# Administrator's Guide to cbIntegrate Server

## CanyonBridge cbIntegrate Server™

# Contents

# Understanding cbIntegrate Server


This section provides a brief introduction to the cbIntegrate Server product.

**Note** In order to use cbIntegrate Server, you must have completed Step 3: You Need a Key and obtained a key for an application that uses cbIntegrate Server, such as cbConnect or cbForce.

This section includes the following chapters:

- Welcome to cbIntegrate Server
- Introduction to cbIntegrate Server

CHAPTER 1

# Welcome to cbIntegrate Server

Welcome to cbIntegrate Server, the server platform that runs all CanyonBridge application products.

This chapter includes the following topics:



## cbIntegrate Server Documentation

The cbIntegrate Server documentation is provided electronically in the form of Adobe PDF files that consist of the following:

- This manual, *Administrator's Guide To cbIntegrate Server,* contains a detailed description of cbIntegrate Server concepts, functionality, and administrative "How To's".
- An HTML Readme that contains the latest known issues for cbIntegrate Server.

To get the most out of this manual, review the table of contents to familiarize yourself with the topics included in this guide. You may also find the following documents to be helpful:

- User's Guide to cbForce
- User's Guide to cbConnect 2.0

## Documentation Conventions

CanyonBridge documentation uses the following typographic conventions:

| Convention | Meaning |
|---|---|
| **Boldface** | Indicates menu commands, names of interface items such as toggle buttons and option buttons, as well as user input. |
| *Italics* | Used as a placeholder for information you provide. For example, *filename* in a procedure means you type the name of a file. Italics are also used for new terms, as well as the titles of books. Occasionally used for emphasis as well. |
| UPPERCASE | Indicates keys on the keyboard, such as ALT for the Alt key and F5 for the function key labeled F5. |
| `Monospace` | Used to indicate the text displayed at a command prompt or within a text file. |
| ▶ | Step-by-step procedural instructions |

# CanyonBridge on the World Wide Web

The CanyonBridge Web site (http://www.canyonbridge.com) contains a variety of information for CanyonBridge customers and end-users.

# Reader Comments

At CanyonBridge, we endeavor to provide clear, accurate, and usable documentation for all products. We welcome any comments, corrections, or suggestions you may have for improving our documentation.

Please e-mail your suggestions to the documentation authors at documentation@canyonbridge.com.

Please include both the name of the product and the title of the document in the subject line of your message.

CHAPTER 2

# Introduction to cbIntegrate Server


This chapter provides an overview of the purposes and capabilities of cbIntegrate Server, the server platform that runs all CanyonBridge application products.

The following topics are covered:

# A Brief Overview of cbIntegrate Server

cbIntegrate Server provides the Web-based server platform to access all your CanyonBridge applications. cbIntegrate Server is a Web server add-on that tightly integrates with all Supported Web Servers to provide support to CanyonBridge Web applications.

All currently available CanyonBridge applications are installed by default with cbIntegrate Server. To purchase a license for an individual application, please contact sales@canyonbridge.com or call 1-800-662-2587.

## cbIntegrate Server Product Contents

Current cbIntegrate Server supported products include:

- cbConnect 2.0 — a messaging and information management application that provides a Web-based user interface to access Microsoft Exchange Server.
- cbForce — an integration of cbConnect with salesforce.com data and functionality.

Because the cbIntegrate Server product and the associated applications run in a Web server, you can use your Web browser to access your Exchange and salesforce.com data. cbIntegrate Server provides rich Web user application interfaces to Exchange and or salesforce.com data and takes the idea of thin client applications to a new level.

### Client Side

There is no install for the client side of the cbIntegrate Server product. Users make use of a Web browser to connect to a Web server hosting cbIntegrate Server. There is no plug-in or install to download. On first time connection, the client merely caches cbIntegrate Server application product image resources and JavaScript. This is part of what makes cbIntegrate Server applications so responsive, even for a first time connection.

### Server Side

On the server side, the cbIntegrate Server product consists of three things:

- A cbIntegrate Server
- A Web Server

- A Firebird database

**Note** The physical locations of these items vary depending on whether you choose to install the Single Server Installation or Dual Server Installation configurations.

A cbIntegrate Server version of a Web server provides the Web access needed to access application data across the Internet.The Firebird database installed with the cbIntegrate Server provides storage to manage the cbIntegrate Server application user experience.

# Security Features in cbIntegrate Server

The following security features are available in cbIntegrate Server:

- Authentication
- Session-based Access
- SSL
- cbIntegrate Server in DMZ

To configure cbIntegrate Server security settings, see the Configuring cbIntegrate Server chapter of this *Guide*.

## Authentication

In cbIntegrate Server messaging applications, authentication is based on a user's Windows system credentials and Exchange access rights. Authentication is required for each logon attempt.

### Time Out

cbIntegrate Server has a default time out period of 30 minutes. If a user does not interact with a browser within that time, the cbIntegrate Server browser connection times out. The user must re-authenticate in order to access data after a time out.

### Back Click

With cbIntegrate Server, (with the exception of the cbForce custom tab—see Administering cbForce) there is no ability to back click to the application. In other words, if a user browses to a non-cbIntegrate Server window on the Internet

from the cbIntegrate Server application, that user must re-authenticate. This dramatically reduces the risk of unwary users leaving corporate data open to the next person using a kiosk or other physically non-secure browser access location.

## Session-based Access

cbIntegrate Server uses session-based identification access following authentication.

## SSL

cbIntegrate Server may be configured to make use of SSL (Secure Sockets Layer) to encrypt data exchanges between the client and server. For more information on this topic, see the section Enabling SSL in the Apache Version of cbIntegrate Server in the Apache Configurations chapter of this *Guide*.

## cbIntegrate Server in DMZ

To increase security, you may want to choose the Dual Server Installation option of the cbIntegrate Server install (see the Step 2: Installing cbIntegrate Server chapter of this *Guide*). This places a portion of the cbIntegrate Server product on a server within a DMZ (De-Militarized Zone), while allowing the more security sensitive portions to remain within your LAN (Local Area Network).

# Getting Started



This section describes the steps in installing and running cbIntegrate Server.

This section includes the following chapters:

CHAPTER 3

# What To Know About cbForce Before You Install cbIntegrate Server

This chapter describes how to prepare a computer for the cbIntegrate Server product installation if you plan to run the cbForce application on the server.

**Caution** Failure to follow instructions in this chapter may cause cbForce application malfunctions.

This chapter includes the following topics:

# Understanding cbForce

cbForce™ includes all cbConnect functionality and both adds and integrates Customer Relationship Management (CRM) specific functionality available through salesforce.com. cbForce integrates salesforce.com access with Microsoft® Exchange access. cbForce's patent pending Smart Email™ and exclusive integrated calendar yield unprecedented productivity gains for salesforce.com users who also use Microsoft Exchange. For cbForce to function, you must have a working installation of Exchange Server and working licenses for salesforce.com.

# Understanding cbForce Related Installation Issues

If you plan to run the cbForce application, you may need to install cbIntegrate Server in a different configuration than you might otherwise do. This is because under certain conditions, the use of the cbForce application requires you to install cbIntegrate Server in a configuration that makes use of Secure Socket Layers (SSL) due to enhanced security requirements.

## Running cbForce in a salesforce.com Custom Tab Requires You to Enable SSL

The option of Creating a cbForce Custom Tab in salesforce.com is currently available only to Enterprise account customers of salesforce.com. You must enable SSL for cbIntegrate Server if you plan to embed cbForce within a custom tab in salesforce.com. This is due to the fact that salesforce redirects all traffic to SSL. Given this requirement, it is important that you carefully read the sections of Step 2: Installing cbIntegrate Server that relate to SSL.

CHAPTER 4

# Step 1: Preparing to Install

This chapter describes how to prepare a computer for the cbIntegrate Server product installation.

Among other important topics, this chapter shows how to install the Messaging Application Programming Interface (MAPI) subsystem cbIntegrate Server applications use to communicate with Exchange Server.

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**Caution** Failure to follow instructions in this chapter may cause installation malfunctions.

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This chapter includes the following topics:

# What You Must Have Before You Install

The following prerequisites are necessary to install the cbIntegrate Server software:

## Recommended Minimum Hardware Requirements

- 800 MHZ Processor or higher
- 512 MB RAM

**Note** It is recommended that you install cbIntegrate Server on a machine at least comparable to that hosting your Exchange Server. For performance and security reasons, this product does not install on a computer already hosting the Exchange server you want to access.

## Minimum Software Requirements

- Windows NT 4.0 Service Pack 6

**Note** Windows NT 4.0 is not supported at all for those using IIS as their Web server.

- MAPI subsystem (provided when you Install the Exchange Admin Tools and Exchange Service Packs below)

**Note** Normally, the MAPI subsystem is only required on Single Server Installations of cbIntegrate Server.

## Supported Databases

- Firebird 1.5.2 (optionally part of install)
- Microsoft SQL Server 2000 or latest (not part of install)

## Supported Web Servers

- Apache 2.0.5.2 or latest version

## Alpha Web Servers

- Internet Information Server (IIS) 5.1 and 6.0

**Important** If you choose to use IIS as your Web server, it is strongly recommended that you dedicate the IIS machine to run only cbIntegrate Server. Before installing cbIntegrate Server on a machine running IIS, you should ensure you have installed the latest Microsoft security patches and updates, and that you have protected the machine behind a firewall.

In addition, IIS is not currently supported for installations of cbIntegrate Server using Microsoft SQL Server.

## IIS 5.1 Considerations

During the installation process, the cbIntegrate Server installer changes the profile displayed under the **Logon As** column in the **Services** window (for both the **IIS Admin** and **World Wide Web Publishing** services) from **Local System** to the user credentials you provide when you install cbIntegrate Server (for example, **jonesco/george**).

This profile change is necessary to allow cbIntegrate Server to communicate with Microsoft Exchange Server.

**Caution** cbIntegrate Server cannot log in to Microsoft Exchange if you change the ID that theses services "Logon As".

➢ **To preview the profile to be changed**

1. From the **Start** menu, choose **(Settings) Control Panel**.
2. In the **Control Panel** double-click **Administrative Tools**.
3. In the **Administrative Tools** window, double-click **Services**, then inspect the **Log On As** column for the affected services. After installation, the **Local System** setting changes to your user profile for each of the affected services.

**Important** Before you install cbIntegrate Server on a machine running IIS 5.1, you must be sure to Grant Rights to Log On as a Service to your user profile as part of What You Must Do Before You Install.

## IIS 6.0 Considerations

Currently, IIS 6.0 is available only on Windows 2003 Server.

If you use IIS 6.0, cbIntegrate Server runs in worker process isolation mode. The isolated process runs as the user whose credentials you provide when you install cbIntegrate Server. This means you do not need to concern yourself with the considerations that are inherent to using IIS 5.1.

## Supported Exchange Servers/MAPI Subsystems

- Exchange Server 5.5/Admin Tools SP 4
- Exchange Server 2000/Admin Tools latest service pack
- Exchange Server 2003/Admin Tools latest service pack

## Supported Operating Systems

- NT 4 SP 6 (Not supported for IIS)
- Windows 2000 latest service pack
- Windows 2003 Server latest service pack
- Windows XP Professional latest service pack

**Note** Microsoft (particularly for IIS) limits concurrent access to ten clients on non-server versions of the supported operating systems.

## Minimum Software Requirements for Client Side

- Microsoft Internet Explorer 5.5 SP 2

**Note** It is recommended you use the latest service packs with all supported software installations.

# What You Must Do Before You Install

Before you begin the actual installation process, it is important you:

- Check Your User Rights for the computer and the domain on which you are installing cbIntegrate Server.
- Grant Exchange Admin Rights to Your User Account if you want to access Exchange 5.5 with cbIntegrate Server
- Install the Exchange Admin Tools and Exchange Service Packs on the cbIntegrate Server machine before you attempt to install cbIntegrate Server
- Check Your Windows Service Packs if you are using Windows 2000 server
- Grant System Rights in Windows NT if you are installing cbIntegrate Server on the Windows NT operating system
- Grant Rights to Log On as a Service if you plan to install on a machine running IIS 5.1
- Ensure IIS Services Are Enabled Prior to Installing if you plan to install the IIS version of cbIntegrate Server
- Install and Setup SQL Server if you plan to use SQL for your database instead of the default database provided by CanyonBridge.

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**Note** Normally, the MAPI subsystem is only required on Single Server Installations of cbIntegrate Server. MAPI is only required for DMZ Gateway Server Installations in the context of Setting Up a cbIntegrate Server Farm.

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# Check Your User Rights

To install and use the cbIntegrate Server product successfully, you need to ensure you have the proper user rights. If you want to use cbIntegrate Server applications to provide other users access to their Exchange mailbox, you must be logged onto a computer user account with:

- **Administrator** rights on the domain that contains the Exchange server hosting the mail boxes of those users

  **Important** In an Active Directory environment, the account through which you intend to install cbIntegrate Server must be a member of the Domain Admins Group.

- **Administrator** rights on the machine on which you are installing cbIntegrate Server

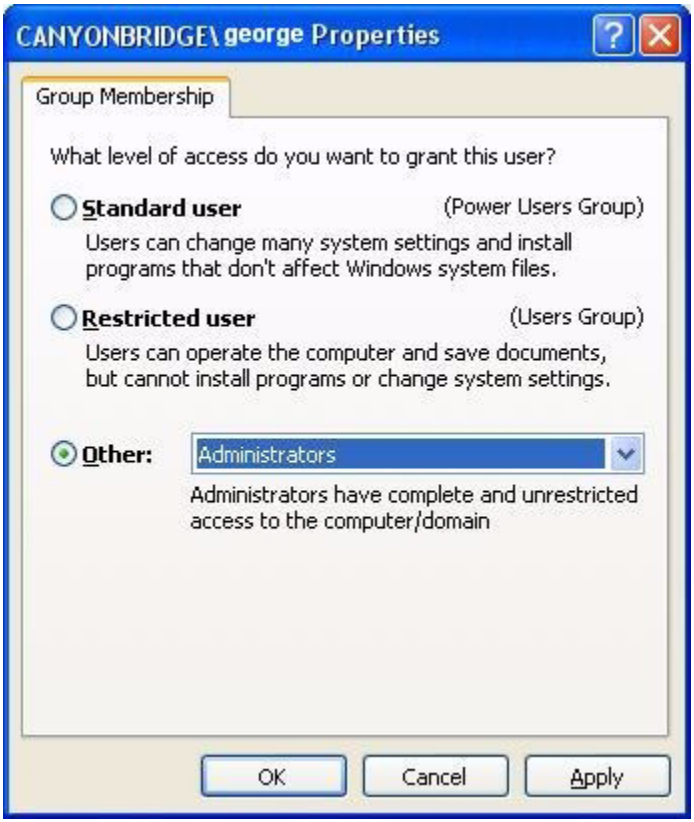
  **Important** Even if you log onto your computer with an account that has Administrator rights on the domain, it does not necessarily follow that you also have Administrator rights on the local machine. You should follow the procedure below to ensure you have the proper rights.

➢ **To grant machine administrator rights to your current logged on account**

1. Open your **Control Panel** and double-click **User Accounts**.

2. On the **User Accounts** window, find your account name in the **User Name** column, then look in the **Group** column to verify your rights.

3. If you are unsure of the rights available to the group of which your account is a member, click **Properties**, then in the **Properties** window, click the **Group Membership** tab. If the **Other**: button is selected and **Administrators** is visible in the drop down list, you have the necessary local machine rights to install cbIntegrate Server.




4. If the account under which you want to install cbIntegrate Server does not have Administrative rights, print out the rest of this procedure, then log off of your machine.

5. Log on to your machine using an account with local machine Administrator rights.

6. Open your **Control Panel** and double-click **User Accounts**.

7. On the **User Accounts** window, in the **User Name** column, find the name of the account under which you intend to install cbIntegrate Server, then look in the **Group** column to verify your rights.

8. On the **Group Membership** tab, ensure that **Other**: is selected, then from the drop down list, choose **Administrators**.

9. Click **OK**, then click **OK** again. You have now granted Administrator rights to your current logged in account, however, these new settings do not take affect until you log out and log back in.

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**Caution** Before you proceed to the next step, be sure you have saved all work on your computer, as clicking **Yes** in the next step logs you out of your computer and closes all open windows.

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10. On the **User Accounts** window that is invoked, click **Yes**.

11. Log back onto the account to which you just granted Administrator rights.

## Grant Exchange Admin Rights to Your User Account

If you want to use cbIntegrate Server applications to provide access to an installation of Exchange Server 5.5, you must grant Exchange Server Administrator rights to the account under which you intend to install cbIntegrate Server. If you fail to do this, the cbIntegrate Server installation will not function properly.

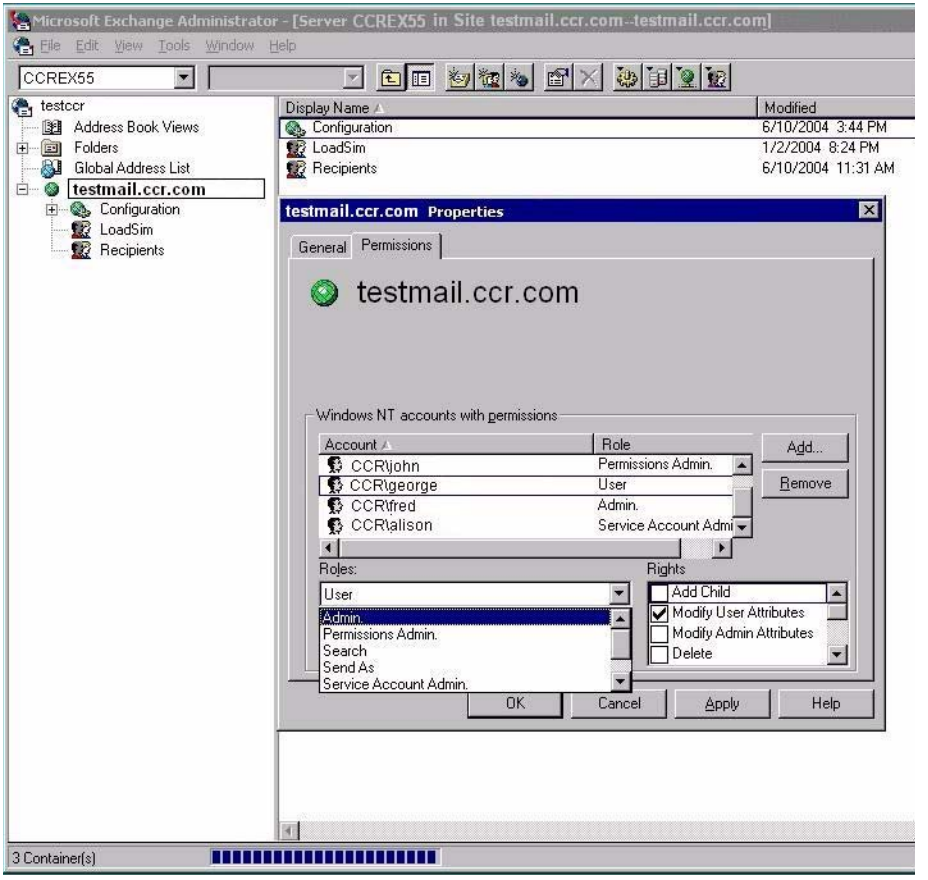
➢ **To grant Exchange Server Administrator rights to your account**

1. On the machine hosting the Exchange Server 5.5 installation you want cbIntegrate Server to access, from the **Start** menu, click **Programs > Microsoft Exchange > Microsoft Exchange Administrator**.

2. In the organization tree, select your organizational mail domain (for example testmail.ccr.com).

3. From the **File** menu, choose **Properties**.

4. In the **Properties** window, click the **Permissions** tab.



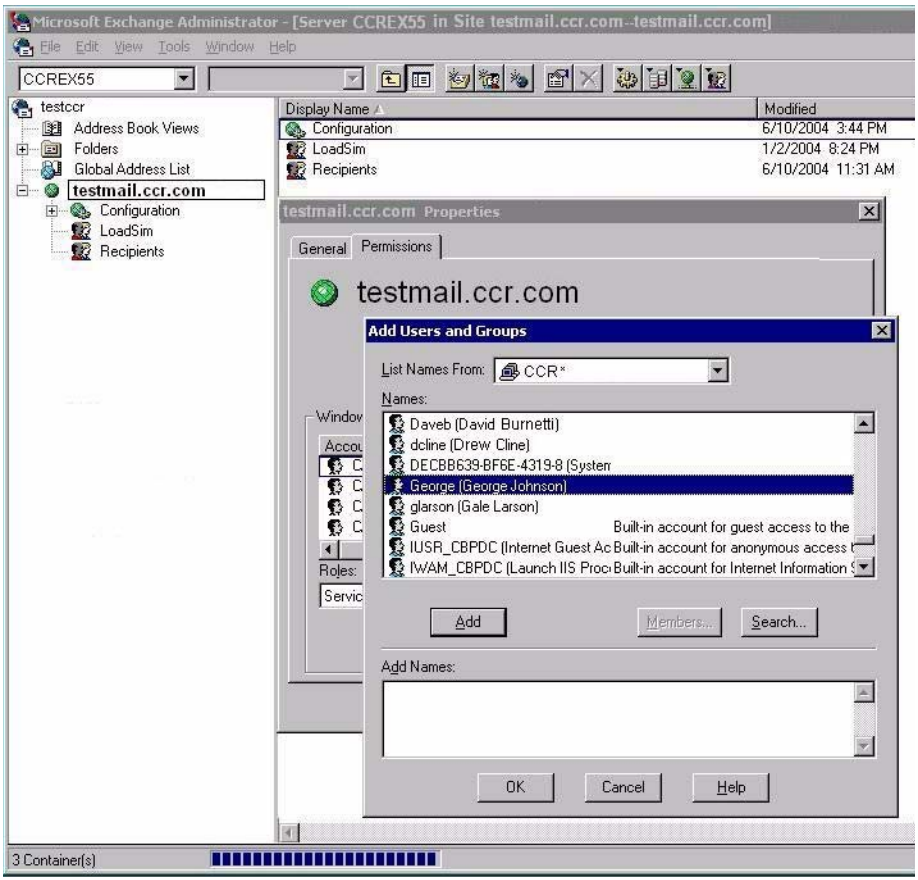

a. If your account is present in the **Account** column of the **Windows NT accounts with permissions** pane, select your account, then in the **Roles:** drop down list choose a role that is **Admin** level or higher.

   i. Click **OK**. Your account should now have rights sufficient to enable you to allow others to use cbIntegrate Server to access Exchange through your account.

ii. Close the Exchange Administrator window and return to the machine on which you want to install cbIntegrate Server, and ensure you have completed all applicable procedures under What You Must Do Before You Install.

b. If your account is not present in the **Account** column of the **Windows NT accounts with permissions** pane, click **Add**.

i. In the **Add Users** and **Groups** window, select your account from the **Names** list, then click **Add**.



ii. Click **OK**, then complete step a, above.

