



RELEASE NOTES

NetVanta 7000 Series Products
AOS version R10.6.0
January 14, 2013

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Introduction

AOS version R10.6.0 is a feature release that also addresses customer issues that were uncovered in previous code releases.

This release is generally available code. Results obtained during internal testing have been evaluated and the code has been determined to be ready for general availability. Caveats discovered during testing but not addressed in this build are listed in *Errata on page 9*.

A list of new or updated documents for this release appears in *Documentation Updates on page 12*.

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 ADTRAN's IP telephony products.

Supported Platforms

The following platforms are supported in AOS version R10.6.0.

- 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 or firmware releases:

- For any firmware release R10.x or higher
- 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

Beginning with release A4.x, the legacy Polycom phones (IP 430, IP 501, IP 601 and IP 4000) do 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 legacy 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 Storage

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.

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 R10.6.0, 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.

Minimum Software or Firmware Summary

Product or Phone Model	Minimum Software or Firmware	Minimum Boot ROM
NetVanta 7000 Series	A4.10 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	R2.3.0	2.1.0
Polycom IP 321/IP 331 phones	3.2.7	4.1.2b
Polycom IP 335, IP 450, IP 550/560, IP 650/670, IP 5000, IP 6000, IP 7000 phones	3.2.7	4.1.2b
Legacy Polycom IP 430, IP 501, IP 601, IP 4000 phones	3.1.8	4.1.2b

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.

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.

Upgrades 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 or higher 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 or later 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 *AOS Command Reference Guide* 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 [NetVanta 7000 Series Security Guide](#) available from the ADTRAN Support Community, <https://supportforums.adtran.com>.

Notice of Defined Voicemail File Limit

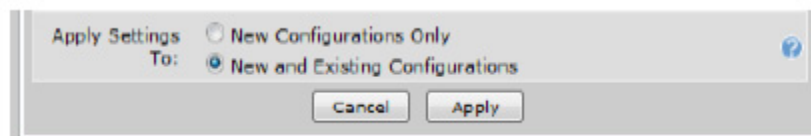
The NetVanta 7000 Series products can maintain a maximum of 3000 voicemails per system. The implementation of voicemail message expiration allows the system to remain within the defined limit. Upgrading the CompactFlash card to a larger card is not supported and will not result in more voicemail storage.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

Updates to Web Interface Pages

On occasion, changes are made to web pages in the NetVanta 7000 Series web interface that may require files in the browser cache to be purged. This can be done in most browsers by deleting the browsing history or by pressing Ctrl-F5 in most cases.

Considerations Before Upgrading Related to SPRE Code Support for SLA

1. Local SPRE code dialing from an SLA requires phone dial plan changes. After upgrading to R10.6.0 software, newly created phone configurations will have the proper dial plan settings applied. For upgrade cases where SLA was already configured on an existing phone, the dial plans will be modified to support this new functionality. Please review the changes under the IP Phone configuration page and regenerate the phone configurations by using the admin login and browse to Voice>IP Phone Globals>Default Settings>, select “New and Existing Configurations” and select Apply.



2. SPRE code dialing from an SLA could interfere with existing configurations if SPRE codes were used on SLA's prior to this release. Please review your configuration to determine if SPRE codes were allowed prior to the upgrade (check SLA dial plans) and if so, you will need to configure the following command `voice spre-mode override <*xx>` using the appropriate codes in place of xx.

System Notes

This section outlines known caveats for AOS version R10.6.0.

- The match ani command used for ANI substitution will match on the received ANI prior to any global ANI substitutions. The match ani command used for adding or substituting diversion headers will match on the modified ANI after the global ANI substitutions are applied.
- During conferences that use the conference bridge in UC Server, when one member in a conference places the call on hold, music may stream to all members that have joined the conference.
- Caller ID does not display on pickup *52xxxx*.
- The Personal Phone Manager's User Status monitoring list may return the list from the previous user's browser session if more than one user shares the desktop browser. The work around is to delete all cookies and restart the browser.
- Calls with caller IDs that contain special characters can be disconnected when placed on hold by an Advatel IP Console.
- 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.
- Calls using the G.729 CODEC are limited to 25 calls for E1 PRI.
- 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 R10.6.0

