



NetVanta Unified Communications

Release Notes

Version 5.2.0

NetVanta Unified Communications

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These release notes highlight new functionality, enhancements, software and hardware dependencies, and include upgrade instructions for the NetVanta Unified Communications product family. This document is to be used in conjunction with product documentation and training for the preparation of new and existing software installations and is intended for technical professionals who are providing support services for NetVanta Unified Communications products.

For general product information, please visit ADTRAN's website at <http://www.adtran.com>.

CAUTION: It is strongly recommended that the contents of this document be reviewed before any installation or upgrade, no matter how familiar the installer is with the product, to ensure that current installation and upgrade procedures are followed. These procedures could change from release to release, including maintenance releases. Failure to follow the upgrade procedures in this document could result in non-operational systems.

1 Summary of Changes

This section summarizes new functionality introduced in this NetVanta UC Server release, along with issues resolved in each release and any release-specific actions that are required as part of upgrading. Each maintenance release is identified separately. More detailed descriptions for major new functionality follow in Section [2 New Functionality Details](#). Internal tracking numbers are noted (for example, [1234]).

For newly introduced functionality and issues resolved in previous major releases, please consult the release notes or product documentation for the respective releases.

Where functionality or issues resolved do not apply to products in the product family, the applicable products are noted (for example, **ECS, BAS, UCS**).

NOTE: Be sure to review all upgrade actions for all releases between your current release and the release and your upgrade. Subsections of the sections below identify required actions, including information about client upgrades.

1.1 Release 5.2.0

Release 5.2.0 is a release update of NetVanta UC Server version 5.1.x which extends existing functionality including support for Exchange Web Services (EWS) which greatly improves Exchange integration, reliability and interoperability while minimizing MAPI future dependencies. It also adds improved software exception handling and reporting mechanisms as well as continued French language support including user defined language settings and French language TTS (Text To Speech) capabilities.

This release also extends handset features including Park Zone BLF, HFAA (hands-free auto-answer), VLAN filtering support for Polycom family handsets including both legacy 3.8 and 4.x firmware updates. Additional improvements include the integrated installations of both Business Continuity and UCNS software which simplifies deployments of these extended product features.

Additional interoperation with ADTRAN products namely the NetVanta 7100, the TAGxx series and SBC Feature Packs are now also supported. **ECS, BAS, UCS**

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2 New Functionality Details

This section describes the new functionality introduced in this NetVanta UC Server release. Where functionality or issues resolved do not apply to products in the product family, the applicable products are noted.

2.1 Release 5.2.x

NetVanta UC Server Release 5.2.0 is a minor release which incorporates all existing features and functionality of past NetVanta UC Server releases combined with the introduction of the following features:

EWS Exchange Support

Exchange Web Services (EWS) provides the functionality to enable client applications to communicate with the Exchange server. EWS provides access to much of the same data that is made available through Microsoft Office Outlook. Support for EWS has been included in this latest release to leverage this newer API and to reduce Microsoft MAPI dependencies in the future. This integration also provide future support for hosted Exchange environments as well as support for existing premise based Exchange server including 2007 and 2010.

Hands free Auto-Announce (HFAA)

This PBX feature provides an access code (SPRE) that invokes a call to a destination SIP Telephone for the purposes of phone auto answers and bi-directional audio support. SIP phones which support the ALERT-INFO header with this auto answer method will be able to support this feature. All supported phones that are able to use the paging server will support this feature. **ECS BCS**

BLF Park Zones

This enhancement adds visual appearances of a park position on applicable SIP phone buttons. Calls can be parked or un-parked via this button and provide a visual indicator for the user. Management of this feature is accessed through the Phones configuration section located via the Admin client. SPRE codes are also supported as well as LED light indicator where possible on the handset. **ECS BCS**

Exception Handling and reporting

The UC Server system includes an improved mechanism for the diagnostic management, delivery and log details of system problems, failures and exceptions for troubleshooting and debugging purposes. General Administration Logs now include additional details for reporting and additional settings are now available through the Options settings including report details and attachment delivery management.

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French Language User Defined and TTS support

The latest French Language feature enhancement now includes user defined language settings and adds French voice TTS (text to speech) support. Administrators can now independently set languages for each user as well as define the voice engine used for user TTS capabilities. A general system defined menu of TTS voices is located in the Administrative Options of the UC client to allow for more simplified audio language selection and configuration.

Polycom phone VLAN filtering and Firmware support

The latest Polycom 4.x/3.8 firmware releases for both legacy and newer handset revisions are now included in the product. This release additionally supports VLAN filtering as per Polycom configuration file settings. This latest release includes these provisioning firmware loads along with its menu inclusion via the UC Server's Phones management section. **ECS only**

UCNS Email notification

The UCNS client and server services are now installed automatically with this release to ease the deployment and configuration of the UC notification server feature. The current UCNS feature has the ability to send "Notification Summary Reports" as an email, to one or multiple designated system-wide email addresses upon the completion of each "Job". This latest feature improvement now allows you to specify the email addresses for each report on basis of individual job definitions. Refer to the appropriate technical note for information on UCNS configuration.

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Software fixes included in release 5.2.x since 5.1.x

Tracking #	Summary
UCS-569	No user feedback when the service mailbox is not connected UC to Exchange
UCS-685	Caller should receive a better prompt if the page operation (or in the future if the HFAA operation) fails when the file is not found or cannot be loaded (instead of prompt-480)
UCS-651	SIPPBX\version.bat file has wrong path to the java.exe file
UCS-770	ApplicationServerApi.dll is not signed
UCS-445	UC Client writes "DefaultServer" value to registry even when login to the selected server fails
UCS-759	Servicemgr transition to connecting hold or connecting offhold not defined (inbound caller to queue appears connected but no audio)
UCS-591	The administrator can not update the Exchange server location (without manipulating users message store manually)
UCS-558	When Exchange server version does not match configured version, log not only the version found but the version selected/configured as well
UCS-862	Exception in ServerToServerService - (GetUserPhoneNumbers) Exception Message: Object reference not set to an instance of an object (if unable to find pbxid)
UCS-765	Default email address for Exception Reports should not be ucserver@adtran.com
UCS-557	Status column for the Exchange server object in the admin client Servers pane appears blank (when the detected version of the Exchange server is greater than current config)
UCS-664	Time improvements needed for setting up UC Trust relationship - can take up to 5 minutes to receive invite or to receive the Accept
UCS-616	PBX sends 180 with SDP causing local ringback to fail
UCS-936	Faulty logic with time match on DR service
UCS-627	After connected Exchange server object upgraded (from 5.0.1) the connection state unexpectedly indicates "Connected. Warning Exchange Server Version does not match." (version unknown)
UCS-664	Time improvements needed for setting up UC Trust relationship
UCS-612	Federated trusted servers remains in disconnected state after network is unavailable for extended period
UCS-591	The administrator cannot update the Exchange server location
UCS-635	The previous id is unexpectedly being used for connection to the remote server (even though RosterServer id appears to be updated in the database). ucCompanion search does not return results even though servers trusted.

Note that all fixes from previous 4.x releases up to and including 4.6.x will also be included in release 5.2. Please consult the specific 4.x /4.6.x/5.x release notes for details on issues resolved in those releases.

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2.1.1 Upgrade Requirements

Prior to upgrading an existing NetVanta UC Server system, be sure that the hardware platform and operating system software meet the minimum requirements; otherwise, you will not be able to upgrade the software. Ensure that both client and server requirements are met. Refer to Section [System Requirement 3.2](#) for information.

CAUTION: Failure to preserve installed software release media properly could result in the inability to rebuild a failed server at a later date. Copies of noncurrent software versions might not be readily available from ADTRAN Technical Support or your reseller causing delays to support technicians rebuilding failed servers.

2.1.2 Client Upgrade Actions

Client software **MUST** be upgraded for all users of the NetVanta UC Server system. More information on client deployment techniques, including automated deployment can be found in Section 4.3, *Installing or Upgrading NetVanta UC Client Software*.

2.1.3 Other Upgrade Actions

If the administrator has customized any of the system audio files (`Data\System\CustomAnnouncements`) and not placed them in the custom announcements folder `Data\System\CustomAnnouncements\English (U.S.) Male`, then the customized files **MUST** be copied from `CustomAnnouncements.Backup` folder.

CAUTION: Failure to copy or backup customized audio files will cause them to be overwritten during the upgrade. Only audio file from this location (`Data\System\CustomAnnouncements`) will be automatically copied to `CustomAnnouncements.Backup` during upgrades.

For upgrades of the ECS and BAS products, scripts **MUST** be run before and after upgrading to properly upgrade phone configuration files. Any customizations to phone configuration files must be manually re-applied using the information and backups made by the scripts. Refer to Section 4.2.2, *Upgrading NetVanta UC Server from any 4.x.x Release*, for more information on this procedure.

