



# NetVanta Unified Communications

## Release Notes

Version 4.5.1

# NetVanta Unified Communications

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# NetVanta Unified Communications

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# NetVanta Unified Communications

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>.

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

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## 1 Summary of Changes

This section describes a summary of 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 (e.g. [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 (e.g. **ECS, BAS**).

**NOTE:** Be sure to review all upgrade actions for all releases between your current release and the release you are upgrading to. Sub-sections in the sections below identify required actions, including information about client upgrades.

### 1.1 Release 4.5.1

Release 4.5.1 is a maintenance release of the NetVanta UC Server product line that enhances click-to-dial functionality, adds PBX grouping and prioritization features, adds support for ADTRAN Total Access 9xx series gateways, and adds support for Polycom SoundPoint IP 321 and 331 phone terminals. Additionally, fixes are also included.

#### 1.1.1 New Functionality

The new functionality introduced in this release includes:

- PBX s can be grouped and prioritized; user identities can be prioritized [8686]
- Click-to-dial supports monitoring clipboard for phone numbers [8472] **ECS, BCS**
- Support for ADTRAN Total Access 9xx series gateways (T1/PRI) [8745] **ECS, BAS**
- Support for Polycom SoundPoint IP 321 and 331 phone terminals [8648] **ECS, BAS**

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## 1.1.2 Issues Resolved

Tracking #	Summary
8359	Audio “squelch” is heard at the end of some audio prompts when calling from an ITSP via an InGate firewall into the Application Server.
8621	Deployment of NetVanta UC Client components using Active Directory GPO deployment takes roughly 1 hour per client system.
8623	Right-click menu on NetVanta ucCompanion system tray icon does not always show the menu.
8643	User data source does not show up related to a shared service on a ring group identity.
8658	Outlook plug-in causes RPC issues when repeatedly accessing click-to-dial menus on e-mail messages (especially with large numbers of contacts in a users contact database)
8660	In medium to large size Active Directory installations (>1000 users), or where users do not have a Active Directory Global Catalog Server on the local LAN (e.g. VPN, remote site), click-to-dial phone number look up may be slow and causes delays when displaying contact and email message context menus in Outlook. <b>ECS, BCS</b>
8710	Outdial.exe missing from client installation.

## 1.1.3 Client Upgrade Actions

Client software does NOT have to be upgraded, however, users using click-to-dial functionality, Outlook 2003 or Outlook 2007 SHOULD update their client software to pick up enhancements and fixes in the Outlook plug-ins.

## 1.1.4 Other Upgrade Actions

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. See section 4.2.2, *Upgrading NetVanta UC Server from any 4.x.x Release* for more information on this procedure.

## 1.2 Release 4.5.0

Release 4.5.0 is a major release of NetVanta UC Server that introduces support for Click-to-Dial and the ADTRAN NetVanta 7000 Series IP PBXs. Additional feature improvements and fixes are also included. Product downloads have been reduced in size by not including product documentation, Microsoft .NET Framework redistributables or Adobe Reader redistributable.

This release also introduces new product names and branding. See section 2.4, *ADTRAN Product Rebranding* for more information.

### 1.2.1 New Functionality

The new functionality introduced in this release includes:

- Click-To-Dial for NetVanta Enterprise Communications Server and NetVanta Business Communications System [8466] **ECS, BCS**
- Support for ADTRAN NetVanta 7000 Series IP PBXs [8492] **UCS, BCS**
- Outbound dialing improvements [8415]

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- Telephone terminal support for ADTRAN IP 706, 712<sup>1</sup> [8615]

ECS, BAS

## 1.2.2 Issues Resolved

Tracking #	Summary
8246	More than one Generic PBX (via Gateway) cannot easily be added.
8486	SIP telephone's MWI may not turn off immediately after registration. ECS, BAS
8512	MWI may not turn off when quickly reading a newly delivered message in Outlook.
8581	Cannot set password and have it take effect for Merlin Magix CTI link after initial configuration.
8592	First Time Access Wizard always runs in NetVanta UC Client for IMAP users even though all IMAP configuration values have been configured.

Note that all fixes included in 4.4.1, 4.4.2, and 4.4.3 are included in release 4.5.0. Please consult the release notes for 4.4.3 for details on issues resolved in those releases.

