



**NetVanta Unified Communications**

**NetVanta Enterprise Communications and  
Business Application Servers**

**Configuration Guide**

**Version 6.0**

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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.



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# 1 Server Configuration Guide

## Introduction

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 13*



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 10*
- *Verifying Requirements and Recommendations on page 10*
- *Incorporating the Server into the Customer Domain on page 11*
- *Gathering Server Configuration Wizard Information on page 11*
- *Creating an Authorization Store to Enable Active Directory Roles on page 12*

## 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 2012, 2008, and 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 options in Windows Server 2012

1. On the **Start** screen, open the **Server Manager**.
2. In **Server Manager**, select **Tools > DHCP** to open the DHCP management console.
3. In the left hand pane of the DHCP management console, select the server, and expand by selecting the right-arrow symbol.



4. In the expanded view, select **IPv4**, right-click on **Server Options**, and select **Configure Options**. The **Server Options** menu opens.
5. On the **General** tab scroll down the list to **Option 66**, and enable it using the check box. This enables the data entry for the option.
6. Enter the IP address of the provisioning server in the **String Value** field. Polycom and ADTRAN branded Polycom phones retrieve configuration files from an FTP server with the user **PlcmSpIp**. This user is automatically created by the **Phone Types** wizard with the default password **Pass\$word1**. When configuring the provisioning server for Polycom and ADTRAN branded Polycom phones, you must enter the address of the FTP server in the **String Value** field using the following format:

```
ftp://PlcmSpIp:<password>@<IPAddress>/
```

The *<password>* variable is the password of the **PlcmSpIp** user and the *<IPAddress>* variable is the IP address of the FTP server.

### To set up DHCP records in Windows Server 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**. The **Server Options** menu 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. Polycom and ADTRAN branded Polycom phones retrieve configuration files from an FTP server with the user **PlcmSpIp**. This user is automatically created by the **Phone Types** wizard with the default password **Pass\$word1**. When configuring the provisioning server for Polycom and ADTRAN branded Polycom phones, you must enter the address of the FTP server in the **String Value** field using the following format:

```
ftp://PlcmSpIp:<password>@<IPAddress>/
```

The *<password>* variable is the password of the **PlcmSpIp** user and the *<IPAddress>* variable is the IP address of the FTP 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**.
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
<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**.



*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.*

## 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

You must install the NetVanta UC Server software on one of the supported Microsoft operating systems and use a server computer that meets the minimum requirements for the applications that are to be deployed. Refer to the appropriate *NetVanta Unified Communications Release Notes* available online at <https://supportforums.adtran.com> to determine the system requirements and compatible operating systems for the version of NetVanta UC Server software you are installing.

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. NetVanta UC Server



*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 14](#) — configure Windows Firewall, service account, and service connection point
3. [Communication Systems Wizard on page 14](#) — configure your communications systems
4. [Phone Types on page 15](#) — specify required phone types
5. [Business Continuity on page 17](#) — configure the server's Business Continuity role
6. [Gateways on page 20](#) — specify required gateway types
7. [Messaging Systems on page 22](#) — select message store type and configure accounts
8. [Users on page 28](#) — add new or import existing users
9. [Final System Configuration on page 36](#) — 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>.

## 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

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.

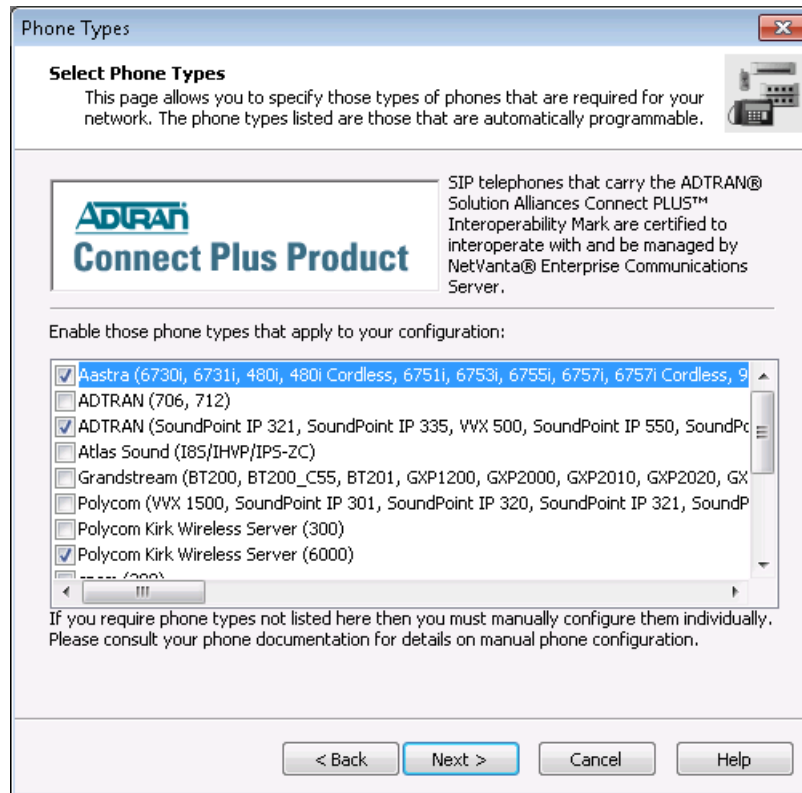
You can select a NetVanta UC Server SIP PBX, or you can select an existing PBX, which you can connect to NetVanta UC Server through a Dialogic Media Gateway. For a list of PBXs supported by Dialogic, and for gateway configuration information, refer to the Dialogic website at [www.dialogic.com](http://www.dialogic.com). 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 15](#)
- [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 A. Manually Configuring Accounts and Permissions on page 39](#) 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 13](#) section for more information to

avoid having to configure the system manually, as outlined in [Appendix B. Manually Configuring Polycom SIP Phones on page 49](#).