CAUTION: The SQL database instance for NetVanta UC Server **MUST** be backed up to ensure proper recovery of failed systems. For instructions on backup and restore procedures, refer to the *Planning and Deployment Guide*, available online at <https://supportforums.adtran.com>. Please adjust backup procedures accordingly. Failure to do so could result in data loss or extended system outages in the case of hardware or software failures.

Please note that any upgrade from 4.x to 5.x UC releases will convert the existing SQL 2005 database instance named **Objectworld** to an SQL 2008 instance named **NetVantaUC**. You will need to adjust any existing backup script to support this instance name change already put in place as part of a scheduled backup maintenance routine .

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3 Installation Requirements

This section describes the environmental prerequisites required for the correct operation of NetVanta UC Server, including operating systems, server/client platforms, messaging servers, and mail clients. In addition, it describes any steps required prior to installing NetVanta UC Server software, including obtaining the license key.

3.1 Preserving Installation and Upgrade Media

If physical installation media (a CD or DVD) was received, please store this media in a safe place so that the software can be reinstalled at a later date if necessary (for example, in the event of a hardware failure).

If the software was downloaded, please ensure that a separate copy of the installation media is made to CD or DVD and this media is stored in a safe place so that the software can be reinstalled at a later date if necessary (for example, in the event of a hardware failure). Do not store the downloaded media on the same physical disks as the operational server as a single disk failure could cause this media to be permanently lost.

Ensure that if software upgrades are performed, new versions are also stored on separate media in a safe place. Support personnel could require a copy of the installation media to reinstall software at a later date.

CAUTION: Failure to preserve installed software release media properly could result in the inability to rebuild a failed server at a later date. Copies of noncurrent software versions might not be readily available from ADTRAN Technical Support or your reseller causing delays to support technicians rebuilding failed servers.

3.2 System Requirements

3.2.1 Server Components

This section describes the required operating systems, hardware requirements, and third-party integration platforms for the NetVanta UC Server server components. This applies to both upgrades and new installations. If existing server hardware does not meet these requirements, it must be upgraded or migrated to new hardware prior to upgrading to this release of NetVanta UC Server.

3.2.1.1 Operating Systems

The NetVanta UC Server server components support the following Operating Systems:

Microsoft® Windows™

- Microsoft Windows Server 2008 R2 (x64)
 - Foundation, Standard, Enterprise, and Data Center editions are supported.
 - Deployment on Server Core or Hyper-V is not supported.

- Microsoft Windows Small Business Server 2008 (x64)

The recommended deployment for optimal performance and reliability is to install NetVanta UC Server on the additional Windows Server 2008 license that is part of the Premium Edition of Windows Small Business Server 2008. NetVanta UC Server can also be installed on the Windows Small Business Server 2008 platform with suitable hardware. Refer to Section 3.2.1.3, *Hardware Requirements*, for more information.

- Microsoft Windows Server 2008 (x86, x64)
 - Foundation, Standard, Enterprise, and Data Center editions are supported.
 - Deployment on Server Core or Hyper-V is not supported.

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- Microsoft Windows Server 2003 R2 SP1, SP2 (x86)
- Microsoft Windows Server 2003 SP1, SP2 (x86)
- Microsoft Windows Small Business Server 2003 SP1 (x86)

VMware vSphere™

- VMware vSphere 4.1
- VMware vSphere 5.0

3.2.1.2 Deprecated Operating Systems (no longer supported as of 5.0.x)

- Microsoft Windows XP SP2, SP3 (Professional) (x86)
- Microsoft Windows Essential Business Server 2008 (x86, x64)
- Microsoft Windows Small Business Server 2011 (x86, x64)

Other software platforms are not supported.

Installation of the server components into other virtualization environments (Virtual Server, Hyper-V, Virtual PC, Virtual Box, etc.) is not supported in production deployments. Due to the real-time nature of telecommunications, audio problems may be experienced in these environments. ADTRAN recommends using server operating system only for all installations of NetVanta UC Server.

CAUTION: When using TAPI integrations, or other integrations requiring use of CTI drivers, please review driver documentation for those products BEFORE proceeding with plans to use Windows Server 2008 or Windows Server 2008 derived platforms (SBS 2008/2010) as the server platform for those deployments.

3.2.1.3 Hardware Requirements

To install NetVanta UC Server, the server hardware platform must meet the minimum requirements in the following table. The minimum requirements are for a minimal installation. The recommended requirements are a guideline for more robust, reliable, and future-proofed systems.

Product engineering guidelines and recommendations should be consulted and followed for anything other than a minimal installation (for example, installations with more than 25 users). Sizing of the server hardware is dependent on the number of users, the traffic levels, and application services used. Selection of hardware should also take into account such things as redundant power supplies, uninterruptable power supplies (UPSs), and redundant disk arrays (for example, RAID) so that the end users' needs and expectations are met, along with any future growth requirements.

Consult *TN102 - Hardware Platform Recommendations* and the *Planning and Deployment Guide*, available online at <https://supportforums.adtran.com>, for more information on correctly selecting the hardware.

Hardware Component	Minimum	Recommended
Processor	Intel Pentium Dual-Core (E2140)	Intel Xeon Quad-Core (E5310)
RAM	4 GB 4 GB on Windows Small Business Server 2003 6 GB on Windows Small Business Server 2008	4 GB 6 GB on Windows Small Business Server 2008

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Hardware Component	Minimum	Recommended
Disk space	80 GB (usable space) 7200 RPM	146 GB (usable space) SAS – RAID 1 or RAID 5

3.2.2 Mail/Messaging Servers for Unified Messaging

NetVanta UC Server supports the following email servers for Unified Messaging:

- Microsoft Exchange™ Server 2000, 2003 SP1 (requires service pack 1 or later), 2007**, 2010, SP1/SP2 **

WARNING: ** Changes in the Exchange Mailbox detection logic for connecting to Microsoft Exchange Server 2010 or 2007 when the Exchange Mailbox, Client Access, and Hub Transport do not reside on the same server may require disconnecting and re-connecting the mailbox to ensure proper connectivity to the server in this configuration after an upgrade.

- IBM® Domino™ Server 6.0.x, 6.5.x, 7.0, 8.0 (via IMAP)
- Google Mail (via IMAP using stunnel)
- University of Washington IMAPd
- Any 100 percent compliant IMAP4rev1 (RFC 3501) message store (different servers could require different query optimization techniques – consult product documentation for query optimization technique determination procedures)

Integration with Microsoft Exchange Server requires a MAPI connector to be installed on the NetVanta UC Server platform. The supported MAPI connectors, of which only one should be installed on the server platform, are the following:

- Microsoft Exchange Server MAPI Client and Collaboration Data Objects 1.2.1
(Version: equal or greater than 6.5.8165.0, 2010-Apr-28 – older versions are not compatible with all platforms). This is available for download free of charge from:
<http://www.microsoft.com/downloads/details.aspx?familyid=e17e7f31-079a-43a9-bff2-0a110307611e&displaylang=en>

- Microsoft Outlook™ 2003 SP3 only

CAUTION: Microsoft Outlook 2003 as a MAPI connector is not supported and will cause unreliable integration with Microsoft Exchange Server 2010 and could cause system outages.

- Microsoft Outlook 2007 SP1 only

CAUTION: Outlook 2007 SP2 is not compatible as a server MAPI connector with UC Server and installing it will cause NetVanta UC Server to be unable to connect to Exchange Server.

- All Microsoft Exchange 2010 integrations are only supported with MAPI Client and Collaboration Data Objects 1.2.1

CAUTION: Outlook 2010 is not compatible as a server MAPI connector with UC Server and installing it will cause NetVanta UC Server to be unable to connect to Exchange Server.

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ADTRAN recommends using Microsoft Exchange Server MAPI Client and Collaboration Data Objects 1.2.1 instead of Microsoft Outlook and strongly encourages all customers to switch to this MAPI connector instead of Outlook. The benefits of doing this are as follows:

- No Outlook license is required for the NetVanta UC Server system. The MAPI/CDO package is available at no charge.
- The MAPI/CDO package is a minimal installation that requires fewer Microsoft Updates.
- This component is designed and provided by Microsoft explicitly for the purpose of allowing applications such as NetVanta UC Server to access Exchange Server and does not include many of the client-side nuances of Outlook versions of MAPI.

On Exchange Server 2003, additional steps are required after following the manual integration instructions in Appendix A of the *Configuration Guide*:

Delegate **Exchange View-Only Administrators** control to the NetVanta UC Server service account:

1. Open **Exchange System Manager** on an Exchange Server in the enterprise, or an administrative workstation.
2. Select the enterprise level object (the root object in the tree).
3. Select **Delegate control...** from the **Action** menu. This will open the **Exchange Administration Delegation Wizard**.
4. Click **Next**.
5. In the **Users or Groups** page of the wizard, click **Add** to open the **Delegate Control** dialog box.
6. Select the role **Exchange View Only Administrators** from the list of roles.
7. Click **Browse...** and select the service account used by NetVanta UC Server for Exchange Server and network integration.
8. Click **OK** in the **Select Users, Computers or Groups** dialog box.
9. Click **OK** in the **Delegate Control** dialog box.
10. Click **Next** in the **Users or Groups** page of the **Exchange Administration Delegation Wizard**.
11. Click **Finish** to complete and close the wizard.