## 1.2.3 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. See section 3.2, *System Requirements* for more information.

Both client and server components now require Microsoft .NET Framework 3.5 SP1 to be installed on target systems.

## 1.2.4 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*.

## 1.2.5 Other Upgrade Actions

Any scripts using the OutDial.exe command line program MUST be updated to accommodate new command line syntax. Run `OutDial -?` to obtain usage information.

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. See section 4.2.2, *Upgrading NetVanta UC Server from any 4.x.x Release* for more information on this procedure.

`RestartOverrides.cfg` MUST be updated on the NetVanta UC Server to include updated settings provided in `RestartOverrides.cfg.original`.

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<sup>1</sup> In order for ADTRAN IP Phones to correctly display time in the local time zone, the phones must have their phone configuration file templates modified according to the phone documentation. In particular the `GmtOffset` parameter must be configured. Please refer to <http://kb.adtran.com/article.asp?article=2254&p=2> for more details.

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**CAUTION:** Backup procedures have changed from releases prior to 4.3.3. 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 <http://kb.adtran.com/>. Please adjust backup procedures accordingly. Failure to do so may result in data loss or extended system outages in the case of hardware or software failures.

**CAUTION:** Due to fixes related to MWI behavioral inconsistencies introduced in release 4.3.1, when a system is upgraded to 4.5.x from a release prior to 4.3.1, users's may experience a change in behavior of the MWI if their preferences (or system-wide settings) for MWI behavior are not set as they would prefer. Please ensure that system defaults are correctly set and that users are aware of how to change their MWI preferences.

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## 2 New Functionality Details

This section describes more significant portions of 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 Click-to-Dial

Click-to-dial enables users of NetVanta Business Communications Systems and NetVanta Enterprise Communications Server to initiate a call by clicking on a contact or an email message within Microsoft Outlook 2003 and Microsoft Outlook 2007.

NetVanta ucCompanion provides a system tray icon that enables the user to select an identity, enter a telephone number for dialing, launch NetVanta UC Client, and configure NetVanta ucCompanion. NetVanta ucCompanion also monitors the clipboard for telephone numbers allowing easy dialing of a phone number from any application supporting copying of text. To use, in any application, select some text containing phone numbers and use the appropriate command (e.g. Ctrl+C) to copy the selected text to the clipboard. NetVanta ucCompanion will pop up a window allowing you to dial the phone number with one click.

Contact systems supported:

- Windows Active Directory
- Outlook 2003 and Outlook 2007 Personal Contacts. The user's personal contacts will be matched against each of the email recipients addressed in the email. If a match exists, the corresponding name and telephone numbers will be presented for the user to select.

If Microsoft Outlook 2003 or 2007 is installed, a plug-in will be installed that allows the user to initiate a call on their configured telephone from:

1. Outlook Contacts
2. Email message
  - Right click on email message in email preview. (Outlook 2007 only)
  - Call button within an email message

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## 2.2 Support for ADTRAN NetVanta 7000 Series IP PBX

The ADTRAN NetVanta 7100/7060 has been added to the list of communications systems that can be added to NetVanta UC Server. Centralized messaging of NetVanta 7100/7060 PBXs is accomplished by adding multiple instances of NetVanta communications systems. Centralized messaging also applies to any number of PBXs.

The NetVanta 7100/7060 integration also includes click-to-dial functionality.

## 2.3 Outbound Dialing Enhancements

Outbound dialing has been enhanced to include better support for working with external applications. Notable improvements include:

1. Unique reference number given to each instance of outbound dialing request.
2. Added time windows support (names time periods and time zone definitions) to ensure that outbound dialing notifications only occur during specified time windows.
3. Added a prioritization parameter to higher priority scheduled outbound dialing notifications to be dialed ahead of lower priority notifications.

For a complete list of parameters supported by the OutDial command line program, run `outdial.exe /?` from the command line.

## 2.4 ADTRAN Product Rebranding

Objectworld branding has been replaced with ADTRAN branding. UC Server product editions have been replaced with distinct products. Refer to the table below for details.

