



BEA WebLogic Portlets for Groupware Integration™

Setup Guide

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About This Document

This guide is intended for portal end users, developers, and administrators who are building, deploying and using an Enterprise portal. A basic understanding of BEA WebLogic Portal, WebLogic Workshop, and Java are assumed.

Prerequisite Software

Setting up WebLogic Portlets for Groupware Integration assumes the following prerequisite software:

- BEA WebLogic Platform 8.1 with Service Pack 2 or higher
- One of the following:
 - Microsoft Exchange 5.5 with Service Pack 4 or higher
 - Microsoft Exchange 2000 with Service Pack 1 or higher
 - Microsoft Exchange 2003
 - Lotus Domino R5.0.11 or higher
 - Lotus Domino R6.5

Documentation Conventions

The Windows convention of “\” as a path separator is used wherever necessary. UNIX users and users of other operating systems should translate these paths and variables accordingly.

About This Document

Because system software and configurations can vary from one system to another, portions of the command syntax displayed in this document may include sample parameters or variables that represent the actual command syntax you would need to enter. These entries are indicated by parameters in uppercase placed between percent signs (%PARAMETER%), and include, but are not limited to the following:

Parameter	Definition
%COMPOZE_HOME%	The complete directory specification for the Compoze Home. This is the directory where WebLogic Portlets for Groupware Integration are installed. For example: c:\Program Files\compoze
%COMPOZE_PORTLETS_HOME%	The complete directory specification for the Compoze Portlets Home. This is the directory where WebLogic Portlets for Groupware Integration are installed. For example: c:\Program Files\compoze\groupware_portlets_bea-2.5\8.1
%COMPOZE_EXCHANGE_SERVICE_HOME%	The complete directory specification for the Exchange Service Home. This is the directory where the Exchange Service is installed. For example: c:\Program Files\compoze\czex
%COMPOZE_DOMINO_SERVICE_HOME%	The complete directory specification for the Domino Service Home. This is the directory where the Domino Service is installed. For example: c:\Program Files\compoze\czdo
%PORTAL_APPLICATION%	The complete directory specification for the BEA Application that is hosting the Portal Project. For example: d:\bea81\user_projects\PortalApplication
%PORTAL_PROJECT%	The complete directory specification for the BEA Project that is hosting the Portal. For example: d:\bea81\user_projects\PortalApplication\PortalWebProject

Parameter	Definition
<code>%WL_HOME%</code>	The complete directory specification for the BEA Home. This is the directory where BEA WebLogic Platform 8.1 is installed. For example: <code>d:\bea81</code>
<code>%JAVA_HOME%</code>	The complete directory specification for the Java Development Kit. For example: <code>d:\bea81\jdk141_05</code>

About This Document

Introduction

The WebLogic Portlets for Groupware Integration installer copies files into the appropriate folder under your %PORTAL_PROJECT%. This guide walks you through the steps you need to complete the portlet setup.

Before you can access data in WebLogic Portlets for Groupware Integration, a service must be setup so that you can connect to the Groupware system. The service interacts with the underlying Groupware system and provides the data to WebLogic Portlets for Groupware Integration. Currently, services exist for Microsoft Exchange and Lotus Domino. You only need to setup the service that is applicable to your environment.

Once the required service is installed and configured properly, WebLogic Portlets for Groupware Integration can be configured to access this service.

Chapters in this Guide include:

- [“Exchange Service” on page 2-1](#)
- [“Domino Service” on page 3-1](#)
- [“Groupware Portlet” on page 5-1](#)
- [“Customizing the Groupware Portlet” on page 6-1](#)
- [“Administration Portlet” on page 4-1](#)
- [“Manual Installation” on page A-1](#)
- [“Known Issues and Workarounds” on page B-1](#)

Introduction

Note: When you have finished all of the setup instructions in each of the above chapters, open the [groupware portlets users guide.pdf](#) file located at `%COMPOZE_PORTLETS_HOME%\docs` for information about using the portlets.

Exchange Service

This chapter describes the Exchange Service architecture, installation, and configuration and supported platforms.

Note: This chapter is applicable only if you are running MS Exchange 5.5, 2000 or 2003 and choose to leverage the Exchange Service. If you are running MS Exchange 2000/2003, you have the option of using the WebDAV Provider which does not require the installation of the Exchange Service.

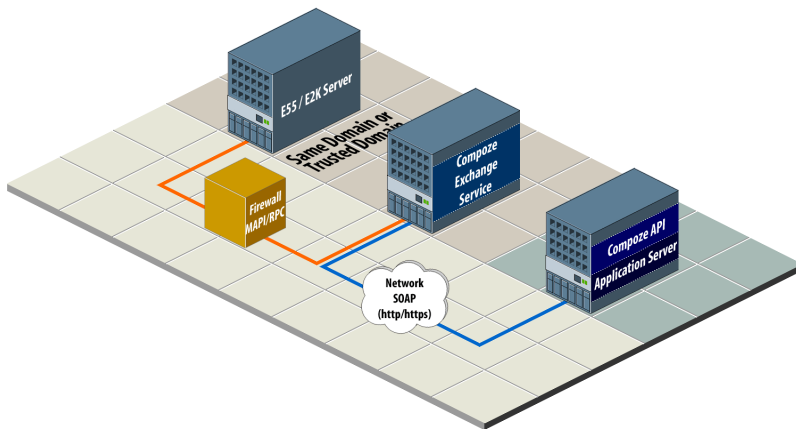
Getting Started

The following is required to install and configure the Exchange Service:

- Microsoft Exchange Server CD (for CDO and MAPI)
- Windows 2000 Server (with Service Pack 3 or higher) or Windows 2003 Server
- Internet Information Server (IIS)

Architecture

WebLogic Portlets for Groupware Integration leverage a native Windows service (the Exchange Service) which exposes Microsoft Exchange 5.5 (and later) functionality. The Exchange Service acts as an intermediary between the BEA WebLogic Portal and Microsoft Exchange.



SOAP Interface

The connectivity between Java and the Exchange Service is implemented using SOAP (Simple Object Access Protocol) version 1.1. SOAP provides a standard means of XML-based messaging (including RPC or Remote Procedure Call style messaging) that can be used across platforms.

On the Exchange Service side, IIS is used to handle SOAP communication with the client. A component handles requests from the client and sends them to another process on the same machine using local RPC. This process isolation insures that Exchange communication is not occurring in-process with IIS.

Connectivity to Exchange

Connectivity to Microsoft Exchange is implemented in a Windows service called the Exchange Service. The Exchange Service runs as a standalone process and exposes its functionality via local RPC to other processes in the system (including IIS). When requests come in, they are given a thread out of a thread pool that grows and shrinks automatically as necessary. Sessions that have been open for longer than the time-out period are automatically closed to avoid holding resources open unnecessarily.

The Exchange Service is implemented using a combination of MAPI (Messaging Application Programming Interface) and CDO (Collaboration Data Objects); therefore, CDO and MAPI from an Exchange Server CD are prerequisites for installation. This is where CDO and the MAPI provider for Exchange are obtained.

Network/Firewall Requirements

The Exchange Service must be located either on the same domain as the Exchange server or a trusted domain. Additionally, it must be configured to allow logins from the Exchange users who will be accessing their mailboxes. This requirement exists because the user logging on to Exchange actually performs a login to the Exchange Service machine to obtain a primary access token.

Note: It is possible to put the Exchange Service on the Exchange server itself, but be aware of the additional processor and memory burden that will be placed on Exchange.

HTTP or HTTPS traffic must be able to pass between the Portal and the Exchange Service. Traversing an HTTP proxy is acceptable as long as it is able to pass the POST requests used by the SOAP protocol. Although a high-bandwidth, low-latency connection improves performance, the protocol has been designed to reduce the number of round trips made on the network. The amount of bandwidth required depends on the number of users simultaneously using the application. Each user may consume roughly 1K/sec on average, with this number increasingly dramatically if users do a lot of work with large file attachments.

MSRPC traffic must be able to pass between the Exchange Service and Microsoft Exchange. MSRPC requires TCP port 135 to be open plus a range of ports above 1024. The network connection for this MSRPC traffic must have a low latency (less than 10 milliseconds, and preferably a 100 megabit LAN with less than 1 millisecond response times). Round trips are made over the network for each MAPI RPC, therefore the Exchange Service machine must be located as close as possible to Exchange on the network.