3.2.3 Client Components

This section describes the required operating systems and hardware requirements for the NetVanta UC Server client components. Most installations will deploy client software to some or all of the end users of the system. Some installations do not require deployment of the client software depending on how NetVanta UC Server will be used.

3.2.3.1 Operating Systems

The NetVanta UC Server client components (NetVanta UC Client, NetVanta ucCompanion, and NetVanta ucCompanion - Live Attendant) support the following Microsoft® Windows™ Operating Systems:

- Microsoft Windows 7 (Professional, Ultimate, or Enterprise Editions) (x86, x64)
- Microsoft Windows Vista, SP1, SP2 (Business, Ultimate, or Enterprise Editions) (x86, x64)
- Microsoft Windows XP SP2, SP3 (Professional or Tablet PC Editions) (x86)
- Microsoft Windows Server 2008 R2 (x64)
- Microsoft Windows Server 2008 (x86, x64)
- Microsoft Windows Server 2003 R2, SP2 (x86)
- Microsoft Windows Server 2003 SP1, SP2 (x86)

Other software platforms are not supported.

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3.2.3.2 Prerequisite Components

Client components now requires a minimum version of [Microsoft .NET Framework 4.0](#) to be installed on target systems. In addition, for some components additional Microsoft redistributable components will be installed by the client installer.

3.2.3.3 Hardware Requirements

To install NetVanta UC client, the platform must meet the following minimum requirements for the specified Microsoft Windows operating systems listed below.

Client	XP, Server 2003	Vista, Windows 7, Server 2008, Server 2008 R2
Processor	x86 compatible processor 600 MHz or higher	x86 or x64 compatible processor 1 GHz
RAM	1 GB	1 GB
Free Disk space	500 MB	500 MB
Video	Super VGA (800 x 600) or higher resolution video adapter and monitor	Support for DirectX 9 graphics with: <ul style="list-style-type: none">• WDDM Driver• Minimum 128 MB graphics memory• Pixel Shader 2.0 in hardware• 32 bits per pixel

3.2.3.4 Email Clients for Unified Messaging

NetVanta UC Client integrates with the following email clients for Unified Messaging:

- Microsoft Outlook 2002/XP, 2003 SP3, 2007 and 2010 (x86)
- Microsoft Outlook 2010 64 bit without UC voice/fax form client support
- IBM Lotus Notes™ 6.0x, 6.5.x, 7.0, 8.0

3.3 Product Licensing (License Key)

All NetVanta UC Server products must be correctly licensed to operate. The license key obtained from ADTRAN is specific to each installation and defines the exact functionality licensed by the end user for their installation.

3.3.1 New Installs

When installing NetVanta UC Server for the first time, you must obtain a license key to install and activate the software.

3.3.2 Upgrades

To upgrade NetVanta UC Server from a previous major or minor release, you must obtain a new license key **prior to beginning** the upgrade. The existing license key, found in the License Information dialog box in the administrative NetVanta UC Client must be updated to the new license key prior to beginning the upgrade. After the new key is installed, you can continue to upgrade the server software. You do not need a new license key for maintenance (patch or dot) releases.

Upgrade license keys are only available to customers who have an active Software Assurance subscription.

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3.3.3 Obtaining a New License Key

To obtain a new or upgrade a license key, fill out a license key request in the UC Tools area of the ADTRAN website (<http://www.adtran.com/uctools>).

Note: Please allow enough time to obtain the license key – at least one (1) business day should be allocated to ensure the license key is obtained before installation or upgrade.

You will need the following information:

1. Contact information
2. Product Keys
 - New installs: available from materials that shipped with the product.
 - Upgrades: available for a user with Administrator privileges. From NetVanta UC Client, select the Help menu > License Information.
3. Purchase key
 - New installs: available from materials that shipped with the product.
 - Upgrades are available:
 - For a user with Administration privileges: From within NetVanta UC Client, select the Help > License Information. Click **Modify** license.
 - From the Product Licensing Wizard dialog box from Step 1 of NetVanta UC Server Configuration Wizard.
4. Machine ID
 - New installs: available from the Product Licensing Wizard dialog box of Step 1 of the NetVanta UC Server Configuration Wizard.
 - Upgrades are available:
 - For a user with Administration privileges: From NetVanta UC Client, select the Help > License Information. Click **Modify** license.
 - From the Product Licensing Wizard dialog box of Step 1 of NetVanta UC Server Configuration Wizard.
5. Platform specifications (CPU speed, RAM, and server OS) – available from the System control panel in the Windows Control Panel.
6. Product version and edition you will be installing or upgrading – available from the materials shipped with the product.
7. Message store type (Microsoft Exchange Server, Lotus Domino/Notes, IMAP4, or local machine) and version.
8. Legacy PBX interconnection, if applicable: PBX type, firmware version.

3.4 Prerequisite Components

NetVanta UC Server requires that prerequisite components be installed prior to installing the NetVanta UC Server software. The installer will detect which components are missing from the system and prompt accordingly. Some of the prerequisite components are included on the distribution media and can be installed automatically by the installer. However, others must be obtained directly from the vendor. Links to the relevant web-sites for any components that require downloading will be provided by the installer.

Not all prerequisites are required on all operating systems; specifics are noted below. Except where indicated, the prerequisites are installed automatically by the installer. The prerequisite components are:

- **Microsoft .NET Framework 4.0** (download link provided in installer)
- **Windows Server 2008 Enhanced Desktop Feature** (a reboot is required after installation) *[Windows Server 2008-based systems only pre-requisite Microsoft Windows Server 2008 Roles and Features]*

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- ***Microsoft Exchange Server MAPI Client and Collaboration Data Objects 1.2.1** (Version: 6.5.8165.0, 2010-Apr-28 - older versions are not compatible with all platforms)
- **Microsoft Visual C++ 2005 SP1 Redistributable Package (x86/x64)**
- **Microsoft Visual C++ 2008 SP1 Redistributable Package (x86/x64)**
- **Microsoft SQL Server 2008 Express Edition**
- **ADTRAN Software Diagnostic Logging Tools**

*MAPI Client and Collaboration Data Objects pre-requisite used for integration with Exchange.

CAUTION: NetVanta UC Server will only work correctly with the version of Microsoft SQL Server that is provided on the distribution media. Other instances of SQL Server cannot be used by NetVanta UC Server.

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4 Installation and Upgrade Instructions

Please review Section 3 [Installation Requirements](#) before proceeding with this section. It contains important information about product licensing, system requirements, and the versions of required external software components.

CAUTION: Failure to comply with the installation requirements, or properly follow the installation or upgrade instructions will result in an inoperable or poorly performing system.

4.1 New Install of NetVanta UC Server

This section contains an overview of the installation for NetVanta UC Server; for detailed installation procedures consult the *Installation Guide* applicable to your NetVanta Unified Communications product. To facilitate installation and configuration, have the following reference material available during installation:

- *Release Notes* (this document)
- *Planning and Deployment Guide*
- *Installation Guide*
- *NetVanta Unified Communications Server Presence and Control Components Guide* (for use with NetVanta ucCompanion - Live Attendant)
- *Configuration Guide*
- *Administrator Manual*
- *NetVanta ucCompanion Desktop Presence User Guide*

To ensure that all the required information is available during the installation and configuration process, it is recommended that the *Planning and Deployment Guide Worksheet* be completed.

4.1.1 Installing the Server Software

The installation software will automatically verify the prerequisites for software installation. Make sure that you run the installation from a Windows logon that has the ability to install software on the NetVanta UC Server system (for example, Administrator privileges).

To install NetVanta UC Server:

1. If the NetVanta UC Server software was downloaded from the ADTRAN website, follow Step a. If the NetVanta UC Server CD-ROM was shipped to you, go to Step b.
 - a. Unzip the contents of the file you downloaded to a temporary folder on NetVanta UC Server (you will need to provide a location and name for the folder). Start the installation by double clicking on **CAAutoRun.exe** (the ADTRAN NetVanta Unified Communications CD Menu will appear).
 - b. Insert the NetVanta UC Server CD-ROM. The Auto run application will start, and the ADTRAN NetVanta Unified Communications CD menu will appear.Install the applications to the NetVanta UC Server platform by clicking on the **Install Server** button on the installation screen and following the prompts on the subsequent screens.
 - a. Ensure that all prerequisites are installed. These will vary depending upon your platform and the components purchased, such as the Presence and Control components and the Windows 2003 Server Administration Tool Pack. The NetVanta UC Server Installation Wizard will ensure that all prerequisite components are installed before proceeding.
 - b. After all the prerequisite components are successfully installed, the wizard allows you to install the NetVanta UC Server software.
2. Run the NetVanta UC Server Configuration Wizard, **Configure UC Server**. The NetVanta UC Server Configuration Wizard allows you to specify server properties such as message store, NetVanta UC Server

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administrator password, PBX information, and dialing properties. The wizard guides you through the server configuration process. The wizard does most of the configuration tasks automatically, however, site specific information about the network and server needs to be entered at various steps.