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 service on Windows Server 2008

1. On the **Start** menu, select **Administrative Tools**, and then select **Server Manager**.
2. In the **Server Manager Pane**, in the **Roles Summary** section, select **Web Server (IIS)**.
3. In the **Web Server (IIS)** section, select **Add Role Services**.
4. Under **Role Services**, select **FTP Publishing Service**. This will install the FTP service and the FTP management console.
5. Select **Next**, and then select **Install**.

### To install the FTP service on Windows Server 2012

1. On the **Start** screen, select the **Server Manager** tile, then select **Yes**.
2. In the **Server Manager Dashboard**, select **Add roles and features**.
3. If the **Before you begin** page of **Add Roles and Features Wizard** is displayed, select **Next**.
4. On the **Select installation type** page, select **Role-based or feature-based** installation, and select **Next**.
5. On the **Select destination server** page, select **Select a server from the server pool**, select your server from the **Server Pool** list, and then select **Next**.
6. On the **Select server roles** page, expand the **Web Server (IIS)** node, and then expand the **FTP Server** node.
7. Select the **FTP Server** check box and the **FTP Service** check box, and then select **Next**.
8. On the **Select features** page, select **Next**.
9. On the **Confirm installation selections** page, select **Install**.

### To set the FTP Publishing service to Automatic

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.

1. Select **Start**.
2. In the **Start** search box, type **services.msc**, and press <ENTER>. **Services** will open.
3. In the **Services** menu, right-click on the **Microsoft FTP Publishing Service** service and select **Properties**. The **Properties** menu will appear.
4. From the **Startup Type** drop-down menu, select **Automatic**.



5. From the **Service Status** menu, select **Start**.
6. 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

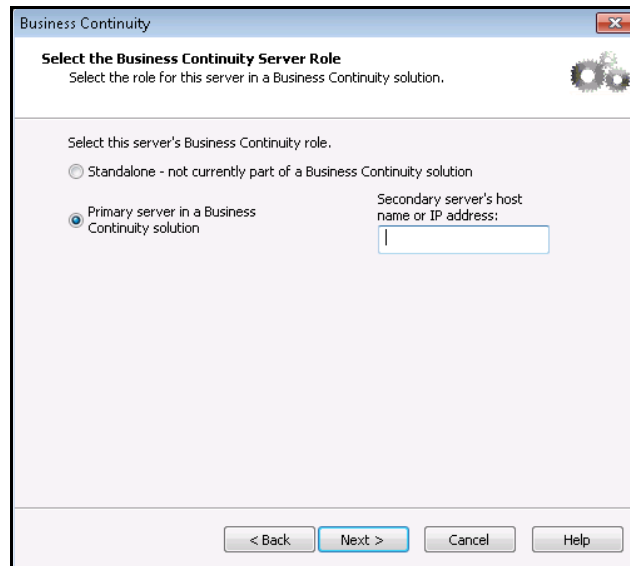
Secondary server's host name or IP address:

< 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.

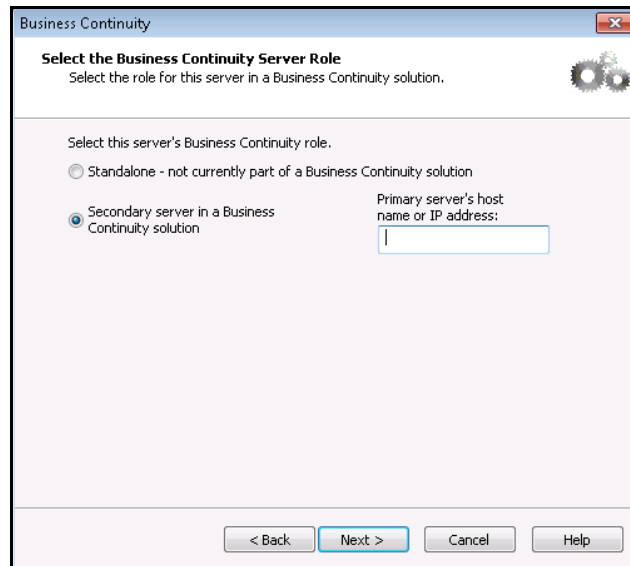


The screenshot shows a window titled "Business Continuity" with a close button in the top right corner. The main heading is "Select the Business Continuity Server Role" with a sub-instruction: "Select the role for this server in a Business Continuity solution." There is a gear icon in the top right. Below the heading, 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 "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-instruction: "Select the role for this server in a Business Continuity solution." Below this, there is a section titled "Select this server's Business Continuity role." with two radio button options: "Standalone - not currently part of a Business Continuity solution" and "Secondary server in a Business Continuity solution". The second option is 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 22](#)
- [Configuring Microsoft Exchange Server EWS on page 26](#)
- [IMAP Server on page 27](#)
- [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. Nevertheless, NetVanta UC Server (and other exchange clients) connect directly to the Mailbox server via Messaging Application Programming Interface (MAPI).

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.*

### Connecting to Exchange Server 2013

In Exchange Server 2013, the CAS role solely provides authentication and proxy redirection for client connections. As of version 5.5.0, NetVanta UC Server uses Remote Procedure Call (RPC) over Hypertext Transfer Protocol (HTTP) to connect to the CAS in Exchange Server 2013. Consequently, when adding an Exchange Server 2013 to the NetVanta UC Server system, no **Server** is specified.

### 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:

<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 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.
<b>Default setting for users</b>	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 a Microsoft Exchange Server** window will appear.



- 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 22](#) for information on selecting the appropriate Microsoft Exchange Server 2010 server.



