# Objectworld

## Unified Communications Server ®

## Standard Edition

## Server Configuration Guide

Version 4.4

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# Server Configuration Guide

## 1.1 Introduction

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

Before you run the UC Server Configuration Wizard, make sure you follow all the instructions in the Objectworld *Server Installation Guide*, including running the Server Installation Wizard.

This guide covers the following main topics:

- Preparing to Start the Server Configuration Wizard
- Starting the Server Configuration Wizard

> **NOTE:** For Objectworld documents, see the Objectworld web site at www.objectworld.com/support/documentation.

## 1.2 Preparing to Start the Server Configuration Wizard

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

- Obtaining Network and Security Information
- Verifying Requirements and Recommendations
- Incorporating the Server into the Customer Domain
- Gathering Server Configuration Wizard Information
- Creating an Authorization Store to Enable Active Directory Roles

### Obtaining Network and Security Information

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

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

## Verifying Requirements and Recommendations

The UC Server application runs on the following operating systems:

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

To ensure security, 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 UC Server computer must be members of the same Windows domain.

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

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

## Incorporating the Server into the Customer Domain

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

**To incorporate the UC Server**

1  On the desktop, right-click **My Computer**.

2  Click **Properties**.

3  Select the **Computer Name** tab.

4  Click the **Change...** button.

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

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

## Gathering Server Configuration Wizard Information

The 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:

| | |
|---|---|
| **Message store type** | Local only or<br>Local and Exchange or<br>Lotus Notes/IMAP |
| **Computer names** | Includes Networking information and computer names |
| **Server Account** | The dedicated account for running the Server |
| **Microsoft Exchange names** | Microsoft Exchange Server computer name<br>Mailbox name for Service Account |
| **UC Server administrator password** | The password that is used to configure the system. The default administrator login name is "admin." |
| **PBX type** | Avaya Communication Manager or DEFINITY, Merlin Magix, Nortel Norstar, IP Office or generic analog |
| **CTI link options (Merlin Magix)** | Used to configure advanced PBX integration for calling line ID |
| **Port Name and Identity** | Used to configure all the ports that are connected to the PBX |
| **User information** | Used to create and configure all the user accounts |
| **E-mail configuration** | Used to configure the services when sending notification by e-mail. If you do not have Exchange, you can configure an SMTP Server for e-mail notification. |

## Creating an Authorization Store to Enable Active Directory Roles

> **NOTE:** Creating an authorization store is an optional step that applies to UC Server installations that are integrated with Active Directory. You can skip this step if you are configuring 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 UC Server computer platform must be integrated with the customer's network.
- The 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.

> **NOTE:** If you have already followed the instructions in the *UC Server 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 UC Server computer as a domain administrator.

2 Click **Start > Run > CMD** to launch a CMD window.

3 Navigate to the UC Server installation directory:

\Objectworld\UC Server\bin

4 Type the following:

```
manageazman +createxmlstore +admin <DOMAIN>\<UC
SERVER SERVICE ACCOUNT>
```

5 Stop and restart the UC Server application service by doing the following:
- Open the service control panel application.
- Restart the service named **Objectworld UC Server Application Services**.

> **NOTE:** 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 *UC Server Administrator Guide* for details on how to change the authentication role for individual user authentications.

# 1.3 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** — enter your product and license key information

**2** **Windows Network Integration Wizard** — configure Windows Firewall, service account, and service connection point

**3** **Communication Systems Wizard** — configure your communications systems

**4** **Messaging Systems** — select message store type and configure account

**5** **Users** — add new or import existing users

**6** **Final System Configuration** — configure e-mail notification system; create default user, operator and default mailbox; specify dialing rules and location

### To start the Server Configuration Wizard

- Click Windows **Start > Programs > Objectworld 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 UC Server. You can paste the product and license key, and the machine ID, into the appropriate wizard boxes. The product key is shipped with the product CD.

