configured value after the user applied the changes.
- When the ISDN Layer 1 bounced, it could have caused a packet leak.
- Portal lists with invalid characters could be created in the GUI.
- The NetVanta 7100 would add an extra set of quotation marks to the FROM header for certain call flows.
- When a voice user's standard greeting was stored on the CompactFlash and became corrupted, the voicemail system would not failover to the voice user's default greeting.
- The NetVanta 7100 could have rebooted after issuing the **show voice call summary active** command.
- The **group-ring-call-waiting** command was ignored by station-to-station calls to a ring group.
- If the second leg of a trunk-to-trunk B2BUA call negotiated to a lower **session-expires** than the first leg, the value of the second leg timer was used for the first leg as well. This behavior only affected user agents that prevented reINVITEs more often than the minimum **session-expires** value.
- The firewall would not block traffic from a device on the LAN that spoofed the NetVanta 7100's WAN IP address.
- Loss in connectivity between a NetVanta 150 Access Point and a NetVanta Access Controller could have caused the Access Controller to reboot.
- If the IP Interfaces GUI menu was used to delete a MLPPP interface, the interface was deleted from the configuration, but was not fully torn down in the unit. This caused problems when creating new MLPPP interfaces
- The GUI option to Upload Firmware from Default Firmware selection tab under IP Phone Globals > Boot Settings failed with an error.

- New phone configurations created using the manual input method for existing users with nondefault SIP authentication passwords would not be created with the correct password.
- The clock source for a WAN T1 could not be configured from the GUI.
- A 200 OK SIP response to SIP INVITE with the sendonly media attribute did not contain SDP attribute for recvonly or inactive.
- The Slot LED for an FXO/FXS VIM always remained red.
- In the VQM RTP Monitoring menu, the refresh button refreshed the displayed graphic, but it also duplicated information in the lower part of the menu. Also, when the cursor hovered over a data point, it displayed multiple instances of the same data.
- Polycom phone configurations were created with incorrect dial plans.

Errata

The following is a list of errata that still exist in AOS version R10.2.M.5.

- Auto attendant, voicemail, FindMe-FollowMe, and other voice applications do not source RTP from the correct IP address when the **media-gateway ip** command is set to **loopback**.
- Deleting all voicemails in a user account using the PPM is very slow and may not completely empty the voice mailbox.
- Using the PPM to delete a large number of voicemails may result in a error dialog box that persists.
- The NetVanta 7100 fails to send a NOTIFY to the Advatel IP console after a status group subscription if the group contains 32 members.
- On the IP Phone Configs page, when adding phone MAC addresses to the staging area, some phone models cannot easily be selected from the dropdown list because the list scrolls off the page.
- The diversion header from a **match ani** statement may not function properly.
- The music on hold default player does not display correctly in GUI.
- The Configuration Successfully Saved dialog box does not appear when saving the configuration from the System Summary GUI menu.
- Call coverage for ring groups would fail when the System Mode was set to anything but Default Mode or if the group was configured to ring more than 3 times.
- The ring-group help text for the **max-inbound** command implies incorrectly that 9 is the maximum when 10 is correct.
- FMFM call coverage to an external number and then to an auto attendant results in no audio being heard by the external caller.
- It is not possible from the GUI to set the number of rings for a user with a call coverage list.
- When using FindMe-FollowMe on a NetVanta 7100, internal calls forwarded to voicemail will function properly, but voicemails forwarded to an external server do not function properly. When Ringback Only is disabled on the NetVanta 7100, only the Refer the Call FindMe-FollowMe action can be used to direct inbound calls to a voice mailbox not located on that unit

- In FindMe-FollowMe actions, where the accept option is available (enabled) but the number of seconds before disconnect has been set to a low value, the call may disconnect before the user can hear the caller's name or have a chance to press 1 to accept the call. The workaround is to increase the action time setting to allow additional time to accept the call.
- When calling to a shared line appearance, the endpoints may not be able to establish a talk path if one of them is behind an interface configured for NAT. This is due to SDP reporting the RTP port incorrectly to the phone. This issue can be avoided by not registering phones with shared line appearances to an interface that is configured for NAT.
- Modem tone detection does not work on ring group calls.
- 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.
- T.38 FAX call tests fail after T1 PRI loss and system timing shifts. A reboot is required to clear the condition.
- When configuring call coverage, setting the Ring Extension to Never results in a three-second delay delivering voice traffic to the ADTRAN phone.
- Configuring a nondefault PRI response code mapping for a 403 Forbidden response received from the SIP network does not function properly.

Upgrade Instructions

Upgrading ADTRAN products to the latest version of AOS firmware is explained in detail in the configuration guide <u>Upgrading Firmware in AOS</u> (article number 1630), available at https://supportforums.adtran.com. Firmware upgrades are available on the <u>Support/Software Downloads</u> section of the ADTRAN website at http://www.adtran.com.

Documentation Updates

The following documents were updated or newly released for AOS version R10.2.M.5 specifically for the IP Telephony products.

• There were no updated or newly released documents available at the time of this release. However, documents pertaining to the specific features developed prior to this release, can be found in the ADTRAN Support Community at https://supportforums.adtran.com. Additional documentation will be posted as it becomes available.