*If Microsoft Exchange Server 2013 is auto-detected or manually selected for the **Version**, the **Select the Exchange Server** option is disabled and cannot be changed without first manually selecting a different Exchange Server **Version**.*

- If the version of the selected Exchange Server differs from the version in the **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.
- In the **Mailbox** 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.*



*If Microsoft Exchange Server 2013 is auto-detected or manually selected for the **Version**, the **Mailbox** option is disabled and cannot be changed without first manually selecting a different Exchange Server **Version**.*

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

**Send messages from system mailbox**

Voice and fax messages are sent from the system mailbox.

**Impersonate caller and store to mailbox**

Voice and fax messages are stored directly in the user's mailbox, rather than being sent.

- Select the **Enable mailbox monitoring** checkbox if you want to enable mailbox monitoring for specific or all users.

**Enable mailbox monitoring**

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.

**Default setting for users**

If **Enable mailbox monitoring** is selected, you can use the **On** or **Off** radio buttons to turn mailbox monitoring for users on or off by default.

## Configuring Microsoft Exchange Server EWS

You can configure NetVanta UC Server to connect to Microsoft Exchange Server using Exchange Web Server (EWS) to store and retrieve voice, fax, and email messages.



*You can add only one Microsoft Exchange Server.*

### Configuring a Microsoft Exchange Server EWS Message Store

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

1. Select **Microsoft Exchange Server EWS** in the **Select Messaging Servers** menu and select **Next**. The **Configure a Microsoft Exchange Server EWS** menu will appear.
2. NetVanta UC Server will automatically detect the Microsoft Exchange Server URL. If necessary, the detected value can be overridden in the **Configure a Microsoft Exchange Server EWS** menu. To override the automatically detected Exchange Server URL, select the **Override Exchange Server URL** check box, and enter the Exchange Server URL in the provided field using the format **https://<server>/ews/exchange.asmx**. The **<server>** variable is the fully qualified domain name (FQDN) of the physical Exchange Server that hosts the CAS role or the FQDN of any Exchange Server hosting the CAS role in a CAS array.
3. NetVanta UC Server will automatically detect the Microsoft Exchange Server service account Simple Mail Transfer Protocol (SMTP) address. If necessary the detected value can be overridden in the **Configure a Microsoft Exchange Server EWS** menu. To override the automatically detected service account SMTP address, select the **Override service account smtp address** check box, and enter the 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 you change a mailbox name, the corresponding Exchange Server account might also need to be configured.*

4. Use the **Message delivery mechanism** drop-down menu to select one of the following options:

**Send messages from system mailbox**

Voice and fax messages are sent from the system mailbox.

**Impersonate caller and store to mailbox**

Voice and fax messages are stored directly in the user's mailbox, rather than being sent.

5. Select **Enable mailbox monitoring** if you want to enable mailbox monitoring for specific or all users.

**Enable mailbox monitoring** 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.

**Default setting for users** If **Enable mailbox monitoring** is selected, you can use the **On** or **Off** 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 30](#)

## 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:

- [Structuring the Text File on page 30](#)
- [Using the Provided Excel File to Create the Text File on page 33](#)
- [Creating a Text File Using Microsoft Excel on page 35](#)



*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.*

### Structuring the Text File

When using a text file to populate the NetVanta UC server, the wizard takes all the data from a specially formatted text file containing tab separated values. The following table describes the columns that can be included in the tab separated text file.

**Table 1. Text File Columns**

Column	Required	Description	Example
DisplayName	Yes	Name that appears in the Administration Users pane	John Smyth
GivenName	Yes <sup>1</sup>	First name of the user	John
Surname	Yes <sup>1</sup>	Last name of the user	Smyth

**Table 1. Text File Columns**

<b>Column</b>	<b>Required</b>	<b>Description</b>	<b>Example</b>
Extension	Yes	Identity that is associated with the user. It must be unique and cannot correspond to an existing identity.	101 1234 56789
UserFax	No	Identity associated with DID fax. It must be unique and cannot correspond to an existing identity.	487 6543 31337
UserMode	No	Determines whether the Personal Assistant or the Personal Business Assistant is used for this user. The default is PA.	PA – for Personal Assistant PBA – for Personal Business Assistant
CommunicationSystem	No	Determines which communications system a user is associated with. If left blank or omitted completely, the communication system will be selected when the file is imported.	UC Server Generic PBX (via SIP Gateway)
MailboxID	Yes <sup>2</sup>	Identifying string for the user's Exchange Server, as defined in Active Directory	/o=First Organization/ou=First Administrative Group/cn=Recipients/cn=jsmyth
WindowsUserEnabled	Yes <sup>2</sup>	Determines whether to create a Windows-User Enabled Account.	Yes No
ADUserGuid	Yes <sup>2</sup>	GUID of the object in Active Directory	6c4981f6413de3479b0845ae1af24203
ADUserSid	Yes <sup>2</sup>	SID of the user in Active Directory, in S-1-5... format	S-1-5-21-2138396756-507797660-930774684-1916
UserPrincipalName	Yes <sup>2</sup>	The user e-mail address	jsmyth@domain.com
TelephoneMacAddress	No	MAC address of the user's phone. The MAC address can be entered with or without dashes or colons between octets.	00-04-F2-02-51-CA 12:34:56:78:90:AB CDEF12345678