3. When installing NetVanta UC Server for the first time, you **must** obtain a **license key**. To obtain a license key, please refer to Section 3.3, *Product Licensing (License Key)*.

4.1.2 Installing the Client Software

In order for NetVanta UC Server users to take full advantage of its functionality, client software should be deployed to their desktop or laptop computers. Refer to Section 4.3, *Installing or Upgrading NetVanta UC Client Software*, for installation options and procedures.

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4.2 Upgrading/Cross-grading NetVanta UC Server

CAUTION: Backup procedures have changed from previous releases. For instructions on backup and restore procedures, refer to the *Planning and Deployment Guide*, available online at <https://supportforums.adtran.com>, and adjust backup procedures accordingly. Failure to do so could result in data loss or extended system outages in the case of hardware or software failures.

4.2.1 Upgrade/Cross-grade Matrix

The following table describes which versions of NetVanta UC Server can be upgraded to newer versions and which versions of CallAttendant Office can be cross-graded to NetVanta UC Server.

From \ To	4.0.x (UC Server)	4.6.x (NetVanta UC Server)	5.0.x (NetVanta UC Server)	5.1.x (NetVanta UC Server)
Pre 3.2.x (CallAttendant Office)	Unsupported via direct upgrade – upgrade to 3.2.x first, then to 4.0.x	Unsupported via direct upgrade – upgrade to 3.2.x first, then to 4.0.x	Unsupported via direct upgrade – upgrade to 3.2.x first, then to 4.0.x	Unsupported via direct upgrade – upgrade to 3.2.x first, then to 4.0.x
Post 3.2.x (CallAttendant Office)	√	Unsupported via direct upgrade – upgrade to 4.0.x first	Unsupported via direct upgrade – upgrade to 4.0.x first	Unsupported via direct upgrade – upgrade to 4.0.x first
4.0.x (CallAttendant Office)	√	√	Unsupported via direct upgrade – upgrade to 4.5.x first	Unsupported via direct upgrade – upgrade to 4.5.x first
4.2.x (CallAttendant Office)		√	Unsupported via direct upgrade – upgrade to 4.5.x first	Unsupported via direct upgrade – upgrade to 4.5.x first
4.0.x (UC Server)		√	Unsupported via direct upgrade – upgrade to 4.5.x first	Unsupported via direct upgrade – upgrade to 4.5.x first
4.1.x (UC Server)		√	Unsupported via direct upgrade – upgrade to 4.5.x first	Unsupported via direct upgrade – upgrade to 4.5.x first
4.2.x (UC Server)		√	Unsupported via direct upgrade – upgrade to 4.5.x first	Unsupported via direct upgrade – upgrade to 4.5.x first
4.3.x (UC Server)		√	Unsupported via direct upgrade – upgrade to 4.5.x	Unsupported via direct upgrade – upgrade to 4.5.x

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			first	first
4.4.x (UC Server)		√	Unsupported via direct upgrade – upgrade to 4.5.x first	Unsupported via direct upgrade – upgrade to 4.5.x first
4.5.x (NetVanta UC Server)		√	√	Unsupported via direct upgrade – upgrade to 4.6.x first
4.6.x (NetVanta UC Server)		√	√	√
5.0.x (NetVanta UC Server)		√	√	√
5.1.x (NetVanta UC Server)		√	√	√
5.2.x (NetVanta UC Server)		√	√	√

In order to upgrade from older versions, interim upgrade steps must be followed. Refer to the applicable section below for more details.

4.2.2 Upgrading NetVanta UC Server from any 4.x.x Release

CAUTION: The existing version of NetVanta UC Server must NOT be uninstalled prior to upgrading. The installation process requires that the existing implementation be available in order to perform the upgrade correctly.

The following is a summary of the upgrade procedure from any NetVanta UC Server 4.x.x release; refer to the *Installation Guide* applicable to your NetVanta Unified Communications product, available online at <https://supportforums.adtran.com>, for detailed instructions on installing this component.

CAUTION: Failure to follow the steps below, exactly as described, could result in a system that does not upgrade or operate correctly after upgrade.

Perform the following steps:

1. If performing a major or minor upgrade, obtain a new license key. Please refer to the instructions in Section 3.3, *Product Licensing (License Key)*.
2. Backup the NetVanta UC Server. For instructions on backup and restore procedures, refer to the *Planning and Deployment Guide* applicable to your NetVanta Unified Communications product, available online at <https://supportforums.adtran.com>. Backing up will preserve the following data:
 - a. Users (greetings, services, announcements)
 - b. Port configuration
 - c. Attendant data
 - d. System configuration

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- e. Routing data
- f. Telephone data
- g. Gateway data
- h. PBX configuration data

CAUTION: Failure to backup the data according to these instructions and the Technical Note **will** result in the inability to restore the system to the original configuration should the upgrade process be unsuccessful or aborted. **Always back the system up prior to upgrading.**

3. If a new license key was obtained in Step 1, modify the current license key using the following procedure:
 - a. Open NetVanta UC Client using the current installed product version and log in as a user with administrative privileges.
 - b. Select **License Information...** under the Help Menu on the main toolbar.
 - c. Click the **Modify license...** button to open the Modify License dialog box.
 - d. Enter the new license key in the space provided.
 - e. Click **OK** to close the Modify License Dialog box.
 - f. Click **Close** to close the License Information Dialog box.
 - g. Close NetVanta UC Client by clicking the top right corner x icon or selecting **Close** from the **File** menu.
4. If the NetVanta UC Server software was downloaded from the ADTRAN website, follow Step a. If the NetVanta UC Server CD-ROM was shipped to you, go to Step b.
 - a. Unzip the contents of the file you downloaded to a temporary folder on the server computer (you will need to provide a location and name for the folder).
 - b. Insert the NetVanta UC Server CD-ROM. The **CAAutoRun** application will start, and the ADTRAN NetVanta Unified Communications CD menu will appear – leave this open for now, you will use it later.
5. For ECS and BAS product variants, run the `Pre-Update.bat` script file as follows:

IMPORTANT NOTICE: For upgrades of ADTRAN phone family types, custom configurations **will be lost unless the following changes are made prior to running the Pre-Update.bat**

- a. Locate the ADTRAN.original.zip on the release media
"Release\Utility\Scripts\ADTRAN.original.zip" or via <http://www.adtran.com/support/>
 - b. Extract the zip to the following location: "C:\Program Files\ADTRAN\NetVanta UC Server\Data\System\PhoneTypes\ADTRAN"
 - c. Run the Pre-update and Post-updates as instructed
- a. Click the **Start** menu and select **Run...**
 - b. Type `cmd.exe` and click **OK** to open a command prompt window

NOTE: On systems with User Account Control (UAC) enabled, such as Windows Server 2008 R2, you must start the command prompt window as Administrator. To do this, instead of Step a and Step b above, do the following:

1. Click on the **Start** menu.
2. Type `cmd.exe` in the search bar. (If classic start menu is enabled, locate **Command Prompt** under **All Programs | Accessories** instead.)
3. Right click on `cmd.exe` in search results (or Command Prompt in the menu), and select **Run as administrator**.
4. Accept the UAC prompt to elevate the command prompt to administrative privileges.

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- c. Navigate to the script folder on the installation media using the `CD` command. This is located in the `Utility\Scripts` subfolder of the installation media.

Example: `CD /d C:\NetVantaUCServerInstallMedia\Utility\Scripts`

- d. Run the `Pre-Update.bat` script, supplying any appropriate parameters relevant to your installation:

Syntax: `Pre-Update.bat [/V | /?] [PhoneTypes Folder] [Backup Folder]`

- If your NetVanta UC Server installation is not located at `C:\Program Files\ADTRAN\NetVanta UC Server\`, you must specify the location of the PhoneTypes system data folder as shown in the example below.
- If backups should be written to a location other than `C:\Backup\PhoneTypes`, then you must specify a backup folder as shown in the example below.
- The `/?` option provides help on the script; the `/v` option provides more detailed output and logging.