Installation and Configuration

This section describes various methods for installation and configuration for the Exchange Service.

Prerequisites

The Exchange Service must be installed on a clean Windows 2000 (with Service Pack 3 or higher) or Windows Server 2003 with IIS. Windows 2000 Professional may be used for testing

purposes, but it only allows 100 simultaneous socket connections at a time — a limit that you will likely run into in production.

Warning: If you are using a machine which already has other software installed on it, proceed at your own risk; however, it **MUST** not have Microsoft Outlook on it or any other product which installs a different version of CDO.

CDO and the MAPI Exchange Service provider are a prerequisite of the installation. They may only be obtained using one of the two methods below. You may not install CDO using any version of Microsoft Outlook. If you do, it may initially work but Microsoft does not support use the `dlls` that ship with Outlook in server applications, so you may run into issues under high server load.

The MAPI Exchange Service Provider and CDO (Collaboration Data Objects) may be installed in one of two ways:

Method 1: Installing the Exchange 5.5 Administrator from the Exchange 5.5 Server CD

1. Insert the Microsoft Exchange 5.5 Server CD.

Note: If you are running Exchange 2000, this 5.5 CD also ships with Exchange 2000 distributions.

2. Choose **Setup Server and Components**.

3. Choose **Microsoft Exchange Server 5.5**.

4. Choose **Complete / Custom**.

5. Choose **Microsoft Exchange Administrator only** install (uncheck all other boxes).

6. Enter the license key.

7. Install Exchange 5.5 Service Pack 4 (<http://www.microsoft.com/exchange/downloads/55/sp4.asp>). This should upgrade `cdco.dll` to version 5.5.2653.12 (may be checked by right-clicking the `dll` in Explorer and going to the Version tab).

8. Install the proper CDO patch (available at <http://support.microsoft.com/default.aspx?scid=kb;en-us;818709>). This should upgrade `cdco.dll` to version 5.5.2657.55 or later (may be checked by right-clicking the `dll` in Explorer and going to the Version tab).

Warning: If you do not perform this step then CDO and the Exchange Service will crash when accessing mailboxes that have been used by Outlook 2003.

Method 2: Installing a Full Exchange Server from the Exchange 5.5, Exchange 2000, or Exchange 2003 CDs

CDO 1.2.1 is installed with all versions of Exchange 5.5, Exchange 2000, and Exchange 2003. However, in some cases the `cdo.dll` that gets installed may not be registered during the installation. To be sure that `cdo.dll` is registered on your Exchange server, perform the following steps after Exchange has been installed:

1. Open a command prompt.
2. Change directories using the `cd` command to `exchsrvr\bin` (depends on where you have Exchange installed).
3. Run `regsvr32.exe cdo.dll` to register CDO.

After CDO is registered, upgrade your Exchange server to the latest service pack so that the latest CDO is included.

For Exchange 5.5 Only: Follow [step 8 on page 2-4](#) to obtain the latest CDO patches. After the installation, you may stop all Microsoft Exchange related services in `Administrative Tools > Services` so that you do not actually use the server itself.

Running the Installer

After installing WebLogic Portlets for Groupware Integration, an executable called `setup_service.exe` is placed in `%COMPOZE_HOME%\service\exchange`. Run this executable on the Exchange Service machine. During the installation, you will be prompted to specify the location of two important directories:

- **MAPI profile directory:** This is a directory where temporary MAPI profiles are stored. The profiles are small and are deleted when they are no longer in use, so it is safe to choose a directory on a volume with a couple hundred megabytes free. This setting will be reflected in the registry key `HKEY_LOCAL_MACHINE\Software\Microsoft\Windows Messaging Subsystem\ProfileDirectory`.
- **Attachments directory:** This is a directory where attachments are stored temporarily while they are transferred from IIS to the Exchange Service. It is also critical that the permissions on the attachments directory be set so that all users have read/write access to it. The attachment files are deleted when they are no longer in use, however attachments can be large, and many users can be creating them at any given time. Therefore, it is good practice

to point to an attachments directory on a volume with 1 gigabyte or more free (depending on how much load your Exchange Service will see).

Assuming you have installed the prerequisites, the installation will install the Exchange Service and register the SOAP component with IIS.

For Windows 2003/IIS 6.0 Installations: For security reasons, the default configuration for IIS 6.0 does not serve any dynamic content. You must go to **Administrative Tools > Internet Services Manager > Web Service Extensions** and add a `czexsoap` web service then add `c:\Program Files\Common Files\MSSOAP\Binaries\SOAPIS30.dll` and the full path to the Exchange Service install file `czex_soap.dll`. For example `c:\Program Files\compose\czex\bin\czex_soap.dll`) to the allow list. Otherwise, you will get an HTTP 401 (not found) error when trying to connect to the service.

Verifying the Installation

After the Exchange Service installation, you can verify that it was installed properly by checking the following:

1. You should have a directory tree located in `c:\Program Files\compose\czex` (or wherever you chose to install the Exchange Service). This is the `%COMPOZE_EXCHANGE_SERVICE_HOME%`.
2. There should be a new service in **Administrative Tools > Services** called **Compoze Exchange Service**. It should be started.
3. There should be a new IIS virtual root in **Administrative Tools > Internet Services Manager** called `czexsoap`. In this virtual root should be two files: `CzExSoap.WSDL` and `CzExSoap.wsdl`.
4. If you are upgrading from a previous installation of Exchange Service, check the version number of `%COMPOZE_EXCHANGE_SERVICE_HOME%\bin\czex_soap.dll` by right clicking the file in Explorer and choosing Properties. If the `dll` is older than the current build, it was not replaced by the installation process because the `dll` was held by IIS. In this case, completely uninstall Exchange Service, reboot the machine then try the installation again.

Minimal IIS Lockdown Settings

The IIS Lockdown tool is supplied by Microsoft and allows you to protect your IIS server by denying access to certain HTTP methods, file extensions, and so on. The following IIS Lockdown wizard walkthrough shows the minimum settings needed for the Exchange Service to run:

1. **Select Server Template Screen:** Select the template “Other (Server that does not match any of the listed roles)”.
2. **Internet Services Screen:** Enable only Web service (HTTP) and click **remove un-selected services** if you wish.
3. **Script Maps Screen:** Disable support for all selected script maps.
4. **Additional Security Screen:** Remove all selected virtual directories from the server. Set file permissions to prevent anonymous users from performing these actions — include Running system utilities and Writing to Content Directories. Check **Disable Web Distributed Authoring and Versioning** (WebDAV).
5. **URLScan Screen:** Check box that says **Install URLScan filter on the server**.
6. **urlscan.ini file:** With `UseAllowVerbs=1` set, the `AllowVerbs` section only needs to contain the POST verb. With `UseAllowExtensions=1` set, the `AllowExtensions` section only needs to contain the extension `.wsdl`.

Logging Information

Logging information for the Exchange Service and the Microsoft SOAP Toolkit is sent to the Windows Event Viewer. In the Application Log you will find information about the status of the service (during startup and shutdown), and warnings or errors if something goes wrong. The default Application Log size may be too small for your application. A minimum log size of around 5MB is recommended. In addition, the setting `Overwrite as Needed` is recommended to insure that no recent events are lost.

If you find that your event logs fill quickly and would like to reduce the amount of information logged, make sure that the `AuditEnabled` and `LogComErrors` registry entries are set to 0.

Maintaining Service Uptime

Windows offers you the ability to enable crash recovery for the service so that you do not have to monitor and restart it in the event of a crash. To enable this, go to **Control Panel > Administrative Tools > Services > Compose Exchange Service** properties. Under the **Recovery** tab, set **First Failure**, **Second Failure** and **Subsequent Failures** to **Restart the Service**. You may wish to set the **Restart Service After** time to 0 minutes so the service restarts immediately. Now, if a failure occurs, the service will automatically restart. Note that all existing sessions will be lost, forcing users to log back in again.

In addition to enabling the restart of the service in the event of a crash, you can also set the service to automatically terminate at a given interval using the `ServiceRestartHours` and `ServiceRestartMaxSessions` registry entries. For more information, see [“Administration Portlet” on page 4-1](#). As long as the service has been set to restart, Windows will restart the service after it has terminated. When this happens, an error event will be registered in the system log of the event viewer to indicate that the service has terminated and restarted.

