



**NetVanta Unified Communications**

**NetVanta Enterprise Communications and  
Business Application Servers**

**Configuration Guide**

**Version 5.4**

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## Conventions



*Notes provide additional useful information.*



*Cautions signify information that could prevent service interruption or damage to equipment.*



*Warnings provide information that could prevent injury or endangerment to human life.*

Below is a list of naming conventions used in this document. The first example shows the naming convention used for the first occurrence; the second example shows the naming convention used for subsequent occurrences.

Type	Convention Example
Operating System*	Microsoft <sup>®</sup> Windows Server <sup>®</sup> 2008 operating system version R2 or later <b>or</b> Windows Server 2008 R2 or later
Server Software	NetVanta Unified Communications Server software <b>or</b> NetVanta UC Server software NetVanta Unified Communications Live Attendant Server or Live Attendant Server
Client Software	NetVanta Unified Communications Client software <b>or</b> NetVanta UC Client software NetVanta ucCompanion Desktop Presence client software <b>or</b> ucCompanion NetVanta ucCompanion Live Attendant or Live Attendant NetVanta ucCompanion Soft Phone or Soft Phone
Hardware	Server computer - the computer on which the server software is installed. Client computer - the computer on which the client software is installed.
NetVanta Unified Communication Products	NetVanta Unified Communications Server <b>or</b> NetVanta UC Server NetVanta Business Communications System <b>or</b> NetVanta BCS NetVanta Enterprise Communications Server <b>or</b> NetVanta ECS NetVanta Business Application Server <b>or</b> NetVanta BAS NetVanta UC Live Attendant Server or Live Attendant Server

\* Other operating systems may be mentioned in this document. They will follow a format similar to the one provided.



## Table of Contents

<b>Introduction</b> .....	<b>7</b>
<b>Preparing to Start the Server Configuration Wizard</b> .....	<b>7</b>
Setting up DHCP Records to Point to the File Server .....	8
Obtaining Network and Security Information .....	11
Verifying Requirements and Recommendations .....	11
Incorporating the Server into the Customer Domain .....	11
Gathering Server Configuration Wizard Information .....	12
Creating an Authorization Store to Enable Active Directory Roles .....	13
<b>Starting the Server Configuration Wizard</b> .....	<b>14</b>
Login Requirements .....	14
Server Configuration Wizard Overview .....	14
Product Licensing Wizard .....	14
Windows Network Integration Wizard .....	15
Communication Systems Wizard .....	15
Phone Types .....	16
Business Continuity .....	18
Gateways .....	21
Messaging Systems .....	23
Users .....	28
Final System Configuration .....	35
<b>Configuring NetVanta UC Live Attendant Server Components</b> .....	<b>36</b>
<b>Appendix A. Manually Configuring Accounts and Permissions</b> .....	<b>37</b>
Configuring the UC Server User Account .....	37
Configuring the Exchange Server Account and Permissions .....	38
<b>Appendix B. Manually Configuring Polycom SIP Phones</b> .....	<b>41</b>
Creating Polycom SIP Phone User Accounts for FTP Access .....	41
Providing Access for Polycom SIP Phone User Accounts to the FTP Server .....	43
Enabling Support for Polycom Phones .....	45



# 1 Server Configuration Guide

## Introduction

This guide is written for installers to configure the NetVanta Unified Communications Server at the customer site. It assumes that you have experience installing and programming PBXs and voicemail systems. It does not assume extensive knowledge of computer networks.

This guide is written for installers to configure the NetVanta Enterprise Communications Server or NetVanta Business Application Server at the customer site. It assumes that you have experience installing and programming communication systems and voicemail systems. It assumes knowledge of computer networks.

Installing NetVanta UC Server on a Windows operating system allows you to manage the business communication system within a Microsoft® IT environment. Integration with Active Directory allows IT administrators to manage the communication system using the same user accounts and security policies that are used in the Windows environment. The automatic integration requires no extra programming or special integration.

Before you run the NetVanta UC Server Configuration Wizard, make sure you follow all the instructions in the *NetVanta Unified Communications Software Installation Guide* available on ADTRAN's Support Community at <https://supportforums.adtran.com> (article number 4394).

This guide covers the following main topics:

- *Preparing to Start the Server Configuration Wizard on page 7*
- *Starting the Server Configuration Wizard on page 14*



For additional ADTRAN documents, refer to the ADTRAN Support Community at <https://supportforums.adtran.com>.

## Preparing to Start the Server Configuration Wizard

Before you start the NetVanta UC Server Configuration Wizard, you can further prepare your system by doing the following:

- *Setting up DHCP Records to Point to the File Server on page 8*
- *Obtaining Network and Security Information on page 11*
- *Verifying Requirements and Recommendations on page 11*
- *Incorporating the Server into the Customer Domain on page 11*
- *Gathering Server Configuration Wizard Information on page 12*
- *Creating an Authorization Store to Enable Active Directory Roles on page 13*

## Setting up DHCP Records to Point to the File Server

Using a DHCP server, SIP telephones can retrieve configuration information from the network and allow for automatic discovery and configuration. Using a DHCP server for automatic network configuration, network reconfigurations can be managed from a central location.



*For simplified deployment of SIP telephones, we recommend the use of a DHCP server that extends the default scope options. Not following this recommendation requires manual configuration of SIP telephones.*

Windows Server 2008 and Windows Server 2003 DHCP servers provide the required features and functionality to support automatic configuration of SIP telephones and gateways.

### Manually configuring DHCP server for phones

You can manually set up the DHCP records to point to the provisioning server. The provisioning server can be either an FTP or TFTP server depending on the phone model. The DHCP server for the local network must have an extra record that points the telephones to the correct provisioning server to facilitate automatic detection and configuration of phones and gateways.



*The procedures below are general guidelines only. The procedures may vary depending on the type of phones you are using. Refer to the Server Configuration Wizard for information on specific phone types.*

### DHCP Scope and Purpose

#### DHCP Scope Option    Purpose

Option 66	NetVanta UC Server IP address for FTP or TFTP Boot Server
Option 150	NetVanta UC Server IP address for FTP or TFTP Boot Server
Option 2	Time Offset for time zone configuration
Option 4	Time Server IP address or resolve from host name



*If customers are already using this option for configuring other devices, you might need to perform a more complex set-up process to make sure there are no conflicts. That process is beyond the scope of this document.*



## To set up DHCP records using Server 2008 or SBS 2008

1. Select **Windows Start > Control Panel**.
  - If the Control Panel view is in 2008 format, select **System and Maintenance**, select **Administrative Tools**, and select the **DHCP** shortcut in the right hand pane.
  - If the Control Panel is in Classic View, select **Administrative Tools**, and select the **DHCP** shortcut in the right hand pane.
2. In the left hand pane of the DHCP Manager select the server, and expand by selecting the + symbol.
3. In the expanded view, right-click on **Server options**, and select **Configure Options**.



*If you are using Windows Small Business Server (SBS) 2008, then select **IPv4**, select **Scope Options**, right-click and select **Configure Options**.*

The Server Options dialog opens.

4. On the general tab scroll down the list to **Option 66**, and enable it.  
This enables the data entry for the option.
5. Enter the IP address of the Provisioning Server.

## To add option 150 for Cisco phones using Server 2008 or SBS 2008

1. Select **Windows Start > Control Panel**.
  - If the Control Panel view is in 2008 format, select **System and Maintenance**, select **Administrative Tools**, and select the **DHCP** shortcut in the right hand pane.
  - If the Control Panel is in Classic View, select **Administrative Tools**, and select the **DHCP** shortcut in the right hand pane.
2. In the left hand pane of the DHCP Manager select the server, and expand by selecting the + symbol.
3. In the expanded view, right-click on **IPv4** and select **Predefined Options**.  
This opens the Predefined Options and Values dialog.
4. Select **Add**.
5. On the Option Type dialog enter the following values:

<b>Class:</b>	Global
<b>Name:</b>	Boot Server Host Name
<b>Data type:</b>	String
<b>Code:</b>	150 (for Cisco phones)
<b>Description:</b>	FTP boot server name

6. After entering the information above, select **ok** to return to the Predefined Options and Values dialog.

7. Enter the IP address for the Cisco Phone boot server:

<b>Value:</b>	IP Address of the FTP server (for example, 192.168.1.100)
---------------	--


8. In the expanded view, right-click on **Server options** and select **Configure Options** to open the Server Options dialog.
9. On the general tab scroll down the list to **Option 150** and enable the check box.  
This enables the data entry for the option and enters the IP address of the Provisioning Server.