Table 1. Text File Columns

Column	Required	Description	Example
TelephoneType	No	The user's phone type must appear <i>exactly</i> as it appears in the phone creation wizard.	Some possible values: Aastra-480i Aastra-480i cordless Aastra-9112i Aastra-9133i Polycom SoundPoint IP-301 Polycom SoundPoint IP-320 Polycom SoundPoint IP-330 Polycom SoundPoint IP-4000 Polycom SoundPoint IP-430 Polycom SoundPoint IP-501 Polycom SoundPoint IP-550 Polycom SoundPoint IP-601 Polycom SoundPoint IP-650 snom-300 snom-320 snom-360 snom-370 Grandstream BT101 Grandstream BT102 Grandstream BT200 Grandstream GXP2000 Grandstream GXP2020 Grandstream GXV3000 Unknown
UmEnabled	No	Determines whether to work with Exchange UM. ExchangeUmDialPlan, UmPilotNumber and ProxyAddresses are required if it is TRUE	FALSE TRUE
ExchangeUmDialPlan	No <sup>3</sup>	This attribute specifies the UM dial plan that is associated with the UM mailbox policy.	
UmPilotNumber	No <sup>3</sup>	The UM Pilot Number	
ProxyAddresses	No <sup>3</sup>	This property specifies the extension for the user. A single extension or a list separated with exclamation marks (!) can be specified.	sip:jmyth@domain.com!smtp:jmyth@domain.com!SMTP:jmyth@domain.com!X400:c=US;a=;p=Domain;o=HULL;s=Smyth;g=James;
IncludeInDialByName	No	If set to no, user will be excluded from the dial by name feature. If set to yes, the user will be included. If left blank or omitted, assumed to be yes.	Yes No



Table 1. Text File Columns

Column	Required	Description	Example
UserPin	No	Specifies the PIN used for accessing voicemail for the user. If omitted or left blank, the PIN for the user will be the same as the extension. If the extension is less than four digits, it will be padded with prepended zeros to a length of four digits.	0101 1234 56789
UseADForMessaging	No	Is set to yes, the UC server will configure the users' messaging according to what is set in Active Directory.	Yes No
LoginName	No	If users are not using single sign on, they will log in using this login name.	Jsmyth James Smyth

<sup>1</sup> Required for Dial by Name

<sup>2</sup> Required for “Windows-enabled” users

<sup>3</sup> Only required if **UmEnabled** is TRUE

### Using the Provided Excel File to Create the Text File

The **MailboxId**, **ADUserGuid**, and **ADUserSid** fields required for “Windows-enabled” users are generally complex, so it's not feasible to enter this data manually. One method to generate the tab separated values is to use the Excel file provided to build it for you, pulling the data from Active Directory, generating identity numbers, and so on.

1. Extract **UserImportSheet.xlt** from *TN094 – Importing Users to UC Server.zip*.
2. Open **User Import Preparation Tool.xls** with Microsoft Excel.
3. If the **Communications Server** the users are being added to is not “UC Server” then enter it.
4. If **Generated Extension** is selected, set the **Starting Extension Number**.
5. Select **Import from Active Directory**.



*This will import every 'user' on your domain, including accounts that are not going to become UC server users, such as Administrator. It will not include disabled accounts.*

6. Select the rows where accounts are not to become UC server users, right-click and select **delete**.



*Looking for entries missing **GivenName**, **Surname**, or **MailboxId** can provide a good idea of which ‘user’ accounts are not actually users. However, this will not catch all of them.*



*The default value for the **UserMode** column in the file is ‘**PA**’, so all imported users will be Personal Assistant users. If some or all users need to be Personal Business Assistant users, change ‘**PA**’ to ‘**PBA**’ to for each user that requires it.*

7. Confirm that the extensions are correct, re-numbering them if necessary, or enter them now if they were not created. Duplicate numbers will be highlighted red.
8. Add the **TelephoneMacAddress** and **TelephoneType** for all or some of the users. (Optional)



*The **TelephoneType** field values must be exactly the same as they appear in the Phone type drop-down menu in the new phone dialog. The **TelephoneType** field will be validated against the possible phone types. A drop-down menu is provided.*



*Phone MAC addresses can be read into the spreadsheet using a barcode scanner if the phones being used have MAC address barcodes. Depending on the scanner software being used, the MAC address is pasted to the current cursor location.*

9. Select the **Options** worksheet.
10. Select **Export Text Data**.
11. Navigate to where the file should be saved, type a name for the file and select **Save**.
12. Close Excel.
13. Select **No**.

## Creating a Text File Using Microsoft Excel

This section only covers how to create local users because the **MailboxId**, **ADUserGuid**, **ADUserSid**, and **UserPrincipalName** fields required for “Windows-enabled” users are generally complex, so it is not feasible to enter this data manually and therefore it is omitted from this section.

1. Create a Microsoft Excel spreadsheet that has some or all of the following headings. At a minimum, the **DisplayName** and **Extension** must be specified.
  - **DisplayName**
  - **GivenName**
  - **Surname**
  - **CommunicationSystem**
  - **Extension**
  - **UserFax**
  - **TelephoneMacAddress**
  - **TelephoneType**
  - **UserMode**
2. Enter the customer-provided user information into rows below the relevant headings, one row per user.



*Phone MAC addresses can be read into the spreadsheet using a barcode scanner if the phones being used have MAC barcodes. Depending on the scanner software being used, the MAC address is pasted to the current cursor location.*

3. In Excel 2003 select **File > Save As**. In Excel 2007, select the **Microsoft Office Button > Save As**.
4. In the **Save as type** list, select **Text (Tab delimited)(\* .txt)**.
5. Type a name for the file.
6. Select **Save**.
7. Select **OK**, then **Yes**.
8. Close Excel.
9. Select **No**.

## Importing Users From the Text File

1. Start the Server Configuration Wizard.
2. Select **Users**, **Next**, select “Import user Information from a text-based file” then select **Next**.
3. Select **Browse**, find the text file containing the users, select it, and select **Open**.