Performance Settings

There are very few user adjustable performance settings for the Exchange Service. The thread pool and memory heap in the service itself both grow and shrink as needed. However, the thread pool size in IIS for SOAP can be adjusted manually using the `SOFTWARE\Microsoft\MSSOAP\30\SOAPISAP` registry entry. By default, it is set to two times the number of CPUs plus one (for example, three for a single CPU machine). You may find that raising this setting in a production environment to three times the number of CPUs plus one gives you improved concurrency in IIS.

Troubleshooting

The following is for troubleshooting issues with the Exchange Service. This service is the Groupware Service Provider for the Microsoft Exchange.

Reporting Crash Errors

If you find that the Exchange Service crashes in your environment and you want to pursue it with support, there are steps that you can take to help us assist you. Please provide as much of the following information as possible in a single zip file when submitting your request:

1. The `error-#.txt` and `error-#.dmp` files in the `%COMPOSE_EXCHANGE_SERVICE_HOME%\bin`. These files are created when a service crash occurs, and are critical in order to resolve a problem.
2. The contents of your Application Log in the Event Viewer. This can be obtained by running `eventvwr`, right-clicking on the Application Log, and choosing **Save File As**. Save the file in `.evt` format.
3. What operation was being performed at the time of the crash, and whose mailbox it occurred in. This may be difficult information to obtain, but if available it does assist in the debugging process, particularly if you are able to force a crash and give us a series of steps to reproduce it.

4. Version information of each of the service components. In Windows Explorer, right-click each of `czex_service.exe`, `czex_soap.dll`, `czex_util.dll`, and `cdo.dll` and select the `Version` tab. This will aid in matching the supplied debug information with the version installed on your system.

In some situations, support may request that you reproduce the problem send a full crash dump (much larger than the mini dump). These are the steps to obtain a full crash dump:

1. Run `drwtsn32 -i` from a command prompt. You should see the message “Dr. Watson has been installed as the default debugger”.
2. Run `drwtsn32` by itself to configure Dr. Watson. Check the box that says “Dump Symbol Table” and select the number of errors that you wish to save (the defaults are acceptable).
3. Reproduce the problem and zip up and send the `user.dmp` and `drwtsn32.log` files that are created to support.

Reporting Problems With Messages

You may find that a particular message or folder is causing you problems with the Exchange Service. In this case, it is possible to export the original messages for import in order to reproduce the problem. To do this:

1. Open Outlook 2000 or above to the account with the problem messages.
2. Choose `File > Import and Export`.
3. In the **Import and Export Wizard** screen, choose **Export to a file**.
4. In the **Export to a File** screen, choose **Personal Folder File (.pst)**.
5. In the **Export Personal Folders** screen, choose the folder that you wish to export. It is easiest to export an entire folder (such as the calendar folder), but you may also click the **Filter** button and restrict what is exported by date range, subject, attendees, created time, and so on. Just make sure that the offending messages get included by the filter you have chosen.

After exporting the PST file, place this in a zip file along with a small `readme.txt` file that explains the problem with the message(s) and any filter that was used for the export in [step 5 in “Troubleshooting”](#). Send this zip file to support.

Exchange Service

Domino Service

This chapter describes the Domino Service architecture, installation, and configuration and supported platforms.

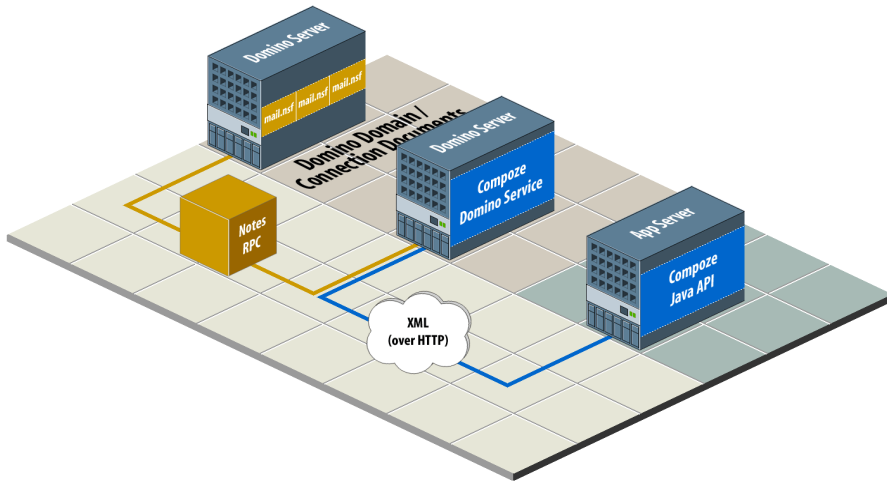
Getting Started

The following is required in order to install and configure the Domino Service:

- Lotus Domino R5.0.11 (or higher)
- Lotus Domino R6
- Lotus Domino R6.5

Architecture

WebLogic Portlets for Groupware Integration leverage a native Notes service (the Domino Service) which exposes Lotus Domino mail functionality to Java programs. The Domino Service acts as an intermediary between the BEA WebLogic Portal and Lotus Domino.



Connectivity to Domino

The Domino Service is implemented using a combination of Notes RPC and Notes DSAPI. It runs within Lotus Domino as part of the HTTP task. This is the reason the Lotus Domino install is a prerequisite of the installation. This is where Notes RPC and the Notes DSAPI filter for Domino are obtained.

Network/Firewall Requirements

The Domino Service must be located on a machine running Lotus Domino that is part of the same Notes Domain and the same Notes Named Network as the Domino server to access. It is possible to put the Domino Service on an existing Domino server, but be aware of the additional processor and memory burden that will be placed on Domino.

HTTP traffic must be able to pass between WebLogic Portlets for Groupware Integration and the Domino Service. Traversing an HTTP proxy is acceptable as long as it is able to pass the POST requests used by the XML protocol. Although a high-bandwidth, low-latency connection will improve performance, the protocol has been designed to reduce the number of round trips made

on the network. The amount of bandwidth required depends on the number of users simultaneously using the application. Each user may consume roughly 1K/sec on average, with this number increasingly dramatically if users do a lot of work with large file attachments.

Notes RPC traffic must be able to pass between the Domino Service and Lotus Domino. Notes RPC requires TCP port 1352 to be open. The network connection for this Notes RPC traffic must have a low latency (less than 10 milliseconds, and preferably a 100 megabit LAN with less than 1 millisecond response times). Round trips are made over the network for each Notes RPC, therefore the Domino Service machine must be located as close as possible to Domino on the network.

Installation and Configuration

This section describes how to install and configure for the Domino Service.

Prerequisites

Before installing the Domino Service, the following steps must be taken:

1. Uninstall and remove any previous installed version of Domino Service. This will ensure a clean install will occur.
2. For Windows installation, ensure Windows 2000 with Service Pack 4 or higher is installed on the server.
3. For Linux installation, ensure Red Hat 8.0 or higher is installed on the server.
4. Lotus Domino R5, R6 or R6.5 with the HTTP Task, is installed on the server.
5. The server is registered within the Notes domain.

Running the Installer on Windows

To install the Domino Service on Windows, follow these steps:

1. Start the installer by double-clicking on `setup_service.exe`. The **InstallAnywhere** screen opens and begins preparing the installation.
2. Read through the introduction and click **Next**. You will be able to exit the installation at anytime by clicking **Cancel**. You will also be able to go back a step by clicking **Previous** when available.
3. Read through the license agreement and select an option:

- Selecting **I accept the terms of the License Agreement** will allow you to continue with the installation.
 - Selecting **I do NOT accept the terms of the License Agreement** will terminate the installation.
4. Click **Next**.
 5. Select the directory Domino Service will be installed to. By default, %COMPOZE_HOME% is chosen. You may change this by entering the absolute path of the directory or by clicking “Choose” and selecting the directory.
 6. Click **Next**.
 7. Choose the Lotus Domino program directory. On a Domino server the program directory is typically C:\Lotus\Domino, unless you installed the program files to a different location. You may change this by entering the absolute path of the directory or by clicking **Choose** and selecting the directory.
 8. Click **Next**. If the specified directory does not contain the Lotus Domino program files, an information screen appears stating such. Click **Next** to continue or **Previous** to go back and enter a valid Domino program directory.
 9. Choose the Lotus Domino data directory. On a Domino server the Domino data directory is typically C:\Lotus\Domino\Data, unless you installed the data directory to a different location. You may change this by entering the absolute path of the directory or by clicking **Choose** and selecting the directory.
 10. Click **Next**. If the specified directory is not a valid Domino data directory (for example, it does not contain the names.nsf database), an information screen appears stating such. Click **Next** to continue or **Previous** to go back and enter a valid Domino data directory.
 11. Read the installation summary information. The summary will contain information such as the installation directory, the amount of disk space required, etc.
 12. Click **Install** to install the service.
 13. Once installation is complete, click **Done**.