Old Product Edition Name	New Product Name
Standard Edition	<b>NetVanta Unified Communications Server</b> when sold for use with a third-party PBX. <b>NetVanta Business Communications System</b> when bundled with NetVanta 7100/7060.
SIP Edition	<b>NetVanta Enterprise Communications Server</b>
CEBP Edition	<b>NetVanta Business Application Server</b>

## 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 may 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 may be reinstalled at a later date if necessary (for



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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 may 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 personal may require a copy of the installation media to reinstall software at a later date.

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**CAUTION:** Failure to preserve installed software release media properly may result in the inability to rebuild a failed server at a later date. Copies of non-current software versions may not be readily available from ADTRAN Technical Support or your reseller and thus delays may be incurred if this media is not available to support technicians rebuilding failed servers.

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## 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 server components of NetVanta UC Server. 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 server components of NetVanta UC Server support the following Microsoft® Windows™ Operating Systems:

- 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. See section 3.2.1.2, *Hardware Requirements*, for more information.

- Microsoft® Windows Essential Business Server 2008 (x86, x64)

NetVanta UC Server should be deployed on the additional Window Server 2008 license that is part of the Premium Edition of Windows Essential Business Server. Do not install NetVanta UC Server on the Security Server. It is not recommended to install NetVanta UC Server on either the Management Server or the Messaging Server.
- 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.
- Microsoft® Windows™ Server 2003 R2 SP1, SP2 (x86)
- Microsoft® Windows™ Server 2003 SP1, SP2 (x86)
- Microsoft® Windows™ Small Business Server 2003 SP1 (x86)
- Microsoft® Windows™ XP SP2, SP3 (Professional) (x86)     **(Warning: see known limitation [8282])**

Other software platforms are not supported.

Installation of the server components into a virtualization environment (Virtual Server, Hyper-V, Virtual PC, VMware, Virtual Box, etc.) is not supported in production deployments. This is due to the real-time nature of telecommunications – audio problems will be experienced in these environments.

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ADTRAN recommends using a server operating system for all installations of NetVanta UC Server. While the client platforms mentioned above (such as Microsoft® Windows™ XP) are supported, they are designed by Microsoft for desktop use not server use. Known limitation [ 8282 ] is also known to affect the reliability of Windows XP installations and may cause system outages in certain circumstances. See section 7, *Known Software Limitations* for more details.

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**CAUTION:** At this point in time, many third-party drivers and applications may not yet support Windows Server 2008 and derived platforms (SBS 2008, EBS 2008). 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 as the server platform for those deployments.

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### 3.2.1.2 Hardware Requirements

To install NetVanta UC Server, the server hardware platform must meet the minimum requirements in the table below. 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 (i.e. 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 (UPS) and redundant disk arrays (i.e. RAID) such 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 <http://kb.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	2 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
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
- 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 (RFC3501) message store (different servers may require different query optimization techniques – consult product documentation for query optimization technique determination procedures)

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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: 6.5.8069.0, 2009-Feb-16 – older versions are not be 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

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**CAUTION:** Failure to use SP3 with Microsoft® Outlook™ 2003 will cause unreliability of the integration with Microsoft® Exchange™ Server and may cause system outages.

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- Microsoft® Outlook™ 2007 SP1 (SP2 is not supported)

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**CAUTION:** Outlook 2007 SP2 (recently released) 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.

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## 3.2.3 Client Components

This section describes the required operating systems and hardware requirements for the client components of NetVanta UC Server. 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 client components of NetVanta UC Server (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.

### 3.2.3.2 Prerequisite Components

Client components now require Microsoft .NET Framework 3.5 SP1 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	256 MB	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"><li>• WDDM Driver</li><li>• Minimum 128 MB graphics memory</li><li>• Pixel Shader 2.0 in hardware</li><li>• 32 bits per pixel</li></ul>

### 3.2.3.4 Email Clients for Unified Messaging

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

- Microsoft® Outlook™ 2000, 2002/XP, 2003 SP3, 2007
- IBM® Lotus Notes™ 6.0x, 6.5.x, 7.0, 8.0

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## 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 starting** 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 starting the upgrade. After the new key is installed, you may 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.