Example: `Pre-Update.bat "C:\Program Files\ADTRAN\NetVanta UC Server\Data\System\PhoneTypes\" "C:\Backup\PhoneTypes\"`

- e. When the script prompts you to continue, confirm the information displayed, type **y**, and then press Enter.
 - f. Examine the output of the script to ensure it ran correctly. The output is placed in a file called `Pre-Log.txt` in the backup location. The default backup location is `C:\Backup\PhoneTypes`.
 - g. Leave the command window open because it will be used later.
6. The ADTRAN NetVanta UC Server Application Services service could be unable to be started during the upgrade due expiry of the service account password. This can also occur spontaneously on some Windows XP installations or in networks where account passwords have to be changed regularly, but will not be detected until the machine is restarted or the ADTRAN NetVanta UC Server Application Services service is restarted. Be sure to have the service account password accessible in order to reset it immediately. To verify that the service account password has not expired, do the following:
 - a. Open the **Services** administration tool from **Start > Control Panel > Administrative Tools**.
 - b. Locate the service named ADTRAN NetVanta UC Server Application Services.
 - c. Right click on the service, and select **Restart** from the context menu.
 - d. If the service fails to start, right click on the service, and select **Properties** from the content menu.
 - e. Select the **Log On** tab. Re-enter the service account password in the provided fields and click **OK**.
 - f. Attempt to start the service again by right clicking on the service, and selecting **Start** from the context menu. If the service again fails to start, verify that the service account is operating correctly and is not locked out.

Failure to perform this step will cause the install to fail with a 1920 error if there is a problem with the service account or its password. This can be corrected by following the same steps while the 1920 error is displayed. Do not cancel the 1920 error dialog box because it will fail to upgrade and your system will have to be restored from backups. When you have corrected the service account password, click **Retry** in the 1920 error dialog box.

7. If the NetVanta UC Server software was downloaded from the ADTRAN website, follow Step a. If the NetVanta UC Server CD-ROM was shipped to you, go to Step b.
 - a. Locate the temporary folder where you extracted the files in a previous step. Start the upgrade by double clicking on **CAAutoRun.exe** (the ADTRAN NetVanta Unified Communications CD Menu will appear).
 - b. From the ADTRAN NetVanta Unified Communications CD Menu (opened when the CD was inserted in a previous step), click the **Install Server** button to prepare the NetVanta UC Server upgrade.

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8. On an upgrade from previous releases, you could be required to install or update prerequisite components. Click on the **Verify or automatically install remaining components** button to proceed. Some components might require downloading from the vendor's websites.
9. Adding the NetVanta UC Server Presence and Control Components:
 - a. If you are using the NetVanta Unified Communications Server product variant, or if you do not plan on using NetVanta ucCompanion - Live Attendant:
 - Disable the following option: **Install Presence Components**.
 - Click **Next**.
 - b. If you plan on upgrading the Presence and Control Components from a 4.2.x, 4.3.x, 4.4.x, 4.5.x, 4.6.x or 5.0.x version you must first uninstall the existing version via Add/Remove control panel applet:
 - Navigate to the install media and locate the **ADTRAN NetVanta ucCompanion.msi** and launch the installer and follow the dialog box.
 - Click Install on the **ADTRAN NetVanta UC Live Attendant Server Components Setup Wizard** screen.
 - Click **Next** on the welcome page of the **ADTRAN NetVanta UC Live Attendant Server Components Setup Wizard** and follow the prompts on subsequent screens until finished. Consult the *NetVanta Unified Communications Server Presence and Control Components Guide* for additional installation documentation.
 - Click **Finish** when complete.
 - Click **Yes** when prompted to restart the system for the configuration changes to take effect.
10. Upgrading the NetVanta UC Server.
 - a. If upgrading from 4.2.x, 4.3.x, 4.4.x, 4.5.x, 4.6.x, or 5.x:
 - The **ADTRAN NetVanta Unified Communications Server Setup** welcome page will appear briefly as the upgrade does various checks on the system.
 - Click the **Install** button when the page titled **Resuming the ADTRAN NetVanta Unified Communications Server Setup Wizard** appears and follow the prompts to complete the upgrade.
 - Click the **Finish** button to close the setup wizard and return to the **Preparing NetVanta UC Server Installation** dialog box.
 - b. If upgrading from 4.0.x or 4.1.x Trial:
 - Install the server application to the NetVanta UC Server platform by clicking on the **Install UC Server** button.
 - The **ADTRAN NetVanta Unified Communications Server Setup** welcome page will appear briefly as the upgrade does various system checks.
 - Click the **Install** button when the page titled **Resuming the ADTRAN NetVanta Unified Communications Server Setup Wizard** appears.
 - Continue clicking the prompts to complete the upgrade.
 - Click the **Finish** button to return to the **Preparing UC Server Installation** dialog box.
11. Click the **Configure UC Server** button to launch the NetVanta UC Server Configuration Wizard.

NOTE: *If all the steps in the server configuration were completed prior to the upgrade, you will be presented with three options (**Change Service Account**, **Users**, and **Phone Types**). You could be required to perform the first option, **Change Service Account** to reset the service account to what was configured prior to the upgrade.*
12. In an upgrade from 4.0.x you need to complete Gateway configuration in the NetVanta UC Server Configuration Wizard then reset the service account:
 - a. Click on the **Configure UC Server** to launch the **NetVanta UC Server Configuration Wizard**.
 - b. When prompted to login, login as a user with NetVanta UC Server administrative privileges.
 - c. Complete the Gateways portion of the wizard. (Select **Next**, select **None**, then **Next**, then click **Finish** to close the Gateway wizard).
 - d. Click **Exit** to close the **NetVanta UC Server Configuration Wizard**.

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- e. Click the **Configure UC Server** button in the **Preparing UC Server Installation** dialog box.
 - f. Login as a user with NetVanta UC Server administrative privileges when prompted.
 - g. Click on the **Change Service Account** option and proceed to configure the service account.
 - h. Select the service account that was configured prior to the upgrade.
 - i. Click **Close** to exit the **NetVanta UC Server Configuration Wizard**.
 - j. Click **Close** to exit the **Preparing UC Server Installation**.
13. For ECS and BAS product variants, run the `Post-Update.bat` script file as follows:
- a. Locate the command window opened in Step o.
 - b. Run the `Post-Update.bat` script, supplying any appropriate parameters relevant to your installation:

Syntax: `Post-Update.bat [/V | /?] [PhoneTypes Folder] [Backup Folder]`
 - If your UC Server installation is not located at `C:\Program Files\ADTRAN\NetVanta UC Server\`, you must specify the location of the PhoneTypes system data folder as shown below in the example.
 - If backups were written to a location other than `C:\Backup\PhoneTypes`, then you must specify the same backup folder as specified in Step o.
 - The `/?` option provides help on the script; the `/v` option provides more detailed output and logging.
Example: `Post-Update.bat "C:\Program Files\ADTRAN\NetVanta UC Server\Data\System\PhoneTypes\" "C:\Backup\PhoneTypes\"`
 - c. When the script prompts you to continue, confirm the information displayed, type **y**, and then press Enter.
 - d. Examine the output of the script to ensure it ran correctly. The output is placed in a file called `Post-Log.txt` in the backup location, which defaults to `C:\Backup\PhoneTypes`.
 - e. When the script completes, it will indicate if any site-specific customizations have been made. Details of the customizations will be output to a file called `FileComparison.txt` in the backup location. The default backup location is `C:\Backup\PhoneTypes`.
 - f. The `Post-Update` script will only update all of the "attributes.xml" files for each phone type in use. It will not modify any other files automatically. Please re-apply any necessary custom configuration to all other files listed in "FileComparison.txt". For any questions or concerns, please refer to phone vendor documentation or contact ADTRAN support for guidance. Once any customizations have been re-applied, restart the ADTRAN NetVanta UC Server Application Services service using the Services administrative tool.

IMPORTANT NOTICE: For upgrades of ADTRAN phone family types, custom configurations will be lost unless the following changes are made **prior** to running the `Pre-Update.bat`

- Locate the `ADTRAN.original.zip` on the release media
 - Extract to the following location: `"C:\Program Files\ADTRAN\NetVanta UC Server\Data\System\PhoneTypes\ADTRAN"`
 - Run the Pre-update and Post-update instructions as noted below
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IMPORTANT NOTICE: Since some phone firmware required for supporting new features in this release have changed, the following phone family types including Polycom and snom's existing user customized configuration files (.cfg) will be overwritten during an upgrade and cannot be merged as a result of the post-update script execution as noted above. Custom configuration will require user to edit the new .cfg files after the upgrade and associated phone firmware revision update.

14. Update the `RestartOverrides.cfg` file (located in ...\\NetVanta UC Server\\Data\\System\\Recovery\\) according to the following conditions:
 - a. If manual changes have been made to this file, then you must manually copy any entries from `RestartOverrides.cfg.original` to `RestartOverrides.cfg` that are not present in the latter file.
 - b. If no manual changes were made to this file, then replace the contents of `RestartOverrides.cfg` with the contents of `RestartOverrides.cfg.original`. It is not necessary to restart the ADTRAN NetVanta UC Server Application Services service. However, if the file has been appended to instead of being replaced, then the application service must be restarted for the changes to take effect.
15. If **Install Presence Components** was selected in Step 9, you will be required to configure these components at this time. Please consult the *NetVanta Unified Communications Server Presence and Control Components Guide* for configuration documentation. If this is an upgrade from 4.2.x, 4.3.x, 4.4.x, 4.5.x 4.6.x or 5.x, then the NetVanta UC Server Presence and Control Components could have already been configured.
16. For optimal performance, disable the Indexing Service provided by Windows. For detailed instructions, please refer to Section 3.7, *Configuring Services*, of the *Installation Guide*.
17. For ECS and BAS product variants, re-apply phone configurations to all phones in the system as follows:
 - a. Open NetVanta UC Client and log in as a user with administrative privileges.
 - b. Click on the **Administration** navigation bar.
 - c. Click on the **Phones** folder in the **Administration** navigation bar.
 - d. In the contents pane, select all phones by clicking on the first phone, then pressing Shift-Ctrl-End on the keyboard. All phones should now be selected.
 - e. Right click on one of the selected phones, and select **Reload Configuration** from the menu. This will cause all phone configuration files to be regenerated and phones to reload their configuration data (rebooting most phone types).