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

## Windows Network Integration Wizard

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

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

## Communication Systems Wizard

**NOTE:** Communication systems refers to PBXs.

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

You can select an existing PBX, which you can connect to UC Server through a Dialogic Media Gateway. For a list of PBXs supported by Dialogic, and for gateway configuration information, see the Dialogic Web site at www.dialogic.com. For more information on configuring the gateway to connect UC Server to an existing PBX, see *TN088 - Dialogic Media Gateway Configuration Guide*, available from the Objectworld Web site at www.objectworld.com.

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.

## Messaging Systems

Use the Messaging Systems Wizard to select a message store type, such as Exchange, IMAP, or SMTP, and to configure the message store account.

# 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. You can also change user information before you create users. For more information see the following sections:

- [Importing users from Active Directory](#)
- [Importing users from Exchange Server](#)
- [Importing users from text files](#)

## 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 Click **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.

> **NOTE:** 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, click **Stop search and refine criteria**.

### To stop importing users

• To stop the import, click **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.

> **NOTE:** 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, click **Stop search and refine criteria**.

### To stop importing users

• To stop the import, click **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 see the following sections:

- Importing local users from text files
- Importing Windows-enabled users from text files

> **TIP:** For more information on importing users from text files, see *TN094 - Importing Users to UC Server*, available on the Objectworld Web site at www.objectworld.com. A corresponding zip file also includes a Microsoft Excel file for importing users.

## Importing local users from text files

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

**Table 1–1:  Tab-separated file format**

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

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

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

| | |
|---|---|
| **displayname** | Name that appears in the Administration Users pane |
| **extension** | Identity that is associated with the user. If this value is entered, it must be unique for each user, and cannot correspond to an existing identity. |
| **givenname** | First name of the user |
| **sn** | Last name of the user |
| **userfax** | Incoming identity associated with DID fax. This is the fax number that callers dial to send faxes to the user. The user receives incoming faxes in their Inbox. |
| **pbx** | Display name of the PBX that the user is associated with. |
| **answeringmode** | Call answering mode, either PA for Personal Assistant or PBA for Personal Business Assistant. If no value is specified, then the user becomes a PA user by default. PA and PBA are not case sensitive. |

**2** Enter the customer-provided information into the relevant headings.

**3** In Microsoft Excel, click **File > Save As**.

**4** Type a name for the file.

**5** In the **Save as type** list, select **Text (Tab delimited)(*.txt)**.

**6** Click **Save**.

**7** Close **Excel**.

**To import the user text file**

**1** When you run the User Import Wizard, choose to import user information from a text-based file.

**2** Click **Browse** to select the location of the file.

**3** The following options are valid only for importing Windows-enabled users, so for local users the check boxes are disabled:

- Create "Windows-enabled" Active Directory users
- Use Active Directory for messaging configuration

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

**To stop importing users from a text file**

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

## Importing Windows-enabled users from text files

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

**Table 1–2: Required fields for Windows-enabled users**

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

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

**Table 1–3: Optional fields for Windows-enabled users**

| extension | userfax | pbx | answeringmode |
|---|---|---|---|
| 3000 | | | PA |
| 3001 | | | PBA |
| 3002 | | | |

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

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

| | |
|---|---|
| **displayname** | Name that appears in the Administration Users pane |
| **extension** | Identity that is associated with the user. If this value is entered, it must be unique for each user, and cannot correspond to an existing identity. |
| **givenname** | First name of the user |
| **sn** | Last name of the user |
| **userfax** | Incoming identity associated with DID fax. This is the fax number that callers dial to send faxes to the user. The user receives incoming faxes in their Inbox. |
| **pbx** | Display name of the PBX that the user is associated with. |
| **legacyexchangedn** | Identifying string for the user's Exchange Server, as defined in Active Directory |
| **objectguid** | GUID of the object in Active Directory |
| **objectsid** | SID of the user in Active Directory, in S-1-5... format |
| **userprincipalname** | The user e-mail address, for example, jmciverson@objectworld.com. |
| **answeringmode** | Call answering mode, either PA for Personal Assistant or PBA for Personal Business Assistant. If no value is specified, then the user becomes a PA user by default. PA and PBA are not case sensitive. |