**To set up DHCP records using Windows 2003 Server**

1. Select Windows **Start > Settings > Control Panel**.
2. Double-click the **Administrative Tools** icon.
3. Open the **DHCP** MMC snap-in.
4. Right-click the server object > **Set Predefined Options**.  
The server object is located in the left-hand tree.
5. From the **Option name** list, select **066 Boot Server Host Name** (or option 150 for Cisco phones).
6. If that option does not appear in the list, select **Add**.
7. Make sure all the configurations are as follows:

<b>Class:</b>	Global
<b>Name:</b>	Boot Server Host Name
<b>Data type:</b>	String
<b>Array:</b>	Off
<b>Code:</b>	66 (or 150 for Cisco phones)
<b>Description:</b>	FTP boot server name
<b>Value:</b>	IP Address of the FTP server (for example, 192.168.1.100)

8. Select **OK**.

 <p><b>NOTE</b></p>	<p><i>Alternatively, you can set up the DHCP option to apply only to specific scopes, or even specific addresses or reservations. The latter is more management effort, but might be required in certain sites, or to set up independent test environments for specific phones.</i></p>
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## Obtaining Network and Security Information

Obtain network and server information from the customer prior to configuration, such as service accounts and administrative passwords.

For security reasons, some customers might be reluctant to provide passwords and network information in this manner. If that is the case, the customer should make sure that this information is readily available when you arrive on site to do the configuration.

## Verifying Requirements and Recommendations

The NetVanta UC Server application runs on the following operating systems:

- Microsoft Windows Server 2008 (x86, x64)
  - Deployment on Server Core or Hyper-V is not supported.
- Microsoft Windows Server 2003 R2 SP2
- Microsoft Windows Server 2003 SP1, SP2
- Microsoft Windows Small Business Server 2003 SP1 or later SP
- Microsoft Windows XP Professional SP2 or later SP

To ensure security, NetVanta UC Server accounts are given minimal permissions on the computer. The Server must be installed onto an NTFS partition on this server computer to make sure that proper security is in place.

The Exchange Server and NetVanta UC Server computer must be members of the same Windows domain.

Consult the NetVanta UC Server support website for additional up-to-date application or configuration notes.



*It is **not** recommended that you run NetVanta UC Server and the Exchange Server on the same system.*

## Incorporating the Server into the Customer Domain

Incorporating the NetVanta UC Server into the customer domain is required for Active Directory and Microsoft Exchange integration.

### To incorporate the NetVanta UC Server

1. On the desktop, right-click **My Computer**.
2. Select **Properties**.
3. Select the **Computer Name** tab.
4. Select the **Change...** button.

5. In the Member of section, select **Domain**, and enter the domain name.



*You require a domain administrator user name and password to complete this procedure.*

## Gathering Server Configuration Wizard Information

The NetVanta UC Server Configuration Wizard provides a step-by-step guide for configuring your server. The Server Configuration Wizard is customized to configure the server according to the needs of your particular network configuration.

It is recommended that you have the information ready that you might need before you start the wizard. You need to know the following:

<b>Message store type</b>	Local only or Local and Exchange or Lotus Notes/IMAP
<b>Computer names</b>	Includes Networking information and computer names
<b>Server Account</b>	The dedicated account for running the Server
<b>Microsoft Exchange names</b>	Microsoft Exchange Server computer name Mailbox name for Service Account
<b>NetVanta UC Server administrator password</b>	The password that is used to configure the system. The default administrator login name is “admin.”
<b>Dialing rules</b>	Used to specify the location from which you are dialing the dialing rules (for example, dial 9 for an outside line)
<b>PBX type</b>	Avaya Communication Manager or DEFINITY, Merlin Magix, Nortel Norstar, IP Office or generic analog
<b>CTI link options (Merlin Magix)</b>	Used to configure advanced PBX integration for calling line ID
<b>Port Name and Identity</b>	Used to configure all the ports that are connected to the PBX
<b>User information</b>	Used to create and configure all the user accounts
<b>Email configuration</b>	Used to configure the services when sending notification by email. If you do not have Exchange, you can configure an SMTP Server for email notification.

## Creating an Authorization Store to Enable Active Directory Roles



*Creating an authorization store is an optional step that applies to NetVanta UC Server installations that are integrated with Active Directory. You can skip this step if you are configuring NetVanta UC Server as stand-alone.*

The authorization store is typically created *prior* to running the Server Configuration Wizard.

The following conditions must be satisfied in order to create an authorization store:

- The NetVanta UC Server computer platform must be integrated with the customer's network.
- The NetVanta UC Server Active Directory account must already be created on the customer's domain.
- The user creating the authorization must be authenticated with the domain.

If users were already created prior to creating an authorization, the administrator must assign a role to each configured Windows User. Users added after the authorization store is created have a default role Standard User assigned to their user profile.



*If you have already followed the instructions in the **NetVanta Enterprise Communications and Business Application Servers Planning and Deployment Guide** for creating an authorization store, then you do not need to repeat the same steps below.*

### To create an authorization store

1. Log in to the NetVanta UC Server computer as a domain administrator.
2. Select **Start > Run > CMD** to launch a CMD window.
3. Navigate to the NetVanta UC Server installation directory:  
\\ADTRAN\NetVanta UC Server\bin
4. Type the following:  

```
manageazman +createxmlstore +admin <DOMAIN>\<NetVanta UC Server  
SERVICE ACCOUNT>
```
5. Stop and restart the NetVanta UC Server application service by doing the following:
  - Open the service control panel application.
  - Restart the service named **NetVanta UC Server Application Services**.



*You can create the custom authorization store at any time, before, during or after installation. However, any Active Directory users and their associated authentications will have to be modified to include a role from the role list. Consult the **NetVanta Enterprise Communications Server Administrator Guide** for details on how to change the authentication role for individual user authentications.*

# Starting the Server Configuration Wizard

## Login Requirements

Make sure that a computer account is created in the customer's network. If you are integrating with Microsoft Exchange, make sure that you are logged on as a domain user that has:

- Domain administrator privileges—must be able to add users to the domain
- Exchange Server administrator privileges—must be able to create mailboxes and set permissions on the Exchange Server

## Server Configuration Wizard Overview

The Server Configuration Wizard consists of several wizards that each become available after the successful completion of the previous wizard. The wizards are listed below:

1. *Product Licensing Wizard on page 14* — enter your product and license key information
2. *Windows Network Integration Wizard on page 15* — configure Windows Firewall, service account, and service connection point
3. *Communication Systems Wizard on page 15* — configure your communications systems
4. *Phone Types on page 16* — specify required phone types
5. *Business Continuity on page 18* — configure the server's Business Continuity role
6. *Gateways on page 21* — specify required gateway types
7. *Messaging Systems on page 23* — select message store type and configure accounts
8. *Users on page 28* — add new or import existing users
9. *Final System Configuration on page 35* — configure email notification system; create default user, operator and default mailbox; specify dialing rules and location; specify the system default voice

## To start the Server Configuration Wizard

Select Windows **Start > Programs > NetVanta UC Server > Server Configuration Wizard**.

The main wizard screen guides you through the rest of the configuration.

## Product Licensing Wizard

Run this wizard to specify your product and license key information for NetVanta UC Server. You can paste the product and license key, and the machine ID, into the appropriate wizard boxes. The product key is provided with the product media. To obtain a license key, contact ADTRAN support at <http://adtran.com/support>.



*The view of the UC Server Configuration Wizard changes after entering a license key for NetVanta UC Server Standard Edition, as only those items applicable to the Standard edition are visible.*

## Windows Network Integration Wizard

You can configure your Windows account to work with NetVanta UC Server. Create a service account: assign permissions to the directory, and assign the account to NetVanta UC Server.

Create a service connection point. A service connection point is an advertised name that can be used to locate NetVanta UC Server. When you start UC Client for the first time, the service connection point contains the name and IP address of the NetVanta UC Server. The user does not have to type a name, the name automatically appears in the list.

## Communication Systems Wizard



*Communication systems refers to PBXs.*

You can define and configure new communication systems. Select a communication system type from the list provided. The communication systems listed have the required hardware and a valid license. You cannot create a communication system that is invalid.

You can select a NetVanta UC Server SIP PBX, or you can select an existing PBX, which you can connect to NetVanta UC Server through a Dialogic Media Gateway. For a list of PBXs supported by Dialogic, and for gateway configuration information, refer to the Dialogic website at [www.dialogic.com](http://www.dialogic.com). For more information on configuring the gateway to connect NetVanta UC Server to an existing PBX, refer to *Configuring the Dialogic Media Gateway* technical note, available on ADTRAN's Support Community at <https://supportforums.adtran.com> (article number 2681).