# Install the Exchange Admin Tools and Exchange Service Packs

cbIntegrate Server applications communicate with your Exchange Server through the MAPI protocol. Therefore, before you install cbIntegrate Server on your machine, you must first install a proper MAPI subsystem.

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**Note** You do not need to install the Exchange Admin Tools and Exchange Service Packs for the DMZ Gateway Server Installation portion of a Dual Server Installation (except in the context of Setting Up a cbIntegrate Server Farm).

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The MAPI subsystem supported by the cbIntegrate Server install is the MAPI subsystem provided with the Exchange Server administrative tools. Depending on which version of Exchange Server you want cbIntegrate Server applications to access, you can choose to:

- Install the Exchange Server 5.5 Admin Tools and Exchange Server 5.5 Service Packs
- Install the Exchange Server 2000 Admin Tools and Exchange Server 2000 Service Packs
- Install the Exchange 2003 Server Admin Tools and Exchange 2003 Server Service Packs

## Install the Exchange Server 5.5 Admin Tools and Exchange Server 5.5 Service Packs

The Admin Tools contain the MAPI subsystem cbIntegrate Server applications use to communicate with the Exchange Server.

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**Important** You ensure that you have the latest Exchange Server service pack installed *both on your Exchange server, and on the machine running Exchange Admin Tools*, prior to installing cbIntegrate Server. The procedure below contains a link to the Exchange Server service packs.

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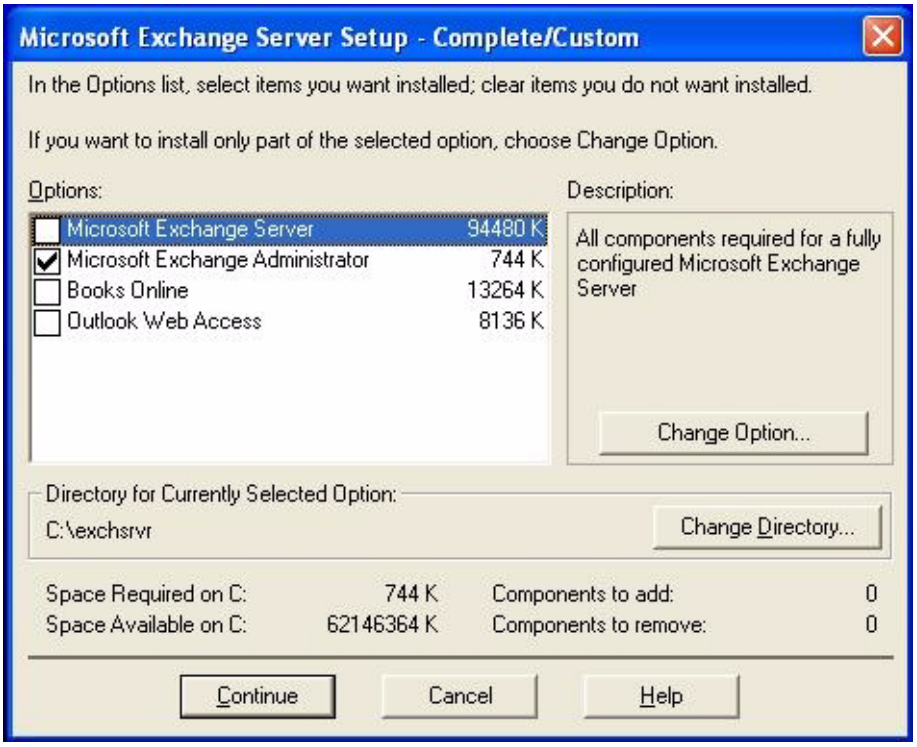
➢ **To install the Exchange Server Admin Tools and service packs**

1. From the Exchange Server 5.5 CD-ROM run **Setup.exe**.
2. On the **Microsoft Exchange Server Setup** window, click **Accept**.
3. Next, click **Complete/Custom**.
4. In the **Options:** pane, ensure that only the **Microsoft Exchange Administrator** is the only option selected, then click **Continue**.




5. In the **CD Key** pane, type the 10 digit license key for the Exchange Server, then click **OK**.

6. If you need to, write down your **Product ID:** number, then click **OK**.

7. Wait until the install is complete, then click **OK**.

8. In Internet Explorer download SP 4 5501.exe (the first file in the list at the bottom of the page under **Files in this Download**).

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**Important** This is the Exchange Server 5.5 Service Pack. You must install this service pack both on your Exchange Server and the cbIntegrate Server if this service pack is not already installed at these locations.

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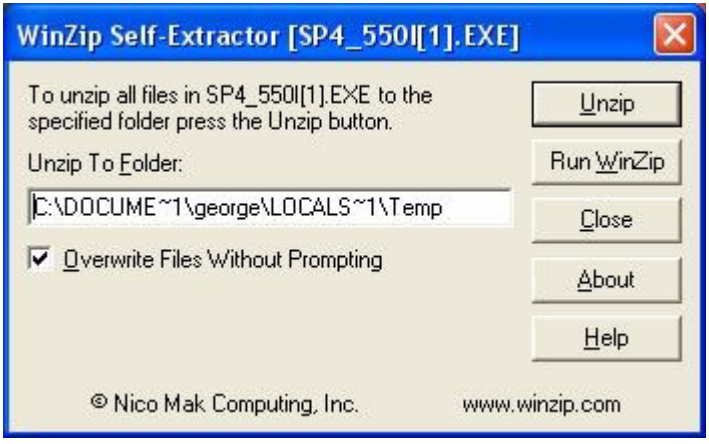
9. When the download is complete, in Windows Explorer, navigate to the download folder, then double-click the icon for the **SP 4 5501.exe**.

10. In the **WinZip Self-Extractor** window, click **Unzip**.

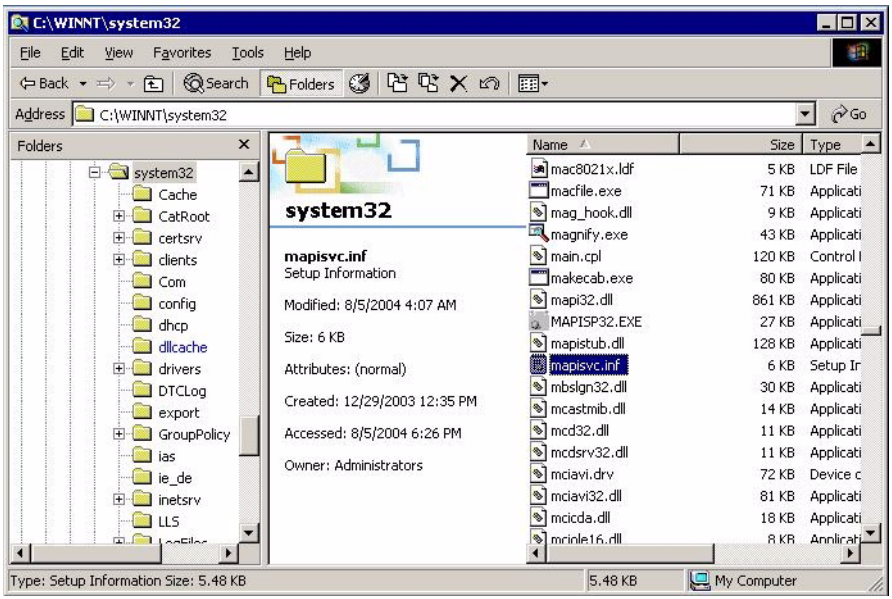



11. Next, navigate to `C:\Documents and Settings\`*`your profile`*`\Local Settings\Temp\ENG\server\setup\i386` and double-click **Update.exe**.

12. On the Microsoft Server Update window, click **OK**.

13. When the update is completed click **OK** again.

14. Next, in Windows Explorer navigate to the Exchange Server you want to access with cbIntegrate Server applications, then navigate to \\WINNT\system32, then select and copy the **mapisvc.inf** file.




15. Next, on the machine on which you want to install cbIntegrate Server, navigate to the \\WINNT\system32 directory, then paste the **mapisvc.inf** file you copied from the Exchange server over the mapisvc.inf file already there.

## Install the Exchange Server 2000 Admin Tools and Exchange Server 2000 Service Packs

The Admin Tools contain the MAPI subsystem cbIntegrate Server applications use to communicate with the Exchange Server.

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**Important** Unless you are running the server version of one of the supported operating systems, you must first follow the procedure below To install the Windows 2000 Administrative Tools located on the Windows 2000 install disk. before you can complete the procedure To install the Exchange Server 2000 Admin Tools and service packs.

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➢ **To install the Windows 2000 Administrative Tools**

1. On your Windows 2000 install disk, browse to `\\English\WIN2000\Server\I386`, then double-click **ADMINPAK.MSI**.

2. Wait until the **Windows 2000 Administration Tools Setup Wizard** appears, then click **Next**.

3. When the installation is complete, click **Finish**.

   Once you have installed the Windows 2000 Admin Tools, you are ready to install the Exchange Server 2000 Admin Tools.

➢ **To install the Exchange Server 2000 Admin Tools and service packs**

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**Important** You must ensure that you have the latest Exchange Server service pack installed *both on your Exchange server, and on the machine running Exchange Admin Tools*, prior to installing cbIntegrate Server. The procedure below contains a link to the Exchange Server service packs.

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1. From the Exchange Server 2000 CD-ROM run **Setup.exe**.

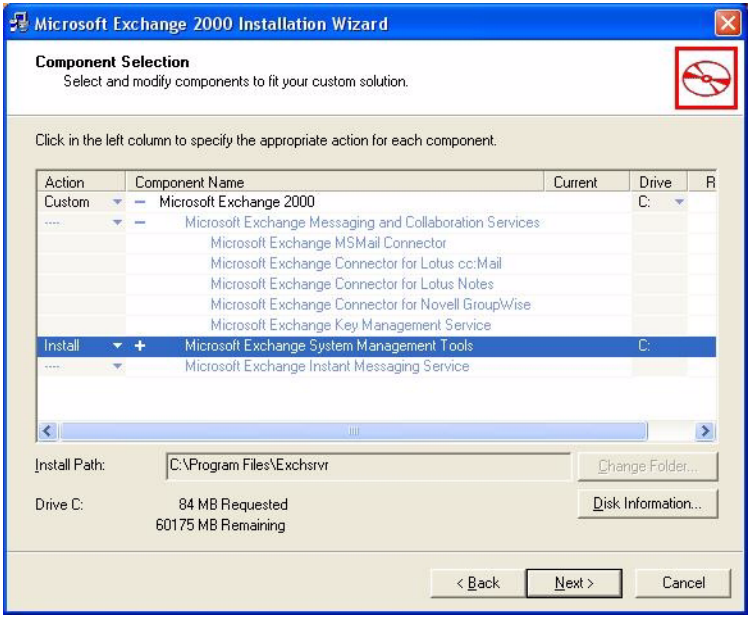
2. On the Microsoft Exchange 2000 Server Setup screen, click Exchange Server Setup, then wait while the setup initializes.

3. On the first screen of the **Microsoft Exchange Installation Wizard** click **Next**.

4. On the second screen of the wizard, click I agree, then click **Next**.

5. On the **Component Selection** screen of the wizard, in the **Action** column drop down list next to **Microsoft Exchange 2000**, choose **Custom**.

6. Next, in the **Action** column drop down list next to **Microsoft Exchange System Management Tools**, choose **Install**, then click **Next**.




7. On the **Component Summary** screen of the wizard select **Microsoft Exchange System Management Tools**, then click **Next**. This installs the mapi32.dll.

8. When the installation is complete, click **Finish**.

9. Next, in Windows Explorer navigate to the Exchange Server you want to access with cbIntegrate Server applications, and on that Exchange Server, navigate to \\WINNT\system32, then select and copy the **mapisvc.inf** file.

10. Next, on the machine on which you wish to install cbIntegrate Server, navigate to the \\WINNT\system32 directory, then paste the **mapisvc.inf** file you copied from the Exchange server.

11. Next, click the following link: http://www.microsoft.com/exchange/downloads/2000/sp3/english.asp, then follow the instructions for downloading and installing Exchange 2000 Server Service Pack 3.

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**Important** This is the Exchange 2000 Server Service Pack. You must install this service pack both on your Exchange Server and the cbIntegrate Server if this service pack is not already installed at these locations.

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## Install the Exchange 2003 Server Admin Tools and Exchange 2003 Server Service Packs

The Admin Tools contain the MAPI subsystem cbIntegrate Server applications use to communicate with the Exchange Server

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**Important** Unless you are running the server version of one of the supported operating systems, before you can install the Exchange Server 2003 Admin Tools, you must first install the Windows 2003 Server Administrative Tools located on the Windows 2003 Server install disk. See the procedure below.

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➢ **To install the Windows Server 2003 Administrative Tools and service packs**

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**Important** You must ensure you have the latest Exchange Server service pack installed *both on your Exchange server, and on the machine running Exchange Admin Tools*, prior to installing cbIntegrate Server. The procedure below contains a link to the Exchange Server service packs.

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1. Insert your Windows Server 2003 install disk, then browse to `\\English\WIN2003\STANDARD\I386`, then double-click **ADMINPAK.MSI**.

2. Wait until the **Windows Server 2003 Administration Tools Pack Setup Wizard** appears, then click **Next**.

3. When the installation is complete, click **Finish**.

Once you have installed the Windows Server 2003 Admin Tools, you are ready to install the Exchange Server 2003 Admin Tools.

➢ **To install the Exchange Server Admin Tools and MAPI subsystem**

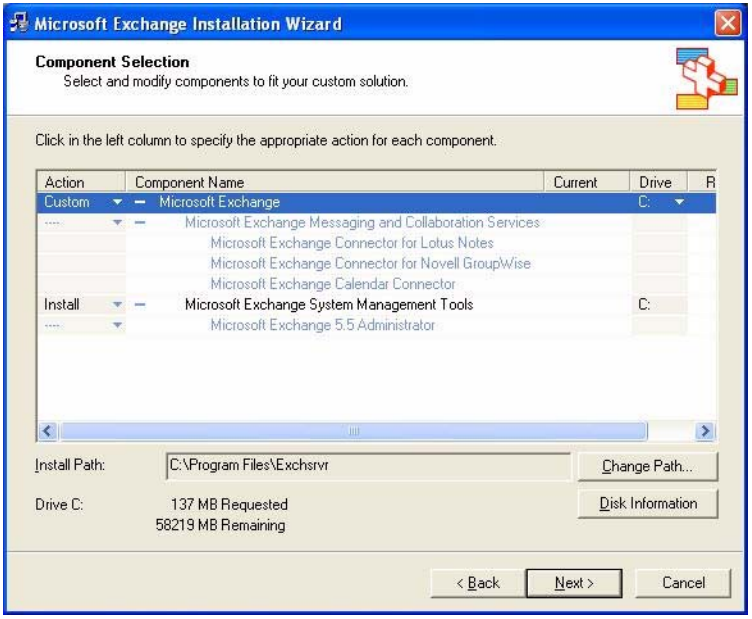
1. From the Exchange Server 2003 CD-ROM run **Setup.exe**.

2. On the first screen of the **Microsoft Exchange Installation Wizard**, click **Next**.

3. On the **License Agreement** screen of the wizard, click **I agree**, then click **Next**.

4. On the **Component Selection** screen of the wizard, in the **Action** column drop down list next to **Microsoft Exchange**, choose **Custom**.

5. Next, in the **Action** column drop down list next to **Microsoft Exchange System Management Tools**, choose **Install**, then click **Next**.



6. On the **Installation Summary** screen of the wizard ensure you select **Microsoft Exchange System Management Tools**, then click **Next**. This installs the mapi32.dll.

7. When the installation is complete, click **Finish**.

8. Next, click on the following link: http://www.microsoft.com/downloads/details.aspx?FamilyId=42656083-784D-4E7E-B032-2CB6433BEC00&displaylang=en, then follow the instructions for downloading and installing Exchange Server 2003 Service Pack 1.

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**Important** This is the Exchange Server 2003 Service Pack. You must install this service pack both on your Exchange Server and the cbIntegrate Server if this service pack is not already installed at these locations.

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## Check Your Windows Service Packs

If you are using Windows 2000 server, it is important you check to see which service pack you are running. If you are running Windows 2000 Service Pack 4, you need To grant rights to your user account to "Act as part of the operating system".

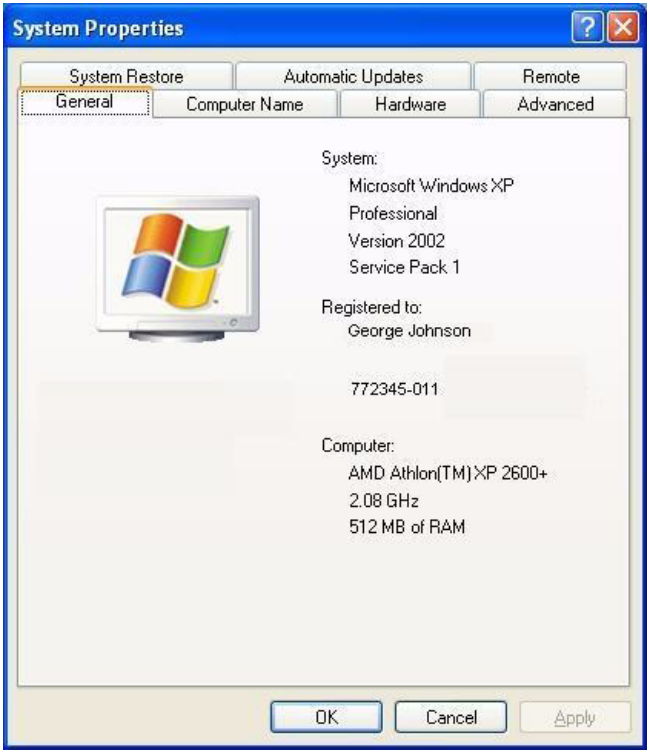
If you are unsure of which operating system or service pack number you have installed on your machine, you need:

➢ **To check the version of your operating system and service pack**

1. On your desktop, select the **My Computer** icon, then right-click.

2. From the popup menu, choose **Properties**.

3. In the **System Properties** window, ensure the **General** tab is selected.




4. Under **System**:, both the operating system and the service pack number are displayed, as in the figure above.

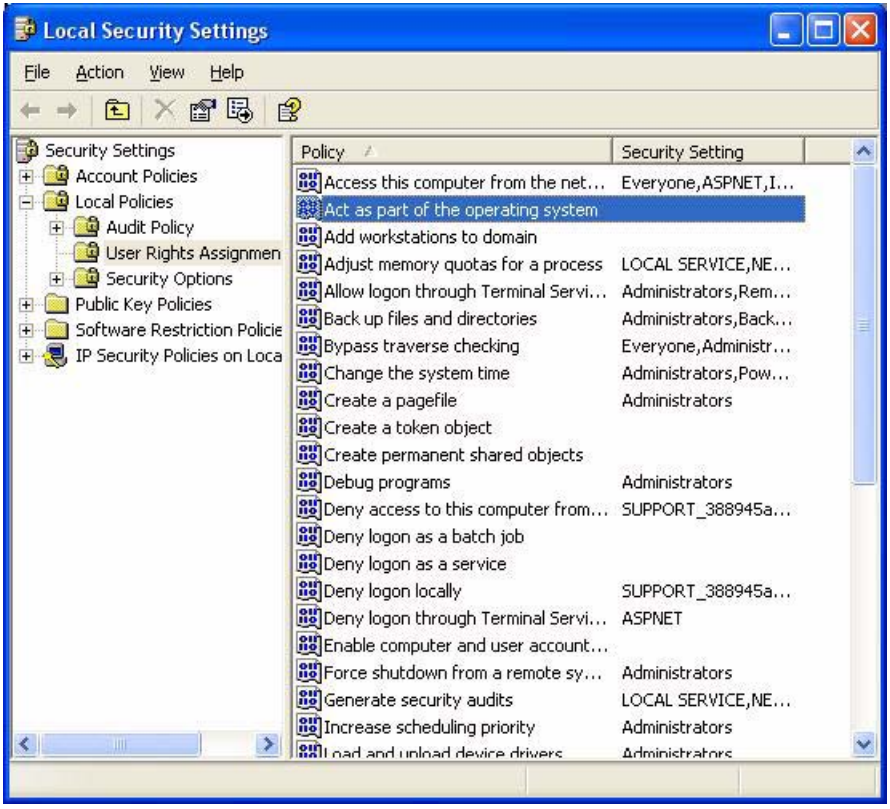
If you are running Windows 2000 Service Pack 4, in order for this installation to work properly, you must grant rights to your user account to act as part of the operating system.

➢ **To grant rights to your user account to "Act as part of the operating system"**

1. From the **Start** menu, choose **Settings** > **Control Panel**, then double-click **Administrative Tools**.

2. In the **Administrative Tools** window, double-click **Local Security Policy**.

3. In the **Local Security Settings** window, double-click **Local Policies**, then double-click **User rights Assignment** and select **Act as part of the operating system**, then double-click this setting.




4. In the window that is invoked, click **Add**.

5. In the **Select Users or Groups** window, in the **Name** column, find the name of the user account under which you are installing the cbIntegrate Server software, then select the name and click **OK**.

6. On the **Local Security Policy Setting** window, click **OK**.

7. Close the **Local Security Settings** and the **Administrative Tools** windows.

8. Next, from the **Start** menu, click **Shut Down**.

9. In the **Shut Down Windows** window, choose **Log off** (your user account name). This is necessary because the local policy does not update until the next time you log in.

10. Log back in.

## Grant System Rights in Windows NT

In order for this install to function properly on the Windows NT Operating System, you must grant your user account on your local machine the right to **Act as Part of the Operating System**.