**2** Enter the customer-provided information into the relevant headings.

**3** In Microsoft Excel, click **File > Save As**.

**4** Type a name for the file.

**5** In the **Save as type** list, select **Text (Tab delimited)(*.txt)**.

**6** Click **Save**.

**7** Close **Excel**.

### To import the user text file

**1** When you run the User Import Wizard, choose to import user information from a text-based file.

**2** Click **Browse** to select the location of the file.

**3** If you've included all the required field headings, then **Create "Windows-enabled" Active Directory users** is enabled for users to be able to use the single sign-on Active Directory feature.

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

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

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

**To stop importing users from a text file**

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

## Final System Configuration

The Final System Configuration Wizard allows you to configure the e-mail notification system. You can use the wizard to create default users and operators, and default mailboxes. Run the wizard also to specify dialing rules and location.

# Appendix A

## 2.1  Manually Configure Accounts and Permissions

> **NOTE:** 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
- Configuring the Exchange Server Account and Permissions

> **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.

### 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**  Click **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**  Click **Next**.

**5**  Enter the user password information, and click **Next**.

**6**  If you have Exchange on the computer, enable **Create an Exchange Mailbox**.

**7**  Click **Next**, and then click **Finish**.

# Configuring the Exchange Server Account and Permissions

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

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

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

•  Configuring Exchange Server 2007
•  Configuring Exchange Server 2003/2000

## Configuring Exchange Server 2007

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

**1** Select **Start > Program > Exchange Server 2007 > Exchange Management Console**.

**2** Navigate to **Microsoft Exchange > Recipient Configuration**.

**3** Right click on **Mailbox** and select **New Mailbox**.

**4** Select **User Mailbox** and click **Next**.

**5** Select **New user** and click **Next**.

**6** Enter the information for the new user, *enable* the option **User must change password at next logon**, and click **Next**.

**7** Click **Next** again, and click **New**.

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

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

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

• Type the following script replacing <SERVICE_ACCOUNT> with the Service Account name:

Get-MailboxServer | Add-ADPermission -User <SERVICE_ACCOUNT> -AccessRights GenericRead, GenericWrite -ExtendedRights Send-As, Receive-As, ms-Exch-Store-Admin

## Configuring Exchange Server 2003/2000

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

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

**2** In the left pane, click **Domain** and select the Users folder.

**3** In the right pane, right-click the UC Server account.

**4** Select **Exchange Tasks** to start the Exchange Tasks Wizard.

**5** From the list of tasks, select **Create Mailbox**.

**6** Click **Next**, and then click **Finish**.

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

**1** Select **Start > Programs > Microsoft Exchange > System Manager**.

**2** In the left pane of the Exchange System Manager window, select the Exchange Server that you want to integrate with.

**3** Click **Action > Properties** to open the Exchange Server Properties dialog box.

**4** Select the **Security** tab, and click **Add** to open the Select Users, Computer or Groups dialog box.

**5** From the Look In list box, select each of the following:
- the Domain name
- the UC Server account name

**6** Click **Add**, and then click **OK**.

**7** From the Permissions: Allow Deny list box, select **Full control** for the account that was just added.

**8** Make sure that **Allow inheritable permissions from parent to propagate to this object** is enabled.

**9** Click **OK** and then close the Exchange System Manager window.

## 2.2 Configuration Guide — Feedback

**Note to the installer:**

Please take a moment to fill out this form by circling the appropriate number on the scale for each question.

**1**  Does this guide provide all the information that you need to do the configuration?

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Yes | | | | | No |

**2**  Is the language of this guide easy to understand?

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Yes | | | | | No |

**3**  Is the information presented in this guide technically accurate?

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Yes | | | | | No |

**4**  Is it easy to find information in this guide?

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Yes | | | | | No |

**5**  Does this document help you to do your job?

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Yes | | | | | No |

**Comments:**

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