The options that are available depend on the communications system type selected, but may include configuring message waiting, configuring the CTI link, selecting and configuring ports, and selecting a network adapter for the communication services.

The Port Configuration page allows you to choose a device ID, to enable and attach a name and an extension number to. This page also displays for legacy communication systems.

## Phone Types

Running this wizard allows you to specify the telephone types for your system. In the **Select Phone Types** menu, select the devices that you are planning to use in your environment. Then, select **Next**.



After selecting the phone types, the Server Configuration Wizard prepares NetVanta UC Server for automatic detection and configuration of the devices. For more information refer to the following sections:

- [Configuring FTP server on page 16](#)
- [Configuring TFTP service on page 17](#)

### Configuring FTP server

Some phone types require the use of a File Transfer Protocol (FTP) server for automatic phone configuration. SIP telephones that are configured by default to use FTP for provisioning will look for configuration files in the FTP server specified by option 66 in the DHCP server. The Phone Types Wizard automatically configures the FTP server (on the local machine), should a selected phone type require it. If the Phone Types Wizard is unable to automatically configure the FTP server, such as when NetVanta UC Server is installed on a domain controller, then the Wizard issues a warning and the FTP server must then be configured manually. Refer to [Appendix B. Manually Configuring Polycom SIP Phones on page 37](#) for details on how to manually configure the FTP server and enable support for a particular manufacturer's line of phones.

There are specific configuration issues with regards to using Polycom and ADTRAN/Polycom co-branded phones with Microsoft Windows Small Business Server or a domain controller. If you have not already done so, refer to the [Server Configuration Wizard Overview on page 14](#) section for more information to



avoid having to configure the system manually, as outlined in [Appendix B. Manually Configuring Polycom SIP Phones on page 37](#).

If a screen appears in the Configuration Wizard that tells you that the Microsoft Internet Information Services (IIS) subcomponent File Transfer Protocol (FTP) is not installed, you must install it.

### To install the FTP sub-component to configure NetVanta UC Server as an FTP server

1. On the Windows desktop, select **Start > Control Panel**.
2. Select **Add or Remove Programs**.
3. Select **Add/Remove Windows Components**.



*If you are installing NetVanta UC Server with a Windows Server 2003 configuration, then enable the **Application Server** check box and select **Details**.*

4. In the Windows Components box, select **Internet Information Services**.
5. Select **Details**.
6. Select **File Transfer Protocol (FTP) Service**.
7. Select **OK**.

The FTP Publishing service must be set to Automatic. In the event of a restart, if the FTP Publishing service is off, then Polycom and ADTRAN/Polycom co-branded phones will not successfully reboot as a result.



*When installing NetVanta UC Server on Windows Small Business Server (SBS) 2008, the startup type for the FTP Publishing service is set to Manual by default. This must be changed to Automatic. If this was not changed during the NetVanta UC Server installation process, then follow the steps below.*

### To set the FTP Publishing service to Automatic

1. Select **Start > Programs > Administrative Tools > Services**.
2. Select **FTP Publishing**, right-click and select **Properties**.
3. Under Startup type select **Automatic**.
4. Under Service status select **Start**.
5. Select **Apply**, and then select **OK**.

### Configuring TFTP service

Some phone types require the use of a Trivial File Transfer Protocol (TFTP) service for automatic phone configuration. TFTP servers can also be used as a repository for configuration files for SIP Telephones. SIP telephones that are configured to use TFTP retrieve their configuration information using TFTP. NetVanta UC Server includes a TFTP server.

Windows Firewall must be configured for the TFTP service, either automatically or manually. If you selected a phone type that requires a TFTP service, you can enable the system to automatically configure Windows Firewall for the TFTP service. Alternatively, you must manually configure Windows Firewall for the TFTP service.

Failure to configure the Windows Firewall correctly might impact the following features:

- Automatic detection and configuration of SIP devices (FTP, TFTP, HTTP)
- SIP telephone registration with NetVanta UC Server
- SIP PSTN gateways connecting to NetVanta UC Server
- SIP telephones cannot retrieve configuration information from NetVanta UC Server's FTP or TFTP server
- SIP telephones cannot receive or place telephone calls

### To manually configure Windows Firewall

1. Select **Start > Settings > Control Panel**.
2. Select **Windows Firewall**.
3. Select the **General** tab.
4. Enable the **On** button.
5. Make sure that the *Don't allow exceptions box* is disabled.
6. Select the **Exceptions** tab.
7. Enable the check box beside each program or service that you want to set as an exception in Windows Firewall, specifically, **NetVanta UC Server TFTP Service**.

## Business Continuity

From the Business Continuity Wizard, you can configure the role of the NetVanta UC Server in the Business Continuity solution.



*The Business Continuity Wizard is only available if you have purchased a Business Continuity license key.*

You can configure the server role as either Standalone, Primary, or Secondary. The Standalone role is used when the NetVanta UC Server is not a part of a Business Continuity solution. The Primary role is used when the NetVanta UC Server is the Primary server in a Business Continuity solution. The Secondary role is used when the NetVanta UC Server is the Secondary server in a Business Continuity solution.

How the server is licensed in the Business Continuity solution determines the server roles available in the Business Continuity Wizard. If the server being configured is licensed as a Primary server, you have the option to configure the server as a Primary server or Standalone server. If the server being configured is

licensed as a Secondary server, you have the option to configure the server as a Secondary server or Standalone server.



*For more information on installing a Business Continuity solution, please refer to the NetVanta UC Server Business Continuity Installation Guide available from ADTRAN's support community (<https://supportforums.adtran.com>).*

### To configure the server as a Standalone server

1. Select the **Standalone** radio button. If the server is configured as a Standalone server, no Primary or Secondary server can be configured. This role should be selected when Business Continuity is not being used.

Business Continuity

**Select the Business Continuity Server Role**  
Select the role for this server in a Business Continuity solution.

Select this server's Business Continuity role.

Standalone - not currently part of a Business Continuity solution

Primary server in a Business Continuity solution

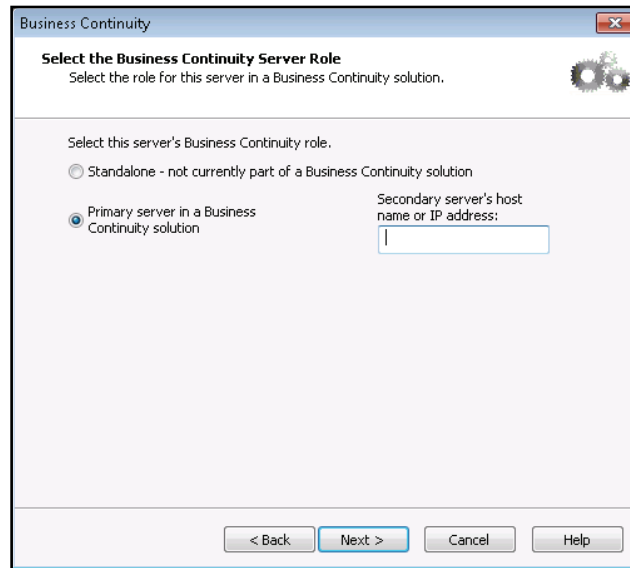
Secondary server's host name or IP address:

< Back   Next >   Cancel   Help

2. Select **Next**, a summary page will appear.
3. On the summary page, review the Business Continuity role selection for the server. Then, select **Submit** to accept the configurations.
4. Once the wizard has configured the server's Business Continuity role, select **Next** to exit the wizard.

## To configure the server as a Primary Server

1. Select the **Primary Server in a Business Continuity solution** radio button, and enter the Secondary server's host name or IP address in the provided field.

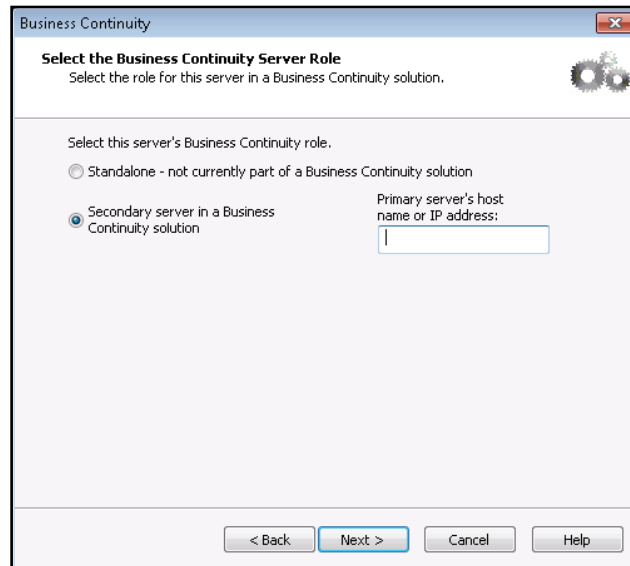


The screenshot shows a window titled "Business Continuity" with a close button in the top right corner. The main heading is "Select the Business Continuity Server Role" with a sub-instruction: "Select the role for this server in a Business Continuity solution." There is a gear icon in the top right. Below this, the instruction "Select this server's Business Continuity role." is followed by two radio button options: "Standalone - not currently part of a Business Continuity solution" and "Primary server in a Business Continuity solution", which is selected. To the right of the second option is a text input field labeled "Secondary server's host name or IP address:". At the bottom of the window are four buttons: "< Back", "Next >", "Cancel", and "Help".