➢ **To set your Windows NT account to "Act as part of the operating system"**

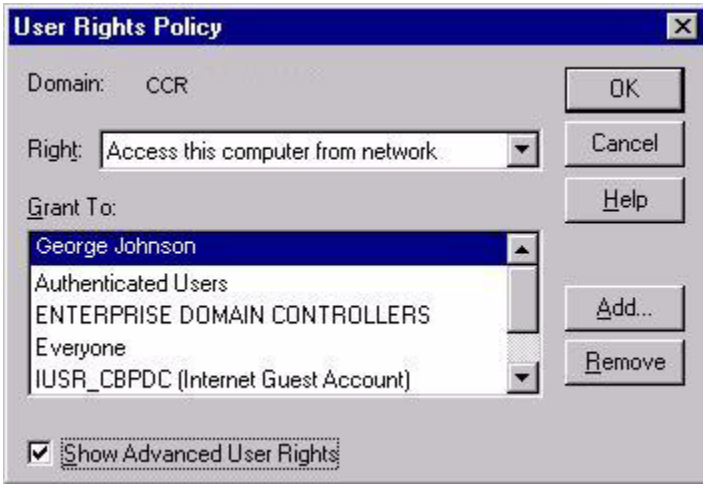
1. From the **Start** menu, choose **Programs >Administrative Tools (Common) > User Manager for Domains**.

2. In the **User Manager** window, from the **User** menu, choose, **Select Domains**.

3. In the **Select Domain** window, in the **Domain:** type-in, type the name of the computer on which you are installing this product, then click **OK**.

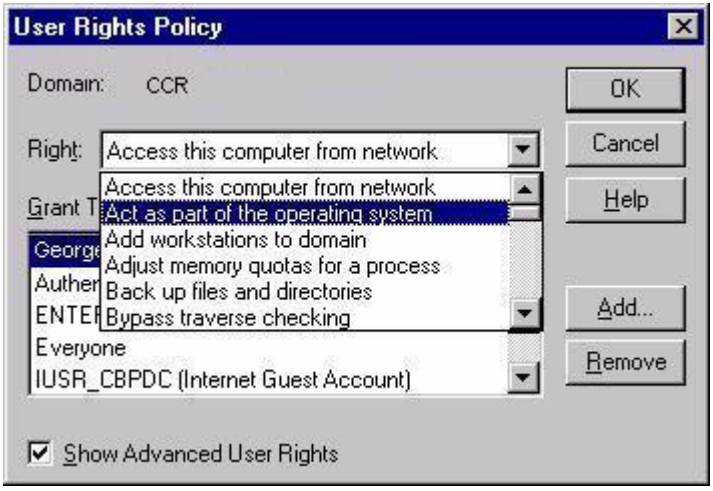
4. Next, in the **User Manager** window, from the **Policies** menu, choose **User Rights**.

5. In the **Grant To:** box, choose the user account to which you want to grant rights. This should be the user account under which you are installing cbIntegrate Server.




6. In the **User Rights Policy** window, check the **Show advanced user rights** check box.

7. Next, in the **Right:** drop down list, choose **Act as part of the operating system**, then click **Add**.




8. Next, from the list in the **Names** pane, choose your user account, or a group of which your user account is a member.

9. Click **Add**, then click **OK**.

10. On the **User Rights Policy** window, click **OK**.

11. Close the **User Manager** window.

## Grant Rights to Log On as a Service

If you are running Internet Information Server (IIS) 5.1, you need to ensure you have sufficient rights for your user profile to control the IIS services since cbIntegrate Server uses IIS to talk to Exchange.

---

**Important** cbIntegrate Server can not log in to Microsoft Exchange unless you provide the proper rights.

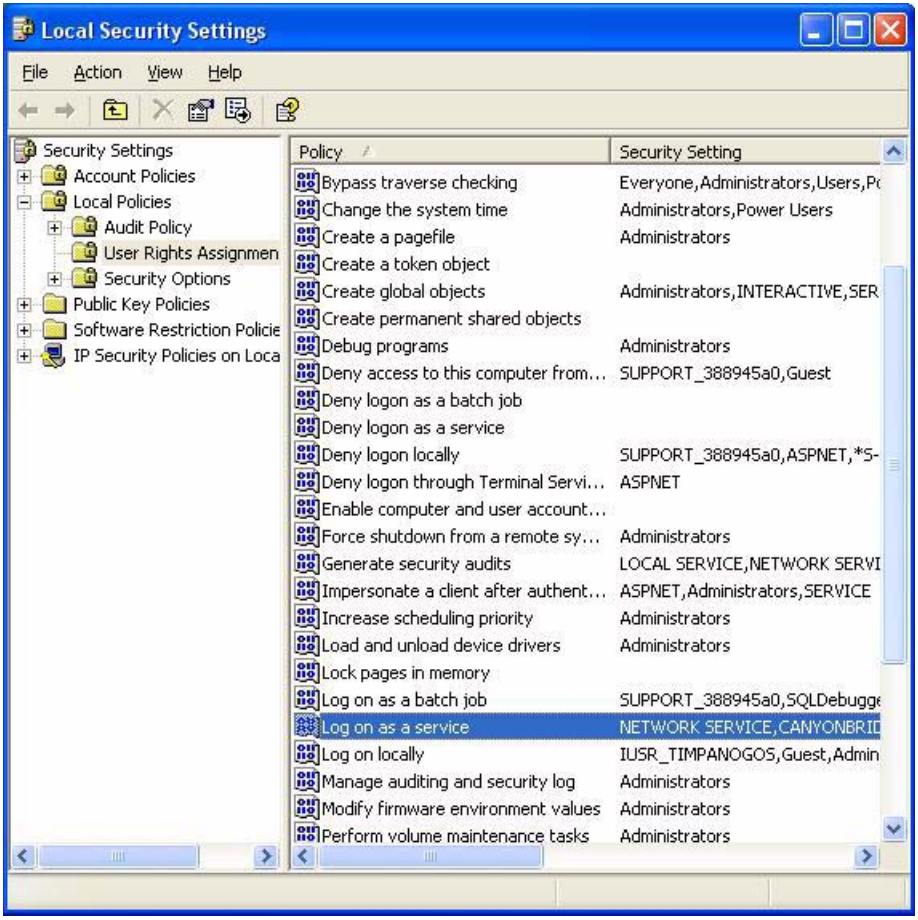
---

➢ **To grant rights to your user account to log on as a service**

1. From the **Start** menu, choose **Settings** > **Control Panel**, then double-click **Administrative Tools**.

2. In the **Administrative Tools** window, double-click **Local Security Policy**.

3. In the **Local Security Settings** window, double-click **Local Policies**, then double-click **User rights Assignment** and select **Log on as a service**, then double-click this setting.



4. In the window that is invoked, click **Add**.

5. In the **Select Users or Groups** window, in the **Name** column, find the name of the user account under which you are installing the cbIntegrate Server software, then select the name and click **OK**.

6. On the **Local Security Policy Setting** window, click **OK**.

7. Close the **Local Security Settings** and the **Administrative Tools** windows.

8. Next, from the **Start** menu, click **Shut Down**.

9. In the **Shut Down Windows** window, choose **Log off** (your user account name). This is necessary because the local policy does not update until the next time you log in.

10. Log back in.

## Ensure IIS Services Are Enabled Prior to Installing

If you plan to install the IIS version of cbIntegrate Server, you need to be sure that the IIS services (in particular IISAdmin) are not disabled prior to installation, or the install fails. The services you need to be concerned with include:

- IISAdmin
- World Wide Web Publishing
- HTTP SSL (if you want to use Secure Sockets Layers encryption)

➢ **To ensure IIS services are enabled**

1. From the **Start** menu, choose (**Settings**) **Control Panel**.

2. In the **Control Panel** double-click **Administrative Tools**.

3. In the **Administrative Tools** window, double-click **Services**, then inspect the **Startup Type** column for the afore-mentioned services and ensure that non of the services is set to **Disabled**.

   a. If a service is disabled, right-click the service and from the popup menu, choose **Properties**.

b. On the ***name of service*** **Properties (Local Computer)** window, click the tab labeled **General**.

c. In the **Startup type:** drop down box, click the arrow and select **Automatic**.

d. Click **OK.**

e. Repeat the previous sub steps for any other of the three services that may be disabled.

4. Close the **Services** and **Administrative Tools** windows.

# Install and Setup SQL Server

If you intend to use the SQL Server rather than the database (Firebird) provided by CanyonBridge, you must prepare a database dedicated to cbIntegrate Server applications prior to installing cbIntegrate Server.

---

**Note** Currently, cbIntegrate Server installations that support Microsoft SQL Server are limited to the Windows XP and Windows 2003 Server. In addition, Apache is the only Web server currently supported in installations using SQL server.

---

➢ **To prepare for cbIntegrate Server installation**

1. Ensure that you have an installation of SQL server installed and accessible to the machine on which you plan to install cbIntegrate Server.

2. On your SQL server, set up a database that cbIntegrate Server can access. For clarity, it is recommended you name this database cbIntegrate.

3. Grant full rights on that SQL database to the user profile under which you intend to install cbIntegrate Server. Be sure to Check Your User Rights for that profile. You must also Grant Exchange Admin Rights to Your User Account for this same profile.

4. If you have followed all other pertinent steps in this chapter, you are ready to install cbIntegrate Server.

CHAPTER 5

# Step 2: Installing cbIntegrate Server


This document describes how to install the cbIntegrate Server product.

The cbIntegrate Server product install consists of the following:

- A CanyonBridge cbIntegrate Server
- A Web Server
- A Firebird database

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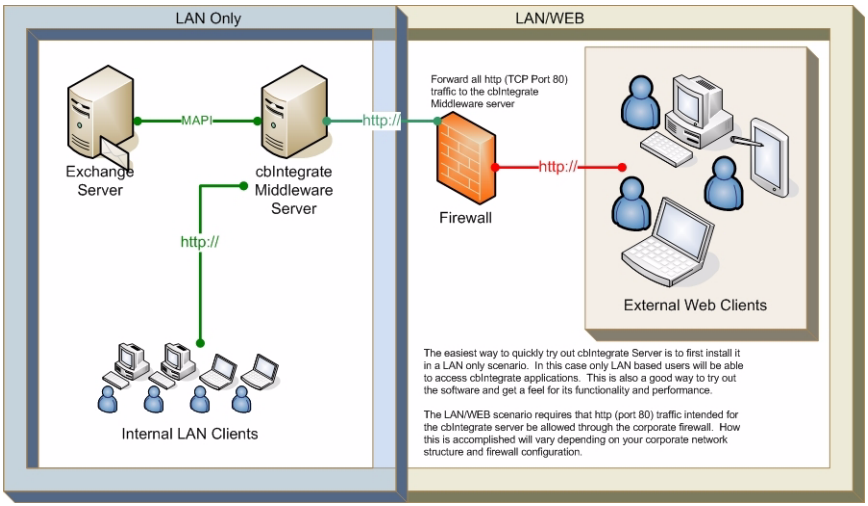
**Note** The physical locations of these items vary depending on whether you choose to install the Single Server Installation or Dual Server Installation configurations.

---

This document includes the following topics:

# Single Server Installation

The Single Server installation installs cbIntegrate Server entirely within your LAN (Local Area Network), allowing cbIntegrate Server applications to make your Exchange data accessible on the Web, as indicated in the figure below.




**Important** The cbIntegrate Server product you are installing is a server-based application that includes a Web server. In order to use cbIntegrate Server applications from outside your LAN (Local Area Network), your network must be configured so a Web browser outside your LAN can connect to the cbIntegrate Server Web server. Normally, this is port 80; if this port is already in use choose a different port on install. (If you forgot to do so on install, see either the Apache Configurations or IIS Configurations chapter of this *Guide*.)

➢ **To install cbIntegrate Server**

1. If you have completed Step 1: Preparing to Install, you are ready to install cbIntegrate Server.

2. Ensure all server software or services using the port you selected are stopped or disabled. If you chose port 80, services you may need to stop include:

- IIS (including World Wide Web Publishing)—stopping this service is good idea whichever Web server you choose for your install
- Any download managers (for example, Kazaa)
- Any version of Apache—stopping this service is good idea whichever Web server you choose for your install

a. To close these services, from the **Start** menu, choose (**Settings**) **Control Panel**.

b. In the **Control Panel** double-click **Administrative Tools**.

c. In the **Administrative Tools** window, double-click **Services**.

d. In the **Name** column of the **Services** window, identify any of these kinds of services, right click on a service and from the popup menu, choose **Stop**.

e. Close the **Services** and **Administrative Tools** windows.

3. If you are accessing this install online, download the software to your computer, then double-click **Setup.exe**.

   If you are accessing this install from a CD, from the root install directory, double-click **Setup.exe**.

---

**Important** For performance and security reasons, this product does not install on a computer already hosting the Exchange server you want to access.

---

4. On the first pane of the **cbIntegrate Server - InstallShield Wizard**, click **Next**.

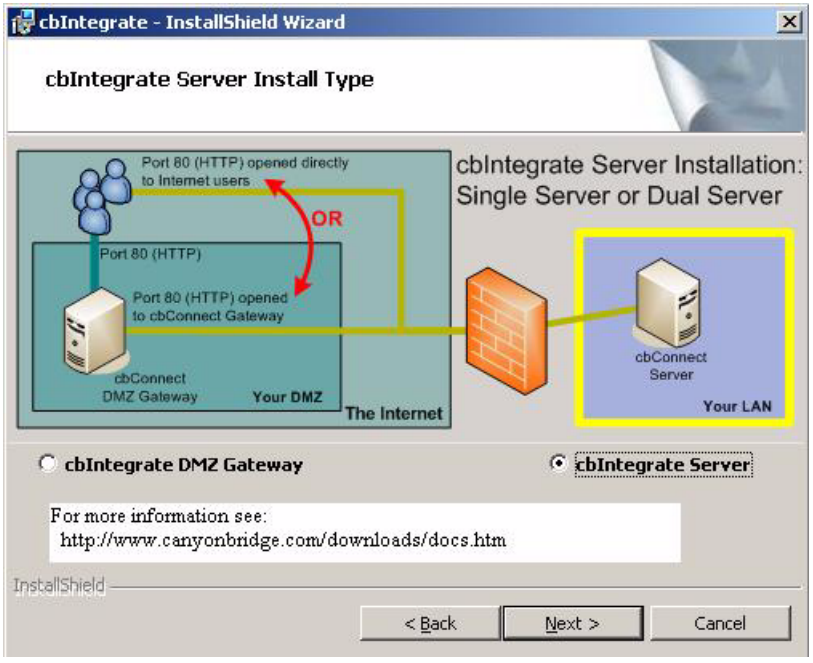
5. Read the **CanyonBridge End User License Agreement** (EULA) and if you agree to the terms and conditions in the EULA, choose **I accept the terms** in the license agreement, then click **Next**.

6. On the **HTTP Server Type** pane, choose either **Apache 2.0** or **IIS 5.1/6.0**, then click **Next**.

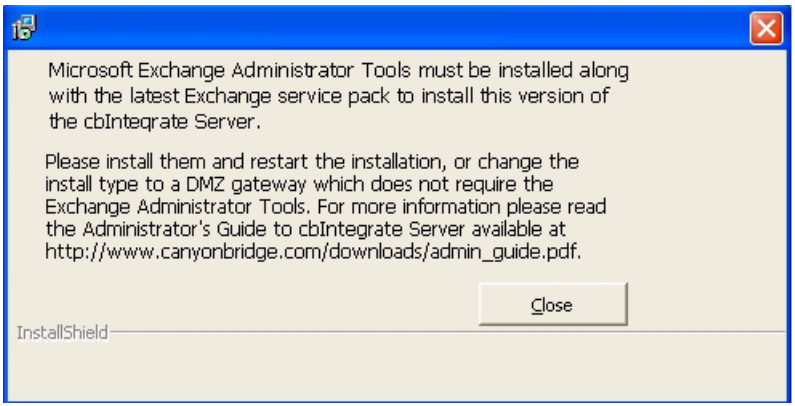
**Caution** If you choose the **IIS 5.1/6.0** option, you must ensure the IIS Admin service is not disabled, or the install fails. See Ensure IIS Services Are Enabled Prior to Installing in the Step 1: Preparing to Install chapter of this Guide for more information.

7. On the **Destination Folder** pane of the wizard, browse to the location where you want to install cbIntegrate Server, then click **Next**.

8. On the **cbIntegrate Server Install Type** pane of the wizard, choose **cbIntegrate Server**, then click **Next**.



a. If you have not yet installed the Exchange Admin Tools and Exchange Service Packs, the following window is invoked.




b. Click **Close**, then on the install wizard, click **Cancel**, click **Yes** on the popup that is invoked, then click **Finish**.

c. Install the Exchange Admin Tools and Exchange Service Packs appropriate to the version of Exchange server you want to access with cbIntegrate Server applications. You can find the procedure you need under Install the Exchange Admin Tools and Exchange Service Packs in the Step 1: Preparing to Install chapter of this *Guide*.

d. Once you have installed the Admin Tools, begin the cbIntegrate Server installation process once more.

9. On the **cbIntegrate Database** pane, from the two options, select the database you prefer to use with this installation of cbIntegrate Server.

**Important** If you prefer Microsoft SQL Server, ensure you have read the advisories and followed the instructions specific to SQL Server in the Step 1: Preparing to Install chapter of this *Guide* before proceeding. You should also ensure you are installing on a machine running Windows XP or Windows Server 2003 as these are the only two operating systems currently supported in SQL Server installations of cbIntegrate Server.

In addition, you should understand that Apache is currently the only Web server supported. If you previously chose IIS, click **<Back** at the bottom of the wizard until you see the **HTTP Server Type** screen, then select **Apache 2.0** before proceeding with this install.

If you choose SQL Server, once you have completely installed cbIntegrate Server, you must also complete the procedure under Configuring cbIntegrate for SQL Server Access in the Advanced Configurations of cbIntegrate Server chapter of this *Guide*.

10. On the **Web Server Configuration** pane, you are presented with several options for configuring cbIntegrate Server Web server access.

    Before you make any choice, you should consider what your security goals are:

    - If *security is not a very high concern for you*, and you want your end users to enjoy faster connection speeds and overall increased performance, you can:
        - Use the default, non-encrypted (HTTP) settings. This is the simplest and least confusing option. Proceed to sub-step a. of this step and read and follow the directions at the first bullet.
        - Provide your users with the option to choose between HTTP (non-encrypted) and SSL (Secure Socket Layers -encrypted) on a per session basis. When a user wants to send a message deemed sensitive enough to require encryption, the user can connect using HTTPS. Allowing this is an option available at the second bullet in sub-step b. of this step.
    - If *you value security above all other considerations* (including connection speed and overall performance), you should encrypt all of your data using SSL. If this is what you want, you have two more choices to make. You can either:
        - Force all users to connect using SSL (see the first bullet under sub-step b. of this step, below)

- Allow users to connect with HTTP, but reroute any incoming HTTP traffic through the SSL (HTTPS) port (see the third bullet under sub-step a. of this step, below)

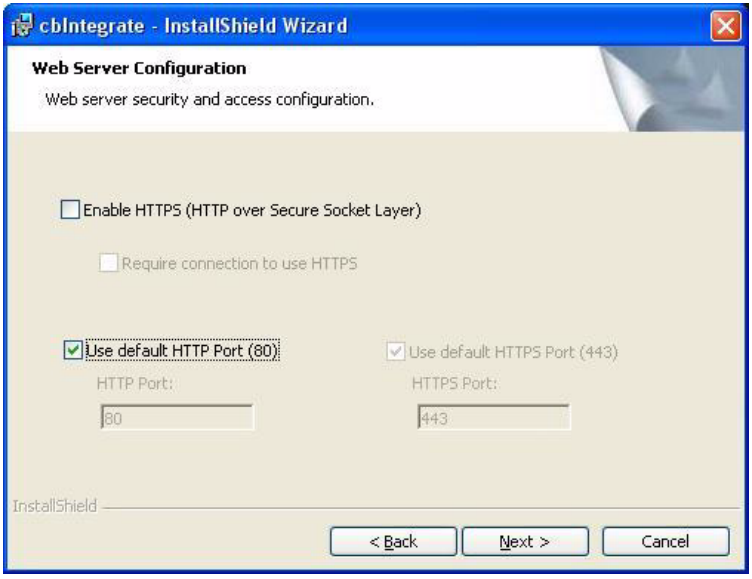
a. Choose your HTTP options:

- If you want to use only HTTP (no encryption) with default port 80, click **Next,** then proceed to step 8 below.
- If you want to use only HTTP (no encryption), but you want to change the default port for HTTP access, deselect the **Use default HTTP port (80)** box, then in the **HTTP Port:** type-in, type the number of the port you want to use, then click **Next** and proceed to step 8 in main procedure below.
- If you want to forward all HTTP traffic to HTTPS:

  i. Select the **Enable HTTPS (HTTP over Secure Socket Layer)** box.

     a. If you want to change the default port for HTTPS access, deselect the **Use default HTTP port (443)** box, then in the **HTTPS Port:** type-in, type the number of the port you want to use.

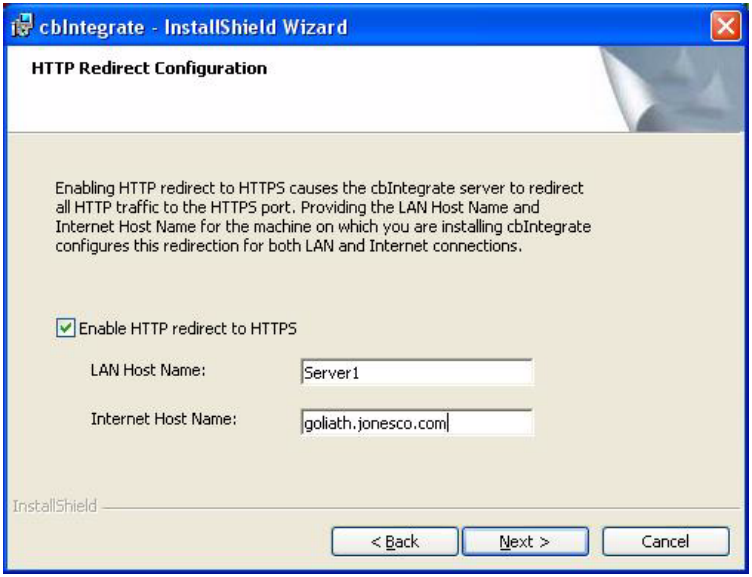
  ii. Select the **Require connection to use HTTPS** box.



iii. Click **Next**.

iv. On the **HTTP Redirect Configuration** pane, select the **Enable HTTP redirect to HTTPS** box.

v. In the **LAN Host Name** type-in, type the local network DNS name or IP address of the machine on which you are installing cbIntegrate Server.




vi. In the **Internet Host Name** type-in, type the External DNS name or IP address of the machine on which you are installing cbIntegrate Server.

vii. Click **Next** and proceed to step 8, below.

b. Choose your HTTPS options:

- If you want to allow only HTTPS connections to cbIntegrate Server, select the **Enable HTTPS (HTTP over Secure Socket Layer)** box, then select the **Require connection to use HTTPS** box, click **Next**, then click **Next** again and proceed to step 8, below.