- The AOS Fast Forwarding Engine now has the ability to expedite traffic prioritized by a configured QoS map.
- Added support for the second generation USB WWAN Network Interface Module capable of supporting 4G rates to the NetVanta 7000 Series.
- Added support for VQM FFE.
- Added the held call pickup feature. Held call pickup is the ability to place calls on hold on one phone and use any other phone to retrieve the call. It can be invoked using the *78 SPRE code or the Pickup soft-key on IP phones. When invoking the feature the number entered is the private extension of the user that has the call of interest on hold. Calls held on shared lines can be picked up from private extensions by invoking pickup and entering the shared line's pickup extension.
- Added software configuration for a new line of ADTRAN/Polycom co-branded IP phones.
- Added the configurable line seizure feature. Configurable line seizure allows configuration of the default line that is selected when each phone goes off-hook. With this feature any shared line or private extension can be selected for automatic line seizure when configuring an IP phone. The system default it to use the phone's private extension.

- SLA and SCA now support a single local SPRE code (*86) to send callers to voicemail. Additionally, network mode SPRE codes are now sent out analog trunks when dialed from SLA or SCA appearances.
- Caller ID is now displayed consistently for all appearance type and call flows. One exception is during public hold on Polycom phones running 3.1.8 firmware. Polycom has identified the problem and is working to fix it in a future 3.1.X release.
- Shared line and private extension interoperability have been improved so that the system operates more like a pure hybrid key system. This means that calls can flow easily between shared lines, private extensions, and PBX system features improving the overall user experience when a mix of key system and PBX functionality is in use.
- Public hold for shared line calls has been improved so that even if a call is transferred from a shared line appearance to an internal extension the line state is still updated. Also, if an active call on a trunk associated with a shared line is ever placed on hold, it is available for retrieval from any extension or associated shared line.
- Added configurable options used for outbound call trunk management. These options allow the system administrator to configure system behavior when all trunks are busy during an outbound call. Options include playing a fast busy tone or a recorded greeting in the system language.
- Added support for PPPoE and non-PPPoE encapsulation on Ethernet subinterfaces, as well as the ability to configure PPPoE and IP encapsulation on the same Ethernet interface or subinterface.
- Added an Installation Wizard to simplify and reduce installation times of common applications. The wizard helps quickly deploy Shared Line and Basic PBX applications by automatically configuring phones and defaulting common settings. The wizard covers the phone system as well as the network topology.

Fixes

This section highlights major bug fixes in AOS version R10.6.0.

- The FTP server was not correctly responding with CRLF after a LIST command.
- For any device that did not support Multi-VRF for SIP (i.e., NetVanta 7000 Series, NetVanta 3100, and NetVanta 600 Series), SIP access classes blocked all SIP traffic.
- Issuing the command `no voice num-rings` did not successfully restore the default value of four on the NetVanta 7100.
- The ADTRAN unit rebooted if VQM was disabled while a call was active on the system.
- Polycom conference split would not function for Shared Line Appearances. The split would appear to function, but there was no talk path.
- The Polycom configuration files, `sip_31x.cfg` and `sip_32x.cfg`, were not up to date with the latest files provided by Polycom.
- A FindMe-FollowMe user set to never ring under call coverage, could not be used as the destination to record prompts from the Audio Prompts page on the NetVanta 7100 GUI.

Errata

The following is a list of errata that still exist in AOS version R10.6.0.

- PRI sometimes does not come up again when far end bounces layer 1.

- When adding a new User Account, the web GUI may incorrectly show an FXS port as available when it is already assigned.
- The call duration in show voice call summary active command output is reset after receiving a SIP reINVITE.
- There is no audio on a FindMe-FollowMe call if the target user with FindMe-FollowMe coverage is virtual or an unregistered SIP user.
- The CLI command "no description" cannot be used to remove a description from a ring-group configuration.
- Inbound calls from Megapath (Broadsoft) SIP trunks fail to be delivered by FindMe-FollowMe to external numbers. Calls roll to next Call Coverage item when answered at external number.
- When configuring Call Queues via the CLI, if one tries to configure more than the maximum number of queues an error will be shown. Following this error, no configuration commands can be entered on other queues until configuration mode is exited.
- Held Call Pickup (*78nnnn) may not have audio user placing the call on-hold is configured as a simple remote phone.
- A received SLA call that is answered and then attended transferred to a remote party will have one-way audio.
- If a SIP extension is blind transferred out an analog FXO trunk, noise is sometimes introduced in the audio.
- Calls into a ring-group that has a simple remote phone as a member may have no audio.
- Hair pinning calls may fail and have no audio after a transfer.
- Voicemail Operator Assist on a ring group dials 0 even when configured with a different value.
- Inbound SIP calls fail when the command max-number-calls *<value>* has been set.
- FindMe-FollowMe may not properly populate the SDP in either the INVITE or ACK when using SIP PSTN trunks.
- When a simple remote phone user places a call destined to a either ring group, find-me-follow-me, or a call queue, and a local phone user answers, the local phone will not be able to hear the remote user.
- Caller-ID may not be correctly sent when an SLA/SCA call is transferred to an extension.
- When using FindMe-FollowMe to contact two external numbers simultaneously, one-way audio will occur when one of the external number answers.
- The Startup-Wizard does not present an error message if an invalid VLAN-ID is entered when configuring the Data and Voice VLAN tags.
- An HTTP timeout does not correctly output the correct string in the CLI. Instead a "%s" is substituted.
- When uploading audio prompts, the system would reboot if there was not enough space to convert the file(s) into the various file formats for each supported CODEC.
- Forwarded voicemail messages may report a date one month prior to the actual date of the message.
- Voice quality can be degraded when all 23 channels on a PRI are in use.
- When using FindMe-FollowMe to ring two local extensions in succession and then an external number, the call will result in no audio when answered on the external number.
- Analog phones in Ring Groups may not hear audio on Ring Group calls.