2. Select **Next**, a summary page will appear.
3. On the summary page, review the Business Continuity role selection for the server. Then, select **Submit** to accept the configurations.
4. Once the wizard has configured the server's Business Continuity role, select **Next** to exit the wizard.

## To configure the server as a Secondary Server

1. Select the **Secondary Server in a Business Continuity solution** radio button, and enter the Primary server's host name or IP address in the provided field.



The screenshot shows a window titled "Business Continuity" with a close button in the top right corner. The main heading is "Select the Business Continuity Server Role" with a sub-heading "Select the role for this server in a Business Continuity solution." and a gear icon. Below this, it says "Select this server's Business Continuity role." There are two radio button options: "Standalone - not currently part of a Business Continuity solution" and "Secondary server in a Business Continuity solution", with the latter selected. To the right of the second option is a text input field labeled "Primary server's host name or IP address:". At the bottom of the window are four buttons: "< Back", "Next >", "Cancel", and "Help".

2. Select **Next**, a summary page will appear.
3. On the summary page, review the Business Continuity role selection for the server. Then, select **Submit** to accept the configurations.
4. Once the wizard has configured the server's Business Continuity role, select **Next** to exit the wizard.

## Gateways

Running this wizard allows you to select the gateway type that you are planning to use in your environment, such as PSTN, or SIP Peer. The Gateway Wizard prepares NetVanta UC Server for configuration of the gateway. More than one gateway type can be added, but each gateway is configured separately. If you have more than one gateway, the gateways can be organized into groups.



*For ITSP gateways, select PSTN gateway.*

### PSTN gateways

NetVanta UC Server can provide PSTN network access through SIP PSTN gateways. SIP PSTN gateways convert the SIP protocol (signaling and voice) to traditional PSTN (Time Division Multiplexing) technology. SIP PSTN gateways can use either analog or digital lines (T1 in North America).

### To change PSTN gateway settings

- Enter the host name for the PSTN gateway.

### SIP Peer Gateways

The SIP Peer allows for the networking of multiple NetVanta UC Servers.

### To change SIP Peer gateway settings

- Enter the host name for the SIP Peer Gateway.

### Gateway groups

If you have more than one gateway, you can organize them into groups. Dial plan entries route calls to alternate trunking facilities if the facilities are busy or unavailable. For example, if two trunking facilities are available, PRI and analog, the analog facilities can be used as a second choice when the PRI lines are busy or unavailable. A flexible dialing plan routes incoming and outgoing calls to individual or groups of gateways. A gateway group provides the following capabilities:

- Fault tolerance/Disaster Recovery - This provides overflow capability in the event that a gateway device is busy or unavailable.
- Least Cost Routing (LCR) alternatives - A gateway group can contain gateways that are connected to different carriers, such as local and long distance providers, or can contain gateways in different geographic locations.
- Different technologies of trunking facilities can be combined seamlessly. Gateway groups can combine analog facilities, digital facilities, SIP trunking services, and SIP Peers.

### To create a gateway group

1. From the Available gateways list, select a gateway and select **Add** to add the gateway to the gateway group.
2. Select **Next** when you have finished creating your gateway group.

### Configuring the gateway

Enter the configuration details for the gateway.

### To configure the gateway

1. Enter a unique name for the gateway.  
This information is for display purposes only, on NetVanta UC Server and in the database.
2. Select the communication system for which the gateway is associated.  
The default is NetVanta UC Server.
3. Enter a brief description of the gateway.  
This information is for display purposes only.

## Messaging Systems

Use the Messaging Systems Wizard to select a message store type, such as Microsoft Exchange Server, an Internet Message Access Protocol (IMAP) server, or a Simple Mail Transfer Protocol (SMTP) server, and to configure the message store account. For more information about configuring the desired message store account, refer to the following sections:

- *Configuring Microsoft Exchange Server on page 23*
- *IMAP Server on page 26*
- *SMTP Server on page 27*

### Configuring Microsoft Exchange Server

When configuring Microsoft Exchange Server, there are several options available to consider. The following sections describe these options.

#### Selecting the Exchange Server version

NetVanta UC Server can connect to several versions of Microsoft Exchange Server. NetVanta UC Server version 5.1.0 automatically detects the version of the Exchange Server connected to the NetVanta UC Server and configures the connection settings accordingly. However, you can manually override the Exchange Server version selected by NetVanta UC Server using the **Version** drop-down menu of the **Configure Exchange Server** window.



*Each time NetVanta UC Server connects to Microsoft Exchange Server it will detect the Exchange Server's version. If the version of Microsoft Exchange Server selected in NetVanta UC Server does not match the version detected, an error is logged. If the detected version of Microsoft Exchange Server is later than the current configuration, then the later version will be used for connectivity settings. For more information on how to access error logs, refer to [Using Logs in the NetVanta UC Server](#) available on ADTRAN's Support Community at <http://supportforums.adtran.com> (article number 2605).*

### Connecting to Exchange Server 2010

The Client Access server (CAS) role was introduced in Exchange Server 2007 to accept client connections to services such as Outlook Web Access, much like the Exchange Server 2003 front-end server. Nevertheless, NetVanta UC Server (and other exchange clients) connect directly to the Mailbox server via Messaging Application Programming Interface (MAPI) when connecting to either Exchange Server 2003 or Exchange Server 2007.

In Exchange Server 2010, the RPC Client Access service was introduced to allow the CAS to handle all MAPI connections. Instead of Exchange clients (including NetVanta UC Server) connecting to the Mailbox server directly, they must connect to the CAS via MAPI to access the Mailbox server. Because NetVanta UC Server integrates with Exchange Server using MAPI, this change can affect which physical server should be designated as the **Server** when configuring an Exchange Server 2010 connection in NetVanta UC Server. You must designate a physical server that hosts the CAS role as the **Server**. If, for example, the CAS role and Mailbox server role are hosted on separate physical servers, the server hosting the CAS role should be designated as the Exchange Server. If multiple physical servers host the CAS role

in a CAS array, any one of these servers can be designated as the **Server** when configuring the connection.



*NetVanta UC Server does not provide failover for Microsoft Exchange Server configurations with CAS arrays. If the CAS server designated as the **Server** fails, NetVanta UC Server will not redirect to another CAS server in the array.*

### Configuring message delivery

When you configure Exchange Server, you can set the system-wide message delivery mode to determine whether voice and fax messages are sent from the system mailbox or are stored directly in users' mailboxes. This setting affects whether:

- User defined message rules in Microsoft Outlook® or Microsoft Exchange Server are applied.
- Messages are sent to third-party applications such as BlackBerry® Enterprise Server.
- The caller's phone number appears in the From line of the message.

The message delivery modes are as follows:

#### **Send messages from system mailbox**

Voice and fax messages are sent from the system mailbox. This mode has the following effects:

- Any user defined message rules set in Outlook or Exchange Server are applied. For example, a user's rule might direct messages from a particular contact to a specific folder.
- Messages are sent to any third-party applications such as BlackBerry Enterprise Server.
- The message appears to be from the system mailbox, and the From line does not include the caller's phone number.

#### **Impersonate caller and store to mailbox**

Voice and fax messages are stored directly in the user's mailbox, rather than being sent. This mode has the following effects:

- User defined message rules in Outlook or Exchange Server are not applied. For example, a user's rule directing messages from a particular contact to a specific folder is not applied.
- Messages are not sent to any third-party applications such as BlackBerry Enterprise Server.
- The From line includes the caller's phone number, or the caller's name from a contact that matches the phone number.

### **Synchronizing message waiting indicators for messages accessed through the Web or mobile devices**

You can configure Exchange Server to monitor users' mailboxes to determine when a new message arrives or is read, or when a message is marked as read or unread. The advantage is that when a user accesses their voicemail messages through Microsoft Outlook Web Access or a mobile device, the NetVanta UC Server adjusts the message waiting indicator on the user's phone accordingly (to turn it on or off). Without mailbox monitoring, the NetVanta UC Server is unaware when a user accesses their voicemail messages



through Outlook Web Access or a mobile device. For example, even after a user has accessed all their new messages, the message waiting indicator on their desk phone may continue to flash.