**Note** If you want to Enable HTTP redirect to HTTPS, see the procedure under the third bullet in sub-step a., above.

- If you want to allow both HTTP and HTTPS users to access the cbIntegrate Server, select the **Enable HTTPS (HTTP over Secure Socket Layer)** box, then click **Next** and proceed to step 8.

11. This step has two paths depending whether you chose Apache or IIS as your Web server earlier.

    a. If you chose Apache server, on the **Ready to Install the Program** pane, click **Install**.

**Note** Apache is installed as an application. For information on how to cause the cbIntegrate Server version of Apache to run as a service, see Setting Apache to Run as a Service in the Apache Configurations chapter of this *Guide*.

    b. On the **IIS Server Configuration** pane, type your Windows NT credentials in the appropriate type-ins, then click **Next**.

**Note** If you are installing on a machine running Windows 2000, a message appears to warn that you must be very careful to input your credentials correctly, as the install does not check your credentials.


c. On the **Ready to Install the Program** pane, click **Install**.

12. Wait while the InstallShield Wizard installs cbIntegrate Server.

13. When the **Profile Wizard** appears, type a name in the **Profile Name** type-in, then click **Create Profile**>>. On a first time install, to avoid conflicts with any existing mail profiles, it is highly recommended you use the default name provided (**cbMapiProfile**).

---

**Caution** Do not abort creation of your profile name by clicking the cancel button (**X**) on the upper right of the **Profile Wizard**. Doing so will cause the cbIntegrate Server install to malfunction. See the Abort During Profile Name Creation section of the cbIntegrate Server Readme for further details.

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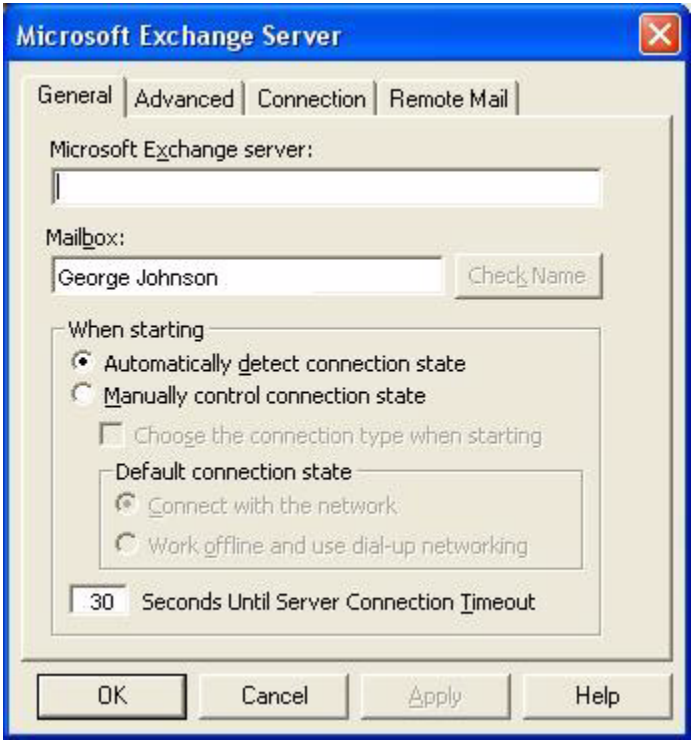
a. If a profile by that name already exists, a message informs you of this and asks you to click **No** if you want to create a profile with a different name, or **Yes** to delete the old profile and add a new profile that uses the same name as the one you are deleting. Deleting the old profile does not cause any data loss.

b. If the name you type is not already in use, when you click **Create Profile**>>, a **Microsoft Exchange Server** window appears. In the **Microsoft Exchange server:** box, type the name of the Exchange server that contains your e-mail account.




**Caution** Do not change the user name displayed in the Mailbox: type-in.This should be the user name under which you are logged onto the computer. Changing this name causes cbIntegrate Server to malfunction.

14. Click **OK**. If there is any problem with this step, see the Microsoft **Help and Support** files in the **Start** menu.

15. On the **Profile Wizard** click **Finish**.

16. On the **License Key Information** pane of the wizard, follow all the instructions under **Attention**. Once you have followed all of the instructions, select the check box below the yellow advisory sign, and click **Next**.

---

**Note** If you clicked **Next** prematurely, to obtain your cbIntegrate Server license key, see the Step 3: You Need a Key chapter of this Guide.

---

17. On the **InstallShield Wizard Completed** pane, click **Finish**.

---

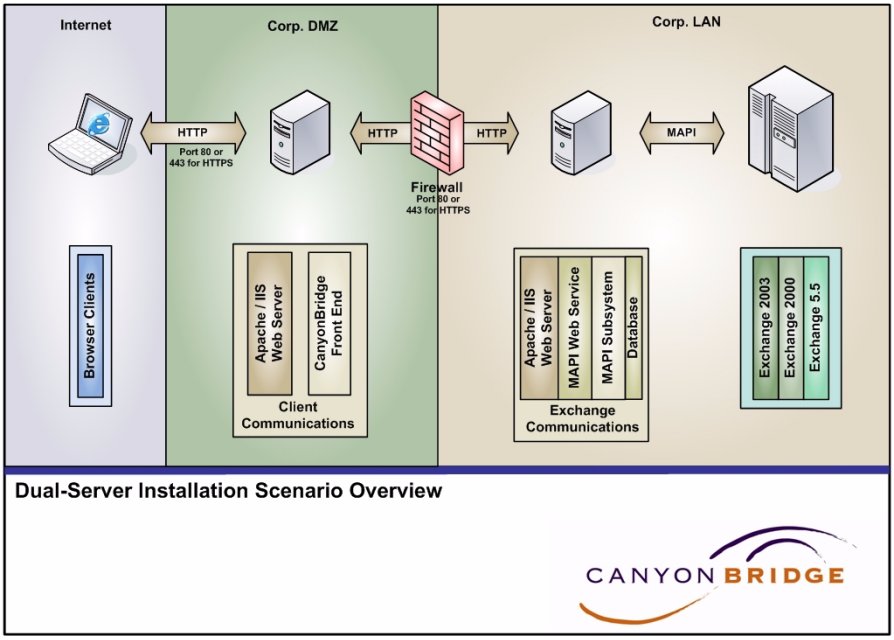
**Note** If you choose Apache, this installation process installs the Web server as an application that exits whenever you log out of your computer user account. If you want cbIntegrate Server to run even when you are logged off of your account, see Setting Apache to Run as a Service in the Apache Configurations chapter of this *Guide*.

---

18. If you chose the SQL Server database option on the **cbIntegrate Database** pane of the installation wizard, follow the instructions under Configuring cbIntegrate for SQL Server Access in the Advanced Configurations of cbIntegrate Server chapter of this *Guide*.

# Dual Server Installation

The Dual Server installation covered below provides extra security for your corporate data by creating two separate installs of cbIntegrate Server, one within your LAN (cbIntegrate Single Server Installation) and the other (DMZ Gateway Server Installation) in your DMZ (Demilitarized Zone). This places an extra layer of protection between your LAN-based Exchange server and all Web access, as indicated by the figure below. You should complete the cbIntegrate Single Server Installation before the DMZ Gateway Server Installation, because of dependency issues.



# cbIntegrate Single Server Installation

The cbIntegrate Single Server install provides:

- A cbIntegrate Server with a SOAP (Simple Object Access Protocol) Web service as an interface between the cbIntegrate Server protocol and the MAPI protocol
- A Web Server (for communication with the cbIntegrate Server DMZ Gateway Server)
- A Firebird database (for storing user preferences)
- In addition, you must have previously installed A MAPI subsystem on your cbIntegrate Server installation machine that can provide direct communication with your Exchange Server (see What You Must Have Before You Install in the Step 1: Preparing to Install chapter of this *Guide*).

If you have completed Step 1: Preparing to Install, click on the following link to complete the Single Server Installation of cbIntegrate Server.

# DMZ Gateway Server Installation

You need to have installed the cbIntegrate Single Server Installation portion of the Dual Server Installation, before you begin to install the DMZ Gateway Server

The DMZ Gateway Server install provides:

- A Web Server (for communications both with the cbIntegrate Single Server and clients browsing to the cbIntegrate Server application)
- The cbIntegrate Server application interface files (the CanyonBridge Front End)

➢ **To install cbIntegrate Server**

1. If you have completed Step 1: Preparing to Install, you are ready to install cbIntegrate Server.

---

**Note** You do not need to install the Exchange Admin Tools and Exchange Service Packs (see the Step 1: Preparing to Install chapter of this *Guide* for more details) for the DMZ Gateway Server Installation portion of a Dual Server Installation.

---

2. Ensure all server software or services using the port you selected are stopped or disabled. If you chose port 80, services you may need to stop include:

   - IIS (World Wide Web Publishing)
   - Any download managers (for example, Kazaa)
   - Another version of Apache

   a. To close these services, from the **Start** menu, choose (**Settings**) **Control Panel**.

   b. In the **Control Panel** double-click **Administrative Tools**.

   c. In the **Administrative Tools** window, double-click **Services**.

   d. In the **Name** column of the **Services** window, identify any of these kinds of services, right click on a service and from the popup menu, choose **Stop**.

   e. Close the **Services** and **Administrative Tools** windows.

3. If you are accessing this install online, download the software to your computer, then double-click **Setup.exe**.

   If you are accessing this install from a CD, from the root install directory, double-click **Setup.exe**.

   ---

   **Important** For performance and security reasons, this product does not install on a computer already hosting the Exchange server you want to access.

   ---

4. On the first pane of the **cbIntegrate Server - InstallShield Wizard**, click **Next**.

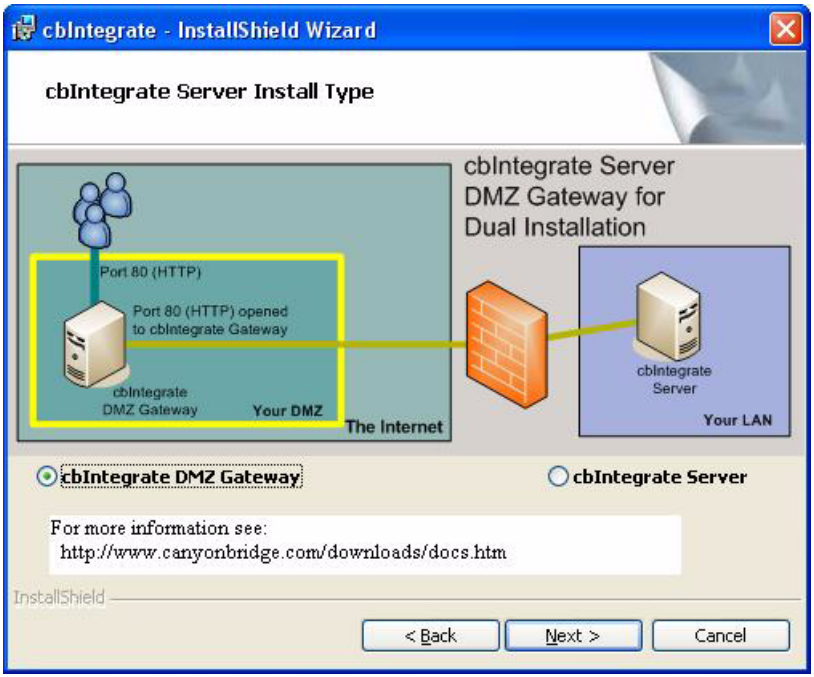
5. Read the **CanyonBridge End User License Agreement** (EULA) and if you agree to the terms and conditions in the EULA, choose **I accept the terms** in the license agreement, then click **Next**.

6. On the **HTTP Server Type** pane, choose either **Apache 2.0** or **IIS 5.1/6.0**, then click **Next**.

**Caution** If you choose the **IIS 5.1/6.0** option, you must ensure the IIS Admin service is not disabled, or the install fails. See Ensure IIS Services Are Enabled Prior to Installing in the Step 1: Preparing to Install chapter of this Guide for more information.

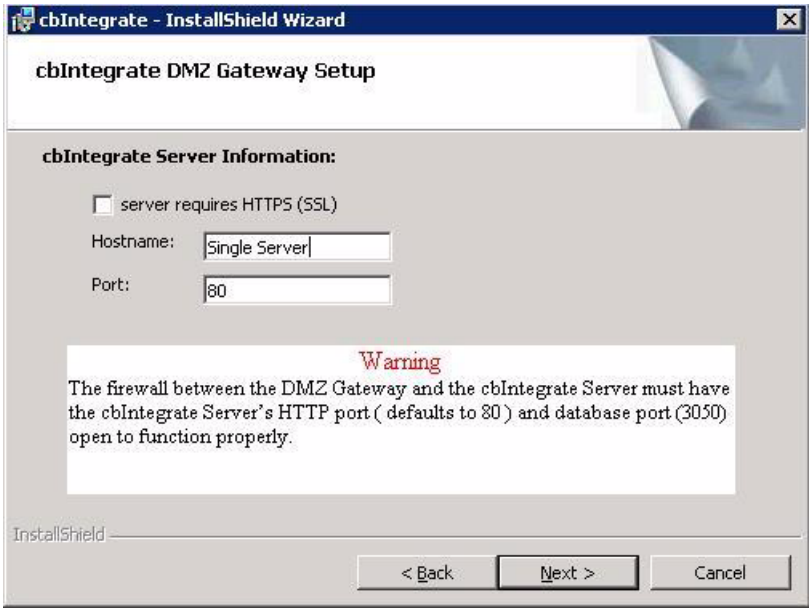
7. On the **Destination Folder** pane of the wizard, browse to the location where you want to install cbIntegrate Server, then click **Next**.

8. On the **Choose Your Setup Type** pane, choose **cbIntegrate DMZ Gateway**, then click **Next**.



9. On the **cbIntegrate DMZ Gateway Setup** pane of the wizard, in the **Hostname** type-in, provide the external DNS name or external IP address of the machine on which you installed the cbIntegrate Single Server (for example, *cbMail.jonesco.com*, or *12.175.36.218*).

10. Provide the port number you intend to use.




**Important** Be sure to open a port in your firewall to allow communication between your DMZ Gateway and you Single Server located inside your LAN.

a. If you set the Single Server to use only HTTPS, select the **server requires HTTPS (SSL)** box.

11. Click **Next**.

12. On the **Web Server Configuration** pane, you are presented several options for configuring cbIntegrate Server Web server access. You should already have determined your preferences for non-encrypted (HTTP) versus encrypted (SSL) communications at the time you completed the cbIntegrate Single Server Installation installation.

For a review of your basic options, click on the following link for step On the Web Server Configuration pane, you are presented with several options for configuring cbIntegrate Server Web server access. of the cbIntegrate Single Server Installation.

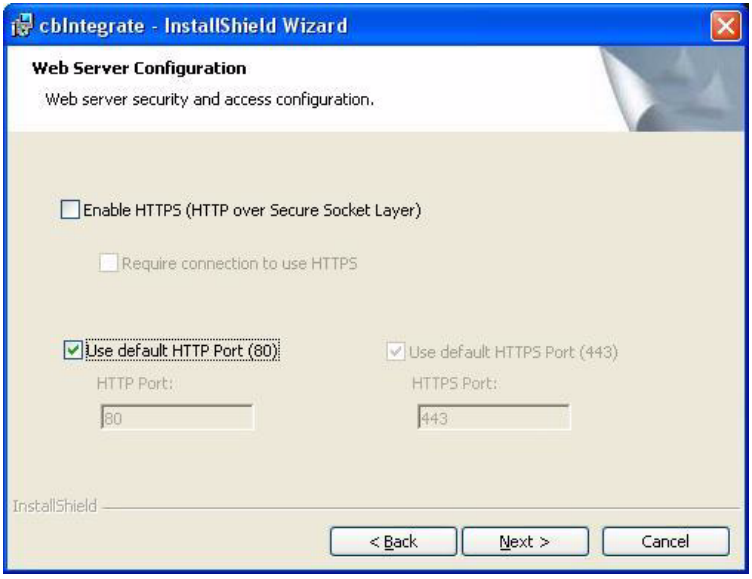
a. Choose your HTTP options:

- If you want to use only HTTP (no encryption) with default port 80, click **Next**, then proceed to step 10 of the main procedure, below.
- If you want to use only HTTP (no encryption), but you want to change the default port for HTTP access, deselect the **Use default HTTP port (80)** box, then in the **HTTP Port:** type-in, type the number of the port you want to use, then click **Next** and proceed to step 10, below.
- If you want to forward all HTTP traffic to HTTPS:

  i. Select the **Enable HTTPS (HTTP over Secure Socket Layer)** box.

     a. If you want to change the default port for HTTPS access, deselect the **Use default HTTP port (443)** box, in the **HTTPS Port:** type-in, type the number of the port you want to use, then click **Next**.

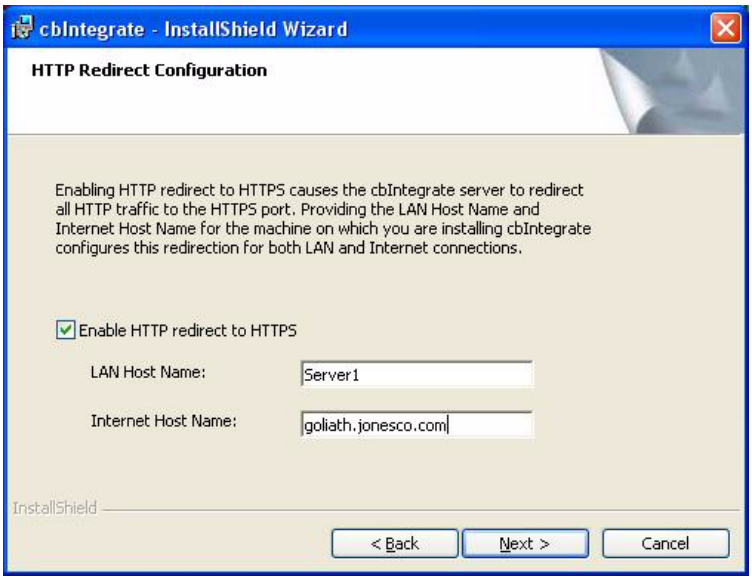
ii. Select the **Require connection to use HTTPS** box.




iii. Click **Next**.

iv. On the **HTTP Redirect Configuration** pane, select the **Enable HTTP redirect to HTTPS** box.

v. In the **LAN Host Name** type-in, type the local network DNS name or IP address of the machine on which you are installing cbIntegrate Server.




vi. In the **Internet Host Name** type-in, type the External DNS name or IP address of the machine on which you are installing cbIntegrate Server.

vii. Click **Next**.

b. Choose your HTTPS options:

- If you want to allow only HTTPS connections to cbIntegrate Server, select the **Enable HTTPS (HTTP over Secure Socket Layer)** box, then select the **Require connection to use HTTPS** box, click **Next**, then click **Next** again and proceed to step 10, below.

---

**Note** If you want to Enable HTTP redirect to HTTPS, see the procedure under the third bullet in sub-step a., above.

---

- If you want to allow both HTTP and HTTPS users to access the cbIntegrate Server, select the **Enable HTTPS (HTTP over Secure Socket Layer)** box, then click **Next** and proceed to step 10.

13. This step has two paths depending on whether you chose Apache or IIS as your Web server earlier.

    a. If you chose Apache server, on the **Ready to Install the Program** pane, click **Install**.

    b. If you chose IIS, on the **IIS Server Configuration** pane, type your Windows NT credentials in the appropriate type-ins, then click **Next**.


    c. On the **Ready to Install the Program** pane, click **Install**.

14. Wait while the InstallShield Wizard installs cbIntegrate Server.

15. On the **License Key Information** pane of the wizard, follow all the instructions under **Attention**.

**Important** You must obtain a different license key for both servers in a Dual Server Installation.

16. Once you have followed all of the instructions, select the check box below the yellow advisory sign, and click **Next**.

**Note** If you clicked **Next** prematurely, to obtain your cbIntegrate Server license key, see the Step 3: You Need a Key chapter of this *Guide*.

17. On the **InstallShield Wizard Completed** pane, click **Finish**.

**Note** If you choose Apache, this installation process installs the Web server as an application that exits whenever you logout of your computer user account. If you want cbIntegrate Server to run even when you are logged off of your account, see Setting Apache to Run as a Service in the Apache Configurations chapter of this *Guide*.

CHAPTER 6

# Step 3: You Need a Key

This chapter describes how to obtain a key to activate the cbIntegrate Server product.

**Note** The cbIntegrate Server runs only in the context of some other product (for example, cbConnect or cbForce). The key that you must have is the key for the particular product you are installing with cbIntegrate Server.