### 3.3.3 Obtaining a New License Key

To obtain a new or upgrade 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:

- a. Contact information
- b. 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.
- c. Purchase Key
  - New installs: available from materials that shipped with the product.
  - Upgrades – available:
    - For a user with Administration privileges. From within NetVanta UC Client select the Help menu > License Information. Click Modify license.
    - Via the Product Licensing Wizard dialog box of step 1 of NetVanta UC Server Configuration Wizard
- d. Machine ID
  - New installs: available within the Product Licensing Wizard dialog box of step 1 of the NetVanta UC Server Configuration Wizard
  - Upgrades – available:
    - For a user with Administration privileges. From within NetVanta UC Client select the Help menu > License Information. Click Modify license.
    - Via the Product Licensing Wizard dialog box of step 1 of NetVanta UC Server Configuration Wizard
- e. Platform specifications: CPU speed, RAM and Server OS – available from the System control panel in the Windows Control Panel.

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- f. Product version and edition you will be installing or upgrading to – available from the materials shipped with the product
- g. Message store type (Microsoft Exchange Server, Lotus Domino/Notes, IMAP4, or local machine) and version
- h. Legacy PBX interconnection, if applicable: PBX Type, Firmware version

## 3.4 Prerequisite Components

NetVanta UC Server requires that prerequisite components be installed prior to installation of 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 need 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 Windows Server 2003 Service Pack 1 Administration Tools Pack** (download link provided in installer) [*Windows XP only*]
- **Microsoft .NET Framework 3.5 SP1** (download link provided in installer)
- **Visual Studio 2005 SP1 Redistributable Files**
- **ADTRAN Software Logging Diagnostic Tools**
- **Windows Server 2008 Enhanced Desktop Feature** (a reboot is required after installation) [*Windows Server 2008-based systems only*]
- **Microsoft SQL Server 2005 Express Edition** (SP3 version is installed, older service packs are supported except on some OS platforms)

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**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.

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**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.

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### 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*

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- *NetVanta Unified Communications Server Presence and Control Components Guide* (for use with NetVanta ucCompanion - Live Attendant)
- *Configuration Guide*
- *Administrator Manual*

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 (i.e. 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.
2. 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.
3. 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 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.
4. 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 users of NetVanta UC Server to take full advantage of its functionality, client software should be deployed to their desktop or laptop computers. See section 4.3, *Installing or Upgrading NetVanta UC Client Software*, for installation options and procedures.

## 4.2 Upgrading/Cross-grading of 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 <http://kb.adtran.com>, and adjust backup procedures accordingly. Failure to do so may result in data loss or extended system outages in the case of hardware or software failures.

---

# NetVanta Unified Communications

## 4.2.1 Upgrade/Cross-grade Matrix

The following table describes which versions of NetVanta UC Server are upgradable to newer versions and which versions of CallAttendant Office are cross-gradable to NetVanta UC Server.

From \ To	4.0.x (UC Server)	4.5.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
3.2.x (CallAttendant Office)	√	unsupported via direct upgrade – upgrade to 4.0.x first
4.0.x (CallAttendant Office)	√	√
4.2.x (CallAttendant Office)		√
4.0.x (UC Server)		√
4.1.x (UC Server)		√
4.2.x (UC Server)		√
4.3.x (UC Server)		√
4.4.x (UC Server)		√
4.5.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 un-installed 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 <http://kb.adtran.com>, for detailed instructions on installing this component.

---

**CAUTION:** Failure to follow the steps below, exactly as described, may 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 <http://kb.adtran.com>. This will preserve the following data:



# NetVanta Unified Communications

- a) Users (greetings, services, announcements)
- b) Port configuration
- c) Attendant data
- d) System configuration
- e) Routing data
- f) Telephone data
- g) Gateway data
- h) PBX configuration data

---

**CAUTION:** Failure to backup the data as per the instructions above and in the Technical Note **will** result in the inability to restore the system to the original system configuration should the upgrade process be unsuccessful or aborted. **Always backup the system 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:
  - a) Click the **Start** menu and select **Run...**
  - b) Type `cmd.exe` and click **OK** to open a command prompt window
  - 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.

e.g.: `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.

# NetVanta Unified Communications

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

- e) When the script prompts to continue, confirm the information displayed, and type `Y`, then press Enter.
  - f) Examine the output of the script to ensure it ran correctly. The output is placed a file called `Pre-Log.txt` in the backup location, which defaults to `C:\Backup\PhoneTypes`.
  - g) Leave the command window open as 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)
  - c. 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).
  - d. 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.
8. On an upgrade from previous releases, you may be required to install or update prerequisite components. Click on the **Verify or automatically install remaining components** button to proceed. Some components may need to be downloaded 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 are upgrading the Presence and Control Components from a 4.2.X, 4.3.X, 4.4.X or 4.5.X version:
    - Click the **Install Presence Components** button in the **Preparing UC Server Installation** dialog box.