*If the text file contains the headers **MailboxId**, **ADUserGuid**, **ADUserSid**, and **UserPrincipalName**, the ‘Create Windows-enabled” Active Directory users’ and ‘Use Active directory for messaging configuration’ options will be automatically selected regardless of whether those fields are populated.*



*If the options in steps 4 and 5 are selected but if any the values for these headers is not provided for some or all the users, those users will be created as local users instead of Windows-enabled users.*

4. If your users need to use single sign-on and automatic synchronization with Active Directory, ensure the 'Create "Windows-enabled" Active Directory users' option is selected. This is a requirement to bind users' mailboxes with their Microsoft Exchange mailboxes.



*If you are creating local users, leave all options unchecked and proceed to step 7.*

5. If you need to bind users' mailboxes with their Microsoft Exchange mailboxes, ensure the 'Use Active directory for messaging configuration' option is selected.
6. If the server cannot access the instance of Active Directory the users are from, such as an off-site installation, ensure 'Allow "disconnected" Active Directory user creation' is selected.
7. Select **Next**.
8. Select the communication system that the entries that have no **CommunicationSystem** value should be associated with from the drop down menu and select **Next**.
9. If the entire text file is to be imported, select **Select All** to select every entry in the text file, and select **Next**. If only part of the file is to be imported, select the users to be imported and select **Next**.
10. Select **Submit** and wait for the task to complete.
11. Select **Next**, then **Finish**.

## 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>.



## 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 39](#)
- [Configuring the Exchange Server Account and Permissions on page 40](#)

 NOTE

*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 49](#).*

### 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, 2010, and 2013

- [Integrating NetVanta UC Server with Exchange Server 2007 on page 40](#)
- [Integrating NetVanta UC Server with Exchange Server 2010, 2010 SP1 through SP3, or 2013 SP1 \(or Later\) on page 41](#)

## Integrating NetVanta UC Server with Exchange Server 2007

For NetVanta UC Server to function properly in a Microsoft Exchange Server 2007 environment, the NetVanta UC Server service account must be given the View-Only Administrator role and Send As, Receive As, and Administer Information Store permissions. To specify these settings, follow the steps below:



*Commands from this section cannot be pasted directly into Microsoft Exchange Management Shell. You must first paste the command into a text editor (e.g., Notepad) and replace all line breaks so that each command appears as one consecutive string. Otherwise, Microsoft Exchange Management Shell will recognize each line of command individually, and the commands will fail.*

1. Access the Microsoft Exchange Management Shell by navigating to **Start > Programs > Microsoft Exchange Server 2007 > Exchange Management Shell**.
2. To set the administrator role to View-Only Administrator, enter the following command at the prompt:  
**add-exchangeadministrator <service account name> -role ViewOnlyAdmin**  
The <service account name> parameter is the name of the Windows account (for example, **UCService**).
3. To view the configured administrator role, enter the following command at the prompt:  
**get-exchangeadministrator | Format-List**



- Next, you will need to set the Send As, Receive As, and Administrator Information Store permissions for the account. Set these permissions by entering the following command at the prompt:

```
get-mailboxserver <exchange server name> | add-adpermission -user <service account name> -  
accessrights GenericRead, GenericWrite -extendedrights Send-As, Receive-As, ms-Exch-  
Store-Admin
```

The *<exchange server name>* parameter is the name of the Microsoft Exchange Server 2007 or the Microsoft Exchange cluster. The *<service account name>* parameter is the name of the Windows account. Neither the *<exchange server name>* nor the *<service account name>* can contain spaces when configuring Microsoft Exchange Server 2007 using Exchange Management Shell.

- To view the configured account permissions, enter the following command at the prompt:

```
get-mailboxserver <exchange server name> | get-ADpermission -user <service account name> |  
Format-List
```

Neither the *<exchange server name>* nor the *<service account name>* can contain spaces when configuring Microsoft Exchange Server 2007 using Exchange Management Shell.

After setting the permissions, the Windows account should be displayed with a View-Only Administrator role and contain the Send As, Receive As, and Administrator Information Store permissions.

## Integrating NetVanta UC Server with Exchange Server 2010, 2010 SP1 though SP3, or 2013 SP1 (or Later)

This section provides instructions for integrating Microsoft Exchange Server with either MAPI/CDO or EWS. Both integration methods require that the service account be given specific permissions and the client throttling be disabled on the service account. Additionally, if Exchange is being upgraded from Exchange 2007 to Exchange 2010 or 2013, the NetVanta UC Server services must be stopped and the service account reset.



*Commands from this section cannot be pasted directly into Microsoft Exchange Management Shell. You must first paste the command into a text editor (for example, Notepad) and remove all line breaks so that each command appears as one consecutive string. Otherwise, Microsoft Exchange Management Shell will recognize each line of command individually, and the commands will fail.*

### Configuring the Service Account Permissions

In order to integrate NetVanta UC Server with Microsoft Exchange Server 2010, the service account must be added to the View-Only Organization Management role group and given Send As, Receive As, and Administer Information Store permissions. To specify these settings, follow the steps below:

- For Microsoft Exchange Server 2010, access the Microsoft Exchange Management Shell by navigating to **Start > Programs > Microsoft Exchange Server 2010 > Exchange Management Shell**.

For Microsoft Exchange Server 2013, access the Microsoft Exchange Management Shell by navigating to **Start > Programs > Microsoft Exchange Server 2013 > Exchange Management Shell**.

2. To set the administrator role to View-Only Organization Management role group using the following command:

```
Add-RoleGroupMember "View-Only Organization Management" -Member "<service account name>"
```

The *<service account name>* parameter is the name of the Windows account (for example, **UCServer**). The *<service account name>* parameter can contain spaces when configuring Microsoft Exchange Server using Exchange Management Shell.