However, mailbox monitoring can negatively impact system performance. Therefore, you may want to enable mailbox monitoring only for those users who require it.

The mailbox monitoring options are as follows:

- Enable mailbox monitoring** Opens the Exchange Server mailboxes of selected users at system start up. The NetVanta UC Server monitors each mailbox for changes such as a new message has arrived or is read, or a message is marked as read or unread. This applies only to the Inbox; other folders are not monitored. When a user accesses messages through Outlook Web Access or a mobile device, depending on the message waiting indicator (MWI) settings selected, the MWI turns on or off accordingly.
- Default setting for users** If mailbox monitoring is enabled, then this mode turns mailbox monitoring for users on or off by default.



*Mailbox monitoring works in conjunction with the MWI options set. For example, the MWI options determine if the message waiting indicator is turned off when the first message is read, or when all new messages have been read.*



*Mailbox monitoring could negatively impact system performance. Mailbox monitoring increases the traffic between the Exchange Server and the NetVanta UC Server. Depending on the number of users configured for mailbox monitoring, the bandwidth between the Exchange Server and NetVanta UC Server, and the CPU power, performance can be affected. On systems with more than 100 users, system design and engineering must consider the increased load of mailbox monitoring on the Exchange Server. Monitoring more than 500 mailboxes requires careful consideration and should not be done without a slow roll-out procedure to validate the performance of both Exchange Server and NetVanta UC Server in the specific customer environment. If your Exchange Server is at or near maximum capacity, then you may want to disable mailbox monitoring.*

## Configuring a Microsoft Exchange Server Message Store

To configure a Microsoft Exchange Server message store, follow these steps:

1. Select **Microsoft Exchange Server** in the **Select Messaging Servers** window and select **Next**. The **Configure Exchange Server** window will appear.

2. Use the **Select the Exchange Server** drop-down menu to select an Exchange Server that has been detected by NetVanta UC Server. If the server name does not appear in the list, a server name can be entered in the field. The server name is the name of the physical Exchange Server to which the NetVanta UC Server will be connected. If you are adding a Microsoft Exchange Server 2010 (including service pack versions), you must select a server with the CAS role. Refer to *Connecting to Exchange Server 2010 on page 23* for information on selecting the appropriate Microsoft Exchange Server 2010 server.
3. If the version of the selected Exchange Server differs from the version in the **Select Exchange Version** field, use the drop-down menu to select the appropriate version of Microsoft Exchange Server. You may receive one of the following error messages when manually selecting the version of Microsoft Exchange Server:
  - Selected version differs from autodetected version
  - The selected Exchange server has changed and no longer reflects the existing home mailbox configuration for the service account.
4. In the **Service mailbox name** field, enter the Microsoft Exchange Server mailbox name for the NetVanta UC Server service account. This mailbox is the Microsoft Exchange Server mailbox that has special access privileges in Exchange Server.



*If the service account has a mailbox defined for it in Active Directory, the associated mailbox name displays automatically and cannot be changed.*

5. In the **Message delivery mechanism** section, select one of the following options:
 

<b>Send messages from system mailbox</b>	Voice and fax messages are sent from the system mailbox.
<b>Impersonate caller and store to mailbox</b>	Voice and fax messages are stored directly in the user's mailbox, rather than being sent.
6. Select **Enable mailbox monitoring** if you want to enable mailbox monitoring for specific or all users.
 

<b>Enable mailbox monitoring</b>	Opens the Exchange Server mailboxes of selected users at system start up. The NetVanta UC Server monitors each mailbox for changes in new message status, and depending on the MWI settings, adjusts the MWI accordingly.
<b>Default setting for users</b>	If <b>Enable mailbox monitoring</b> is selected, you can use the <b>On</b> or <b>Off</b> radio buttons to turn mailbox monitoring for users on or off by default.

## IMAP Server

Internet Message Access Protocol (IMAP) is a method of accessing and storing email messages. The NetVanta UC Server can integrate with IMAP version 4 revision 1 servers conforming to RFC 2060. For more information on IMAP version 4 revision 1, refer to [www.ietf.org/rfc/rfc2060.txt](http://www.ietf.org/rfc/rfc2060.txt). Add an IMAP server when you need to integrate NetVanta UC Server with Lotus Notes, Lotus Domino, Novell GroupWise, Google Mail (Gmail), or other servers. For more information on integrating NetVanta UC Server with

Gmail, refer to the *IMAP Integration with Google Mail* technical note available on ADTRAN's Support Community at <https://supportforums.adtran.com> (article number 2768).

The NetVanta UC Server can use mailboxes on an IMAP server to store voice and fax messages in order to provide users with unified messaging functionality. In addition, users licensed for text-to-speech (TTS) can listen to their email messages from their mailbox over the telephone.

To configure an IMAP server message store, follow these steps:

1. Select **IMAP** in the **Select Messaging Servers** window, and select **Next**. The **Configure an IMAP Server** window will appear.
2. Enter the host name or IP address of the IMAP server in the **Enter the network address for the IMAP server** field. In some cases, such as Gmail, this can point to a proxy instead.
3. If you would like to select a service port for the IMAP server other than the default (port 143), select the **Other** radio button and enter a port number in the adjacent field. The port number is the IP port number of the IMAP service on the target server.
4. Select the **Test** button to verify that the host name or IP address that you specified is listening and displays the IMAP banner.



*Depending on your server configuration, further configuration may be required from the NetVanta UC Server Administrator application to configure the appropriate message retrieval method. For more information refer to the *NetVanta Unified Communications Server Administrator Guide* available on ADTRAN's Support Community at <https://supportforums.adtran.com> (article number 1252).*

## SMTP Server

The SMTP server is used to send emails, and is only required if you are not integrating with Microsoft Exchange. To configure an SMTP server, follow these steps:

1. Select **SMTP** in the **Select Messaging Servers** window, and select **Next**. The **Configure an SMTP Server** window will appear.
2. Enter the host name or IP address of the SMTP server in the **Enter the network address for the SMTP server** field.
3. If you would like to select a service port for the SMTP server other than the default (port 25), select the **Other** radio button and enter a port number in the adjacent field. The port number is the IP port number of the SMTP service on the target server.
4. Select the **Test** button to verify that the host name or IP address that you specified is listening and displays the SMTP banner.
5. Enter the display name for outgoing email in the provided field. This display name is sent with the email and appears on the recipient's email client.
6. Enter the outgoing email address in the provided field. This address is the physical email address that is used to send email. The email account must exist with your service provider for SMTP to function correctly. An example of a sender email address is: **myemailname@serviceprovider.com**.

7. Select **Send a test email** to send a test email using the defined display name and outgoing email address of the SMTP server. The **Enter email address** window will appear. In the provided field, enter a valid email address that you would like to receive the test email. Then, select **OK** to send the test email.

## Users

Use this wizard to add new users and import existing users from Active Directory, Microsoft Exchange Server, or from text files. The wizard allows you to select a location to import users from, and automatically generate and assign extensions. You can also change user information before you create users. For more information refer to the following sections:

- *Importing users from Active Directory on page 28*
- *Importing users from Exchange Server on page 29*
- *Importing users from text files on page 29*

### Importing users from Active Directory

You can select a group of users to import from Active Directory, and you can also automatically assign an extension number for each user.

#### User naming convention

If you import users with a display name only, without specifying the first and last name, then users are imported as follows:

- If a display name is delimited with spaces, then the last 'word' is the last name, for example, "Bob Jeff Thompson"  
    lastname = Thompson  
    firstname = Bob Jeff
- If a display name is delimited with commas, then everything after the comma is the first name, for example, "Thompson, Bob J."  
    lastname = Thompson  
    firstname = Bob J.

### To import Active Directory users

1. From the drop-down list, select the Active Directory domain from which you want to import users.
2. Select **Browse** to search Containers on your system for the users that you want to import.
3. If you specify a name prefix, the wizard imports users with names that begin with that prefix (this feature is not case sensitive).
4. Enable the **Create "Windows-enabled" Active Directory users** check box if you want users to be able to use the single sign-on Active Directory feature.

5. Enable the **Use Active Directory for messaging configuration** check box to link users' mailboxes to their corresponding Exchange mailboxes.



*If you are importing a large number of users, the process takes some time, and a progress page shows you how many users have been found so far.*

### To change users' specifications

- To return the wizard to the specification page, select **Stop search and refine criteria**.

### To stop importing users

- To stop the import, select **Stop search and process users**.