This chapter includes the following topic:

# Activating cbIntegrate Server

Before you can run cbIntegrate Server, you need to activate your cbIntegrate Server License.

cbIntegrate Server will not function properly until you have obtained a valid license from CanyonBridge. The procedure for obtaining a valid license differs, depending on whether you want:

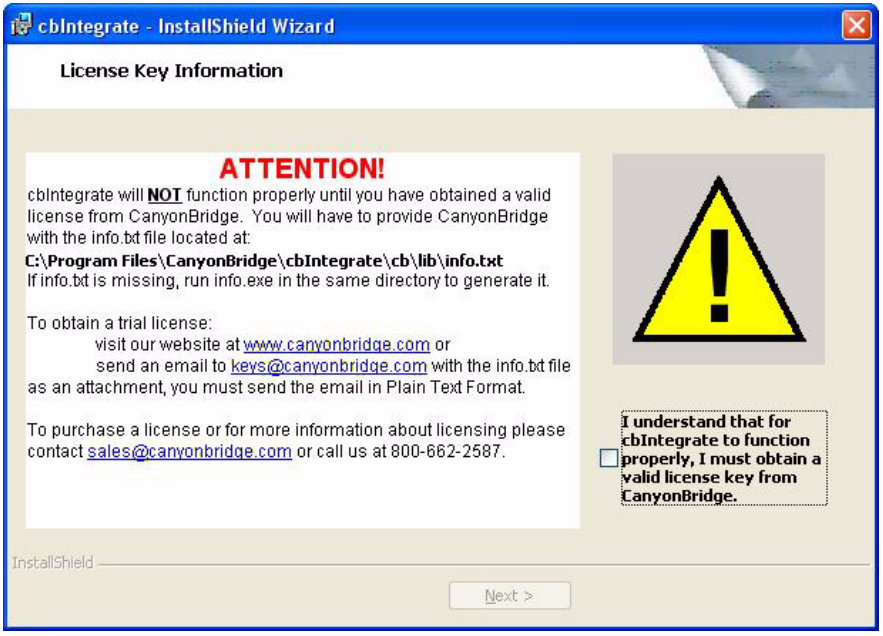
- To obtain a trial license
- To purchase a license

---

**Note** Whichever procedure you choose must be followed for both machines in a Dual Server Installation.

---

You encountered the graphic below during the installation of cbIntegrate Server. If you chose to click the check box without following the instructions, follow the appropriate procedure below to activate cbIntegrate Server at this time.



➢ **To obtain a trial license**

1. In Windows Explorer on your cbIntegrate Server, browse to `<YourInstallDir>\CanyonBridge\cbIntegrate\cb\lib\info.txt`.

---

**Note** If the info.txt is missing, run info.exe in the same directory to generate the file.

---

2. Attach the **info.txt** file to an e-mail addressed to *keys@canyonbridge.com*, then send the e-mail.

---

**Important** You must send the e-mail in Plain Text format.

---

3. You should quickly receive an e-mail response containing the keys you need and instructions for activating cbIntegrate Server. Follow the instructions contained in the e-mail reply.

➢ **To purchase a license**

1. To purchase a license, please contact sales@canyonbridge.com or call 1-800-662-2587.

CHAPTER 7

# Step 4: Running cbIntegrate Server


This chapter describes how to run cbIntegrate Server.There are separate tests for determining that cbIntegrate Server is functioning properly, depending on which Web server you run with cbIntegrate.

This chapter includes the following topics:

# Testing an IIS installation of cbIntegrate Server

Once you have installed cbIntegrate Server you should verify cbIntegrate Server is functioning properly. If this test fails, see the Readme for CanyonBridge cbIntegrate Server. You can also send an e-mail concerning installation issues to install@canyonbridge.com.

For an Apache install, see Testing an Apache Installation of cbIntegrate Server.

➢ **To test your installation of an IIS install**

1. Ensure that you have obtained a valid license key. See Step 3: You Need a Key.
2. From the **Start** menu, choose (**Settings**) **Control Panel**.
3. In the **Control Panel** double-click **Administrative Tools**. For IIS 6.0, skip steps 4 through 11.
4. In the Administrative Tools window, double-click **Internet Information Services**.
5. In the Internet Information Services window, expand the tree in the left pane of the window, starting with the node labeled with the name of the local machine, then expand the **Web Sites** node.
6. With the tree expanded, select, then right-click **cbIntegrate**.
7. From the menu that is invoked, choose **Properties**.
8. In the **cbIntegrate Properties** window, click the tab labeled **Home Directory**.
9. In the **Home Directory** tab, select the text contained in the **Local Path:** type-in. Be sure not to delete or in any other way change the text in the type-in. The only thing needed is to select the text. There appears to be a bug in Windows such that unless this text is selected, Windows does not handle the installation of cbIntegrate Server properly.
10. On the **cbIntegrate Properties** window, click **OK**.

11. Close the **Internet Information Services** window.

12. In the **Administrative Tools** window, choose **Services**.

13. In the **Name** column of the **Services** window, identify the **IIS Admin** and **World Wide Web Publishing** services. If you chose Secure Sockets Layers (SSL) connectivity as part of the install, identify the **HTTP SSL** service and perform the same steps on this service.

14. Right-click on either service and from the popup menu, choose **Restart** if the service is already started. If the service is stopped, choose **Start**.

15. Repeat the last step for the other service.

16. Close the **Services** window.

---

**Note** The default settings for the IIS, World Wide Web, and HTTP SSL services require manual start up. If you want cbIntegrate Server to launch on computer startup, see To set IIS services to launch on boot up in the IIS Configurations chapter of this *Guide*

---

17. On the computer on which you installed cbIntegrate Server, open a copy of the Internet Explorer Web browser and type either the name of your computer, or **localhost** into the **Address** type-in and press the ENTER key on your keyboard. Wait while the **Load cbIntegrate Server Resources** window displays the loading and caching of the cbIntegrate Server images. With an IIS installation, cbIntegrate Server does not actually launch until you access the service for the first time. Because of this, first time application launch is usually delayed for several moments.

---

**Important** Once the images are loaded, you are redirected to an application log-in window.You must have the proper key to access a particular application.See Step 3: You Need a Key, for more information.

---

18. The cbIntegrate Server provides a gateway to three different applications: cbConnect, cbForce, and the cbIntegrate Server Admin Tool. You can test any or all of these to ensure cbIntegrate Server is functioning properly. By default cbIntegrate redirects a user to cbConnect. See Changing the Default Application Displayed on Launch in the Configuring cbIntegrate Server

chapter of this *Guide* if you want cbForce to be displayed instead. To test any of these applications see:

- Testing the cbConnect Application
- Testing the cbForce Application
- Testing the Admin Tool

# Testing an Apache Installation of cbIntegrate Server

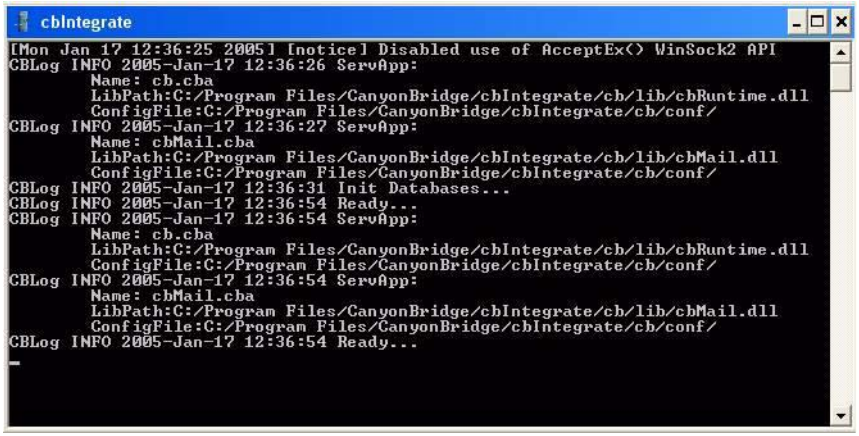
Once you have installed cbIntegrate Server and taken the steps for Activating cbIntegrate Server, you should verify cbIntegrate Server is functioning properly. If this test fails, see the Readme for CanyonBridge cbIntegrate Server. You can also send an e-mail concerning installation issues to install@canyonbridge.com.

For an IIS install, see Testing an IIS installation of cbIntegrate Server.

➢ **To test your installation of an Apache install**

1. To test your installation, from the **Start** menu, browse to **All Programs > CanyonBridge > cbIntegrate Server**, then double-click the **cbIntegrate Server** icon. This opens the cbIntegrate Server version of the Apache server window. Wait until **Ready...** appears in the upper left corner of the window.

**Note** When you launch cbIntegrate Server, the following line is displayed in the main server window: **Disabled use of AcceptEx() WinSock2 API**. This is not a cause for alarm, and is expected behavior.




2. On the computer on which you installed cbIntegrate Server, open a copy of the Internet Explorer Web browser and type either the name of your computer, or *localhost* into the **Address** type-in and press the ENTER key on your

keyboard. Wait while the **Load cbIntegrate Server Resources** window displays the loading and caching of the cbIntegrate Server images. This should only take a few moments.

---

**Important** Once the images are loaded, you are redirected to an application log-in window.You must have the proper key to access a particular application.See Step 3: You Need a Key, for more information.

---

3. The cbIntegrate Server provides a gateway to three different applications: cbConnect, cbForce, and the cbIntegrate Server Admin Tool. You can test any or all of these to ensure cbIntegrate Server is functioning properly. By default cbIntegrate redirects a user to cbConnect. See Changing the Default Application Displayed on Launch in the Configuring cbIntegrate Server chapter of this *Guide* if you want cbForce to be displayed instead. To test any of these applications see:

   - Testing the cbConnect Application
   - Testing the cbForce Application
   - Testing the Admin Tool

# Testing the cbConnect Application

cbConnect™ provides Web-based access to Microsoft Exchange Server's messaging and calendaring features. cbConnect supports all three versions of Exchange: 5.5, 2000, and 2003.

➢ **To test the cbConnect application**

1. In the application login window, click **Create New Account**.

2. In the **Create New Account:** window, type a username and password in the respective type-in boxes.

If you have already provided credentials for another application running on the cbIntegrate Server (such as cbConnect), select the **Check this if you already have an account on cbIntegrate Server** check box.

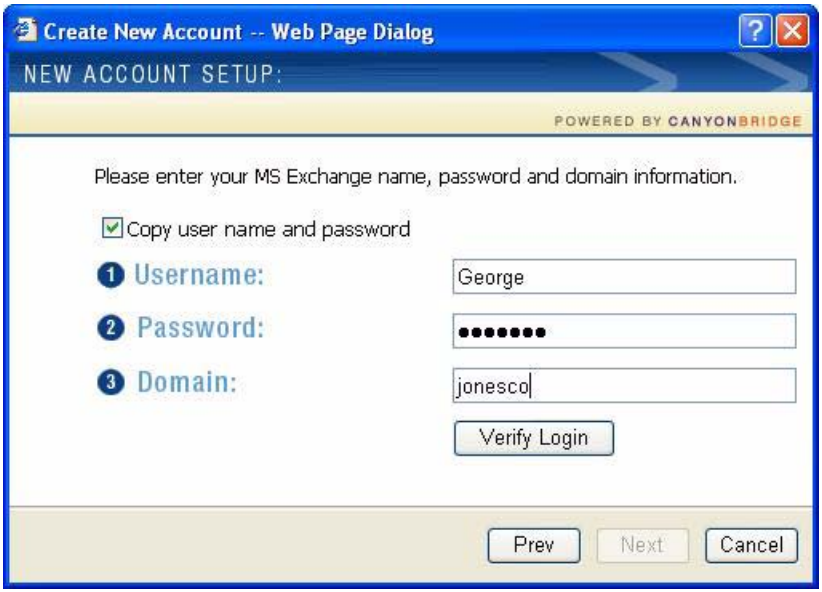
Click **Next**.

---

**Note** The credentials you supply here can be any you desire. cbIntegrate Server provides single point authentication so that you can choose a different user name and password than those needed on the next screen of the window to access your Exchange mail box.

---

3. When the **New Account Setup** window appears, type the appropriate information in the **Username:**, **Password:**, and **Domain:** boxes.




---

**Important** The Username and Password you supply should be the Windows NT/Exchange username and password you use to log in to the Exchange mailbox. The domain name you enter should be the name of the domain hosting the Exchange server you want cbIntegrate Server to access.

---

4. Click **Verify Login**. When the **Finish** button becomes enabled, click **Finish**.

5. Wait a moment while your inbox loads. Your cbConnect application is functioning.

---

**Important** If you use a popup blocker in your browser, you must allow popups for the cbConnect application site, or the cbConnect application does not function properly. For instance, each new mail message opened is considered a popup by most popup blockers.

---

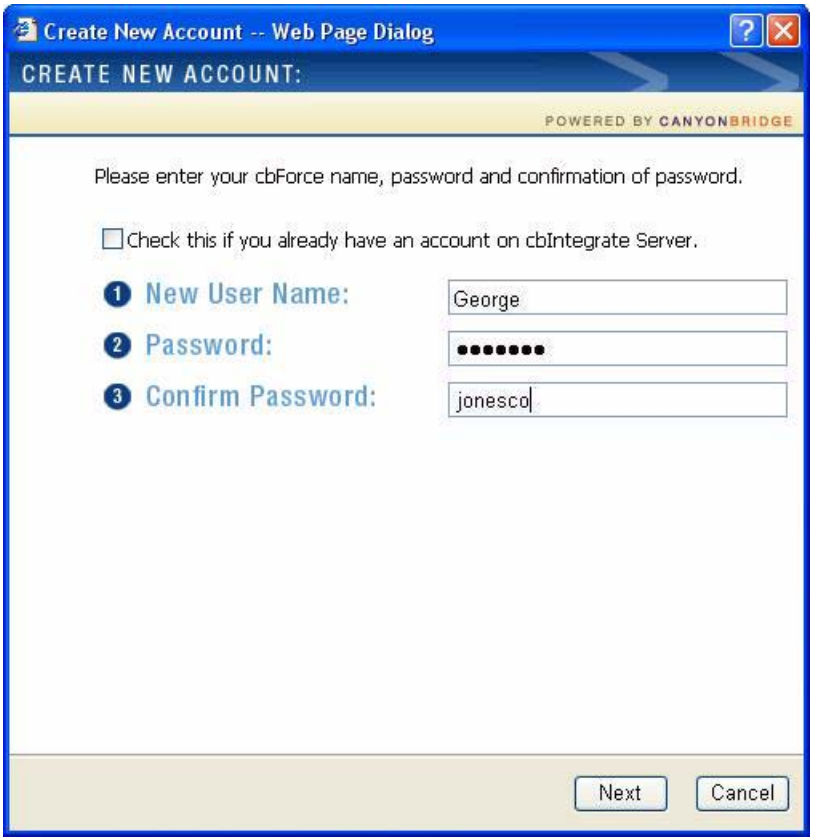
# Testing the cbForce Application

cbForce is the cbIntegrate Server-based application that integrates Microsoft Exchange messaging and calendaring access with salesforce.com data. cbForce provides a single, rich Web user interface combining a unified calendar and patent pending Smart Email™.

➢ **To test the cbForce application**

1. On the login page, click **Create New Account**.

2. In the **Create New Account:** window, type a username, password, (also confirm password) in the respective type-in boxes.



If you have already provided credentials for another application running on the cbIntegrate Server (such as cbConnect), select the **Check this if you already have an account on cbIntegrate Server** check box.

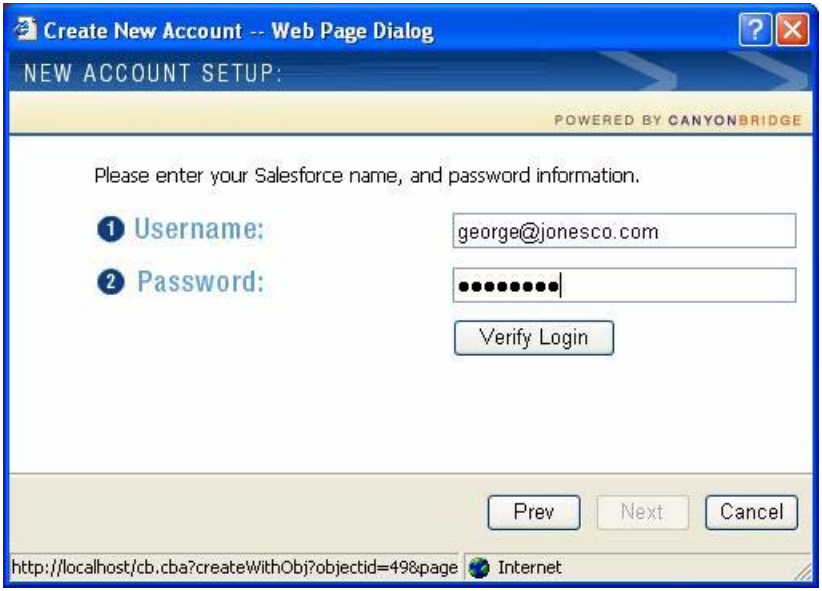
Click **Next**.

---

**Note** The credentials you supply here can be any you desire, however, it may be easiest for you to use the same credentials you already use to access your Exchange Server mail box. cbForce provides single point authentication so that you can choose a different user name and password than those needed on the next screen of the window to access your salesforce.com.com data.

---

3. When the **New Account Setup** window appears, type the appropriate *salesforce.com.com* information in the **Username:**, and **Password:** boxes.




---

**Important** The Username and Password you supply should be the salesforce.com.com username and password you use to log in to salesforce.com.com.

---

4. Click **Verify Login**. When the **Next** button becomes enabled, click **Next**.

5. Because cbForce is an integration of access to both salesforce.com.com and Microsoft Exchange messaging, on the next screen you must supply your Microsoft NT credentials to access your e-mail account (Username, password and domain).

---

**Important** By default, the **Copy user name and password** box is checked for single point of authentication purposes. If your credentials for Microsoft Exchange do not match the single point of authentication credentials you added in step 4, you need to change the username and password, as well as adding the domain on which you have access rights to Exchange.

---

6. When you are finished typing your credentials, click **Verify Login**.

7. Wait a moment for verification. When the **Finish** button is enabled, click **Finish**.

8. Wait a moment while your inbox loads. The cbForce application is functioning.

---

**Important** If you use a popup blocker in your browser, you must allow popups for the cbForce site, or cbForce will not function properly. For instance, each new mail message opened is considered a popup by most popup blockers.

---

Once you have verified cbForce opens correctly, you may want to learn how to make Smart Mail functional. To do so, see the Administering cbForce chapter of this *Guide*.

# Testing the Admin Tool

The Admin Tool provides you with a single location from which you can administer all applications that run on the cbIntegrate Server. You can quickly test the cbIntegrate Server Admin Tool by following the instructions under Accessing the cbIntegrate Server Admin Tool in the Using the cbIntegrate Server Admin Tool chapter of this *Guide*.

# Administering cbIntegrate Server


This section describes how to administer cbIntegrate Server.

This section includes the following chapters:

CHAPTER 8

# Configuring cbIntegrate Server

This chapter describes how to configure cbIntegrate Servers for optimal functioning.

The following topics are covered:

# Changing the Default Application Displayed on Launch

All cbIntegrate Server supported applications are installed with the server, regardless of whether or not a license has been granted for a particular application. When launching the server, the default behavior for an installation of cbIntegrate Server (no parameter specified) is to take the user to the cbConnect login screen.

If your organization has not purchased a license for cbConnect, clicking the **Create New User** button on the cbConnect login page causes an error message to be displayed.


➢ **To change the application displayed on cbIntegrate Server launch**

1. In Windows Explorer, navigate to `<YourInstallDir>\Program Files\CanyonBridge\cbIntegrate\cb`, and right-click the **index.htm** file, then click **Properties**.

2. On the **General** tab of the window that is invoked, deselect **Read-only**, then click **OK**.

3. Next, right click on the **index.htm** file, then open in your XML editor.

4. In the idex.htm file, find the line **var defaultAppName = "cbConnect";** near the top of the file, then change the word **cbConnect** to **cbForce** (case sensitive).

5. Save and close the file, then right-click and choose **Properties** again.

6. Select **Read-only**, then click **OK**.

7. Restart cbIntegrate.

8. Browse to the cbIntegrate Web page. You should be redirected to cbForce.

# Changing the Default Mail Service

For e-mail based CanyonBridge applications, the default mail service with which users must authenticate when logging in, is the cbMapi service that provides access to Microsoft Exchange Server. If your organization uses a different back-end mail server than Exchange as your primary mail system, you may want to change the default service in the ServAppConfig.xml file.

➢ **To change the default mail service**

1. In Windows Explorer, navigate to `<YourInstallDir>\Program Files\CanyonBridge\cbIntegrate\cb\conf`, right-click then open the **ServAppConfig.xml** file in your XML editor.

2. In the ServAppConfig.xml file, find the line containing `<DefaultProvider>cbMapi</DefaultProvider>` and replace **cbMapi** with the new service you want as the default, for example, **cbPop3**.

# Configuring Session Time Out Settings

The cbIntegrate Server software has a default session time out period of 30 minutes. If a user does not interact with a browser within that time, the cbIntegrate Server browser connection for that user times out. The user must re-authenticate in order to access data after a time out. A time out should always be a little longer than the time a typical user might leave their cbIntegrate Server session idle while they are engaged in other tasks.

You should be aware of the following before changing the time out value:

- If you adjust the TimeoutMinutes, you *must* also adjust the corresponding cbMailSOAPServiceSessionLifetimeMinutes to (TimeoutMinutes + 5)
- A typical acceptable range for TimeoutMinutes is > 30 and < 1440. Appropriate value depends on user load, expected user turnover rate, and available server resources

- <ReapIntervalMinutes> and <cbMailSOAPServiceReapIntervalMinutes> should always be set to 1.
- *None* of the four configurable time settings (TimeoutMinutes, ReapIntervalMinutes, cbMailSOAPServiceSessionLifetimeMinutes, or cbMailSOAPServiceReapIntervalMinutes) should ever be set to zero

---

**Important** You must follow the steps in the procedure below separately for both the cbIntegrate Single Server and the DMZ Gateway Server in a Dual Server Installation.

---

➢ **To change the time out settings**

1. In Windows Explorer, navigate to `<YourInstallDir>\Program Files\CanyonBridge\cbIntegrate\cb\conf`, and open the **ServAppConfig.xml** file in your XML editor.

2. In the ServAppConfig.xml file, find the line containing `<TimeoutMinutes>30</TimeoutMinutes>` and change **30** to the new time out value you want.

3. Next, find the line for `<cbMailSOAPServiceSessionLifetimeMinutes>35 <cbMailSOAPServiceSessionLifetimeMinutes>` and change **35** to a value at least five minutes greater than the new value of the TimeoutMinutes.

4. Save and close the ServAppConfig.xml file.

5. Restart cbIntegrate Server.

# Configuring Spell Checking in cbIntegrate Server

In cbIntegrate Server spell checking is configurable on a per server basis and is **on** by default.