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- Click **Install** on the **Resuming the ADTRAN NetVanta UC Server Presence and Control Components Setup Wizard** screen.
  - Click **Finish** when complete.
  - Click **Yes** when prompted to restart the system for the configuration changes to take effect.
- c) If you are upgrading the NetVanta UC Server Presence and Control Components from a 4.1 Trial version:
- Click the **Install Presence Components** button in the **Preparing UC Server Installation** dialog box.
  - Click **Next** on the welcome page of the **ADTRAN UC Server Presence and Control 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.
10. Upgrading the NetVanta UC Server.
- a) If upgrading from 4.2.x, 4.3.x, 4.4.x or 4.5.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 may be required to perform the first option, **Change Service Account** to reset the service account to what had previously been 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**.
  - 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**.

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13. For ECS and BAS product variants, run the `Post-Update.bat` script file as follows:
  - a) Locate the command window opened in step 5
  - 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 5.
    - The `/?` Option provides help on the script; the `/V` option provides more detailed output and logging.

e.g.: `Post-Update.bat "C:\Program Files\ADTRAN\NetVanta UC Server\Data\System\PhoneTypes\" "C:\Backup\PhoneTypes\"`
  - c) When the script prompts to continue, confirm the information displayed, and type `Y`, 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, which defaults to `C:\Backup\PhoneTypes`.
  - f) Re-apply site-specific customizations to the relevant phone configuration files. Refer to phone vendor documentation if needed. Once any customizations have been re-applied, restart the ADTRAN NetVanta UC Server Application Services service using the Services administrative tool.
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 have been 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 or 4.5.x, then the NetVanta UC Server Presence and Control Components may have already been configured.
16. For optimal performance, disable the Indexing Service provided by Windows. For detailed instructions, please see 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.

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- 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 1-2 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.

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 <http://kb.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 as per the instructions above and in the technical note **will** result in the inability to restore the system to the original system configuration should the upgrade process be unsuccessful or aborted. **ALWAYS** backup the system 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 as 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 may receive two (2) 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](mailto: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 :

# NetVanta Unified Communications

e.g. 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. See 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 see 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:
  - 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 may 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 add 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 (see 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 completed, an upgrade to the latest NetVanta UC Server 4.x release can be completed.*

#### 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 <http://kb.adtran.com>, to preserve the following data:
  - a. Users (greetings, services, announcements)
  - b. Port configuration
  - c. Attendant data
  - d. System configuration
  - e. Routing data

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f. Telephone data

g. Gateway data

---

**CAUTION:** Failure to backup the data as per the instructions above and in the technical note **will** result in the inability to restore the system to the original system configuration should the upgrade process be unsuccessful or aborted. **ALWAYS** backup the system 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. See 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** buttons 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.
6. Open the **Windows Services** application and set the **CallAttendant Office Service** to start **automatically**.

**NOTE:** *You may 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 this conversion during the maintenance window – typically after normal business hours.

---

To perform the audio conversion:

- a. From **My Computer**, navigate to the C:\Program Files\Objectworld\CallAttendant Office Server\Bin directory
- b. 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 4.5.x client software is supported with 4.5.x server software. See section 4.3, *Installing or Upgrading NetVanta UC Client Software*, for installation options and procedures.

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## 4.3 Installing or Upgrading NetVanta UC Client Software

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

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**CAUTION:** Only release 4.5.x NetVanta UC Client software is compatible with NetVanta UC Server 4.5.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.

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### 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 a 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. See 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.

---

**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

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### 4.3.2 Other Techniques for Installing and Upgrading Client Software

Client software may be deployed using automated techniques including:

- GPO-based MSI installation. See *TNo34 - Client Software Installation Guide*, available online at <http://kb.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 need to 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, <http://kb.adtran.com/>.

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



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## 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, <http://kb.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/>.