- For an inbound call via PRI to a FindMe-FollowMe user with a Call Action to ring both the local extension and an external number, one-way audio will occur when the call is answered on the external number by press-to-accept. Only outbound audio is heard.
- When a reINVITE is received as a keepalive over a SIP trunk, it results in one-way audio if the NetVanta 7100 changes the CODEC to the phone.
- MSP backup of the NetVanta 7100 includes an additional file in the backup to ease the restore process.
- During an internal SIP to SIP call, if the caller places the called party on hold and then the called party places the caller on hold, and then the caller then goes back off hold, both parties will experience no way audio.
- A call placed to a remote user that that uses G.711 U-law or G.711 A-law will result in one-way audio if the call is routed out a trunk containing a CODEC list.
- The Update Directories action in the GUI does not properly update the directories for individual Polycom phones.
- FindMe-FollowMe fails with the Single Number Reach service in the NetVanta BCS.
- After upgrading from A4.X or A5.X to R10.2 or later the web GUI does not highlight the IP phone to indicate that the Polycom IP 550/560 phone configuration needs to be updated.
- When a voice user is configured for an empty caller ID number, the name is not being transmitted either.
- Polycom IP 320/321/330 phones do not display the users extension.
- In the GUI, when configuring the voicemail notification schedule for a user, the times Midnight and Noon are not listed in the correct order.
- Configuring a user to have Dialtone Only message waiting does not result in a SIP NOTIFY to SIP endpoints when a new message is waiting.
- Creating a new phone configuration results in an inapplicable sync dialog.
- When local packet capturing completes and while it is being exported, the voice quality may be adversely affected.
- Inserting a CFLASH card into the device while it is powered on results in reboot.
- 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.
- When calling to a shared line appearance, audio may not be passed between the endpoints if one of them is behind NAT due to the RTP port being reported incorrectly in SDP to the phone. The issue can be avoided by not registering phones with shared appearances to an interface that is configured for NAT.
- 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 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.
- 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.
- If the USB-ID is changed or removed it is still possible to connect a call using the cellular interface.
- When Port Authentication is enabled on the device unauthorized traffic is still allowed to pass.
- The Netvanta 7100 and 6355 platforms will fail to reset QOS map statistics for applied QOS maps when the 'clear counters' command is executed.
- If you remove 'ip mcast-stub fixed' from an interface configuration which also has an igmp static group configured, the mroute will not be deleted as it should. This only occurs when static groups are configured. It does not occur with dynamically learned groups.
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- If you remove 'ip mcast-stub fixed' from an interface configuration which also has an igmp static group configured, the mroute will not be deleted as it should. This only occurs when static groups are configured. It does not occur with dynamically learned groups.

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>. Firmware upgrades are available on the *Support/Software Downloads* section of the ADTRAN website at <http://www.adtran.com>.

Documentation Updates

The following documents were updated or newly released for AOS version R10.6.0 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 Voice International Configuration Guide*
- *Configuring Remote Phones with an AOS SIP Gateway*
- *Configuring Simple Remote Phones for the NetVanta 7000 Series*
- *Configuring SIP Trunking Gateway for Use with NetVanta ECS*
- *Configuring the NetVanta 7000 Series Personal Phone Manager*
- *Configuring User Accounts on the NetVanta 7000 Series*