➢ **To change the spell checking settings in cbIntegrate Server**

1. In Windows Explorer, navigate to navigate to `<YourInstallDir>\Program Files\CanyonBridge\cbIntegrate\cb\conf`, and select the **ServAppConfig.xml** file.

2. In your choice of an XML editor, open the **ServAppConfig.xml** file for editing.

3. Find the line of code that says `<aspell-status>on</aspell-status>` and change `on` to `off`.

4. Save your changes and close the ServAppConfig.xml file.

5. Restart the cbIntegrate Server.

# Configuring Internationalization Settings

cbIntegrate Server supports internationalization by default. To see the proper internationalization for your area, set your Windows OS on the cbIntegrate Server to the proper code page. If you have any questions, see Windows Help.

# Uninstalling cbIntegrate Server

The cbIntegrate Server uninstall process is quite simple.

**Important** If you installed on the NT4 operating system, for cbIntegrate to uninstall cleanly, you must follow the procedure To uninstall cbIntegrate Server on NT4, below.

➢ **To Uninstall cbIntegrate Server**

1. Stop the cbIntegrate Server. If cbIntegrate Server is running, you may encounter unexpected problems uninstalling.
2. From the **Start** menu, choose **Control Panel**, then in the **Control Panel**, double-click **Add or Remove Programs**.
3. In the **Add or Remove Programs** window, in the **Currently installed programs**: pane, select **cbIntegrate Server**, then click **Remove**.
4. Wait while cbIntegrate Server is removed. This may take a few minutes.
5. If your machine is running Windows 2000 or lower, restart your machine.

➢ **To uninstall cbIntegrate Server on NT4**

1. Stop the cbIntegrate Server. If cbIntegrate Server is running, you may encounter unexpected problems uninstalling.
2. From the **Start** menu, browse to **Programs > CanyonBridge > cbIntegrate**, then choose **Uninstall cbIntegrate**.
3. On the **Windows Installer** dialog, click **Yes**. Wait for cbIntegrate to uninstall.
4. Restart your machine.

CHAPTER 9

# IIS Configurations

This chapter describes how to configure cbIntegrate Servers for optimal functioning.

The following topics are covered:

# Obtaining an SSL Server Certificate and Key for IIS

CanyonBridge does not provide you with a default Secure Sockets Layer (SSL) server certificate and key for IIS. You can however, obtain a certificate and key directly from Microsoft.

If you choose to use SSL encryption long term, you may want to pay a professional service for a certificate and key. A search of the Web using the search term *SSL Certificate Authority* can provide you with several options. For short term solutions, you have two options, depending on which operating system you are running:

- IIS 5.0
- IIS 5.1 and 6.0

## IIS 5.0

Windows 2000 Server runs IIS 5.0. If you choose to use IIS 5.0 for your Web server, you can implement SSL using the instructions available when you click the following link: http://support.microsoft.com/kb/299875/EN-US/

## IIS 5.1 and 6.0

The procedure below applies equally to IIS 5.1 (Windows XP Pro--ten client limit) and IIS 6.0 (Windows Server 2003).

Microsoft released version 1.0 of the IIS 6.0 Resource Kit on May 30, 2003. The resource kit contains a utility called SelfSSL.exe to help you create and install a self-signed SSL testing certificate for use with IIS.

---

**Note** The tool, although intended for IIS 6.0, works equally well with IIS 5.1.

---

➢ **To Create a self-signed certificate using the IIS 6.0 Resource Kit's SelfSSL Utility**

1. Click the following link: Internet Information Services (IIS) 6.0 Resource Kit Tools.

2. Follow the instructions for downloading and installing the resource kit and tools.

3. From the **Start** menu, choose **All Programs > IIS Resources > SelfSSL** and click **SelfSSL**.

4. At the command prompt, type **selfssl** and press the ENTER key.

5. Type **Y**.

6. If you have *not* already done so, start the **HTTP SSL** service.

   a. To start the service, from the **Start** menu, choose (**Settings**) **Control Panel**.

   b. In the **Control Panel** double-click **Administrative Tools**.

   c. In the **Administrative Tools** window, double-click **Services**.

   d. In the **Name** column of the **Services** window, identify the **HTTP SSL** service.

   e. Right-click on either service and from the popup menu, choose **Start**.

7. To test if SSL is working, see Testing an IIS installation of cbIntegrate Server.

# Setting IIS Services to Launch on Boot Up

If you choose to install cbIntegrate Server on a machine running Internet Information Server (IIS) cbIntegrate Server runs as a service by default. However, if you want cbIntegrate Server to launch on the machine boot up, you need to set the associated services to do so.

---

**Tip** If you chose a Secure Sockets Layers (SSL) configuration for your installation of cbIntegrate Server, follow the same procedure for the HTTP SSL service.

---

➢ **To set IIS services to launch on boot up**

1. From the **Start** menu, choose (**Settings**) **Control Panel**.

2. In the **Control Panel** double-click **Administrative Tools**.

3. In the **Administrative Tools** window, double-click **Services**.

4. In the **Name** column of the **Services** window, identify the **IIS Admin** and **World Wide Web Publishing** services.

5. Right-click on either service and from the popup menu, choose **Properties**.

6. On the ***name of service*** **Properties (Local Computer)** window, click the tab labeled **General**.

7. In the **Startup type:** drop down box, click the arrow and select **Automatic**.

8. If you previously stopped the service, click **Start**.

9. Click **OK.**

10. Repeat the previous steps for the other service.

11. Click **OK.**

12. Close the **Services** and **Administrative Tools** windows.

# Changing the IIS Port Single Server Installation

By default, the Apache server installed with cbIntegrate Server is set to handle cbIntegrate Server traffic on port 80. If port 80 is already in use, you can choose a different port during the installation process. If you neglected to do so, you can choose a different port at any time by following the procedure below.

➢ **To set IIS to listen on a different port**

1. From the **Start** menu, choose **Control Panel**.

2. In the **Control Panel** double-click **Administrative Tools**.

3. In the Administrative Tools window, double-click **Internet Information Services**.

4. In the Internet Information Services window, expand the tree in the left pane of the window, starting with the node labeled with the name of the local machine, then expand the **Web Sites** node.

5. With the tree expanded, select, then right-click **cbIntegrate**.

6. From the menu that is invoked, choose **Properties**.

7. In the **cbIntegrate Properties** window, click the tab labeled **Web Site**.

8. In the **TCP Port:** type-in, type the new port number you have chosen for IIS communications.

9. On the **cbIntegrate Properties** window, click **OK**.

10. Close the **Internet Information Services** window.

11. Close the **Control Panel**.

# Changing the IIS Port Dual Server Installation

Although you can set the two servers in a Dual Server Installation to listen for traffic on different ports, you must also ensure that the DMZ Gateway Server points to the Single Server inside your firewall.

➢ **To set the IIS dual server install to listen on a different port**

1. If needed, for both the inside and outside servers, follow the procedure for Changing the IIS Port Single Server Installation.

---

**Note** Although it is not required, for the sake of convenience, you may want to use the same port number for the inside and outside servers.

---

2. On the machine containing your DMZ Gateway Server install, browse to `<YourInstallDir>\CanyonBridge\cbIntegrate\cb\conf`, select the **ServerAppConfig.xml** file, then right-click and open in your choice of an XML editor.

3. Next, browse to the section labeled `<MiddlewareConfig>`, and enable ("uncomment") the following code. To enable this code, simply remove the `<!--` and `-->` which bracket the two service sections.

```
<!--
        <Service>
          <Identifier>http://localhost/cb/cbMail.cba</Identifier>
```

```
    <BaseURL>http://localhost:8091/cb/cbMail.cba</BaseURL>
  </Service>
  <Service>
    <Identifier>http://localhost/cb/cbIntegrate.cba</Identifier>
    <BaseURL>http://localhost:8091/cb/cbIntegrate.cba</BaseURL>
  </Service>
-->
```

4. In the `<BaseURL>http://localhost:8091/cb/cbMail.cba</BaseURL>` line, change the machine name (default is localhost) to the name of the machine on which you installed the Internal Server.

---

**Note** You may also choose to use an HTTP address in place of a name. For example, you may choose `<BaseURL>http://10.1.0.114:8091/cb/cbMail.cba</BaseURL>`.

---

5. Next, replace the default port of 8091 appended to the machine name with the port you have chosen for the cbIntegrate Server installed as a Single Server Installation. This is necessary so that the DMZ Gateway Server can point to the correct port on the cbIntegrate Single Server.

6. Next, save your changes to the ServerAppConfig.xml file, stop the cbIntegrate Server, then restart cbIntegrate Server

CHAPTER 10

# Apache Configurations

This chapter describes how to configure cbIntegrate Servers for optimal functioning.

The following topics are covered:

# Enabling SSL in the Apache Version of cbIntegrate Server

The version of Apache that ships with cbIntegrate Server has been compiled to work with SSL (Secure Sockets Layers), and you can choose to enable SSL during the installation process. If you neglected to do so, you can enable SSL at any time by following the procedure below.

---

**Note** Enabling SSL on your cbIntegrate Server version of Apache server may decrease connection speed and overall performance in cbIntegrate Server, because of the encryption processing.

---

By default, SSL is configured to run over port 443. While it is possible to change the port number used for SSL (following the same procedure contained in Changing the Apache Port Single Server Installation, below), CanyonBridge recommends you use port 443, since that is the port most firewalls are pre-configured to use for SSL.

➢ **To configure SSL in cbIntegrate Server**

1. In Windows Explorer, navigate to *<YourInstallDir>*\CanyonBridge\cbIntegrate\Apache2\conf, select the **httpd.conf** file, right-click and choose an XML editor (such as Notepad) with which to open the file.

2. In the httpd.conf file, scroll to the very bottom of the file. You have a couple of different options for enabling SSL, depending on your degree of security concerns.

   a. If security is not a very high concern for you, and you want your end users to enjoy faster connection speeds and overall increased performance, you can provide your users with the option to choose between HTTP or HTTPS. This allows users to connect through HTTP except when a user deems a message sensitive enough to require encryption. To provide this option, simply add the following line of code:

      **Include "<*YourInstallDir*>\CanyonBridge\cbIntegrate\cb\conf\cbSSL.conf"**

**Important** Be sure to tell you users to connect to the cbIntegrate Server using the URL beginning with HTTPS when they want to send an encrypted message.

b. If you value security above all other considerations (including connection speed and overall performance), and you want your users to connect using SSL one hundred percent of the time, add the line of code given in step a. above, then comment out the line of code just above the one you added by typing # at the beginning of the line as shown below:

```
# Include
"<YourInstallDir>\CanyonBridge\cbIntegrate\cb\conf\cbHTTP.
conf"
```

c. If you want to redirect any HTTP requests to use SSL, after adding the line for SSL (provided in step 2 a. above) do the following:

**Note** If you are using SSL at all, it makes sense to use the redirect option provided here, as forgetting the "S" in HTTPS is an easy mistake for a user to make.

You should also note that user requests to http://localhost are not forced to redirect by this procedure, but function as normal. One the other hand, requests to http://*yourDNSName* are redirected to HTTPS.

i. Add a line of code at the bottom of the **httpd.conf** file that redirects all HTTP requests to your cbIntegrate Server to a secure connection using HTTPS:

**Include "<*YourInstallDir*>\CanyonBridge\cbIntegrate\cb\conf\cbRedirect.conf"**

ii. In Windows Explorer, navigate to *<YourInstallDir>*\CanyonBridge\cbIntegrate\cb\conf, select the **cbRedirect.conf** file, right-click and choose an XML editor (such as Notepad) to with which to open the file.

iii. In the cbRedirect.conf file, in the block of code bracketed by `<VirtualHost _default_:80> </VirtualHost>`, replace all occurrences of **hostname.mydomain.com** with the external Domain

Name System (DNS) name of the machine on which you installed cbIntegrate Server (for example, Chewbaca.jonesco.com).

iv. Next, in the block of code bracketed by `<VirtualHost hostname:80>` `</VirtualHost>`, replace all occurrences of **hostname** with the internal DNS name of the machine on which you installed cbIntegrate Server (for example, Chewbaca).

**Note** This include replacing the occurrence of **hostname** in <VirtualHost hostname:80> with the name of the machine.

3. Once you have configured your sever, save your changes and restart cbIntegrate Server.

# Updating the SSL Server Certificate and Key in Apache

CanyonBridge provides you with a default SSL server certificate and key.

**Note** A separate cbIntegrate Server *license* key is required for Activating cbIntegrate Server.

The certificate and key expire on December 14, 2014. The certificate and key are not registered with any certification service. If you want to update your server certificate and key, there are two options for doing so.

➢ **To update your SSL certificate and key**

1. You can use Apache to create your own certificate and key. The advantage is, you avoid paying someone else for a certificate and key. The drawback is, Internet Explorer (IE) does not recognize your Web server's authority to grant a certificate, so each time a user clicks through to your Web server, IE displays a warning stating that your certificate is not recognized.

If this is not a concern for you, creating your own certificate and key may be your best choice. To become your own certificate authority, see the Apache documentation at http://httpd.apache.org/docs-2.0/ssl/. You may also find the following Web page helpful: http://www-10.lotus.com/ldd/today.nsf/0/58e8b8277409a4f085256571005351c1?OpenDocument.

2. Alternatively, you can pay a professional service for a certificate and key. A search of the Web using the search term *SSL Certificate Authority* can provide you with several options.

# Setting Apache to Run as a Service

If you chose Apache as your Web server and you want cbIntegrate Server to be available even after you log off of your computer, you need to set the Apache server to run as a service.

---

**Important** You must associate the Apache service with a user account. Before you set Apache to run as a service, verify that the user account you want to associate with this service has permission to run cbIntegrate Server. To do this, ensure the username and password for this user account can be used to access cbIntegrate Server while cbIntegrate Server is still a stand-alone application.

---

➢ **To set Apache to run as a service**

1. Close any Web browser running the cbIntegrate Server application.

2. Close the cbIntegrate Server Apache server instance.

3. Right click the **Taskbar**, and in the popup menu choose **Task Manager**, and click the **Processes** tab.

4. In the **Image Name** column, inspect the list of applications running to be sure all Apache.exe instances have closed. If one instance is still running, right-click the **Apache.exe** process and in the popup menu, choose **End Process**.

5. From the **Start** menu, choose **All Programs > Accessories** and click **Command Prompt**.

6. In the **Command Prompt**, type *cd* and press the ENTER key on your keyboard.

7. Next, type **cd <*YourInstallDir*>\CanyonBridge\cbIntegrate\Apache2\bin,** and press the ENTER key.

8. Now, type **Apache.exe -k install**, and press the ENTER key.This installs the Apache EXE as a service. Next, you must you must set the permissions for the service.

9. Close the **Command Prompt** window.

10. From the **Start** menu, choose **Control Panel**, then in the **Control Panel**, double-click **Administrative Tools**.

11. In **Administrative Tools**, double-click **Services**.

12. In the **Name** column of the **Services** window, double-click **Apache2**.

13. In the **Apache2** properties window, choose the **Log On** tab.

14. In the **Log On as:** pane, choose **This account:** and type the name of the account under which you are currently logged in on your computer.

---

**Note** If you are not logged onto your computer, but rather logged on your domain, type your user name and domain like this: [*username@domain.com*], or [*domain\username*].

---

15. In the **Password:** type-in, type the password you use for your currently logged-in user account, then type your password again in the **Confirm password:** type-in.

16. Under **Service status:** click **Start**, then click **OK**.

17. Close the **Services** window, then close the **Administrative Tools** window.

# Changing the Apache Port Single Server Installation

If you chose Apache as your Web server, by default, the Apache server installed with cbIntegrate Server is set to handle cbIntegrate Server traffic on port 80 for HTTP, or port 443 if you are using HTTPS.

If port 80 or 443 is already in use, you can choose a different port during the installation process. You can also choose to redirect all HTTP traffic to HTTPS.

If the need to change one or both ports arises later, you can do so at any time by following the pertinent procedures below:

- To set Apache to listen on a different HTTP port
- To set Apache to listen on a different SSL port
- To set Apache to redirect HTTP traffic to a different HTTPS port

➢ **To set Apache to listen on a different HTTP port**

1. In Windows Explorer, navigate to *<YourInstallDir>*\CanyonBridge\cbIntegrate\cb\conf,then right-click the **cbHTTP.conf** file and open in your choice of an XML editor.

2. In the lines `Listen 80` and `<VirtualHost _default_:80>` replace the **80** with the port number you want to use instead.

3. Save and close the file.

4. Restart cbIntegrate Server.

➢ **To set Apache to listen on a different SSL port**

1. If you have not already done so, follow the procedure under Enabling SSL in the Apache Version of cbIntegrate Server, above.

2. In Windows Explorer, navigate to *<YourInstallDir>*\CanyonBridge\cbIntegrate\cb\conf,then right-click the **cbSSL.conf** file and open in your choice of an XML editor.

3. Perform a search for the lines `Listen 443` and `<VirtualHost _default_:443>` and replace **443** with the port number you want to use instead.

4. Save and close the file.

5. Restart cbIntegrate Server.

➢ **To set Apache to redirect HTTP traffic to a different HTTPS port**

1. If you have not already done so, follow the procedure under Enabling SSL in the Apache Version of cbIntegrate Server, above. Be sure to carefully follow the steps involving the cbRedirect.conf file.

2. In Windows Explorer, navigate to *<YourInstallDir>*\CanyonBridge\cbIntegrate\cb\conf,then right-click the **cbRedirect.conf** file and open in your choice of an XML editor.

3. If you previously changed the default port for HTTP connections, replace **80** in the line `Listen 80` with the port number you use instead. Do this for all instances of **80** in the file.

4. Locate the two instances of the line beginning `RewriteRule`, and replace the value **443** with the port number you want to use instead.

5. Save and close the file.

6. Restart cbIntegrate Server.

# Changing the Apache Port Dual Server Installation

Although you can set the two servers in a Dual Server Installation to listen for traffic on different ports, you must also ensure that the DMZ Gateway Server points to the Single Server inside your firewall.

➢ **To set Apache dual server install to listen on a different port**

1. If needed, for both the inside and outside servers, follow the procedure for Changing the Apache Port Single Server Installation.

   **Note** Although it is not required, for the sake of convenience, you may want to use the same port number for the inside and outside servers.

2. On the machine containing your DMZ Gateway Server install, browse to `<YourInstallDir>\CanyonBridge\cbIntegrate\cb\conf`, select the **ServerAppConfig.xml** file, then right-click and open in your choice of an XML editor.

3. Next, browse to the section labeled **<MiddlewareConfig>**, and enable ("uncomment") the following code. To enable this code, simply remove the `<!--` and `-->` which bracket the two service sections.

```
<!--
    <Service>
      <Identifier>http://localhost/cb/cbMail.cba</Identifier>
      <BaseURL>http://localhost:8091/cb/cbMail.cba</BaseURL>
    </Service>
    <Service>
      <Identifier>http://localhost/cb/cbIntegrate.cba</Identifier>
      <BaseURL>http://localhost:8091/cb/cbIntegrate.cba</BaseURL>
    </Service>
```

-->

4. In the **<BaseURL>http://localhost:8091/cb/cbMail.cba</BaseURL>** line, change the machine name (default is **localhost**) to the name of the machine on which you installed the Internal Server.

---

**Note** You may also choose to use an HTTP address in place of a name. For example, you may choose `<BaseURL>http://10.1.0.114:8091/cb/cbMail.cba</BaseURL>`.

---

5. Next, replace the default port of **8091** appended to the machine name with the port you have chosen for the cbIntegrate Server installed as a Single Server Installation. This is necessary so that the DMZ Gateway Server can point to the correct port on the cbIntegrate Single Server.

6. Next, save your changes to the ServerAppConfig.xml file, stop the cbIntegrate Server, then restart cbIntegrate Server.

CHAPTER 11

# Advanced Configurations of cbIntegrate Server

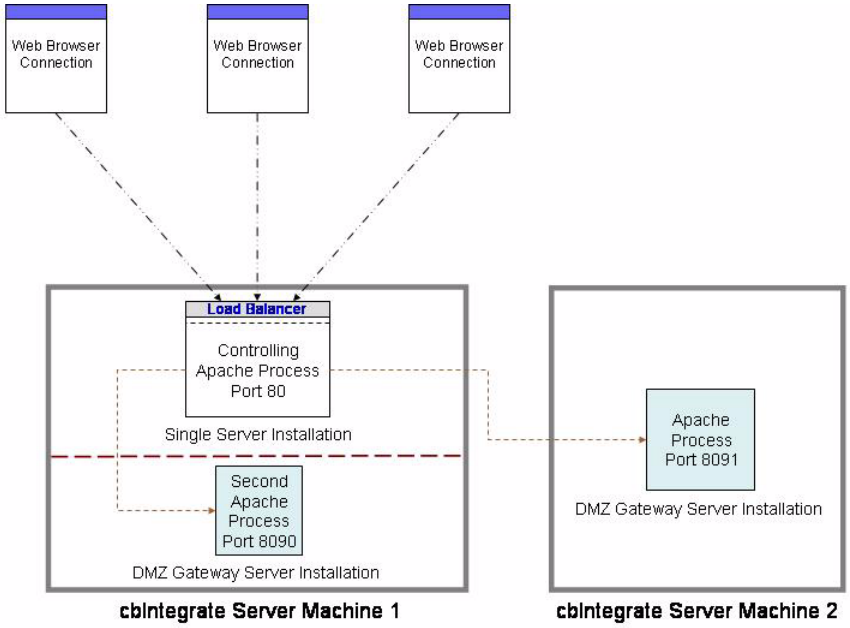
This chapter covers advanced load balancing configurations for cbIntegrate Server.

**Note** These configurations are currently available only to cbIntegrate Servers running on Apache Web servers. IIS is not yet supported in these configurations.

This chapter contains the following topics:

# Setting Up a cbIntegrate Server Farm

You can add to the automated load balancing capabilities of cbIntegrate Server by establishing a cbIntegrate Server farm. The easiest way to create a server farm is to install cbIntegrate Server on several machines, then use a hardware load balancer to control load balancing. If this is not an option, CanyonBridge provides a software process as shown below.




The very simplest server farm scenario consists of creating two installs on a single machine (one of the installs acts only as a load balancer) and another installation of cbIntegrate Server on a second machine in the same domain as your primary cbIntegrate Server machine. This scenario is illustrated in the graphic above. To create larger server farms, use the same principles to add further installations of cbIntegrate Server on secondary machines.