3. Next, you will need to set the Send As, Receive As, and Administer Information Store permissions at the common name level. Set these permissions by entering the following commands at the prompt:

```
Get-MailboxDatabase | Add-ADPermission -User "<service account name>" -AccessRights ExtendedRight -ExtendedRights Receive-As, ms-Exch-Store-Admin
```

```
Add-ADPermission -InheritedObjectType User -InheritanceType Descendants -ExtendedRights Send-As -User "<service account name>" -Identity "CN=Users,DC=<domain x>,DC=<domain y>,DC=<domain z>"
```

The *<service account name>* parameter is the name of the Windows account (for example, **UCServer**). The *<service account name>* parameter can contain spaces when configuring Microsoft Exchange Server using Exchange Management Shell.

The domain variables must be altered to match your implementation. The variables *<domain x>*, *<domain y>*, and *<domain z>* form the name of the domain. For example, if the domain name is example.organization.net, enter **example** for *<domain x>*, **organization** for *<domain y>*, and **net** for *<domain z>*. If you have problems with this command please check with your administrator to ensure you have the proper variables for your environment.

The following is an example of these two commands using a UC Service account named **UCServer** for the domain **division.department.company.com**:

```
Get-MailboxDatabase | Add-ADPermission -User "UCServer" -AccessRights ExtendedRight -ExtendedRights Receive-As, ms-Exch-Store-Admin
```

```
Add-ADPermission -InheritedObjectType User -InheritanceType Descendants -ExtendedRights Send-As -User "UCServer" -Identity "CN=Users,DC=division,DC=department,DC=company,DC=com"
```



*In some installations, permissions cannot be set using the commands above due to external permissions issues between Active Directory and Microsoft Exchange. Refer to [Setting Send-As Permission on Windows Server 2008 R2 on page 46](#) to set Send-As permissions for the NetVanta UC Server service account using Active Directory.*

## Disabling Client Throttling for the Service Account

NetVanta UC Server requires continuous access to multiple Exchange mailboxes in a typical installation. Microsoft Exchange Server 2010 and later implement a default throttling policy that limits the number of simultaneous connections to Exchange. It is recommended to increase the throttling value to allow NetVanta UC Server to make as many connections as possible to Exchange Server. To remove client throttling on the NetVanta UC Server service account, follow these steps:

1. For Microsoft Exchange Server 2010, access the Microsoft Exchange Management Shell by navigating to **Start > Programs > Microsoft Exchange Server 2010 > Exchange Management Shell**.

For Microsoft Exchange Server 2013, access the Microsoft Exchange Management Shell by navigating to **Start > Programs > Microsoft Exchange Server 2013 > Exchange Management Shell**.

2. For Microsoft Exchange Server 2010, enter the following command to create a new throttling policy called **UCPolicy** with all client throttling disabled:

```
New-ThrottlingPolicy UCPolicy -RCAMaxConcurrency $null -RCAPercentTimeInAD $null -RCAPercentTimeInCAS $null -RCAPercentTimeInMailboxRPC $null -EWSMaxConcurrency $null -EWSPercentTimeInAD $null -EWSPercentTimeInCAS $null -EWSPercentTimeInMailboxRPC $null -EWSMaxSubscriptions $null -EWSFastSearchTimeoutInSeconds $null -EWSFindCountLimit $null
```

For Microsoft Exchange Server 2010 SP1 through SP3, enter the following command to create a new throttling policy called **UCPolicy** with all client throttling disabled:

```
New-ThrottlingPolicy UCPolicy -RCAMaxConcurrency $null -RCAPercentTimeInAD $null -RCAPercentTimeInCAS $null -RCAPercentTimeInMailboxRPC $null -EWSMaxConcurrency $null -EWSPercentTimeInAD $null -EWSPercentTimeInCAS $null -EWSPercentTimeInMailboxRPC $null -EWSMaxSubscriptions $null -EWSFastSearchTimeoutInSeconds $null -EWSFindCountLimit $null -CPAMaxConcurrency $null -CPAPercentTimeInCAS $null -CPAPercentTimeInMailboxRPC $null
```

For Microsoft Exchange Server 2013 SP1, enter the following command to create a new throttling policy called **UCPolicy** with all client throttling disabled:

```
New-ThrottlingPolicy UCPolicy -OwaMaxConcurrency Unlimited -EWSMaxConcurrency Unlimited -EWSMaxBurst Unlimited -EWSRechargeRate Unlimited -EWSCutoffBalance Unlimited -EWSMaxSubscriptions Unlimited -RcaMaxConcurrency Unlimited -RcaMaxBurst Unlimited -RcaRechargeRate Unlimited -RcaCutoffBalance Unlimited -CpaMaxConcurrency Unlimited -CpaMaxBurst Unlimited -CpaRechargeRate Unlimited -CpaCutoffBalance Unlimited
```

3. Enter the following command to apply the **UCPolicy** throttling policy to the NetVanta UC Server service account. The *<service account>* variable should be replaced with the name of the NetVanta UC Server service account.

```
Set-Mailbox -Identity <service account> -ThrottlingPolicy UCPolicy
```

In the following example, the service account is **UC.Server@adtran.com**:

```
Set-Mailbox -Identity UC.Server@adtran.com -ThrottlingPolicy UCPolicy
```

4. If you are upgrading from Exchange Server 2007 to Exchange Server 2010, follow the steps in [Upgrading from Exchange 2007 to Exchange 2010 or Exchange 2013 on page 44](#) to stop all NetVanta UC Server services and reset the NetVanta UC Server service account.