Verifying the Windows Installation

To verify Domino Service was installed, check the following:

- A directory tree located at %COMPOZE_HOME%\domino_service.

- The following files added to %LOTUS_DOMINO_HOME% directory:

```
cz_xerces-c.dll
czdo.dll
czdo_service.dll
```

- The following database added to %LOTUS_DOMINO_DATA% directory:

```
czdo_config.nsf
```

Running the Installer on Linux

WebLogic Portlets for Groupware Integration on Linux can be installed in two different modes:

- [“GUI Mode” on page 3-5](#)
- [“Console Mode” on page 3-6](#)

Note: It is critical you be root or have write permission for the directory where you plan to install WebLogic Portlets for Groupware Integration. You must also have write permissions for the Domino server directories.

GUI Mode

The installer running in GUI mode will utilize GUI panels and will ask for all necessary configuration questions through the graphical panel. You must have the X-Window server running on the machine where you are installing WebLogic Portlets for Groupware Integration.

To install the Domino Service on Linux using GUI mode, follow these steps:

1. Start the installer. To start the installer, enter in the following at the command prompt:

```
prompt> chmod 755 setup.bin
prompt> ./setup.bin
```

2. Read through the license agreement and select an option:
 - Selecting **I accept the terms of the License Agreement** will allow you to continue with the installation.
 - Selecting **I do NOT accept the terms of the License Agreement** will terminate the installation.
3. Click **Next**.

4. Select the directory Domino Service will be installed to. By default, %COMPOSE_HOME% is chosen. You may change this by entering the absolute path of the directory or by clicking “Choose” and selecting the directory.
5. Click **Next**.
6. Choose the Lotus Domino program directory. On a Domino server the program directory is typically /usr/lotus/notes/{version}/{platform} (or \$Notes_ExecDirectory), unless you installed the program files to a different location. You may change this by entering the absolute path of the directory or by clicking **Choose** and selecting the directory.
7. Click **Next**. If the specified directory does not contain the Lotus Domino program files, an information screen appears stating such. Click **Next** to continue or **Previous** to go back and enter a valid Domino program directory.
8. Choose the Lotus Domino data directory. On a Domino server the Domino data directory is typically /usr/lotus/notesdata, unless you installed the data directory to a different location. You may change this by entering the absolute path of the directory or by clicking **Choose** and selecting the directory.
9. Click **Next**. If the specified directory is not a valid Domino data directory (for example, it does not contain the names.nsf database), an information screen appears stating such. Click **Next** to continue or **Previous** to go back and enter a valid Domino data directory.
10. Read the installation summary information. The summary will contain information such as the installation directory, the amount of disk space required, etc.
11. Click **Install** to install the service.
12. Once installation is complete, click **Done**.

Console Mode

The installer running in console mode will not utilize GUI panels (X-Window Server), but instead will ask all necessary configuration questions through the command prompt. This is best for machines running Lotus Domino Server without an X-Server.

To install the Domino Service on Linux using the Console mode, follow these steps:

1. Start the installer. To start the installer, enter in the following at the command prompt:

```
prompt> chmod 755 setup.bin
prompt> ./setup.bin -i console
```
2. Read through the license agreement and select an option:

- Entering **Y** accept the license agreement and allow you to continue with the installation.
 - Entering **N** will decline the license agreement and terminate the installation.
3. Press **Enter**.
 4. Select the directory Domino Service will be installed to. By default, %COMPOSE_HOME% is chosen. You may change this by entering the absolute path of the directory.
 5. Press **Enter**.
 6. You will be prompted if the selected directory is the correct directory to install the service.
 - Entering **Y** will accept the directory and continue with the installation.
 - Entering **N** will return you to the previous step to select the directory Domino Service will be installed to.
 7. Press **Enter**.
 8. Choose the Lotus Domino program directory. On a Domino server the program directory is typically /usr/lotus/notes/{version}/{platform} (or \$Notes_ExecDirectory), unless you installed the program files to a different location. You may change this by entering the absolute path of the directory.
 9. Press **Enter**. If the specified directory does not contain the Lotus Domino program files, the console will display information stating such. Press **Enter** to continue or enter **Back** to go back and enter a valid Domino program directory.
 10. Choose the Lotus Domino data directory. On a Domino server the Domino data directory is typically /usr/lotus/notesdata, unless you installed the data directory to a different location. You may change this by entering the absolute path of the directory.
 11. Press **Enter**. If the specified directory is not a valid Domino data directory (for example, it does not contain the names.nsf database), the console will display information stating such. Press **Enter** to continue or enter **Back** to go back and enter a valid Domino data directory.
 12. Read the installation summary information. The summary will contain information such as the installation directory, the amount of disk space required, and so on.
 13. Press **Enter** to install the service.
 14. Once installation is complete, press **Enter** to exit.

Verifying the Linux Installation

To verify Domino Service was installed, check the following:

- A directory tree located at %COMPOSE_HOME%/domino_service.
- The following files added to %LOTUS_DOMINO_HOME% directory:
 - libxerces-c.so
 - libczdo.so
 - libczdo_service.so
- The following database added to %LOTUS_DOMINO_DATA% directory:
 - czdo_config.nsf

Administration Portlet

After installation, it is highly recommended that you verify that the Groupware Service Provider has been set up correctly. An Administration Portlet is included to test the connection and to configure the Groupware Service Provider. The Administration Portlet works for both Microsoft Exchange and Lotus Domino.

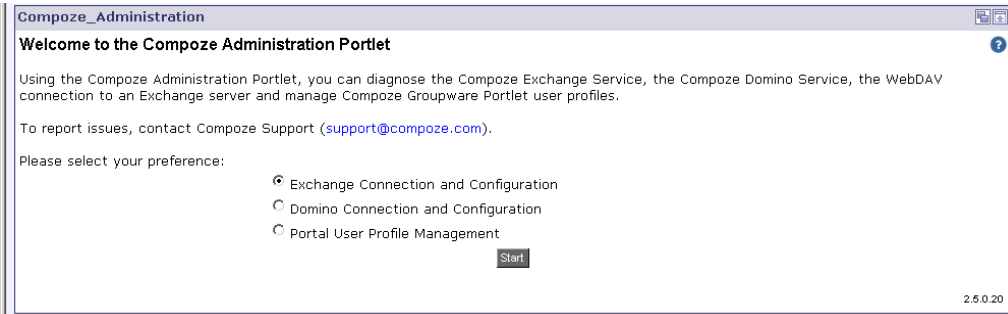
Also, if there are issues with specific WebLogic Portal users, the Administration Portlet can be used to diagnose the problem and resolve the issue.

Note: Before you begin, the Administration Portlet must be added to a page on your existing Portal.

Welcome Page

The starting point of the Administration Portlet is the welcome page. From here, you can diagnose your connection to either Exchange or Domino, configure the Exchange Service or Domino Service or obtain more information about the BEA WebLogic Portal User Profile that is being used by the Groupware Portlet. Select the correct option for your environment and click

Start to continue. The next page will change depending on what option you choose. The rest of this chapter will discuss each possible section in more detail.



Exchange Service Connection

To verify that you can open a connection to the Exchange Service and that the service can connect to Exchange, use the Exchange Connection Portlet.

Connecting to Exchange via the Exchange Service

1. Select the Exchange Service Connection option from the Welcome page of the Administration Portlet.
2. Enter the required connection information. A detailed description for each parameter is listed in the table below.
3. Once the required information is entered, click **Connect**.
4. If you can connect successfully, you will be given the option of obtaining more information for the mailbox specified by clicking the `continue` button. This will test common calls to the service such as getting the number of messages from the Inbox.
5. Click **End Diagnosis** at any time to start over.