4.2.3 Cross-grading from CallAttendant Office Server 4.0.x/4.2.x to NetVanta UC Server

CAUTION: The existing version of CallAttendant Office must NOT be uninstalled prior to cross-grading. The installation process requires that the existing implementation be available in order to perform the upgrade correctly.

The following is a summary of the procedure for cross-grading your CallAttendant Office release 4.0.x/4.2.x software, please consult the *Installation Guide* for detailed instructions on installing the NetVanta UC Server component. If the CallAttendant Office software is currently below the 4.0 Software versions, you must first upgrade to Release 4.0.x version.

This upgrade will take significantly longer as the NetVanta UC Server installation program will make a complete copy of the data for the upgraded installation. For large installations where voice and fax messages are stored on locally, it can take one to two hours to copy the data during the upgrade. Do not cancel the upgrade during this process. As a result, this upgrade will require at least twice as much disk space as the Data folder occupies in order to perform the upgrade.

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Prior to upgrading to release 4.0.x, do the following:

1. Backup the CallAttendant Office using the instructions found in *TNo71 – Backup and Restore Procedures for CallAttendant Office*, available online at <https://supportforums.adtran.com>, to preserve the following data:
 - a. Users (greetings, services, announcements)
 - b. Port configuration
 - c. Attendant data
 - d. System configuration
 - e. Routing data
 - f. Telephone data
 - g. Gateway data

CAUTION: Failure to backup the data according to these instructions and the Technical Note **will** result in the inability to restore the system to the original configuration should the upgrade process be unsuccessful or aborted. **Always back the system up prior to upgrading.**

2. Record the CallAttendant Office service account username and password. This can be done using the Services Control Panel application. Select the CallAttendant Office service and record the username. The password must already be known because it cannot be viewed in the Services Control Panel.
3. You must have an up-to-date license key to support the latest release of CallAttendant Office 4.0.x and NetVanta UC Server (in some circumstances, you could receive two license keys that will be used to support the upgrade). To obtain a new license key, please refer Section 3.3.3, *Obtaining a New License Key*.
4. Ensure that you enter the new license key in the CallAttendant Office administrator application (Help > License Information) menu prior to upgrading the software.

CAUTION: If an existing PBX is being replaced with NetVanta Enterprise Communications Server, please contact support@adtran.com for additional instructions.

To install NetVanta UC Server:

1. **Rename** all of the configuration files in the `.\Data\System` by appending `.old` to the existing filename:
Example: `C:\Program Files\Objectworld\CallAttendant Office Server\Data\System\DefinityPBXDefinition.cfg` to `DefinityPBXDefinition.cfg.old`
2. If the NetVanta UC Server software was downloaded from the ADTRAN website, follow Step a. If the NetVanta UC Server CD-ROM was shipped to you, go to Step b.
 - a. Unzip the contents of the file you downloaded to a temporary folder on the server computer (you will need to provide a location and name for the folder). Start the installation by double clicking on **CAAutoRun.exe** (the ADTRAN NetVanta Unified Communications CD Menu will appear). Preserve a copy of the installation media accordingly. Refer to Section 3.1, *Preserving Installation and Upgrade Media*.
 - b. Insert the NetVanta UC Server CD-ROM. The Auto run application will start, and the ADTRAN NetVanta Unified Communications CD menu will appear.
3. If you plan on using NetVanta ucCompanion – Live Attendant, install or update the NetVanta UC Server Presence and Control components at this time. Consult the *NetVanta UC Server Presence and Control Components Guide* for installation documentation, which is provided on the distribution media.
4. Install the server applications to the NetVanta UC Server platform by clicking on the **Install UC Server** buttons on the NetVanta UC Server installation screen and following the prompts on the subsequent screens until finished.
5. For optimal performance, disable the Indexing Service provided by Windows. For detailed instructions, please refer to Section 3.7, *Configuring Services*, of the *Installation Guide*.
6. Once the installation has completed, select the **Configure UC Server** button to run the **Server Configuration Wizard**, but do not add anything if it has already been configured. From the set of options, at a minimum, complete the following tasks:

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- a. Enter the NetVanta UC Server license key to enable SIP functionality.
- b. Configure the **Windows Network Integration** and select from one of the following:
 - i. If the service account was previously configured for **Local System** account, you must create a Windows account on the local machine. Operating the **Application Services** service on the **Local System** account is no longer supported.
 - ii. If the service account was previously configured with a Windows Active Directory™ account, then configure the **Existing Service Account**.
7. Open the **Windows Services application** and ensure that the **ADTRAN NetVanta UC Server Application Services** service is set to start automatically. Note, you might have to refresh (F5) the services application in order to get a current view of the status. From the **Windows Services Applications**, start the **ADTRAN NetVanta UC Server Application Services** service if it is not already started.
8. Complete the remaining steps in the **NetVanta UC Server Configuration Wizard**. If appropriate, make any additional configuration changes required, such as adding NetVanta Enterprise Communications Server as a new communication system, adding new phone types or new gateways.

4.2.4 Cross-grading from CallAttendant Office Server 3.2.x to NetVanta UC Server (all editions)

NOTE: *It is not possible to upgrade directly from 3.x to 4.2 and later releases (Refer to Section 4.2.1, Upgrade/Cross-grade Matrix). An upgrade from CallAttendant Office 3.x to CallAttendant Office 4.0.x must be performed as an intermediate step. Once this is complete, you can upgrade to the latest NetVanta UC Server 4.x release.*

To upgrade 3.x to 4.0.x:

1. Backup the CallAttendant Office using the instructions found in *TNo71 – Backup and Restore Procedures for CallAttendant Office*, available online at <https://supportforums.adtran.com>, to preserve the following data:
 - a. Users (greetings, services, announcements)
 - b. Port configuration
 - c. Attendant data
 - d. System configuration
 - e. Routing data
 - f. Telephone data
 - g. Gateway data

CAUTION: Failure to backup the data according to these instructions and the Technical Note **will** result in the inability to restore the system to the original configuration should the upgrade process be unsuccessful or aborted. **Always back the system up prior to upgrading.**

2. Stop the **CallAttendant Office Service** from the **Windows Services application**.
3. **Rename** the following files:
 - a. C:\Program Files\Objectworld\CallAttendant Office Server\Data\System\Announcements folder to Announcements.old
 - b. C:\Program Files\Objectworld\CallAttendant Office Server\Data\System\DefinityPBXDefinition.cfg to DefinityPBXDefinition.cfg.old
4. If the CallAttendant Office software was downloaded from the ADTRAN website, follow Step a. If the CallAttendant Office CD-ROM was shipped to you, go to Step b.
 - a. Unzip the contents of the file you downloaded to a temporary folder on the CallAttendant Office server (you can create a CallAttendant Office folder). Start the installation by double clicking on **CAAutoRun.exe** (the CallAttendant Office installation screen will appear). Preserve a copy of the installation media accordingly. Refer to Section 3.1, *Preserving Installation and Upgrade Media*.
 - b. Insert the CallAttendant Office CD-ROM. The Auto run application will start and the CallAttendant Office installation screen will appear.
5. Install the Server applications to the CallAttendant Office platform by clicking on the **Install CallAttendant Office Server** button on the CallAttendant Office installation screen and following the prompts on the subsequent screens until finished. Do not choose to reboot the computer at this point.

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6. Open the **Windows Services** application and set the **CallAttendant Office Service** to start **automatically**.

NOTE: You might have to refresh (F5) the Services application in order to get a current view of the status.

7. From the **Windows Services** applications, start the **CallAttendant Office service**.
8. Convert the system audio. If the software was upgraded from Release 3.1 or earlier, you must convert the audio from the pre-existing 11 kHz-8bit audio format to the newly supported 8 kHz mu-law audio. Although the CallAttendant Office server will change the audio format on-the-fly the conversion will introduce latency in playing audio files or messages.

CAUTION: Ensure that you perform the audio conversion during the maintenance window – typically, after normal business hours.

To perform the audio conversion:

1. From **My Computer**, navigate to the C:\Program Files\Objectworld\CallAttendant Office Server\Bin directory.
2. Double-click on the `ConvertAudio.exe` application.