## Modifying Session Limits for Exchange 2013 SP1

For Exchange Server 2013 integrations, additional registry modifications may be required for large user deployments and call volume scenarios. To exceed the session limits imposed by Exchange Server by default, the following steps are required using the registry editor:



*Ensure your registry is backed-up prior to making any modifications.*

1. On the Exchange Server, open the Registry Editor (**regedit.exe**).
2. Navigate to the following location in the registry:  
**HKEY\_LOCAL\_MACHINE > SYSTEM > CurrentControlSet > Services > MExchangeIS > ParametersSystem**
3. Create or edit the following **dword** values in the **ParametersSystem** registry key:  
**"DatabaseType"=dword:00000000**  
**"Maximum Allowed Sessions Per User"=dword:000007d0**  
**"Disable Session Limit"=dword:00000001**  
**"Maximum Allowed Service Sessions Per User"=dword:000007d0**



*Please note that registry setting changes will only apply if the Exchange Server system is restarted or the Exchange Information Store service is manually restarted via `services.msc`.*

## Upgrading from Exchange 2007 to Exchange 2010 or Exchange 2013

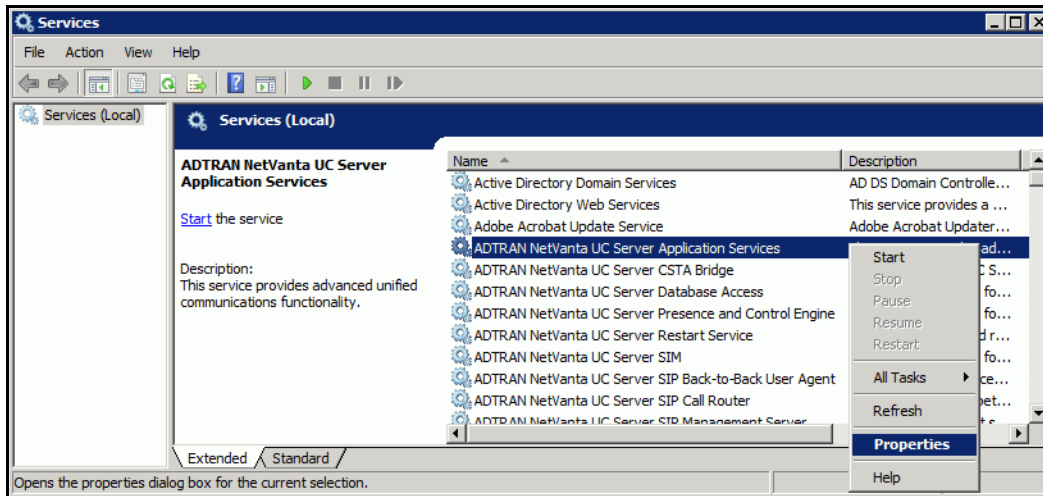
If you are upgrading from Exchange 2007 to Exchange 2010 or Exchange 2013, after configuring the permissions and throttling policy for the NetVanta UC Server service account, you must stop all NetVanta UC Server services and reset the service account. To do this, follow these steps:



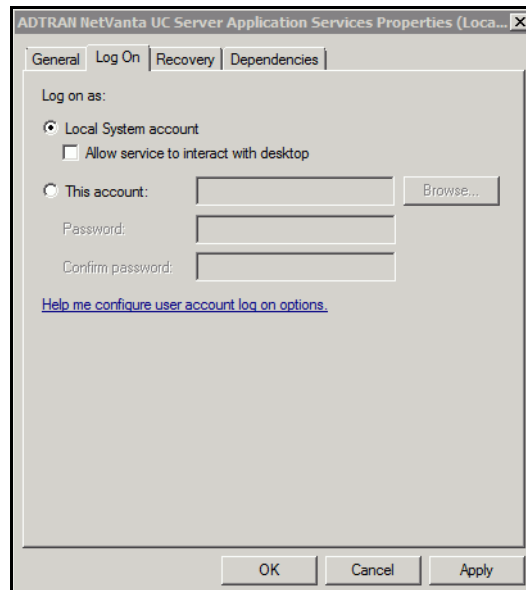
*If the name of the Exchange server changes during the upgrade process, additional steps may be required to change the name of the Exchange server in NetVanta UC Server. For more information, refer to [Changing the Exchange Server Name within UC Server](#) available from the ADTRAN Support Community (<https://supportforums.adtran.com>).*

1. Open **Windows Explorer**, and navigate to **C:\Program Files (x86)\ADTRAN\NetVanta UC Server**. Run the **StopAllUCServerServices.bat** file located in the folder.
2. Next, navigate to **Start > Administrative Tools > Services**. The **Services** window will appear.

- Right-click **ADTRAN NetVanta UC Server Application Services**, and select **Properties**. The **ADTRAN NetVanta UC Server Application Services Properties** menu will appear.

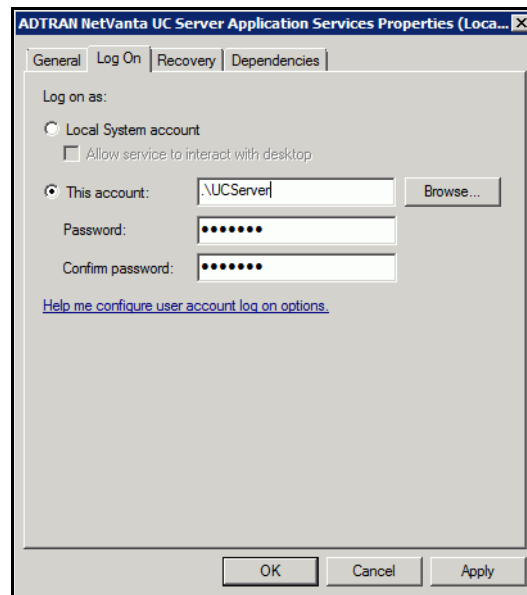


- In the **ADTRAN NetVanta UC Server Application Services Properties** menu, record the account that appears in the **This account** field. This is the service account used by the ADTRAN NetVanta UC Server Application Services service and will be reused in a later step. Select the **Log On** tab and select **Local System** account. Select **Apply**.