Field	Description
Domain	The domain of the user that will access the Exchange mailbox
Username	The username of the user that will access the Exchange mailbox
Password	The password of the user that will access the Exchange mailbox
Exchange Server	The name of the Exchange Server as it can be resolved from the Exchange Service machine (may be omitted to test GAL lookups, but these must first be configured in the service. For more information, see “Global Address List Lookups” on page 4-9.)
Exchange Mailbox	The name of a mailbox to connect to (may be omitted to test GAL lookups, but these must first be configured in the service. For more information, see “Global Address List Lookups” on page 4-9.)
Soap Server	The hostname of the Exchange Service machine as it can be resolved from the Portal machine

Exchange Service Configuration

As a system administrator, you will be able to configure the Exchange Service. The configuration can be performed either manually (on the Exchange Service machine) or by using the Administration Portlet.

Configuring the Exchange Service

1. Select the Exchange Service Configuration option from the Welcome page of the Administration Portlet.
2. Enter the required Exchange Service URL or host name. This value is the same as the Soap Server entered in the ExchangeServiceConnection Portlet.
3. Once the required information is entered, click **View Configuration**.

4. If you can connect successfully, you will be given the option of obtaining the current configuration information and modifying the settings for the following logical sections:
 - General Configuration Parameters
 - Global Address List Configuration Parameters
 - Logging Configuration Parameters
 - IIS Configuration Parameters
 - A detailed description for each parameter is listed *Manually Configuring the Registry Entries* section below.
5. Configure the information by entering a logical section, modifying the desired data, and clicking **Configure Service Now**.

Note: Some of the parameters will require a restart of the Exchange Service or IIS to take effect. These parameters are identified in the Portlet.

Manually Configuring the Registry Entries

To manually configure the Exchange Service, you will need to first log on to the Service machine with a user who has the correct permissions to modify the Windows registry. The Windows Registry can be accessed by going to the Start > Run... menu and executing `regedt32`.

The following registry entries control the behavior of the Exchange Service. All of the following registry keys are located in `HKEY_LOCAL_MACHINE\Software\Compoze Software, Inc.\czex`. If any of these registry entries are not created, you must first create them. When

creating registry entries, be sure that the type is correct (next to the key name in the table below), otherwise the setting will drop back to its default value.

Key	Description	Change Requires Service Restart?
AttachmentDirectory (REG_SZ)	The full path to the directory where attachments are temporarily stored while sending from IIS to the Exchange Service. The directory should be on a volume with sufficient disk space to store attachments while in transit. The exact amount of disk requirements will depend on the server load but choose a volume with at least a gigabyte of free space. If the directory does not already exist, then the Exchange Service will create it.	No
ClientVersionCheck (REG_DWORD)	If this entry exists and is set to 1 (the default), verify that the client version is the same as the service, otherwise do not allow sessions to be opened. NOTE: if you do not perform verification that the versions are the same, you may run into compatibility issues between your Java code and the service.	Yes
GalDomain (REG_SZ)	The domain of the fixed GAL user (required for lookups in Exchange 2000 and above)	No
GalMailbox (REG_SZ)	The mailbox of the fixed GAL user (required for lookups in Exchange 2000 and above)	No
GalPassword (REG_SZ)	The password of the fixed GAL user (required for lookups in Exchange 2000 and above)	No
GalServer (REG_SZ)	The fixed Exchange server for the user to connect to (required for lookups to work in any Exchange version)	No

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GalUsername (REG_SZ)	The username of the fixed GAL user (required for lookups in Exchange 2000 and above)	No
InstallDir (REG_SZ)	The installation directory of the Exchange Service. For example: c:\Program Files\compoze\czex. This is the %COMPOZE_EXCHANGE_SERVICE_HOME%.	No
LogComErrors (REG_DWORD)	If set to 0 (the default) do not log any normal COM exceptions that may occur during the course of execution. If set to 1 (useful for debugging) log all COM exceptions that occur to the Application Log in the Event Viewer.	No

<p>LogonType (REG_DWORD)</p>	<p>The chosen logon type performed in the service:</p> <p>0 = Interactive Logon (LOGON32_LOGON_INTERACTIVE). This requires that each user be granted the Windows “Log on Locally” right to the Exchange Service machine, but can connect to remote Exchange servers in the same domain or a trusted domain.</p> <p>1 = Batch Logon (LOGON32_LOGON_BATCH). This requires that each user be granted the Windows “Log on as a Batch Job” right, but can connect to remote Exchange servers in the same domain or a trusted domain. This right may be added without Log on Locally rights so that it disallows users from logging in interactively to the machine.</p> <p>2 = Network Logon (LOGON32_LOGON_NETWORK). This does not require any special rights to be granted to users, but with this configuration the service MUST be installed on the same Exchange server that is being accessed.</p> <p>3 = No Logon. With this logon type whatever user the service runs as will have to be able to access every account that needs to be accessed using the service. No user validation or logon is performed.</p>	<p>Yes</p>
<p>ProfilingEnabled (REG_DWORD)</p>	<p>If set to 1, log timing information for methods called in the Exchange Service to the event viewer. If set to 0 or if the key does not exist, do not log timing info.</p>	<p>Yes</p>

<p>SessionTimeoutSecs (REG_DWORD)</p>	<p>If a session is idle for this number of seconds, it will be closed. This prevents the Exchange Service from having sessions open in memory that are no longer in use. The default if the registry entry is not specified is 1800 seconds, or 30 minutes. The value of this setting will be re-read in no longer than one minute, so if it is changed from a large value to a small one for testing purposes, be sure to wait a minute for the change to take affect.</p>	<p>No</p>
<p>ServiceTerminateHours</p>	<p>If the service has been running for this many hours, it will be terminated as soon as there are less than or equal to <code>ServiceTerminateMaxSessions</code> still open. This is useful for forcing a service restart on the given interval (for example, 24 hours). The default is 0 (which means to never terminate the service).</p> <p>WARNING: The service will only restart if you have selected this in the Recovery tab of the Windows service properties as described in “Maintaining Service Uptime” on page 2-7. Otherwise, this setting will force the service to terminate and it will not restart.</p>	<p>No</p>
<p>ServiceTerminateMaxSessions</p>	<p>When deciding whether or not to restart the service, this setting is consulted to determine what the maximum number of sessions that can be open is. If 0 (the default) the service waits until no sessions are open to do a restart. If 5, for example, it will kick off up to 5 users in order to do a restart.</p>	<p>No</p>
<p>SoapEncryptionKey (REG_SZ)</p>	<p>If this parameter is supplied, the user password is encrypted with this key, even if SSL is not being used. A default key is chosen if it is not set. Be sure to supply the corresponding <code>PROP_SOAP_ENCRYPTION_KEY</code> property when instantiating the Session object on the client side, otherwise user logins will fail.</p>	<p>No</p>

The following registry entries control the behavior of the Microsoft SOAP Toolkit (and thus affect the Exchange Service). All of the following registry keys are located in

HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSSOAP\30\SOAPISAP.

Key	Description	Change Requires IIS Restart?
MaxPostSize (REG_DWORD)	The maximum size that a client may post to IIS, in bytes. NOTE: this is not the maximum attachment size. The maximum attachment size is actually 4K or so less. This setting affects the size of any post, which could restrict the size of a large message body as well.	Yes
NoNagling (REG_DWORD)	If set to 1, disable the TCP Nagle algorithm. Nagling delays the sending of information until a certain amount of data is obtained. It is safe to leave this set to the default value of 0.	Yes
NumThreads (REG_DWORD)	The number of threads in the IIS pool available to handle requests. Any requests after the maximum pool size has been reached will be queued. The default is 3. For production, suggested value is 4 times the number of CPUs on the machine. For example, a dual CPU machine would have a NumThreads setting of 8.	Yes
ObjCachedPerThread (REG_DWORD)	This is the number of objects (in our case WSDL files) cached per thread. It is safe to leave this at the default setting of 1.	Yes

Global Address List Lookups

The Exchange Service can automatically look up the mailbox and/or home Exchange server for a user if they are not supplied when the session is opened. This is done by connecting to a fixed Exchange server and querying the Global Address List (GAL). The registry entries that control lookups begin with “Gal”. See [“Manually Configuring the Registry Entries” on page 4-4](#)

If Exchange 5.5 is being used, the connection to the GAL can be anonymous and only the Exchange server must be supplied. Exchange 2000 and above requires that a separate account and mailbox be available for the purpose of GAL queries. Note that for non-anonymous GAL connections the `LogonType` registry entry is used to determine what type of Windows impersonation is done in the service, so the GAL user must have sufficient rights to access the Exchange Service machine as defined by the rights in `LogonType`.