## 6 Third-party Interoperability

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**CAUTION:** At this point in time, some third-party drivers and applications DO NOT yet support Windows Server 2008 and derived platforms. 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.

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Please consult information provided in *TNo51– UC Server Interoperable SIP Devices and Services*, available online at <http://kb.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
- Avaya Communications Manager
- Avaya Definity G3
- Avaya Legend

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- Avaya Merlin Magix
- Avaya Partner
- Ericsson BusinessPhone
- Ericsson MD110
- Intecom PointSpan M688o
- Mitel 3300
- Mitel SX-2000
- Mitel SX-200D Family
- NEC NEAX2400
- Nortel CS-1000
- Nortel DMS 10
- Nortel DMS 100
- Nortel Meridian 1
- Phillips Sopho
- Rolm (Siemens) 8000
- Rolm (Siemens) 9000
- Rolm (Siemens) 9751
- Siemens HiCom 150E
- Siemens HiCom 300
- Siemens HiPath 4000
- Toshiba CTX

For more details on specifically 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>.

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	3rd 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 229
Avaya Definity (no CLID)	6.3 and above	TN009	Analog port using mode codes; Mode code option is required	Dialogic 6.0 SU 229
Avaya Definity/Multi-Vantage (with CLID)	4 and above	TN010	Digital set emulation: - 7434D emulation - 8434D emulation - 7434ND (7.5 and above)	Dialogic 6.0 SU 229
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

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PBX Vendor/Model	Minimum Software Release	Technical Note (TN) Reference Number	Integration Type	3rd Party Hardware/Software (Recommended)
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
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 PBX's as 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 (i.e. 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 **Driver** tab and select **"Update Driver"**.
  - iii. Choose **Search for suitable driver for my device (recommended)** and click **Next**.

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- iv. The driver update will locate the Dialogic Card; click **Next**.
    - b. Repeat steps i through 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. See 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.
  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 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 may 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 section above (New Installation of Dialogic) 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**.

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## 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

## 7 Known Software Limitations

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

Tracking #	ISSUE	Workaround
4325	Silent Installation of NetVanta ucCompanion – Live Attendant (installation fails using command line with parameters: /S /v/qn)	Use Install Wizard
4503	NetVanta UC Server implementations on a Microsoft Windows Small Business Server (SBS) will not be able to view voice or fax messages from the local machine or through the terminal services client connected to the same Small Business Server. The Microsoft MAPI version that is installed with Microsoft Exchange Server does not support the same capabilities as the MAPI driver that is installed with Microsoft Outlook. Installing Outlook on the SBS server will not resolve this issue, nor is it supported by Microsoft.	None. This is not a supported deployment scenario.

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Tracking #	ISSUE	Workaround
4614	There is currently a known issue with the Windows Installer on Windows Vista platforms. During uninstall of NetVanta UC Server, the "User Account Control" dialog box indicates that the publisher is 'unidentified'. This issue is caused when the Windows Installer caches a copy of the MSI package in the Installer folder during the installation process. Windows Installer removes some data from the cached copy of the MSI in an effort to reduce the size consumed by the copied MSI. As a result, the embedded digital signature becomes invalid.	Accept the warning and continue
5020	Call Swap on NetVanta ucCompanion – Live Attendant is not supported	None
5124	On Windows Vista, the fax printer driver will not successfully execute if NetVanta UC Client is installed by either the administrator or by a user that has used the "Run as administrator" option. Note that this scenario does not apply to a user installing NetVanta UC Client that has elevated their privileges to administrator to install NetVanta UC Client.	In both cases, after installing NetVanta UC Client it will be necessary to log out and log back in to Windows (as the appropriate user).
5204	On Windows Vista, the fax printer driver will not successfully execute if NetVanta UC Client is first launched directly from Outlook or by running the executable directly from the "bin" folder.	The first time that NetVanta UC Client is run it must be launched from the Start Menu.
5571	Three-way conference initiators do not pass DTMF tones generated by conference participants.	Have the conference initiator generate the DTMF tones.
5742	Windows services automatic recovery processes hinder diagnosis of any startup issue and could result in unnecessary entries added to the system or application event logs.	Ensure the recovery settings for the ADTRAN NetVanta UC Server Application Services service are set to "Take no Action" in all cases (First failure, Second failure, and subsequent failures). These settings should not be changed.
5859	Minor non-compliance related to Request URI in ACK and BYE SIP Messages under very specific circumstances involving specialized equipment. <b>ECS, BAS</b>	None
5862	Incorrect call status displayed on NetVanta ucCompanion – Live Attendant UI occurs infrequently and then usually only on low end or overloaded systems and immediately after an installation.	Restart the ADTRAN NetVanta UC Server SIM service in the Services control panel.