- Run the **StopAllUCServerServices.bat** file again.
- Access the **Log On** tab of the **ADTRAN NetVanta UC Server Application Services Properties** menu using the procedure in Steps 2 and 3.

- On the **Log On** tab, select **This Account** and enter the appropriate account and password information for the NetVanta UC Server service account in the **This Account**, **Password**, and **Confirm password** fields. The service account used should be the account you recorded earlier in Step 4. Select **Apply**.



## Setting Send-As Permission on Windows Server 2008 R2

The NetVanta UC Server service account must have the Send-As permission set on each Active Directory User object that is configured for NetVanta UC Server unified messaging. The Send-As permission can be granted to the containers holding these User objects, or to individual User objects. If you cannot set the permissions for the NetVanta UC Server service account using Exchange Management Shell, follow these steps to set the Send-As permission for service account using Active Directory.

- Navigate to **Start > All Programs > Microsoft Exchange > Active Directory Users and Computers**. This will open Active Directory Users and Computers.
- From the **View** menu, select the **Advanced Features** option.
- Right-click on the appropriate domain, container, or user, and then select **Properties**. This is typically the Users folder in the root of a domain, but steps 3 through 8 can be repeated for multiple containers or OUs.
- Navigate to the **Security** tab and select **Advanced**.



*If the **Security** tab is not visible, make sure you selected **Advanced Features** in the **View** menu.*

- Select the service account that requires the **Send As** permission from the list. If the service account is not listed, select **Add**. Then select the service account name and select **OK** to add the account to the list.

- When you have selected the proper account from the list, select **User object** in the **Apply to** list.



*If you are using Windows Server 2008 R2 as the domain controller, select **Descendant user objects** in the **Apply to** list.*

- In the **Permissions** screen, select the **Allow** check box next to **Send As**.
- Select **Apply** and then select **OK**.
- Close the **Properties** window and then close **Active Directory Users and Computers**.





## 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 15*.

- [Creating Polycom SIP Phone User Accounts for FTP Access on page 49](#)
- [Providing Access for Polycom SIP Phone User Accounts to the FTP Server on page 50](#)
- [Enabling Support for Polycom Phones on page 52](#)



*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

If you are using Polycom or ADTRAN branded Polycom phones and running NetVanta UC Server on a domain-controlled network, particular configuration issues arise. Polycom and ADTRAN branded Polycom phones automatically retrieve configuration files from an FTP server with the user **PbcmSpIp**. NetVanta UC Server manages the Microsoft Windows FTP server on the installed machine to store and update the Polycom configuration files. Typically, NetVanta UC Server creates a local Windows user named **PbcmSpIp** and assigns the appropriate permissions to the Windows FTP Server.

Because domain controllers do not permit local users, the Wizard will create a domain account with the user name **PbcmSpIp**. When the Wizard creates this account, it assigns it the password **Pass\$word1**. This password meets the Windows complexity requirements. The default password can be changed by modifying the Password field in the **Special User Accounts** menu. If the complexity requirements are enforced on the domain, you must ensure that the new password meets all Windows password complexity rules.

If the **PbcmSpIp** domain account already exists, the account password can be modified using Active Directory to meet the Windows minimum complexity requirements.

Additionally, you can manually create the **PbcmSpIp** user in Active Directory.



*You must have the necessary privileges to create or modify a domain account, for example, you must be logged in as Domain Administrator.*

### To manually change the PlcmSpIp domain account password

1. To open Active Directory Users and Computers in Windows Server 2008, select **Start > Control Panel > Administrative Tools > Active Directory Users and Computers**.

To open Active Directory Users and Computers in Windows Server 2012, select **Start**, then type **dsa.msc**.

2. In the console tree, select the **Users** folder.
3. In the detail pane, right-click the **PlcmSpIp** user, and select **Reset Password**.
4. Type and then confirm the new password. When assigning a password, ensure that the password meets all Windows password complexity rules, if complexity requirements are enforced on the domain.

### To manually create and configure a domain account in Windows Server 2008 and Windows Server 2012

1. To open Active Directory Users and Computers in Windows Server 2008, select **Start > Control Panel > Administrative Tools > Active Directory Users and Computers**.

To open Active Directory Users and Computers in Windows Server 2012, select **Start**, and type **dsa.msc**.

2. In the console tree, select the **Users** folder.
3. In the details pane, right-click and select **New > User**.



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

4. Create a user with the user name **PlcmSpIp**. When assigning a password, ensure that the password meets all Windows password complexity rules, if complexity requirements are enforced on the domain.

### 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. Open Internet Information Services (IIS) Manager:
  - If you are using Windows Server 2012 or Windows Server 2012 R2:  
On the taskbar, select **Server Manager**, select **Tools**, and then select **Internet Information Services (IIS) Manager**.
  - If you are using Windows Server 2008 or Windows Server 2008 R2:  
On the taskbar, select **Start**, point to **Administrative Tools**, and then select **Internet Information Services (IIS) Manager**.
2. In the **Connections** pane, expand the server name, expand the **Sites** node, and then select the name of the site.
3. To specify read and write access to specific telephone user accounts, perform the following steps:
  - a. Double-click a user from the **FTP Authorization Rules** pane.
  - b. In the **Edit Allow Authorization Rule** menu, enable the **Read** and **Write** check boxes.
  - c. Select **OK**.

To specify read and write access to all user accounts, perform the following steps:

- a. Right-click in the **FTP Authorization Rules** pane, and select **Add Allow Rule**.
- b. In the **Edit Allow Authorization Rule** menu, select the **All Users** radio button, and enable the **Read** and **Write** check boxes.
- c. 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**.
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.
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**.
2. In the **Start** search box, type **services.msc**, and press **<ENTER>**. **Services** will open.
3. In the **Services** menu, 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.*