**Important** To avoid the issues caused by the installation of multiple databases, you should use the DMZ Gateway Server Installation version of cbIntegrate Server for all secondary installations in a cbIntegrate Server farm, though you do not install these secondary servers in the DMZ, nor do they function as gateway servers.

# Configuring Your Primary cbIntegrate Server

Before you can create a secondary installation of cbIntegrate Server on the machine you want to use for your load balancer, you must configure the primary (Single Server) installation so that the Windows Installer allows the second installation of cbIntegrate Server to occur.

➢ **To configure your primary server to accept a second cbIntegrate Installation**

1. Install cbIntegrate Server on a machine within your corporate environment.
2. If cbIntegrate Server is running, stop and close the server.
3. From the **Start** menu, choose (**Settings**) **Control Panel**.
4. In the **Control Panel** double-click **Administrative Tools**.
5. In the **Administrative Tools** window, double-click **Services**, then in the **Name** column, find and right-click **Firebird Guardian**.
6. In the popup menu, choose **Stop**.
7. In Windows Explorer, navigate to the installation directory (for example `C:\Program Files\CanyonBridge`) and change the install name (for example, from **CanyonBridge** to **CanyonBridge2**).

   **Note** The subsequent instructions throughout this procedure assume you have re-named your primary CanyonBridge installation directory **CanyonBridge2**. If you chose a different name, apply changes in accordance with the name you chose.

8. In Windows Explorer, browse to `<YourInstallDir>\CanyonBridge2\cbIntegrate` and delete the **cbIntegrate.FDB** file.

9. In Windows Explorer, browse to *<YourInstallDir>*\CanyonBridge2\cbIntegrate\Apache2\conf, select the **httpd.conf** file, then right-click and open in your choice of an XML editor.

10. Within your XML editor, do a search for CanyonBridge and replace all occurrences of **CanyonBridge** in the path instances in the file to **CanyonBridge2**, then save and close the httpd.conf file.

11. In Windows Explorer, browse to *<YourInstallDir>*\CanyonBridge2\cbIntegrate\cb\conf, select the **cbApache.conf** file, then right-click and open in your choice of an XML editor.

12. Within your XML editor, do a search for CanyonBridge and change all path instances in the file to **CanyonBridge2**, then save and close the ServAppConfig.XML file.

13. Repeat the CanyonBridge renaming process for the following files (located within the same conf folder):

    - **cbHTTP.conf**
    - **cbRedirect.conf**
    - **cbSSL.conf**
    - **ServAppConfig.xml**

14. Next, browse to *<YourInstallDir>*\CanyonBridge2\cbIntegrate\Firebird, select the **aliases.conf** file, then right-click and open in your choice of an XML editor.

15. Within your XML editor, do a search for CanyonBridge and change all path instances in the file to **CanyonBridge2**, then save and close the aliases.conf file.

16. Next, browse to *<YourInstallDir>*\CanyonBridge2\cbIntegrate\Firebird\bin, select the **copySecure32.bat** file, then right-click and open in your choice of an XML editor.

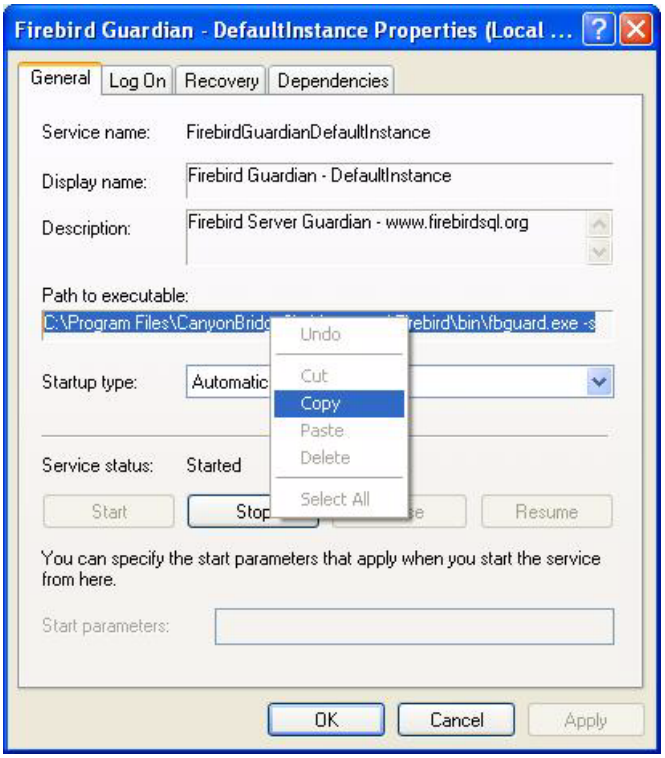
17. Within your XML editor, do a search for CanyonBridge and change all path instances in the file to **CanyonBridge2**, then save and close the copySecure.bat file.

18. Repeat the CanyonBridge renaming process for the following file (located within the same conf folder):

    createCbIntegrateDB.sql

19. In the Services window, right-click **Firebird Guardian** and choose **Properties**.

20. On the **General** tab in the **Path to executable:**, select the entire string, then right-click the selected string and from the popup menu, choose **Copy**.



21. From the **Start** menu, choose **Run**.

22. In the **Run** window, in the **Open:** type-in, type **regedit**, then click **OK**.

23. In the **Registry Editor** window, at the very top of the directory tree on the left, select **My Computer**.

24. In the **Edit** menu at the top of the page, choose **Find**.

25. In the **Find what:** type-in, right-click and choose **Paste**, then click **Find Next**.

26. When a value is high-lighted in the right-pane of the Registry Editor, double-click the high-lighted value.

27. In the **Edit String** window that is invoked, in the **Value data:** type-in, change **CanyonBridge** to **CanyonBridge2**, then click **OK**.


28. On your keyboard, press the **F3** button, and make the name change for any subsequent values detected.

29. When you have completed name changes for all values located with the Registry Editor search function, return to the **Services** window and right-click **Firebird Server** and choose **Properties**.

30. On the **General** tab in the **Path to executable:**, select the entire string, then right-click the selected string and from the popup menu, choose **Copy**.

31. In the **Registry Editor**, select **My Computer** at the top of the tree and do a search on the string you just copied, making name changes for any values you find with that string.

32. In Windows Explorer, browse to `<YourInstallDir>\CanyonBridge\cbIntegrate\Firebird` and in the Address type-in, select and copy the address string.

33. In the **Registry Editor**, select **My Computer** at the top of the tree and paste the string you just copied, then remove the **2** from **CanyonBridge2**.

34. Next, do a search on the string without the **2**. In the `HKEY_LOCAL_MACHINE\SOFTWARE\Firebird Project\Firebird Server\Instances` directory, double-click **DefaultInstance**, and change **CanyonBridge** to **CanyonBridge2**, then click **OK**.

35. Close the Registry Editor.

36. In the Services window, right-click **Firebird Guardian** and choose **Start**.

37. In Windows Explorer, browse to `<YourInstallDir>\CanyonBridge2\cbIntegrate\Firebird\bin`, and double-click **createCbIntegrateDB.bat**.

38. From the **Start** menu, choose (**Settings**) **Control Panel**.

39. In the **Control Panel** double-click **Add or Remove Programs**.

40. In the **Add or Remove Programs** window, in the **Currently installed programs**: pane, select **cbIntegrate Server**, then click **Remove**.

41. Wait while cbIntegrate Server is removed. This may take a few minutes.

42. If your machine is running Windows 2000 or lower, restart your machine.

# Creating and Configuring Secondary Installations

Once you have taken the steps for Configuring Your Primary cbIntegrate Server, you can install a second copy of cbIntegrate Server on your load balancing machine. Once you have done this, and properly configured the secondary installation, you can install and configure other copies of cbIntegrate Server on as many separate machines as you require for your server farm.

➢ **To set up a cbIntegrate Server farm**

1. Be sure you have followed the procedure To configure your primary server to accept a second cbIntegrate Installation.

2. On the same machine hosting your primary cbIntegrate Server, create a second installation of cbIntegrate Server (DMZ Gateway Server Installation) being sure to use a a different port (for example Port 8090).

3. Install the Exchange Admin Tools and Exchange Service Packs on a second machine (or more) in the same domain as your primary cbIntegrate Server

4. Properly install (see Step 1: Preparing to Install and Step 2: Installing cbIntegrate Server) the DMZ Gateway Server version of cbIntegrate Server on the second machine, being sure you are using the second machine to access the same Exchange Server as your primary cbIntegrate Server machine.

   **Important** You should use the DMZ Gateway Server Installation for all of the secondary installations in your server farm, though you do not install these secondary servers in the DMZ, nor do they function as gateway servers. Using this install avoids issues with multiple databases.

5. In Windows Explorer on your secondary cbIntegrate Server installations, browse to `<YourInstallDir>\CanyonBridge\cbIntegrate\cb\conf`, select the **ServAppConfig.xml** file, then right-click and open in your choice of an XML editor.

6. Next, locate the *two blocks* of code labeled **SERVER FARM** and enable this code (but not the block title) by removing the **<!--** and **-->** which bracket the actual code block.

7. Save and close the ServAppConfig.xml file.

8. From the **Start** menu on your secondary installations, browse to `All Programs > CanyonBridge > cbIntegrate Server`, and click **ProfileWizard**.

   If you see a message stating that the ServAppConfig.xml file is missing, you must complete the substeps below. If the Profile Wizard appears, skip the substeps.

   a. In Windows Explorer on your secondary cbIntegrate Server installations, browse to *<YourInstallDir>*`\CanyonBridge\cbIntegrate\cb\conf`, select and copy the **ServAppConfig.xml** file to *<YourInstallDir>*`\CanyonBridge\cbIntegrate\cb\lib`.

   b. From the **Start** menu on your secondary installations, browse to `All Programs > CanyonBridge > cbIntegrate Server`, and click **ProfileWizard**.

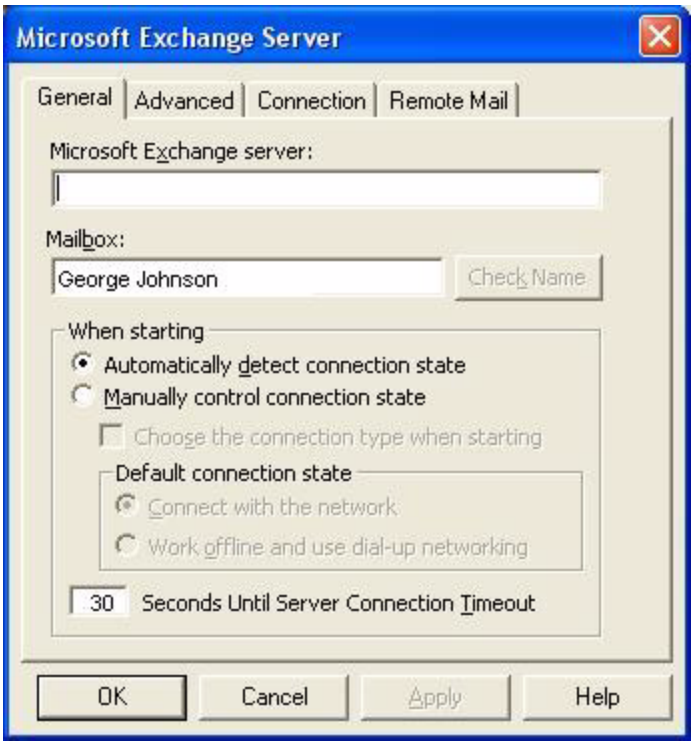
9. When the **Profile Wizard** appears, type a name in the **Profile Name** type-in, then click **Create Profile**>>.

**Note** If there is no response from the **Profile Wizard** when you click **Create Profile>>**, it is likely you have forgotten to Install the Exchange Admin Tools and Exchange Service Packs. You must do so before you can proceed.


a. If a profile by that name already exists, a message informs you of this and asks you to click **No** if you want to create a profile with a different name, or **Yes** to delete the old profile and add a new profile that uses the same name as the one you are deleting. Deleting the old profile does not cause any data loss.

b. If the name you type is not already in use, when you click **Create Profile**>>, a **Microsoft Exchange Server** window appears. In the **Microsoft Exchange server:** box, type the name of the Exchange server that contains your e-mail account.

**Caution** The server name you enter must be the same as the server name you used for the primary install, otherwise load balancing cannot function.




**Caution** Do not change the user name displayed in the Mailbox: type-in.This should be the user name under which you are logged onto the computer (which must have administrator rights—see Check Your User Rights in the Step 1: Preparing to Install chapter of this *Guide*). Changing this name causes cbIntegrate Server to malfunction.

10. Click **OK**. If there is any problem with this step, see the Microsoft **Help and Support** files in the **Start** menu.

11. On the **Profile Wizard** click **Finish**.

    If you needed to complete the substeps where you copied

12. In Windows Explorer on your *primary* cbIntegrate Server (now **CanyonBridge2**), browse to `<YourInstallDir>\CanyonBridge2\cbIntegrate\cb\conf`, select the **ServAppConfig.xml** file, then right-click and open in your choice of an XML editor.

13. Next, locate the block of code labeled **cbRuntime Middleware LoadBalancer** and enable this code (but not the block title) by removing the **<!--** and **-->** which bracket the actual code block.

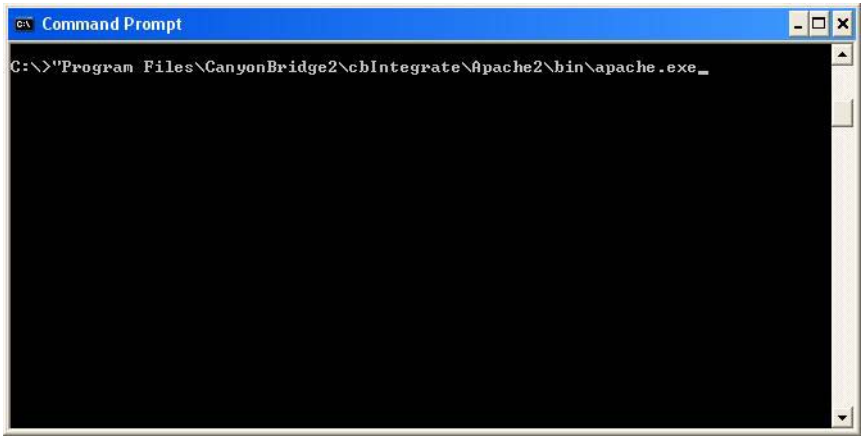
14. For each instance needed for the secondary installations, change the port or host name in the **Port** and **Hostname** lines to match the settings of the machine to which you want the instance to point, as in the example below:

```
<Instance>
 <Port>8090</Port>
 <Hostname>server1</Hostname>
 <Protocol>http</Protocol>
</Instance>
```

    **Note** You can add a new instance (by copying and pasting) below the last one in the Middleware Load Balancer code for each additional cbIntegrate Server machine you added to your farm.

15. Save and close the ServAppConfig.xml file, and stop the primary cbIntegrate Server (if running).

16. Restart the primary cbIntegrate Server. To start the primary server, you must open a command prompt, change directories to `<YourInstallDir>\CanyonBridge2\cbIntegrate\Apache2\bin\apache.exe`, then press the ENTER button on your keyboard.




17. Using the standard shortcut icon under **Start > All Programs > CanyonBridge > cbIntegrate**, start all secondary installations of cbIntegrate Server in your server farm.

    You server farm should now be functional. The load balancer detects each client that connects and distributes the load among all the servers on the farm. If there is an excessive load of concurrent client connections on any given server, the primary cbIntegrate Server machine can pass client requests to the other machines in the server farm to balance the load.

# Accessing Multiple Exchange Servers

cbIntegrate Server allows you to provide access to multiple Exchange servers both within a single domain and across domains.

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**Note** cbIntegrate Server supports access to multiple Exchange servers within a single domain for Exchange Server 2000 and Exchange Server 2003 installations. Exchange 5.5 is currently only supported in cbIntegrate server installations where Exchange 5.5 is the primary Exchange server. This is due to the lack of Active Directory integration for Exchange 5.5.

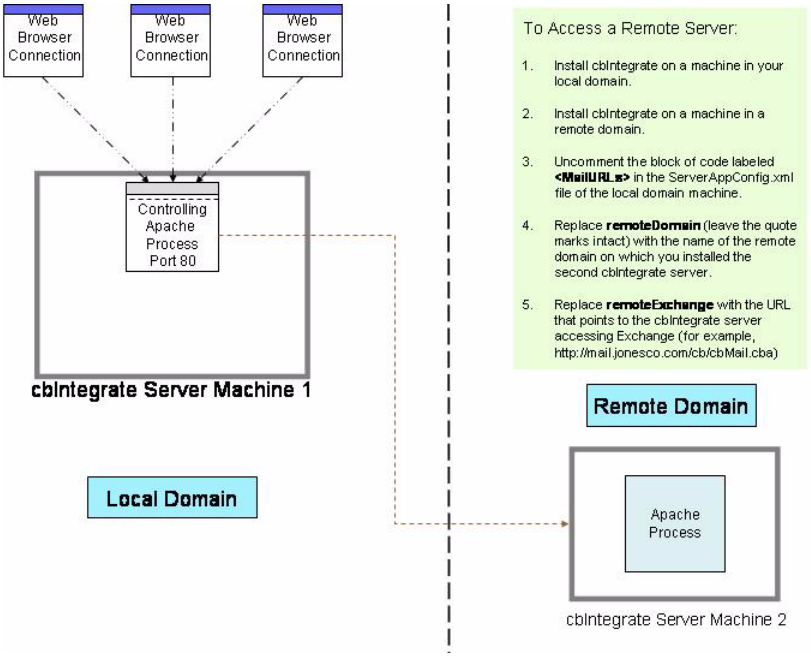
---

There are several basic configuration scenarios for providing access to Exchange servers across domains. The following configurations are covered:

- Configuring a Single Server for Remote Domain Access
- Configuring a Dual Install for Remote Domain Access
- Configuring a Server Farm for Remote Domain Access

# Configuring a Single Server for Remote Domain Access

If you have created a Single Server Installation on your primary cbIntegrate Server, and you want to provide access not only to a local Exchange server, but to another Exchange server located in a remote domain (whether within your LAN or at a remote site) you can do so by configuring your local machine as shown in the graphic below.




➢ **To provide access to multiple Exchange servers across domains (**Single Server Installation**)**

1. Properly install (see Step 1: Preparing to Install and Step 2: Installing cbIntegrate Server) two cbIntegrate Servers, one in each of two separate domains that access two separate Exchange Servers.

2. In Windows Explorer on your primary local cbIntegrate Server, browse to *<YourInstallDir>*\CanyonBridge\cbIntegrate\cb\conf, select the **ServAppConfig.xml** file, then right-click and open in your choice of an XML editor.

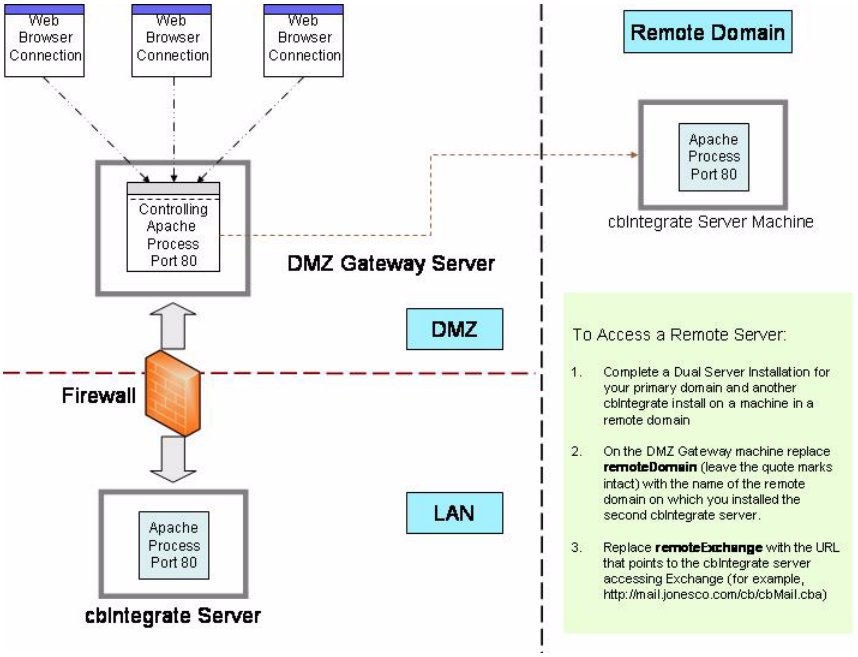
3. Next, find the block of code labeled **<MailURLs>** in the **cbMail.cba** application code and enable the **<MailURLs>** code by removing the **<!--** and **-->** which bracket the actual code block.

4. In the **MailURL** line of code, in the **name=** variable, replace **remoteDomain** (leave the quote marks intact) with the name of the remote domain on which you installed the second cbIntegrate Server.

5. In the same line of code, in the **value=** variable, replace **remoteExchange** with the URL that points to the cbIntegrate Server accessing Exchange (for example, http://mail.jonesco.com/cb/cbMail.cba).

# Configuring a Dual Install for Remote Domain Access

If you have installed cbIntegrate Server in a Dual Server Installation in your primary server installation, and you want to provide access not only to a local Exchange server, but to another Exchange server located in a remote domain (whether within your LAN or at a remote site) you can do so by configuring your local machine as shown in the procedure below.




➢ **To provide access to multiple Exchange servers across domains (**Dual Server Installation**)**

1. Properly create a Dual Server Installation install for your local primary cbIntegrate Server installation and, in a remote domain, a second cbIntegrate Server install, each accessing separate Exchange Servers.

2. In Windows Explorer on your local cbIntegrate Server DMZ Gateway Server, browse to `<YourInstallDir>\CanyonBridge\cbIntegrate\cb\conf`,

select the **ServAppConfig.xml** file, then right-click and open in your choice of an XML editor.