4.2.5 Upgrading Client Software

If anything other than a minor server upgrade has taken place, client software **must** be updated on end user computers; only 5.1.x client software is supported with 5.1.x server software. Refer to Section 4.3, *Installing or Upgrading NetVanta UC Client Software*, for installation options and procedures.

4.3 Installing or Upgrading NetVanta UC Client Software

This section documents manual installation procedures, and presents other techniques for automated client deployment.

CAUTION: Only release 5.1.x NetVanta UC Client software is compatible with NetVanta UC Server 5.1.x software (the patch revision value 'x' does not need to be identical). All incompatible clients must be upgraded after the NetVanta UC Server has been upgraded.

4.3.1 Manual Installation or Upgrade Instructions

NOTE: The user installing NetVanta UC Client software **MUST** have administrative privileges on that desktop computer.

1. If the NetVanta UC Server software was downloaded from the ADTRAN website, follow Step a. If the NetVanta UC Server CD-ROM was shipped to you, go to Step b.
 - a. Unzip the contents of the file you downloaded to a temporary folder on the desktop computer (you will need to provide a location and name for the folder). Start the installation by double clicking on **CAAutoRun.exe** (the ADTRAN NetVanta Unified Communications CD Menu will appear). Preserve a copy of the installation media accordingly. Refer to Section 3.1, *Preserving Installation and Upgrade Media*.
 - b. Insert the NetVanta UC Server CD-ROM. The Auto run application will start, and the ADTRAN NetVanta Unified Communications CD menu will appear.
2. Install the client applications to the client computer by clicking on the **Install Client** button on the installation screen and following the prompts on the subsequent screens.

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CAUTION: Installing NetVanta UC Client directly on the NetVanta UC Server platform is not supported. Ensure that the client is installed on a separate platform meeting the minimum requirements.

4.3.2 Other Techniques for Installing and Upgrading Client Software

Client software can be deployed using automated techniques including:

- GPO-based MSI installation. Refer to *TN116 - Installing NetVanta UC Client Using GPO*, available online at <https://supportforums.adtran.com>, for more information on this option.
- GPO-based login scripts that invoke either `SETUP.EXE` or `MSIEXEC.EXE` with appropriate parameters. Prerequisite components must have been previously installed successfully. Consult standard Microsoft documentation for more information on those techniques.

5 Support, Documentation, and Training

5.1 Support

Self-service support material can be obtained from the ADTRAN website, <http://www.adtran.com/support>, and from the ADTRAN Technical Support Knowledge Base, <https://supportforums.adtran.com>.

Information on product support services can be obtained from the ADTRAN website: <http://www.adtran.com/support>.

5.2 Documentation

Product documentation and additional technical support material can be found on the ADTRAN website, <http://www.adtran.com/support>, and in the ADTRAN Technical Support Knowledge Base, <https://supportforums.adtran.com>.

5.3 Training

Information on current training programs and certifications can be found on the ADTRAN website: <http://www.adtran.com/training>.

5.4 Product Downloads and Third-Party Drivers

Product downloads and third-party drivers and patches are available in the support area of the ADTRAN website: <http://www.adtran.com/support>.

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6 Third-Party Interoperability

CAUTION: Some third-party drivers and applications may not support Windows Server 2008 and derived platforms (SBS 2008, 2010). When using TAPI integrations, or other integrations requiring the use of CTI drivers, please review driver documentation for those products **BEFORE** proceeding with plans to use Windows Server 2008 as the server platform for those deployments.

Please consult information provided in *TNo51 – UC Server Interoperable SIP Devices and Services*, available online at <https://supportforums.adtran.com>, for interoperability information related to:

- SIP telephone terminals
- SIP soft phones
- SIP paging speakers, amplifiers and related devices
- SIP wireless terminals
- SIP gateways and application layer gateways (ALGs)
- ITSPs

Information on PBX integration and software applications is provided below in this document.

6.1 NetVanta UC Server with a PBX Integration

6.1.1 Supported Private Branch Exchanges (PBX)

NetVanta Unified Communications Server has the capability to connect to multiple traditional PBXs and IP PBXs while simultaneously supporting SIP services **ECS**. NetVanta UC Server can be deployed as a voicemail, unified message server, database IVR platform, and fax server behind a traditional PBX while also simultaneously supporting SIP telephony **ECS**. This provides a useful transition strategy for companies looking to migrate to VoIP but who still want to leverage their existing infrastructure. NetVanta UC Server users who employ a traditional PBX for telephony can still take advantage of Active Directory™ integration for user management; the telephony features will be managed through their PBX configuration interface.

NetVanta UC Server integrates with a wide variety of traditional PBX and IP PBXs using Dialogic 1000 and 2000 Media Gateways. The following PBXs are now supported using the Dialogic Media Gateway:

- | | |
|--------------------------------|-----------------------|
| • Alcatel Omni PCX 4400 | • Nortel CS-1000 |
| • Avaya Communications Manager | • Nortel DMS 10 |
| • Avaya Definity G3 | • Nortel DMS 100 |
| • Avaya Legend | • Nortel Meridian 1 |
| • Avaya Merlin Magix | • Phillips Sopho |
| • Avaya Partner | • Rolm (Siemens) 8000 |
| • Ericsson BusinessPhone | • Rolm (Siemens) 9000 |
| • Ericsson MD110 | • Rolm (Siemens) 9751 |
| • Intecom PointSpan M6880 | • Siemens HiCom 150E |
| • Mitel 3300 | • Siemens HiCom 300 |
| • Mitel SX-2000 | • Siemens HiPath 4000 |
| • Mitel SX-200D Family | • Toshiba CTX |
| • NEC NEAX2400 | |

For more specific details on which PBX editions and interfaces are supported, consult the Dialogic Media Gateway documentation available from Dialogic's website: <http://www.dialogic.com/support/helpweb/mg/integration.htm>.

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NetVanta UC Server also integrates with the PBXs listed in the table below using one of the following techniques:

- Analog port integration with in-band tones using Dialogic® D/4PCIUF and D/120JST-LS Media Boards
- Digital set emulation using Dialogic® D/82JCT-U and D/42JCT-U PBX Integration Boards
- CTI link/analog port integration using Dialogic® D/4PCIUF and D/120JST-LS Media Boards
- PBX Vendor supplied Microsoft TAPI/WAVE Service Providers

PBX Vendor/Model	Minimum Software Release	Technical Note (TN) Reference Number	Integration Type	Third-Party Hardware/Software (Recommended)
Avaya Communications Manager	1.0 and above	TN016	Digital set emulation: - 7434D emulation - 8434D emulation - 7434ND emulation	Dialogic 6.0 SU 266
Avaya Definity (no CLID)	6.3 and above	TN009	Analog port using mode codes; mode code option is required	Dialogic 6.0 SU 266
Avaya Definity/Multi-Vantage (with CLID)	4.0 and above	TN010	Digital set emulation: - 7434D emulation - 8434D emulation - 7434ND (7.5 and above)	Dialogic 6.0 SU 266
Avaya IP Office	2.0 and above	TN012	CTI link/analog port using TAPI	- IP 400 CTI link - IP 400 TAPI-WAVE Dialogic 6.0 SU 229
Avaya Merlin Legend	3.1 and above		Analog port using mode codes	Dialogic 6.0 SU 229
Avaya Merlin Magix (with CLID)	2.1 and above	TN008	Analog port using mode codes	Magix CTI link bundle Dialogic 6.0 SU 229
Avaya Merlin Magix (no CLID)	2.1 and above	TN008	CTI link/analog port using mode codes /TSAPI	Dialogic 6.0 SU 229
Avaya Partner ACS	3.0 and above		Analog port using mode codes	Dialogic 6.0 SU 229
Cisco Call Manager	4.2	TN039	Cisco-supplied Microsoft TAPI/WAVE Service Provider	
Mitel SX200 (family)	G1005/LW16 F41.0.2	TN011	Analog port using enhanced in-band DTMF tones	Dialogic 6.0 SU 229

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PBX Vendor/Model	Minimum Software Release	Technical Note (TN) Reference Number	Integration Type	Third-Party Hardware/Software (Recommended)
Mitel 3300 (IVR only)	Any version that requires ONS voicemail support		Analog port using in-band DTMF tones	Dialogic 6.0 SU 229
Nortel Norstar	4.2 and above	TN003	Digital set emulation: - M7324 set emulation	Dialogic 5.1.1 with PTR.31016 **
Generic in-band	PBX dependent		Analog port using in-band DTMF tones	Dialogic 6.0 SU 229

** NetVanta UC Server ONLY supports Dialogic Release 5.1.1 software with PTR.31016 (LIBFAXMT.DLL) for Norstar PBXs since the Do Not Disturb feature does not work with Dialogic Release 6.0 for Nortel Norstar PBX.