Proxy Servers

In order to connect to a Exchange Service through an http proxy server. The following Java system properties may be set to control the proxy connection (notice that they are the same as the Java system properties that are used except they are prefixed by the string “czex”):

Java System Property	Description
<code>czex.http.proxyHost</code>	The hostname of the proxy server
<code>czex.http.proxyPor</code>	The port of the proxy server
<code>czex.http.proxyUser</code>	The username to access the proxy server
<code>czex.http.proxyPassword</code>	The password to access the proxy server

Domino Service Connection

To verify that you can open a connection to the Domino Service and that the Domino Service can connect to Domino, use the Domino Connection Portlet.

Connecting to Domino via the Domino Service

1. Select the Domino Service Connection option from the Welcome page of the Administration Portlet.
2. Enter the required connection information. A detailed description for each parameter is listed in the table below.
3. Once the required information is entered, click **Connect**.

4. If you can connect successfully, you will be given the option of obtaining more information for the mailbox specified by clicking the **continue** button. This will test common calls to the service such as getting the number of messages from the Inbox.
5. Click **End Diagnosis** at any time to start over.

Field	Description
Domino Service URL or hostname	<p>In this field, specify the location of the Domino Service server using one of the following forms:</p> <ul style="list-style-type: none"> • <code>hostname</code> - The hostname of the server • <code>hostname:port</code> - The hostname and port of the server • <code>protocol://hostname/</code> - The protocol and hostname of the server • <code>protocol://hostname:port/</code> - The protocol, hostname and port of the server. <p>In all the cases above you can use the IP address instead of the hostname. For any of the above forms which take a hostname, the name must be resolvable by this machine. You can test this on Windows or UNIX machines by running the ping command from the command shell.</p> <p>Other defaults: <code>protocol=http</code> and <code>port=80</code>.</p>
Username	<p>In this field, specify the username of the user that's accessing the Domino mailbox. This is not the name of the Domino mailbox (which may or may not be different), but the name of an user.</p>
Password	<p>In this field, specify the password of the user that's accessing the Domino mailbox.</p>
Domino Server (Catalog Host Name)	<p>In this field, specify the name of the Domino server, as resolvable from the Notes domain machine. This could just be a Domino server name, such as <code>domino Server/Domain</code> and will be used to lookup the specified user to determine the name and location of the user's mailbox.</p>

Domino Mailbox	In this field, specify the mailbox or alias of the mailbox that you are trying to access on the Domino server. This can be the same as the username, but this does not have to be. The specified username must have ACL access to this mailbox. If you are unsure, leave blank to connect to the mailbox of the specified user from before.
Proxy Server Host Name	The hostname of the proxy server
Proxy Server Username	The username to access the proxy server
Proxy Server Password	The password to access the proxy server

Domino Service Configuration

As a system administrator, you will be able to configure the Domino Service. The configuration can be performed either manually (on the Domino Service machine) or by using the Domino Administration Portlet.

Configuring the Domino Service

1. Select the Domino Service Configuration option from the Welcome page of the Administration Portlet.
2. Enter the required Domino Service URL or host name. This value is the same as the `DominoServiceURL` entered in the `DominoServiceConnection` Portlet.
3. Once the required information is entered, click **View Configuration**.
4. If you can connect successfully, you will be given the option of obtaining the current configuration information and modifying the settings by clicking on **Continue Configuration**.
5. A detailed description for each parameter is listed in the [“Manually Configuring the Registry Entries”](#) on page 4-4 section below.
6. Configure the information by modifying the desired data, and click **Configure Service**.

Note: Some of the parameters will require a restart of the Domino Service or the Domino Server to take effect. These parameters are identified in the Portlet.

Manually Configuring the Domino Configuration Settings

To manually configure the Domino Service, you will need to first log on to the Domino Service machine as a Lotus Domino Administrator. The following database entries control the behavior of the Domino Service. All of the following entries can be found in the `czdo_config.nsf` database found under the Lotus Domino Data directory.

Key	Description	Change Requires Service Restart?
Licensee	The company or user name that the service was licensed to. This is required for a production license.	Yes
ServiceKey	The license key for the service. This value works in conjunction with the Licensee. This is required for a production license.	Yes
Attachment Size Limit	The maximum attachment size limit (in bytes).	Yes
Attachment Temp Directory	The full path to the directory where attachments are temporarily stored while sending from the Domino Server to the Domino Service. The directory should be on a volume with sufficient disk space to store attachments while in transit. The exact amount of disk requirements will depend on the server load but choose a volume with at least a gigabyte of free space. If the directory does not already exist, then the Domino Service will create it.	Yes

Session Timeout	If a session is idle for this number of seconds, it will be closed. This prevents the Domino Service from having sessions open in memory that are no longer in use. The default if the registry entry is not specified is 1800 seconds, or 30 minutes. The value of this setting will be re-read in no longer than one minute, so if it is changed from a large value to a small one for testing purposes, be sure to wait a minute for the change to take affect.	Yes
Log Level	The log level can be set to one of the following: <ul style="list-style-type: none"> • Error • Warning • Info (default) • Debug 	Yes

BEA User Profile Data

You can obtain more information about the BEA User Profile information that is being accessed by WebLogic Portlets for Groupware Integration by selecting the `Portal User Profile Management` option from the Welcome page.

Obtaining the BEA User Profile information

1. Select the `Portal User Profile Management` option from the Welcome page of the Administration Portlet.
2. Enter the portal user name for which you would like to access the User Profile information.
3. Once the required information is entered, either click **View** or **View Preferences**.
4. Clicking on **View Accounts** will display all of the accounts that are set up for the specified user. You can then access more information about each account by clicking on the account name. If a user is having issues with a specific account, you can delete this information and have them re-enter the information into the Groupware Portlet.
5. User Preferences are not tied to one account so are set globally. You can access all of the Groupware Portlet preferences for a specified user by clicking on **View Preferences**.
6. Click **End Diagnosis** at any time to start over.

Groupware Portlet

WebLogic Portlets for Groupware Integration are Java Page Flow portlets that uses Portlet Preferences to control some of the behavior associated with each logical portlet instance. A number of default Portlet Preferences have been defined in the `CompozeGroupware.portlet` file. There are additional Portlet Preferences which can be added to specific instances of the Portlet when configuring the portlet via the WebLogic Administration Tools Portal. This section describes the Portlet Preferences associated with WebLogic Portlets for Groupware Integration which are used to configure various capabilities such as features and navigation.

Groupware Portlet Definition

The Groupware Portlet ship with a `.portlet` file found at:

```
%COMPOZE_PORTLETS_HOME%\portlets\compoze\CompozeGroupware.portlet
```

The Content URI and optional Edit URI are as follows:

Property	Description	Value
Content URI	This property is the location of the content page flow JPF class.	<code>/portlets/compoze/content/contentController.jspf</code>
Edit (optional)	This property is the location of the edit page flow JPF class (optional).	<code>/portlets/compoze/content/edit/editController.jspf</code>

Portlet Preferences

This section describes portlet preferences.

Feature Groups

For each logical Portlet instance, the active features can be configured. By default, all features are active. By modifying, these preferences, a Portal Administrator can deploy multiple logical instances of the Groupware Portlet and configure which feature(s) is available in each instance. The following preferences can be found in the `CompozeGroupware.portlet` file and can altered by either modifying the `CompozeGroupware.portlet` or by configuring individual Portlet instances while using the WebLogic Administration Tools Portal.