The configuration page appears with only those users that were imported up to that point.

## Importing users from Exchange Server

### To import users from Exchange Server

1. From the list, select the location of the Microsoft Exchange Server from which you want to import users.
2. If you specify a name prefix, the wizard imports users with names that begin with that prefix (this feature is not case sensitive).

With the list of users, you can assign the Identities (typically extensions). The wizard extracts the first name and last name from the Exchange Server. The users are associated with the Personal Assistant (PA) user profile, and have the system operator as the default dial "0" location.

3. Select whether you want the users that you are importing to be linked to Active Directory.



*If you are importing a large number of users, the process takes some time, and a progress page shows you how many users have been found so far.*

### To change users' specifications

- To return the wizard to the specification page, select **Stop search and refine criteria**.

### To stop importing users

- To stop the import, select **Stop search and process users**.

The configuration page appears with only those users that were imported up to that point.

## Importing users from text files

You can use Microsoft Excel to create a tab-separated text file to import Windows-enabled or local users. A Windows-enabled user is associated with an Active Directory user, while a local user is not. Local users

are configured to use local message store (LMS), while Windows-enabled users are configured to use Microsoft Exchange Server if one exists. Some fields are required and others are optional, depending on whether you're importing local or Active Directory users.

For more information refer to the following sections:

- [Importing local users from text files on page 30](#)
- [Importing Windows-enabled users from text files on page 32](#)



For more information on importing users from text files, refer to the [Importing Users to NetVanta UC Server technical note](#) available from ADTRAN's Support Community at <https://supportforums.adtran.com> (article number 2766). A corresponding zip file also includes a Microsoft Excel file for importing users.

## Importing local users from text files

To import users, enter the information for each user in a tab-separated text file. The format of the tab-separated file must be similar to the following example, which shows all possible headings for local users. The order of the headings does not matter, and the headers are not case sensitive. To import local users, provide the displayname at a minimum.

**Table 1. Tab-separated file format**

displayname	extension	givenname	sn	userfax	pbx	answeringmode	phonemac	phonetype
First1 Last1	3000	First1	Last1		NetVanta UC Server	PA		
First2 Last2	3001	First2	Last2		NetVanta UC Server	PBA		
First3 Last3	3002	First3	Last3		NetVanta UC Server			



The PBX name in the above example, NetVanta UC Server, is the PBX name assigned to a PBX when you created it. Substitute the PBX name (if different) with the name you created for your location.

**Table 2. Tab-separated file format**

displayname	extension	givenname	sn	userfax	pbx	answeringmode
First1 Last1	3000	First1	Last1			PA
First2 Last2	3001	First2	Last2			PBA
First3 Last3	3002	First3	Last3			

## To create a tab-separated file for importing local users using Microsoft Excel

1. Create a Microsoft Excel spreadsheet that has some or all of the following headings. At a minimum, the DisplayName must be specified.

<b>displayname</b>	Name that appears in the Administration Users pane
<b>extension</b>	Identity that is associated with the user. If this value is entered, it must be unique for each user, and cannot correspond to an existing identity.
<b>givenname</b>	First name of the user
<b>sn</b>	Last name of the user
<b>userfax</b>	Incoming identity associated with DID fax. This is the fax number that callers dial to send faxes to the user. The user receives incoming faxes in their Inbox.
<b>pbx</b>	Display name of the PBX that the user is associated with. By default, the name is "NetVanta UC Server."
<b>answeringmode</b>	Call answering mode, either PA for Personal Assistant or PBA for Personal Business Assistant. If no value is specified, then the user becomes a PA user by default. PA and PBA are not case sensitive.
<b>phonemac</b>	MAC address of the user's phone. The MAC address can be entered with or without dashes between octets.
<b>phonetype</b>	The user's phone model name



*The spelling of the phone types in the tab delimited file must match exactly the names used in the Server Configuration Wizard.*

2. Enter the customer-provided information into the relevant headings.
3. In Microsoft Excel, select **File > Save As**.
4. Type a name for the file.
5. In the **Save as type** list, select **Text (Tab delimited)(\* .txt)**.
6. Select **Save**.
7. Close **Excel**.

## To import the user text file

1. When you run the User Import Wizard, choose to import user information from a text-based file.
2. Select **Browse** to select the location of the file.

3. The following options are valid only for importing Windows-enabled users, so for local users the check boxes are disabled:
- Create “Windows-enabled” Active Directory users
  - Use Active Directory for messaging configuration



*If you are importing a large number of users, the process takes some time, and a progress page shows you how many users have been found so far.*

### To stop importing users from a text file

- To return the wizard to the specification page, select **Stop search and refine criteria**.
- To stop the import, select **Stop search and process users**. The configuration page appears with only those users that were imported up to that point.

### Importing Windows-enabled users from text files

To import Windows-enabled users, enter the information for each user in a tab-separated text file. For Windows-enabled users, the format of the tab-separated file headings must be similar to the following examples. The order of the headings does not matter, and the headers are not case sensitive. Include all of the required fields, and any of the optional fields that you want, into one file.

**Table 3. Required fields for Windows-enabled users**

displayname	givenname	sn	legacyexchangedn	objectguid	objectsid	userprincipalname
First1 Last1	First1	Last1				
First2 Last2	First2	Last2				
First3 Last3	First3	Last3				



*If you do not include all the required information for a Windows-enabled user, then a user will be imported as a local user instead.*

**Table 4. Optional fields for Windows-enabled users**

extension	userfax	pbx	answeringmode
3000			PA
3001			PBA
3002			



**Table 5. Optional fields for Windows-enabled users**

extension	userfax	pbx	answeringmode	phonemac	phonetype
3000		NetVanta UC Server	PA		
3001		NetVanta UC Server	PBA		
3002		NetVanta UC Server			



*The PBX name in the above example, NetVanta UC Server, is the PBX name assigned to a PBX when you created it. Substitute the PBX name (if different) with the name you created for your location.*

**To create a tab-separated file for importing Windows-enabled users using Microsoft Excel**

1. Create a Microsoft Excel spreadsheet that has the following headings (some are optional as noted above):

<b>displayname</b>	Name that appears in the Administration Users pane
<b>extension</b>	Identity that is associated with the user. If this value is entered, it must be unique for each user, and cannot correspond to an existing identity.
<b>givenname</b>	First name of the user
<b>sn</b>	Last name of the user
<b>userfax</b>	Incoming identity associated with DID fax. This is the fax number that callers dial to send faxes to the user. The user receives incoming faxes in their Inbox.
<b>pbx</b>	Display name of the PBX that the user is associated with. By default, the name is "NetVanta UC Server."
<b>legacyexchangedn</b>	Identifying string for the user's Exchange Server, as defined in Active Directory
<b>objectguid</b>	GUID of the object in Active Directory
<b>objectsid</b>	SID of the user in Active Directory, in S-1-5... format
<b>userprincipalname</b>	The user email address, for example, jmciverson@adtran.com.
<b>answeringmode</b>	Call answering mode, either PA for Personal Assistant or PBA for Personal Business Assistant. If no value is specified, then the user becomes a PA user by default. PA and PBA are not case sensitive.
<b>phonemac</b>	MAC address of the user's phone. The MAC address can be entered with or without dashes between octets.
<b>phonetype</b>	The user's phone model name



*The spelling of the phone types in the tab delimited file must match exactly the names used in the Server Configuration Wizard.*

2. Enter the customer-provided information into the relevant headings.
3. In Microsoft Excel, select **File > Save As**.
4. Type a name for the file.
5. In the **Save as type** list, select **Text (Tab delimited)(\*.txt)**.
6. Select **Save**.
7. Close **Excel**.

## To import the user text file

1. When you run the User Import Wizard, choose to import user information from a text-based file.
2. Select **Browse** to select the location of the file.
3. If you've included all the required field headings, then **Create "Windows-enabled" Active Directory users** is enabled for users to be able to use the single sign-on Active Directory feature.
4. Enable the **Use Active Directory for messaging configuration** check box to link users' mailboxes to their corresponding Exchange mailboxes.



*If you misspell, or omit, any of the required headers in the tab-separated file, the check boxes noted above are unavailable and users can only be imported as local users.*



*If you are importing a large number of users, the process takes some time, and a progress page shows you how many users have been found so far.*

## To stop importing users from a text file

- To return the wizard to the specification page, select **Stop search and refine criteria**.
- To stop the import, select **Stop search and process users**. The configuration page appears with only those users that were imported up to that point.