6.1.2 New Installation of Dialogic Software

To install Dialogic software on the new NetVanta UC Server:

1. Install the Dialogic System Software compatible with the PBX make and model.
 - a. Run SETUP.EXE from Windows Explorer.
 - i. When prompted to select features, select **Core Runtime Package**, select **Next**.
 - ii. When advised that the installation will install third-party software, select **Yes**. The installation will detect and remove any existing Dialogic system software.
 - iii. The first stage of the installation will require a reboot. When prompted to restart the system, select **Yes**.
2. Verify through the Windows Hardware Device Manager that all of the Dialogic cards reside in the Dialogic Springware Devices section.

NOTE: *If any of your cards appear to be improperly configured (for example, caution symbol or otherwise) then you will have to update the driver.*

- a. To update the driver:
 - i. Locate and configure the Dialogic card from Device Manager.
 - ii. Select the **Driver** tab and select **Update Driver**.
 - iii. Choose **Search for suitable driver for my device (recommended)**, and click **Next**.
 - iv. When the driver update locates the Dialogic Card, click **Next**.
 - b. Repeat Step i through Step iv for each Dialogic card that appears improperly installed or configured.
3. Run **Dialogic Configuration Manager** (Start > Programs > Dialogic System Release > Configuration Manager – DCM. DCM will detect any Dialogic hardware installed on the machine hosting NetVanta UC Server software.
 - a. Ensure that the board settings match your PBX type. (The default configuration is Nortel Norstar.)
 - b. For digital set emulation, open each card and ensure the **MISC** tab > **PBXSwitch** parameter is configured according to your integration.
 - c. Refer to the relevant configuration guide
 4. Configure the Dialogic service to start automatically; Select Settings > System Device Autostart to **Start System**. It is normal to encounter the error message **Failed to set the Device Autostart setting. Requested data not found in NCM data storage**.
 5. Proceed with NetVanta UC Server installation instructions.

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6. Verify the Dialogic board ordering by running NetVanta UC Client as an administrator and call each port. If the ports are not answering in the correct order, switch the Dialogic cables on the back of the machine hosting NetVanta UC Server software.

6.1.3 To upgrade Dialogic software on existing NetVanta UC Server (if required)

Once you have determined that the Dialogic software version needs to be upgraded then perform the following steps:

1. Remove existing Dialogic system software.
 - a. Stop the existing NetVanta UC Server and Dialogic services.
 - b. Launch the Microsoft Windows Service control application (Start > Settings > Control Panel > Administrative Tools > Services).
 - i. **Stop** the service labeled **ADTRAN NetVanta UC Server Application Services** and change the service **Startup type** from Automatic to Manual.
 - ii. **Stop** the service labeled **Dialogic System Service**.
 - c. Remove the Dialogic System Software.
 - i. Locate the Add/Remove Programs from the Windows Control Panel (Start > Settings > Control Panel > Add/Remove Programs).
 - ii. **Select and Remove** the Dialogic software.
 - d. Reboot the system as indicated.
2. In rare instances, you might need to run a Dialogic utility to clean up the old Dialogic Release 5.1.1 installation files, directories, and registry settings. This batch file can be located in \cleanup\dlgc_rel_clean.bat in the Dialogic installation directory. This will be apparent if the Dialogic DCM – configuration management application is not installed.
3. Install the Dialogic System Software.
 - a. Follow the procedure in the previous section (*New Installation of Dialogic Software*) to install the required version of Dialogic applicable to your PBX.
4. Launch the Microsoft Windows Service control application (Start > Settings > Control Panel > Administrative Tools > Services).
 - a. Set the **Startup type** to Automatic for the service labeled **ADTRAN NetVanta UC Server Application Services**.

6.2 Software Product Interoperability

The following other software products have been tested and are known to work with NetVanta UC Server:

Vendor	Interoperability Level	Product/Service	Software Version
Research In Motion (RIM)	Interoperable	BlackBerry Enterprise Server for Microsoft Exchange	4.1 or newer
		BlackBerry Handheld Devices	4.2.1 rev 163, 4.2.2 or newer
PhoneTag	Interoperable	PhoneTag (formerly SimulScribe)	n/a
Google	Interoperable	Google Mail (Gmail) using stunnel (SSL proxy)	n/a stunnel 4.24 or newer

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7 Known Software Limitations

The following limitations are known in this NetVanta UC Server release:

Tracking #	ISSUE	Workaround
UCS-109	ucCompanion settings are not being retained on Upgrade from release 4.6.3	None
UCS-140	Must uninstall existing server Presence and Control Components prior to running the 5.x as upgrade procedure	For manual upgrades, run the following switch with .msi file: REINSTALL=ALL REINSTALLMODE=vomus
UCS-252	The ucCompanion DesktopClient will no longer be pinned to the start menu after an upgrade.	None- Windows issue
UCS-370	Self-healing not supported - UC forms preview pane registry setting	You must install the client under the logged in account.
UCS-343	ucCompanion may crash following "Run As" dialog prompt	Do not "Run as" Administrator – change UAC settings or "Run as" default accordingly.
UCS-271	By default, the server only accepts connections from the same version of client on the 5.x release	Refer to the installation guide for more details.
UCS-197	ucCompanion client will not be able to connect to the server from an untrusted client workstation by default	Refer to the installation guide for more details.
UCS-665	In a Refresh INVITE, UC receives a 200 with SDP but responds to the 7100 with an ACK without SDP. The call drops.	Modify the SQL "useragentconfig" table entry for id "B2BUA" to increase the refresh timer
UCS-656	NetVanta UC Management Shell launches with script execution error	Set Get-ExecutionPolicy to the appropriate policy settings via PowerShell
UCS-655	PBA user that has shared admin service action cannot execute take message operation	None
UCS-644	Disconnecting from a conference call (after conferencing in a call recording service) fails to update presence	Call the Recording service first, and then call the conference bridge.
UCS-399	Unanswered queue call from UC (where queue provides ringback only) unexpectedly continues ringing caller	Create a virtual user that forwards the incoming call to the queue extension and covers to an overflow extension
UCS-585	ECS Server losing its network binding occasionally when running on VMWare virtual platform	Ensure only one network adaptor is configured in VM for ECS
UCS-542	MOH stops playing after call held for 15 minutes	None – as designed
UCS-404	Service editor does not allow invalid service imports - auto corrections may leave orphaned elements. When executing these services, only the first element will get executed.	Correct the service through the editor

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Tracking #	ISSUE	Workaround
UCS-615	ucCompanion font issues with WPF generates exception	Known Microsoft issue with WPF may require font re-installation or registry correction
UCS-858	Polycom 301, 501, 601 with park zone configured, supervised and blind transfers will fail to complete.	Select the blind softkey and then the number softkey on the Polycom screen to complete call.
UCS-710	Application Service unexpectedly restarts during system updates	Windows Updates should be applied only during a maintenance window
UCS-630	In a two server scenario DR (Primary and Secondary ECS) call forward does not function when primary server is down.	None – as designed
UCS-699	When an identity specified in the supervised transfer element is valid but is not registered, the element does not attempt to try transferring to the next identity in the list	Ensure the target identity is valid and registered
UCS-923	Connection loss on local server causing ucCompanion connected to remote (federated) server to shut down the connection	Restart the application server service to re-connect the federate server.
UCS-888	ucCompanion popup toast unexpectedly re-appears every 60 seconds after copy/paste operation	None – as designed
UCS-980	T38 Faxes from UC server via Sonus SIP Trunk Fails	None- not supported as this time
UCS-413	Group identity with lengthy list of numbers fails edit silently	Keep group identity list to less than 256 members
UCS-444	UC Client/softphone Select server dialog not remembering last server selected	None
UCS-457	Offering from federated identity displays Caller ID unexpectedly with the IP appended to the identity	None
UCS-486	Adding/removal of larger numbers to/from the group(s) hangs ucCompanion for a while (Not Responding)	Reduce number of additions or removals at any one time
UCS-508	Admin client server pane no longer displaying trusted UC servers after shutdown	Shutdown UC Server application then delete the remote server objects within the data.
UCS-493	Federated search timeout setting "trusted-server-search-timeout" missing from the GlobalPropertyStore.xml file	Add the entry to the .xml file. If the setting is not present, the default (2 secs.) is used by default.
UCS-559	Exchange server version warning appears in the swlogs but not in the UI of the SCW	
UCS-573	Multi-selection on items in groups only works with Ctrl+Select	None
UCS-764	Park failover, when configured with invalid identity, never sends reminder (even to park initiator)	Ensure that the failover identity is valid.
UCS-762	Pickup operation during failover fails to find call parked at the location in which is had been parked	Repeat pickup with multiple attempts

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Tracking #	ISSUE	Workaround
UCS-704	Some (but not all) BLF's or Park zone buttons are removed from Polycom (with sidecar) when app service restarts)	Restart the Phone for correction
UCS-562	Intermittently fails to delete the Exchange server object from the admin client (Communication error results)	Repeat deletion after application server service via services.msc
For more information on other "Known software limitations" please refer to the associated release notes for the specific release (e.g. 4.6.x or 5.0.x/5.1.x releases)		