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Tracking #	ISSUE	Workaround
5878	Windows XP and Windows Server 2003 system performance – Indexing service uses large amount of page file space (larger than 1.2 GB) and CPU time	Turn off the Windows Indexing Service. See the NetVanta UC Server installation manual for instructions.
5966	Creating a UC user from within Active Directory, it is possible to neglect creating an associated identity at the same time. This has the side effect of not creating a temporary PIN for the user.	The administrator can explicitly set the PIN from within the AD pages.
6073	Service account password is not preserved on upgrade from 4.0.x to 4.2.x if the “current account” option is selected in the Select Service Account dialog box. This specifies that the currently configured service is to be used as the service login account. If selected, then the ADTRAN NetVanta UC Server Application Service will fail to restart.	The upgrade instructions included in this document describe the necessary steps to restore the service account. Please ensure you follow these instructions.
6256	On an upgrade from pre 4.2.1, the NetVanta ucCompanion – Live Attendant “Calls” menu does not automatically use the new shortcuts as described in the documentation. <b>ECS, BAS</b>	The Calls menu shortcut assignments are customizable, so to preserve these custom settings, the new shortcut mappings are not automatically registered. To manually reset the shortcuts to the new mappings perform the following action: Within the <b>View menu</b> select <b>Toolbars &gt;</b> , then <b>Customize....</b> In the Customize dialog box, select the <b>Keyboard</b> tab then click the <b>Reset All</b> button.
6614	In some cases, caller information may not be received in distributed IP Office TAPI integrations.	None.
6797	Uninstalling NetVanta UC Server from Windows Server 2008 does not automatically stop the OBJECTWORLD instance of SQL Server.	After uninstalling NetVanta UC Server, manually stop the OBJECTWORLD SQL Server Express service, and then manually uninstall the OBJECTWORLD SQL Server Express instance.
6978	After upgrade to Windows Vista Service Pack 1, UC Server MMC plug-in is no longer available. Reinstalling NetVanta UC Client does not resolve the problem.	Reinstalling the Microsoft’s Windows Server Administration Tools will resolve the problem.
7074	Fax printer driver cannot send faxes when My Documents folder is redirected to network share.	This appears to be an issue with the Microsoft Universal Printer driver supplied in Windows Vista and used by the Fax Printer Driver. Workaround is to disable My Documents redirection.
7376	Sending faxes to the Fax Printer Driver in A4 format causes the fax document to be generated incorrectly and the fax will fail to be sent.	Print using Letter format instead.

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Tracking #	ISSUE	Workaround
7700	AMD systems running Windows Server 2003 or Windows XP may experience choppy or corrupt audio with some phones.	Follow instructions in Microsoft KB article 895980: <a href="http://support.microsoft.com/kb/895980">http://support.microsoft.com/kb/895980</a>
8149	Active Message Delivery may fail when all ports on an Avaya IP Office are busy.	Increase the number of ports to improve port availability.
8282	On Windows XP, the service account used for the Application Services may spontaneously become lost or invalid. This can occur when the system is restarted, the ADTRAN NetVanta UC Server Application Services service is restarted, or the NetVanta UC Server software is upgraded (causing a 1920 error).	Use Windows Server-based platforms instead of Windows XP. Additional instructions have been added to upgrade procedure to mitigate the 1920 problem during upgrade caused by this issue.
8374	snom phones do not register on networks with spanning tree enabled. Consult <a href="#">snom support material</a> for more details.	Enable fast spanning tree or disable spanning tree on the network. Consult <a href="#">snom support material</a> for more details.
8659	No click-to-dial context menu is provided on Outlook 2003 email messages.	Upgrade to Outlook 2007.
8685	Outlook 2003 plug-in still installed and cannot be removed after upgrading Outlook to 2007 version.	Uninstall NetVanta UC Client software before upgrading Outlook and reinstall after upgrading.