Preference	Description	Values
<code>groupware.feature.address_book</code>	This preference activates the address book feature.	true/false
<code>groupware.feature.calendar</code>	This preference activates the calendar feature.	true/false
<code>groupware.feature.mail</code>	This preference activates the mail feature.	true/false
<code>groupware.feature.tasks</code>	This preference activates the tasks feature.	true/false
<code>groupware.feature.options</code>	This preference activates the options feature. NOTE: if this feature is disabled, users will have no way of accessing the options feature unless the Edit mode has been enabled for the portlet.	true/false
<code>groupware.feature.home</code>	This preference activates the home feature. NOTE: if this feature is disabled, users will have no way of accessing the home and summary pages. User will be immediately forwarded to the full view of an enabled feature.	true/false

Maximized View Feature Title and Navigation

Each page in the Groupware Portlet includes a title (also referred to as a “header”) at the top. A portal administrator can optionally configure to display this title and if the title is displayed, can configure how navigation is used within the title. Note that all pages in maximized view of the portlet include the same JSP which is used to display the feature title and navigation. The following preferences determine if the title is displayed for each feature. By default, feature titles are enabled. To disable individual feature titles, the following Portlet Preference must be added to individual instances of the Groupware Portlet via the WebLogic Administration Tools Portal and configured to be `false`.

Preference	Description	Values
<code>groupware.feature.address_book.title</code>	This preference activates the titles for the address book feature pages.	true/false
<code>groupware.feature.calendar.title</code>	This preference activates the titles for the calendar feature pages.	true/false
<code>groupware.feature.mail.title</code>	This preference activates the titles for the mail feature pages.	true/false
<code>groupware.feature.tasks.title</code>	This preference activates the titles for the tasks feature pages.	true/false
<code>groupware.feature.options.title</code>	This preference activates the titles for the options feature pages.	true/false

The title can be configured to support options navigation or features navigation. Options navigation provides a link to the feature options configuration in the title. Features navigation provides links to the features of the Groupware Portlet. This preference can be found in the `CompozeGroupware.portlet` file and can altered by either modifying the

CompozeGroupware.portlet or by configuring individual Groupware Portlet instances while using the WebLogic Administration Tools Portal.

Preference	Description	Values
groupware.title.feature_navigation	This preference configures the titles to use feature navigation . In order for feature navigation to be enabled in the Groupware Portlet title section, feature titles must be configured to be visible in features where title feature navigation will be available.	true/false

Each page in the Groupware Portlet also includes a navigation area (also referred to as a “left navigation area”) at the left side of the portlet. A portal administrator can optionally configure to display this navigation area. Note that all pages in maximized view of the portlet include the same JSP which is used to display the left navigation area. The following preference determines if the left navigation area is displayed for all features. By default, the left navigation area is disabled. This preference can be found in the CompozeGroupware.portlet file and can be enabled by either modifying the CompozeGroupware.portlet or by configuring individual Groupware Portlet instances while using the WebLogic Administration Tools Portal.

Preference	Description	Values
groupware.left_area	This preference activates the left navigation area for all maximized feature pages.	true/false

Home View Feature Navigation

Each summary page in the home view of the Groupware Portlet includes two navigation areas: a navigation area (also referred to as a “top navigation area”) at the top and bottom (also referred to as a “bottom navigation area”) of the page. A portal administrator can optionally configure to display the top or bottom navigation areas. Note that even though the two navigation areas can be displayed simultaneously in two different sections areas of a summary page, it is the same JSP page which is optionally included in the both the top and bottom areas of the page.

The bottom navigation area preference can be found in the `CompozeGroupware.portlet` file and can be altered by either modifying the `CompozeGroupware.portlet` file or by configuring individual Groupware Portlet instances while using the WebLogic Administration Tools Portal.

Preference	Description	Values
<code>groupware.feature.home.navigation.bottom</code>	This preference activates the bottom navigation area for home pages.	true/false

To enable the top navigation area, the following Portlet Preference must be added to individual instances of the Groupware Portlet via the WebLogic Administration Tools Portal and configured to be `true`.

Preference	Description	Values
<code>groupware.feature.home.navigation.top</code>	This preference activates the top navigation area for home pages.	true/false

If the top or bottom navigation is enabled in the home views, links will be available for each enabled feature, except Options, which will allow a user to access the Home view of a feature from the Home navigation area. To disallow users from accessing Home views for features, the following Portlet Preference must be added to individual instances of the Groupware Portlet via the WebLogic Administration Tools Portal and configured to be `false`.

Preference	Description	Values
<code>groupware.feature.home.navigation.min</code>	This preference activates the links for feature home pages in the home navigation area.	true/false

Error Reporting

The Groupware Portlet includes specialized areas for handling various error and exception scenarios which may occur in the Groupware Portlet. Depending on the type of error that occurred, the Groupware Portlet may forward to a pageflow which was designed to handle that

Groupware Portlet

specific error scenario or to a pageflow which is meant to handle more general types errors. If a general error occurs, the Groupware Portlet will forward to the `compoze\content\error\general` pageflow. With the default configuration of the Groupware Portlet, general error display page will include an area where a stack trace of the exception that occurred can be viewed. To configure the Groupware Portlet not to show the exception stack trace on the error page, the following Portlet Preference must be added to individual instances of the Groupware Portlet via the WebLogic Administration Tools Portal and configured to be `false`.

Preference	Description	Values
<code>groupware.error_stacktrace</code>	This preference hides the area where an exception stack trace can be viewed for error pages.	<code>true/false</code>

Customizing the Groupware Portlet

This section describes the Customization features associated with the Groupware Portlet. The look and feel of the Groupware Portlet can be customized by modifying the Cascading Style Sheet (CSS) Class properties. The behavior of the Groupware Portlet can be customized by modifying the Groupware Listener classes.

Skins

The Compoze Portlets reference custom CSS Class names that are located in a file named `compoze.css`. Different versions of this file can exist for each skin in the Portal. Display aspects such as the font, background color, and text position can be easily modified by changing the properties inside the CSS class definitions.

The `compoze.css` file is organized into eight logical groups:

- General CSS resources (used by any portlet utilizing these HTML features)
- General Compoze (used by multiple feature groups)
- Addressbook Feature Group
- Calendar Feature Group
- Home Feature Group
- Mail Feature Group
- Options Feature Group

- Tasks Feature Group

Listener Classes

The `Listener` classes are located under the `%PORTAL_PROJECT%/compose/groupware/c13n/` directory. A default implementation exists for each `Listener` class. By modifying these classes, or creating your own implementation, you can change the following:

- How the portlet obtains provider account information
- Where portlet events are logged
- How the portlet interacts with the user from page to page.

Account Listener

The `AccountListener` interface represents an interface for receiving account events. The `DefaultAccountListener` class represents a default implementation of the `AccountListener` interface. The `DefaultAccountListener` uses BEA's User Profile capabilities to retrieve and store provider account information. This class can be extended to:

- Configure the type of provider to which new accounts will be bound to
- Acquire provider connection parameters to providers from a source other than the BEA's User Profile
- Pass additional connection parameters to the provider
- Configure whether certain connection parameters are required to be entered during account setup
- Configure whether multiple accounts can be added in the portlet
- Configure whether users have the ability to add or edit accounts
- Automatically create Groupware accounts for users
- Configure SSO

To configure the portlets to use the subclass of the `DefaultAccountListener` which you have created, alter the `DefaultAccountListener`'s `getAccountListener` method to return a new instance of your custom `AccountListener`. Various implementations of the `AccountListener` interface, such as `ExchangeAccountListener` and `DominoAccountListener`, ship with the product to aid you in the creation of your own custom `AccountListener` implementation.

Log Listener

The `LogListener` interface represents an interface for receiving log events. The `DefaultLogListener` class represents a default implementation of the `LogListener` interface. The `DefaultLogListener` currently does nothing so the log information is sent to the logging mechanism set for the BEA Portal. This `messageReceived()` method of this class can be altered to (for example):

- Log information to additional targets (e.g. a database or file)
- Perform logging based on some type of constraints

The portlet logging mechanism is sensitive to the logging level configured on the host WebLogic Portal. Debug and other messages can be output to the logging targets by altering the Logging Severity Threshold on the server to “Info”.

View Listener

The `ViewListener` interface represents an interface for receiving view events. The `DefaultViewListener` class represents a default implementation of the `ViewListener` interface. The `DefaultViewListener` maximizes every view except those originating from the Home feature. By modifying this file, the Groupware Portlet can be displayed in the Normal mode, Maximized mode, or any combination of the two.