## Final System Configuration

The **Final System Configuration Wizard** allows you to configure the administrator password, dialing properties, system operator, default mailbox, system default voice, and email notification system. To complete the **Final System Configuration Wizard**, follow these steps:

1. In the **NetVanta UC Server Configuration Wizard** menu, select **Final System Configuration**. The **Final System Configuration Wizard** welcome menu will appear.
2. Select **Next** to begin the **Final System Configuration Wizard**. The **Administrator Password** menu will appear.
3. In the **Administrator Password** menu, you can configure the password used by the NetVanta UC Server administrator to log in to NetVanta UC Server to perform administrative tasks. Enter the desired administrator password in the **Password** field, and re-enter the password in the **Confirm password** field. Once you have configured the password, select **Next**. The **Dialing Properties** menu will appear.
4. Follow the directions provided in the **Dialing Properties** menu to specify the system location and dialing properties for outbound calls. Once you have configured the dialing properties, select **Next**. The **Operator and Default Mailbox** menu will appear.

5. Follow the directions provided in the **Operator, Default Mailbox, and System Default Voice** menu to configure the **Operator identity**, the **Default mailbox**, and the **System Default Voice**. The **Operator identity** is the identity of the NetVanta UC Server operator to whom callers can transfer when accessing the voice mail service. The **Default mailbox** is the mailbox to which NetVanta UC Server will deliver a voice or fax message if an error occurs while delivering the message. The **System Default Voice** is the default voice the system uses for prerecorded announcements, voice mailbox management, and voicemail behavior for the **Voice Mail** element and **Personal Assistant** mode. System voices combine a language, gender, and text to speech (TTS) generator. When you are finished, select **Next**. The **Notification email server** menu will appear.
6. In the **Notification email server** menu, use the **Send e-mail using** drop-down menu to specify the messaging server that will send email notifications to email recipients when they receive new voice and fax messages. Once you have chosen the notification email server, select **Next**. The final system configuration **Summary** menu will appear.
7. In the **Summary** menu, review the system settings. If you would like to change a setting, select **Back** to return to previous menus. Otherwise, select **Submit** to submit the changes. NetVanta UC Server will automatically configure the changes.
8. Once all tasks have been completed, select **Next** then select **Finish**.

## Configuring NetVanta UC Live Attendant Server Components

If you installed the NetVanta Enterprise Communications Server, then you were prompted to install the NetVanta UC Live Attendant Server Components, which are required to run the optional ucCompanion - Live Attendant application. If you installed the NetVanta UC Live Attendant Server Components then there are some final configuration steps which must be performed once you have completed the Server Configuration Wizard, in order to run the ucCompanion - Live Attendant application. For instructions on configuring the NetVanta UC Live Attendant Server Components refer to the *NetVanta Unified Communications Server Presence and Control Components Guide*, available on ADTRAN's Support Community at <https://supportforums.adtran.com> (article number 2610).

## Appendix A. Manually Configuring Accounts and Permissions

The information in this appendix is intended as reference material for the network administrator.

Before the installer arrives at your site, ensure that the required files for the configuration have already been installed on the UC Server computer.

The following sections describe the manual procedures for some tasks that are typically performed automatically by the UC Server Configuration Wizard. These procedures may be required to be performed manually, since there may be some information about your network and hardware that the wizard cannot determine automatically. The procedures are described below in case some manual configuration is required.

- [Configuring the UC Server User Account on page 37](#)
- [Configuring the Exchange Server Account and Permissions on page 38](#)



*It is only necessary to follow the manual procedures below if the Server Configuration Wizard failed to do so automatically, or if you chose to do so manually in order to implement a custom configuration. For more information on some situations where manual configuration may be required, refer to [Manually Configuring Polycom SIP Phones on page 41](#).*

### Configuring the UC Server User Account

The Server Configuration Wizard typically creates a new user account on the computer network for UC Server. If this was not done automatically, then follow the steps below to create the account manually.

#### To manually create a user account for UC Server on the local machine (UC Server is not part of a domain)

1. Right-click **My Computer** on the desktop.
2. Select **Manage**.
3. Select **Local Users and Groups**.
4. Right-click **Users**.
5. Select **New User**.
6. In the New User dialog, enter the required user account information.  
The User name can be “UC Server” or a name that you choose.
7. Select **Create**.

#### To manually create a user account for UC Server in Active Directory (UC Server is part of a domain)

1. Select **Start > Programs > Administrative Tools > Active Directory Users and Computers**.
2. In the left pane, select **Users > Action > New > User**.

3. In the New User dialog box, enter the required user account information.  
The Logon Name can be “UC Server” or a name that you choose.
4. Select **Next**.
5. Enter the user password information, and select **Next**.
6. If you have Exchange on the computer, enable **Create an Exchange Mailbox**.
7. Select **Next**, and then select **Finish**.

## Configuring the Exchange Server Account and Permissions

The UC Server user account provides a separate security context that does not require administrative permissions on the local computer or in the Domain Administrators Active Directory group.

The UC Server account’s administrative privileges are limited to Microsoft Exchange Server mailboxes. The account must access Exchange user mailboxes in an administrative capacity because it uses them to store and retrieve messages.

Follow the relevant instructions below for configuring Exchange Server 2007, or configuring Exchange Server 2003/2000.

- [Configuring Exchange Server 2007 on page 38](#)
- [Configuring Exchange Server 2003/2000 on page 39](#)

### Configuring Exchange Server 2007

#### To create a mailbox logon to the Exchange Server 2007 console with a Windows account with Recipient Permissions

1. Select **Start > Program > Exchange Server 2007 > Exchange Management Console**.
2. Navigate to **Microsoft Exchange > Recipient Configuration**.
3. Right select on **Mailbox** and select **New Mailbox**.
4. Select **User Mailbox** and select **Next**.
5. Select **New user** and select **Next**.
6. Enter the information for the new user, *enable* the option **User must change password at next logon**, and select **Next**.
7. Select **Next** again, and select **New**.



*To integrate with Exchange Server 2007, A Microsoft Exchange Server MAPI client be installed on the UC Server platform to permit connection. We recommend using Microsoft Exchange Server MAPI Client and Collaboration Data Objects 1.2. Microsoft Outlook 2007 SP2 is not supported.*



*The Exchange Role of “Server Data Permissions” is required when running the Server Configuration Wizard, in order to grant permissions to the Exchange Server 2007 message store from UC Server. If you do not have access to a Windows account with “Server Data Permissions,” then an Exchange Server Administrator must run the following script on the Exchange Server.*

### To grant permissions to the Exchange Server 2007 message store from UC Server

- Type the following script replacing <SERVICE\_ACCOUNT> with the Service Account name:  
Get-MailboxServer | Add-ADPermission -User <SERVICE\_ACCOUNT> -AccessRights GenericRead, GenericWrite -ExtendedRights Send-As, Receive-As, ms-Exch-Store-Admin

## Configuring Exchange Server 2003/2000

### To create an Exchange mailbox for an existing account on Exchange Server 2003/2000

1. Navigate to **Start > Programs > Administrative Tools > Active Directory Users and Computers**.
2. In the left pane, select **Domain** and select the Users folder.
3. In the right pane, right-click the UC Server account.
4. Select **Exchange Tasks** to start the Exchange Tasks Wizard.
5. From the list of tasks, select **Create Mailbox**.
6. Select **Next**, and then select **Finish**.

### To manually set rights and privileges on Exchange Server 2003/2000

1. Navigate to **Start > Programs > Microsoft Exchange > System Manager**.
2. In the left pane of the **Exchange System Manager** window, select the Exchange Server that you want to integrate with.
3. Select **Action > Properties** to open the Exchange Server Properties dialog box.
4. Select the **Security** tab, and select **Add** to open the Select Users, Computer or Groups dialog box.
5. From the Look In list box, select each of the following:
  - the Domain name
  - the UC Server account name
6. Select **Add**, and then select **OK**.
7. From the Permissions: Allow Deny list box, select **Full control** for the account that was just added.
8. Make sure that **Allow inheritable permissions from parent to propagate to this object** is enabled.
9. Select **OK** and then close the Exchange System Manager window.

**To manually delegate the administrator role**

1. Navigate to **Start > Programs > Microsoft Exchange > System Manager**.
2. In the left pane of the **Exchange System Manager** window, right-click the root level of the Exchange server, and select **Delegate control** from the menu that appears. The



## Appendix B. Manually Configuring Polycom SIP Phones

This appendix describes the steps to manually configure the system to allow for Polycom and ADTRAN branded Polycom SIP telephones to retrieve their configuration information. You must only manually enable support for a line of telephones if the Server Configuration Wizard was unable to do so. You will receive a warning from the Phone Types Wizard if this is the case. Typically, the wizard would be unable to automatically enable support for a line of telephones if UC Server is installed on a domain controller. If this is the case, then you must manually enable support for SIP telephones following the instructions in each section listed below. For more information refer to *Phone Types on page 16*.