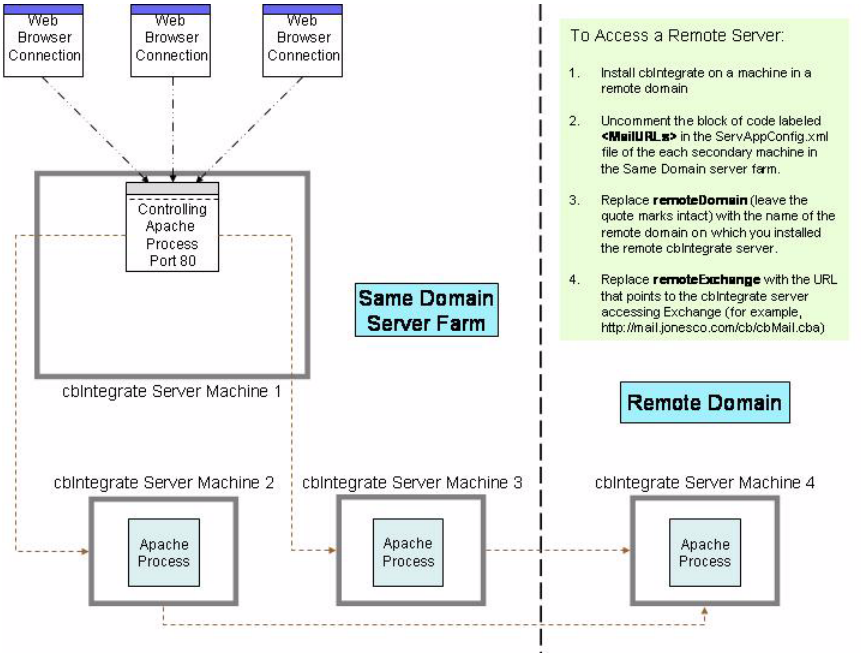
3. Next, find the block of application code labeled **<cbMail.cba>** and enable the code by removing the **<!--** and **-->** which bracket the actual code block (before and after the lines that say <Application> and </Application>).

4. In the **MailURL** line of code, in the **name=** variable, replace **remoteDomain** (leave the quote marks intact) with the name of the remote domain on which you installed the second cbIntegrate Server.

5. In the same line of code, in the **value=** variable, replace **remoteExchange** with the URL that points to the cbIntegrate Server accessing Exchange (for example, http://mail.jonesco.com/cb/cbMail.cba).

# Configuring a Server Farm for Remote Domain Access

If you are interested in Setting Up a cbIntegrate Server Farm and you want to provide access not only to a local Exchange server, but to another Exchange server located in a remote domain (whether within your LAN or at a remote site) you can do so by configuring your local machine(s) as in the graphic below, then following the steps in the associated procedure.




➢ **To provide access to multiple Exchange servers across domains (cbIntegrate Server farm configuration)**

1. Properly create cbIntegrate Server installs (see Step 1: Preparing to Install and Step 2: Installing cbIntegrate Server) on a server farm on your local primary domain with another cbIntegrate Server install on a separate domain. The separate cbIntegrate Server installations must access two separate Exchange Servers.

2. In Windows Explorer on your primary cbIntegrate Server, browse to *<YourInstallDir>*\CanyonBridge\cbIntegrate\cb\conf, open the **templates** folder, select the **ServAppConfig.xml** file, then right-click and open in your choice of an XML editor.

3. Next, find the block of code labeled **<MailURLs>** and enable the code by removing the **<!--** and **-->** which bracket the actual code block.

4. In the **MailURL** line of code, in the **name=** variable, replace **remoteDomain** (leave the quote marks intact) with the name of the remote domain on which you installed the remote cbIntegrate Server.

5. In the same line of code, in the **value=** variable, replace **remoteExchange** with the URL that points to the cbIntegrate Server accessing Exchange (for example, http://mail.jonesco.com/cb/cbMail.cba).

# Configuring cbIntegrate for SQL Server Access

If you chose SQL Server as your database when completing Step 2: Installing cbIntegrate Server, you must configure cbIntegrate Server to support SQL Server.

---

**Important** Prior to following the steps in the procedure below, you must have read and followed the advisories and instructions pertaining to SQL Server in the Step 1: Preparing to Install chapter of this *Guide*.

---

➢ **To configure cbIntegrate Server to access your SQL Server**

1. In Windows Explorer, navigate to *<YourInstallDir>*\Program Files\CanyonBridge\cbIntegrate\cb\conf, and open the **ServAppConfig.xml** file in your XML editor.

2. At the bottom of the SerAppConfig.xml file, find the following lines of code that provide access to the Firebird Database:

```
<Driver path="FirebirdLib.dll" defaultMaxConnections="50"
  defaultGrowSize="5" defaultMinTimeout="100"
  defaultMaxTimeout="2000" />

<DirectoryURL>cbdbc:firebird://localhost/
  cbIntegrate?User=sysdba&amp;Password=masterkey</DirectoryURL>
```

```
<Database>cbdbc:firebird://localhost/
  cbIntegrate?User=sysdba&amp;Password=masterkey</Database>
```

3. Disable those lines of code by typing `<!--` at the beginning of the line of code that begins `<Driver path=` and `-->` after the line of code. ending `</Database>`.

4. Just above the lines of code for Firebird you disabled, locate the three lines of code given below that provide access to the SQL database.

```
<Driver path="ADO.dll" defaultMaxConnections="50"
  defaultGrowSizez="5" defaultMinTimeout="100"
  defaultMaxTimeout="2000" />

 <DirectoryURL>cbdbc:ADO://localhost/ado?Provider=SQLOLEDB&amp;
   Data Source=YOURSQLSERVERNAME&amp;Initial Catalog
   =cbIntegrate&amp;Integrated Security=SSPI</DirectoryURL>

 <Database>cbdbc:ADO://localhost/ado?Provider=SQLOLEDB&amp;
   Data Source=YOURSQLSERVERNAME&amp;Initial Catalog
   =cbIntegrate&amp;Integrated Security=SSPI</Database>
```

5. Enable these lines of code by removing the `<!--` just above the line starting `<Driver path="ADO.dll"` and the `-->` just below the line beginning `<Database>cbdbc:ADO`.

6. In the lines of code supplied above, be sure to replace the string YOURSQLSERVERNAME with the name of the machine on which you installed SQL Server.

7. If you named the database intended for cbIntegrate Server something other than cbIntegrate, you must replace the name **cbIntegrate** in the lines of code supplied above with the name you gave the database.

8. Save your changes and close the ServAppConfig.xml file. You should now proceed to Step 3: You Need a Key.

# Setting Database Driver Parameters

Setting connection parameters on the drivers for the database associated with cbIntegrate Server allows you to control database access and usage.

These parameters include the maximum number of connections created as a "pool" from which to quickly connect a user to the database, the number of connections by which to "grow" the pool as existing connections are used, and the minimum and maximum time settings (in milliseconds) to wait for connections to sever.

---

**Note** cbIntegrate Server uses ObjSQL as an interface to other databases such as Firebird. The ObjSQL connections are the only connections pooled.

---

## List of Parameter Options

- **defaultMaxConnections** - (0 means unlimited) - the maximum number of connections that cbIntegrate Server creates and keeps open to a database server such as Firebird
- **defaultGrowSize** - the number of connections the pool grows by when all connections in the pool are in use, or when the defaultMinTimeout is reached

  ---

  **Note** defaultGrowSize causes creation of a pool of connections on startup of the cbIntegrate Server.

  ---

- **defaultMinTimeout** - the length of time (in milliseconds) cbIntegrate Server waits for a connection to return to the pool before allocating new connections
- **defaultMaxTimeout** - the length of time (in milliseconds) the cbIntegrate Server waits for a connection to release back to the pool before throwing an exception, once the number of connections in use reaches the defaultMaxConnections setting

➢ **To set the database driver parameters**

1. In Windows Explorer navigate to *`your installation director`*`\CanyonBridge\cbIntegrate\cb\conf`, and open the **ServAppConfig.xml** file in your XML editor.

2. With the **ServAppConfig.xml** file open, find the block of code beginning **`<Driver path="ObjSQL.dll"`**.

3. Change any of the default settings as desired.

# Administering Applications in cbIntegrate Server

This section describes how to administer applications running on cbIntegrate Server.

This section includes the following chapter:

- Using the cbIntegrate Server Admin Tool
- Administering cbForce

CHAPTER 12

# Using the cbIntegrate Server Admin Tool

This chapter describes how to administer specific aspects of cbForce and cbConnect.

This chapter includes the following topics:

# Understanding the cbIntegrate Server Admin Tool

The cbIntegrate Server provides a very basic administration tool to help you add and remove users to and from the data stores associated with both the cbIntegrate Server and any applications running on the server. The Admin Tool provides you with a single location from which you can administer all applications that run on the cbIntegrate Server.

## Understanding Single Point Authentication

One of the main advantages provided by the cbIntegrate Server is the ability to create a single set of logon credentials (name and password) that a user can associate with the logon credentials for disparate applications. This capability is known as Single Point of Authentication (SPA). The SPA user credentials are those you can add and delete through the Admin Tool.

With SPA, a user can create a username/password combination (for example, Jim/bart40) for cbIntegrate Server, and then associate that username/password with the Windows NT/Exchange logon credentials (suppose JimE/boston231) needed to access cbConnect or cbForce. The same user can also associate the same cbIntegrate Server set of SPA credentials with a username and password for salesforce.com as part of the logon to cbForce. Once the association has been made, the user need only type the SPA password to log on to cbConnect and cbForce.

**Note** The SPA user name only is case insensitive.

# Accessing the cbIntegrate Server Admin Tool

Before you can begin to use the Admin Tool, you must first access the tool on the cbIntegrate Server.

**Important** To access the Admin Tool the first time, and until you change the default password, you must browse to the tool from the physical machine on which you have installed the cbIntegrate Server.

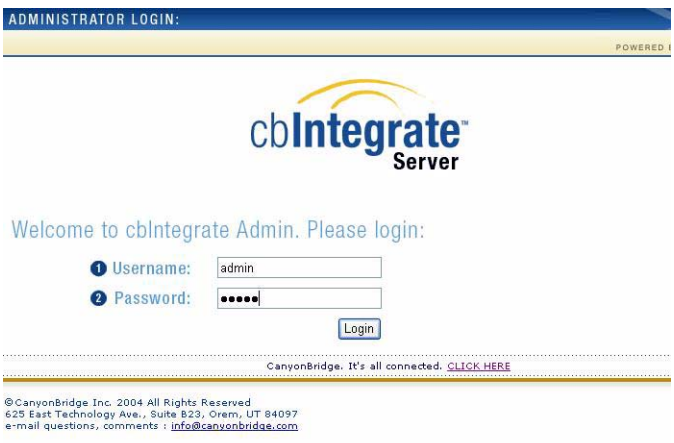
➢ **To use the cbIntegrate Server Admin Tool**

1. With cbIntegrate Server running, in a Web browser address type-in, type the name of the machine running cbIntegrate Server. The machine name resolves to a URL (for example, http://yip/cb.cba?run?appName=cbForce).

2. Next, change the application name on the end of the URL to the name of the Admin Tool, which is **cbIntegrateAdmin** (for example, http://yip/cb.cba?run?appName=**cbIntegrateAdmin**), then press ENTER.

   **Important** **cbIntegrateAdmin** is case sensitive.

3. On the **Administrator Login:** page, type **admin** (all lowercase letters) in both the **Username:** and **Password:** boxes, then click **Login**.



**Important** For security reasons, you should change your administrator password immediately when the window pops up. To do this, Under the heading labeled **User Accounts**, click **Change Administrator Password**, then provide both the default password (**admin**) and a new password in the appropriate type-ins before clicking **OK**. Once the password has been changed, you may access the Admin Tool from a remote machine. Prior to changing the password, you are unable to do so.

# Using the Admin Tool

Once you have accessed the Admin Tool, you can use the tool to accomplish various tasks both on cbIntegrate Server, and the applications running on the server. In this section, the following topics are covered:

- Adding a New User
- Deleting a User from cbIntegrate Server
- Deleting a User from an Individual Application

## Adding a New User

New users may be added within the context of an application running on cbIntegrate Server, but not directly to the server itself. You may choose:

- To add a new user to cbConnect
- To add a new user to cbForce

**Note** User themselves are also able to create an account through the application log on page.

➢ **To add a new user to cbConnect**

1. Log on to the Admin Tool.
2. In the **Folder List** at the left, expand the **Provisions** node of the tree.
3. Expand the **Directory** node.
4. Expand the **Applications** node.
5. Select **cbForce**.
6. Once you have selected an application, the **New User** icon becomes active. Click the icon.
7. In the **Create New Account:** window, type a username, password, (also confirm password) in the respective type-in boxes.

**Note** This pane of the **Create New Account** wizard is the same regardless of application, since the pane allows you to provide the credentials for a user account that can be used to access any application running on cbIntegrate Server. This is the Single Point Authentication (SPA) referenced above.


If you have already provided credentials for another application running on the cbIntegrate Server (such as cbForce), select the **Check this if you already have an account on cbIntegrate Server** check box.

Click **Next**.

**Note** If you do not already have an account on cbIntegrate Server, the credentials you supply here can be any you desire. cbIntegrate Server provides single point authentication so that you can choose a different user name and password than those needed to access either your Exchange or your salesforce.com data.

8. On the next screen that you must supply the appropriate Microsoft NT credentials to access the user's e-mail account.


**Important** By default, the **Copy user name and password** box is checked for single point of authentication purposes. If your credentials for Microsoft Exchange do not match the single point of authentication credentials you added in step 4, you need to change the username and password, as well as adding the domain on which you have access rights to Exchange.

9. When you are finished typing your credentials, click **Verify Login**.

10. Wait a moment for verification. When the **Finish** button is enabled, click **Finish**.

➢ **To add a new user to cbForce**

1. Log on to the Admin Tool.
2. In the **Folder List** at the left, expand the **Provisions** node of the tree.
3. Expand the **Directory** node.
4. Expand the **Applications** node.
5. Select **cbForce**.
6. Once you have selected an application, the **New User** icon becomes active. Click the icon.
7. In the **Create New Account:** window, type a username, password, (also confirm password) in the respective type-in boxes.

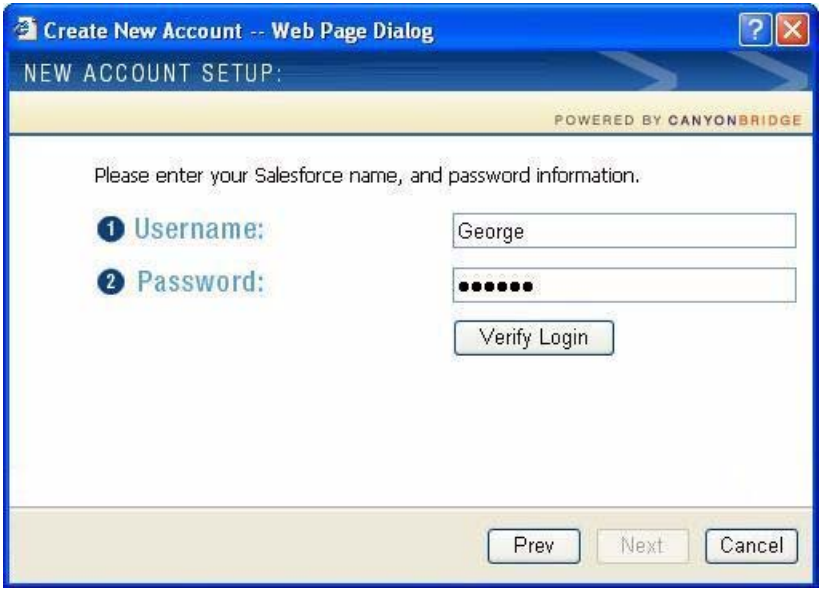
**Note** This pane of the **Create New Account** wizard is the same regardless of application, since the pane allows you to provide the credentials for a user account that can be used to access any application running on cbIntegrate Server. This is the Single Point Authentication (SPA) referenced above.


If you have already provided credentials for another application running on the cbIntegrate Server (such as cbConnect), select the **Check this if you already have an account on cbIntegrate Server** check box.

Click **Next**.

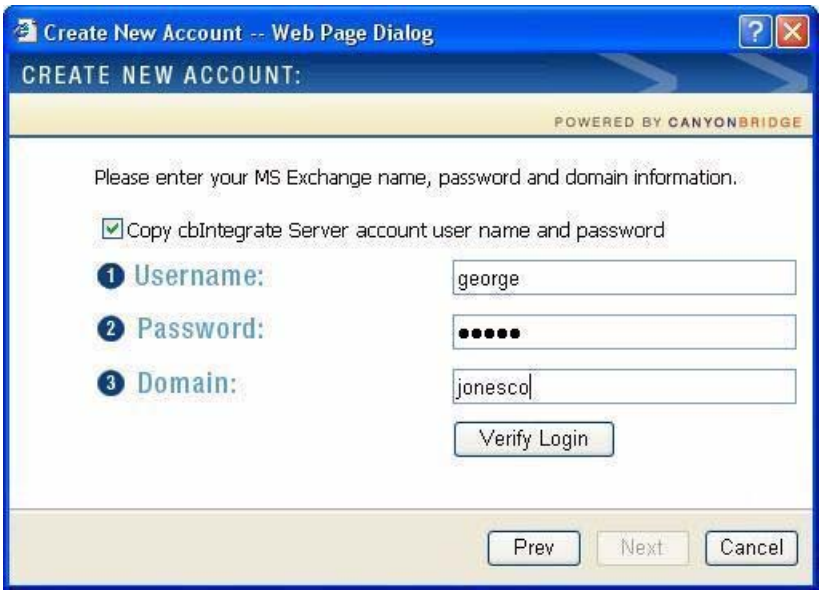
**Note** If you do not already have an account on cbIntegrate Server, the credentials you supply here can be any you desire. cbIntegrate Server provides single point authentication so that you can choose a different user name and password than those needed to access either your Exchange or your salesforce.com data.

8. When the **New Account Setup** window appears, type the appropriate *salesforce.com* information in the **Username:**, and **Password:** boxes. These are the salesforce.com username and password the user uses to log in to salesforce.com.




9. Click **Verify Login**. When the **Next** button becomes enabled, click **Next**.

10. Because cbForce is an integration of access to both salesforce.com and Microsoft Exchange messaging, on the next screen you must supply the appropriate Microsoft NT credentials to access the user's e-mail account.




**Important** By default, the **Copy user name and password** box is checked for single point of authentication purposes. If your credentials for Microsoft Exchange do not match the single point of authentication credentials you added in step 4, you need to change the username and password, as well as adding the domain on which you have access rights to Exchange.

11. When you are finished typing your credentials, click **Finish**.

12. The user can now log on to cbForce.

# Deleting a User from cbIntegrate Server

Although you can not directly add a user to cbIntegrate Server, you can delete a user from the server. Deleting the user from the cbIntegrate Server deletes (at the same time) the user from all applications running on the server.

Removing the user from cbIntegrate Server has the effect of removing the user from all applications as well as removing the "single sign on" Single Point Authentication account for that user which is used by all the applications running on cbIntegrate Server.

➢ **To delete a user from the cbIntegrate Server (all applications)**

1. Log on to the cbIntegrate Server Admin Tool.
2. In the **Folder List** at the left, expand the **Provisions** node of the tree.
3. Expand the **Directory** node.
4. Select **Users**.
5. Type the name of the user in the **Lookup:** type-in, or select the name in the list displayed below.
6. When the appropriate user is highlighted in the list of users, click **Remove User**.
7. A message is displayed asking if you want to proceed with the permanent removal of the user. Verify that you have selected the appropriate user. If so, Click **OK**.

# Deleting a User from an Individual Application

You can delete a user from a single application. Removing a user from an individual application data store does not remove the user from cbIntegrate Server, or delete the Single Point Authentication the user has established. If the individual is stored in the database as a user on more than one application, the user retains rights to log on to the other application(s).

➢ **To remove a user from a single application**

1. Log on to the cbIntegrate Server Admin Tool.
2. In the **Folder List** at the left, expand the **Provisions** node of the tree.
3. Expand the **Directory** node.
4. Select the application from which you want to remove the user.
5. Type the name of the user in the **Lookup:** type-in, or select the name in the list displayed below.
6. When the appropriate user is highlighted in the list of users, click **Remove User**.
7. A message is displayed asking if you want to proceed with the removal of the user. Verify that you have selected the appropriate user. If so, Click **OK**.

CHAPTER 13

# Administering cbForce

This chapter describes how to administer specific aspects of cbForce and cbConnect.

This chapter includes the following topics:

# Creating a cbForce Custom Tab in salesforce.com

In order to allow your users to access cbForce from the salesforce.com Web site, you must create a custom tab in salesforce.com. However, you must understand that Running cbForce in a salesforce.com Custom Tab Requires You to Enable SSL. The easiest way to enable SSL is to select the appropriate options at the time you install cbIntegrate Server (See Step 2: Installing cbIntegrate Server). If you have already installed cbIntegrate Server without enabling SSL, instructions for enabling SSL post installation are located in the Configuring cbIntegrate Server chapter of this *Guide*.

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**Note** Creating a custom tab in salesforce.com, is only possible if your organization has purchased an Enterprise account with salesforce.com.

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➢ **Creating a custom tab in salesforce.com**

1. Browse to the salesforce.com Web site (www.salesforce.com).
2. Click the **Customer Login** tab.
3. On the left side of the Web page under Login, provide the credentials for a user account with administrative rights on salesforce.com, then click **Login**.
4. At the top right of the page, click **Setup**.
5. Under the **Studio** menu option at the left of the new page that is displayed, expand the **Extend** item.
6. Under **Extend**, click **Custom Tabs**.
7. Under the Web Tabs section of the page, click **New**.
8. Follow the instructions under **Step 1. Choose Tab Layout**, then click **Next**.
9. Under **Tab Content Definitions**, in the **Tab Type** drop down, choose **URL**.
10. Under **Display Properties**, type a title for your tab in **Tab Label**. Fill in any other properties as you wish, then click **Next**.
11. In the Link URL: type-in, provide the URL for the machine hosting your cbIntegrate server.The link must be as provided here:

```
https://your machine URL/cb/
cb.cba?run?appName=cbForce&cb_challenge={!User_ID}&sf_sessio
n={!User_Session_ID}&sf_endpoint={!API_Enterprise_Server_URL
_50}
```

12. Click **Next**.

13. Click the new custom tab you have added. If cbForce is already running in your server and you can browse to the application in a Web browser, cbForce should be available in your custom tab.