- *Creating Polycom SIP Phone User Accounts for FTP Access on page 41*
- *Providing Access for Polycom SIP Phone User Accounts to the FTP Server on page 43*
- *Enabling Support for Polycom Phones on page 45*



*The following steps are only required if the Server Configuration Wizard was unable to automatically enable support for SIP telephones using the Phone Types Wizard.*

### Creating Polycom SIP Phone User Accounts for FTP Access

When Polycom and ADTRAN branded Polycom SIP phones attempt to retrieve their configuration from the FTP server, they must first log in. Most SIP telephones have a default user name and password for this purpose, and so if the telephones are to be provisioned through an FTP server then it must be configured to allow access for these telephone user accounts.

The following procedures describe how to set up the telephone user account using Windows XP Pro SP2 and Windows 2003 Server. The procedures describe how to create a user account on a machine running UC Server, that is not part of an Active Directory domain, or that is part of an Active Directory domain. Follow the procedure that is applicable for your particular configuration.



*Typically, telephones have a default password. If this password does not meet the complexity requirements of the domain, such as the Polycom password "PlcmSpIp" then you must disable the requirements before the account is created. You can also manually program the password on each handset. Refer to the **NetVanta Enterprise Communications and Business Application Servers Planning and Deployment Guide**, for more information on disabling password complexity requirements.*

#### To disable the password complexity policy in SBS 2008

1. Select **Start > Administrative Tools > Group Policy Management**.
2. Select **Forest > Domains >** and select your domain.
3. Select **Default Domain Policy**.
4. In the right pane select the **Settings** tab.
5. Select **Security Settings**.

6. In the right pane, right-click and select **Edit**.  
The *Group Policy Management Editor* dialog opens.
7. In the left pane select **Computer Configuration > Policies > Windows Settings > Security Settings > Accounts Policies > Password Policy**.
8. In the right pane double-click on **Password must meet complexity requirements**.
9. Select **Disabled**.
10. Select **Apply**, and then select **OK**.



*It may take some time for policies on a domain controller to update. Generally this may take a few minutes, but the larger the domain, the longer it will take for the policies to update. Follow the steps below if you want the policies to update immediately.*

### To force the domain policies to update immediately

1. Open a command prompt.
2. Enter the following text.  
GPUPDATE

### To create a user account on the local machine (UC Server is not part of a domain)

1. Right-click **My Computer** on the desktop.
2. Select **Manage**.
3. Select **Local Users and Groups**.
4. Right-click **Users**.
5. Select **New User**.
6. Type the following information in the *New User* dialog:
  - User name—for example, PlcmSpIp, which is the Polycom and ADTRAN branded Polycom user name
  - Full name—for example, Polycom and ADTRAN branded Polycom Phone Account
  - Description—for example: This account is used by the Polycom and ADTRAN branded Polycom phones.
  - Password—for example, PlcmSpIp
  - Confirm password—retype the password
  - User must change password at next logon—Off
  - User cannot change password—On
  - Password never expires—On
  - Account is disabled—Off
7. Select **Create**.

**To create a user account in Active Directory (UC Server is part of a domain)**

1. Select **Start > Programs > Administrative Tools > Active Directory Users and Computers**.

The instructions may differ slightly depending on the operating system you are running.

2. In the left plane, select the **Users** folder.

3. Right-click and select **New > User**.

If you do not have the required permissions, the New option will not be available.

4. Type the following information in the *New User* dialog:

- First name—for example, Polycom and ADTRAN branded Polycom
- Full name—for example, Polycom and ADTRAN branded Polycom Phone Account
- User logon name—for example, PlcmSplp, which is the default Polycom and ADTRAN branded Polycom user name.
- Select **Next**.
- Type in the password—for example, PlcmSplp
- User must change password at next logon—Off
- User cannot change password—On
- Password never expires—On
- Account is disabled—Off
- Create an Exchange mailbox—Off

If you have an Exchange Server, it is not necessary to create an Exchange mailbox.

5. Select **Finish**.

**Providing Access for Polycom SIP Phone User Accounts to the FTP Server**

Telephone accounts permissions to the FTP server are typically automatically configured by the Server Configuration Wizard. If you did not configure the accounts permissions when you ran the wizard, or were unable to do so due to restrictions, then you must do so manually by following the procedures in this section.

To allow permission for telephone accounts to read/write files on the FTP server, you must:

- Change the properties of the FTP server to allow read/write access.
- Give permissions to the Polycom and ADTRAN branded Polycom SIP telephone user account to access the files in the FTP server.
- Give permissions to the UC Server Service account to access the files in the FTP server.

**To configure read/write access to the FTP server**

1. Select Windows **Start > Settings > Control Panel**.
2. Double-click the **Administrative Tools** icon.

3. Open the **Internet Information Services > expand computer > Default FTP site**.



*For Windows Small Business Server (SBS) 2008 and Windows Server 2008, select **IIS 6.0 Manager**.*

4. Right-click the site object associated with the **Default FTP Site**.



*You can locate this file on the left of the screen, below the server, under **FTP sites**.*

5. Select **Properties**.
6. Select the **Home Directory** tab.
7. Make sure that the **Read** and **Write** options are enabled.
8. Select **OK**.

### **To give permissions to the FTP server for the Polycom and ADTRAN branded Polycom SIP telephone user account**

1. Using Windows Explorer, navigate to the FTP root folder.  
Typically, the FTP root folder location is: **C:\inetpub\ftproot**.
2. Right-click the folder and select **Properties**.
3. Select the **Security** tab.
4. Select the **Add** button.
5. In the **Enter the object names to select** box, type the name of the SIP telephone user account, and select **OK**.
6. From the list of groups and users, select the telephone account.
7. In the Permissions settings list box, make sure that **Allow** is enabled for the following:
  - **Modify**
  - **Read & Execute**
  - **List Folder Contents**
  - **Read**
  - **Write**
8. Select **OK**.



*If you are using SBS 2008 then you do not need to complete steps 9 and 10.*

9. Select **Advanced**.
10. Enable the **Replace permission entries on all child objects with entries shown here that apply to child objects** box, and select **OK** to update the permissions.
11. Select **OK**.

### To give permissions to the FTP server for the UC Server Service account

1. Using Windows Explorer, navigate to the FTP root folder.  
Typically, the FTP root folder location is: **C:\Inetpub\ftproot**.
2. Right-click the **ftproot** folder and select **Properties**.
3. Select the **Security** tab.



*If you are using SBS 2008 or Server 2008 then select the **Edit** button.*

4. Select the **Add** button.
5. In the **Enter the object names to select** box, type the name of the UC Server Service account, and select **OK**.
6. From the list of Group or user names, select the UC Server Service account.
7. In the Permissions list box, check **Full Control**, and select **Advanced**.
8. Enable **Replace permission entries on all child objects with entries shown here that apply to child objects**, and select **OK** to update the permissions.
9. Select **OK**.

## Enabling Support for Polycom Phones

Once the FTP server has been configured, it is necessary to enable support for Polycom and ADTRAN branded Polycom telephones that use the FTP server for provisioning. This process allows UC Server to automatically detect, configure, and reload a particular line of Polycom and ADTRAN branded Polycom SIP telephone configurations.

### Step 1: Modify settings in attributes.xml

1. Using Windows Explorer, navigate to \ADTRAN\NetVanta UC Server\Data\System\PhoneTypes.
2. Open the folder for the line of telephones for which you would like to enable support, for example, Polycom and ADTRAN branded Polycom.

3. Edit the file *attributes.xml*, and modify the following elements:
  - a *enabled* - Change this value from 0 to 1, for example:  
`<enabled>1</enabled>`
  - b *serverLocation* - Add the fully qualified or UNC path to the FTP server folder, typically, `C:\inetpub\ftproot`. For example,  
`<serverLocation>c:\inetpub\ftproot</serverLocation>`
4. Save and close the file.

## Step 2: Restart the application services

Once the *attributes.xml* file has been updated as per the previous step, restart the UC Server Application Services.

1. Select **Start > Programs > Administrative Tools > Services**.
2. Right-click **NetVanta UC Server Application Services**, and select **Restart**.



*Until this service finishes restarting, all UC Server application services are temporarily unavailable.*



*You can apply special site-specific configurations to the system and per-phone configuration files. Refer to the technical note TN046 - Customizing the SIP Telephone Configuration Files, available at <https://supportforums.adtran.com/>. Refer to the Polycom and ADTRAN branded Polycom telephone manufacturer's documentation for information about how to configure these files.*