Portlet Locales

The `LocaleUtility` class is located under the `%PORTAL_PROJECT%/compoze/groupware/c13n/` directory. The default list of locals can be modified by altering the list of available locales in the `s_supportedLocales`. If additional locales are added, be sure to add properties files which correspond to the list of new locales which will be available in the portlet. The list of properties files which should be created is:

- `%PORTAL_PROJECT%/compoze/content/groupware_resources_%JAVA_LOCALE_NAME%.properties`
- If the domino provider is being used, add a `domino_resources_%JAVA_LOCALE_NAME%.properties` file in the top-level directory of all `harmony_portlets.jar` files.
- If the exchange provider is being used, add a `exchange_resources_%JAVA_LOCALE_NAME%.properties` file in the top-level directory of all `harmony_portlets.jar` files.

Note: If you encounter exceptions that include the following text, the properties files you have created are missing properties and should be altered to contain all properties that the default and unmodified `groupware_resources.properties` file contains. For example, the error: `Error opening /portlets/compoze/content/addressbook/addContact/add_contact.jsp. The source of this error is javax.servlet.ServletException: Can't find resource for bundle com.bea.p13n.taglib.i18n.JspMessageBundle, key contacts.contact_add.button.attach` means that the “`contacts.contact_add.button.attach`” key is missing from the `groupware_resources_%JAVA_LOCALE_NAME%.properties` file.

Manual Installation

WebLogic Portlets for Groupware Integration installer automatically copies the portlet JSP files, portlet definition files, and the `harmony_portlets.jar` in place. These files are copied to directories under the `%PORTAL_APPLICATION%` directory. The installer also modifies the `web.xml` to add necessary Servlet mappings for WebLogic Portlets for Groupware Integration.

The following procedure shows you how to do these steps manually.

Copying WebLogic Portlets for Groupware Integration into Place

1. Navigate to `%COMPOZE_PORTLETS_HOME%\portlets` and copy the `compoze` folder and all its contents.
2. Paste the `compoze` folder into the following directory: `%PORTAL_PROJECT%\portlets`

Copying the CSS and Image Files into Place

1. Navigate to `%COMPOZE_PORTLETS_HOME%\skins\avitek\css` and copy the `compoze.css` file.
2. Paste the `compoze.css` file into the following directory:
3. `%PORTAL_PROJECT%\framework\skins\avitek\css`
4. Navigate to `%COMPOZE_PORTLETS_HOME%\skins\avitek\images\` and copy the `compoze` directory.

5. Paste the `compoze` directory into the following directory:

`%PORTAL_PROJECT%\framework\skins\avitek\images`

Note: Avitek is a skin that ships with the sample portal. This skin may not exist on your portal. Copy the `compoze.css` and `images` files into the all of the skins that are configured for your environment.

Copying `harmony_portlets.jar` into Place

1. Navigate to `%COMPOZE_PORTLETS_HOME%\lib` and copy the `harmony_portlets.jar` file.

2. Paste the `harmony_portlets.jar` file into the following directory:

`%PORTAL_APPLICATION%\APP-INF\lib`

Modifying the `web.xml` File

1. Navigate to `%PORTAL_PROJECT%\WEB-INF\`

2. Open the `web.xml` file with a text editor.

3. In the Servlet section, add the following:

```
<servlet>
<servlet-name>CompozeGroupwareAttachmentServlet</servlet-name>
<display-name>CompozeGroupwareAttachmentServlet</display-name>
<description>Compoze Groupware Attachment Servlet</description>
<servlet-class>portlets.compoze.groupware.AttachmentServlet</servlet-class>
>
</servlet>
<servlet>
    <servlet-name>CompozeGroupwareEmbeddedImageServlet</servlet-name>
    <display-name>CompozeGroupwareEmbeddedImageServlet</display-name>
    <description>Compoze Groupware Embedded Image Servlet</description>
<servlet-class>portlets.compoze.groupware.EmbeddedImageServlet</servlet-cl
ass>
</servlet>
```


4. In the Servlet Mapping section of the same `web.xml` file, add the following:

```
<servlet-mapping>
    <servlet-name>CompozeGroupwareAttachmentServlet</servlet-name>
    <url-pattern>*.compozegroupwareattachmentservlet</url-pattern>
</servlet-mapping>
<servlet-mapping>
    <servlet-name>CompozeGroupwareEmbeddedImageServlet</servlet-name>
    <url-pattern>*.compozegroupwareembeddedimageservlet</url-pattern>
</servlet-mapping>
```

5. In the Tag Library definition section of the same `web.xml` file, add the following:

```
<taglib>
    <taglib-uri>compoze-portlets-im.tld</taglib-uri>
    <taglib-location>/WEB-INF/compoze-portlets-im.tld</taglib-location>
</taglib>
```

Copying compoze-portlets-im.tld into Place

1. Navigate to `%COMPOZE_PORTLETS_HOME%\web` directory and copy the `compoze-portlets-im.tld` file.
2. Paste the `compoze-portlets-im.tld` file into the following directory:
`%PORTAL_PROJECT%\WEB-INF`

Copying compoze_portlets_im_resources.properties into Place

1. Navigate to `%COMPOZE_PORTLETS_HOME%\web\classes` directory and copy the `compoze-portlets-im.tld` file.
2. Paste the `compoze_portlets_im_resources.properties` file into the following directory: `%PORTAL_PROJECT%\WEB-INF\classes`

Manual Installation

Known Issues and Workarounds

This document includes known issues for WebLogic Portlets for Groupware Integration release. This document is subject to change without notice.

Requires WLP 8.1 SP2 (GA Not Supported)

This is due to an issue with Page Flows, where form validation is only available (or working) in SP2.

JavaScript Patch (SP2 Only) Required

If running in streaming mode, need BEA WebLogic Portal patch `patch_CR135264.zip`.

In a Clustered Portal Environment, the Following Patches are Needed for Failover to Succeed (SP3 and Earlier)

- `patch_CR189705_81SP3`
 - issue resolved: form members (e.g. dropdowns, checkboxes, radio buttons, etc...) with multiple values failover as `null`.

EAR Fails to Deploy Due to Path Name Length Limitation

EAR fails to deploy on Windows if the application/project/domain path name is too long.

Refer to <http://e-docs.bea.com/wlp/docs81/deploy/deploy.html#1003589>.

Secure Port (HTTPS) in Standalone Page Flows Does not Work (SP2 Only)

Page Flows that are deployed standalone in a portal application cannot use a `{url:securePort}` token defined in `url-template-config.xml`. In this context, a 'standalone' page flow means one that is deployed in a portal project, is accessed directly, but is not aggregated in a portal page. The `{url:securePort}` token works only when a page flow is aggregated in a portal page. A standalone page flow in a portal cannot use:

```
https://{url:domain}:{url:securePort}/{url:path}?{url:queryString}
url:securePort
```

The work around for standalone page flows in portals is to hard code the ports in `url-template-config.xml`, instead of using the token `{url:securePort}`.

Refer to <http://e-docs.bea.com/workshop/docs81/relnotes/relnotes.html>.

Portlet Preferences Being Reset After Server is Restarted

Add the following code to your `netui-config.xml` file:

```
<customization>
    <enable>true</enable>
    <propagate-preferences-on-deploy propagate-to-instances="false"/>
</customization>
```

This can also occur if the portal server is not shut down gracefully.

Calendar (MS Exchange Provider Only)

Create a meeting request, enter CJK characters into the description. The invitee who receives the meeting requests sees the body as question-marks. This is due to a CDO limitation.

Address Book/Contacts

When Adding/Editing a Contact, the types and order of name titles (Mr., Mrs., etc.) and Name suffix (I, II, II etc.) are not culturally appropriate way for French, German, or Japanese.

Name order is not locale-sensitive in Contacts.

Address order is not locale-sensitive in the Address book.

Contacts are not sorted in a culturally appropriate way for French, German, or Japanese.

Clicking on a Page Before it has Loaded in the Browser Can Lead to Error

Description: If user clicks on a page before it has finished loading, a `NullPointerException` can be produced in the portlet.

Workaround: Before clicking in the Groupware Portlets, wait until the page has fully loaded in the browser.

Using the Back Button in the Browser Can Lead to Error in Portlet

Description: Clicking the "Back" button in the browser can lead to an "Action not found" error in the Groupware Portlets. The error may appear after clicking the back button. If the previous page successfully loads in the browser, links or buttons may also produce the "Action not found" error. If the action that is requested to be executed after the "Back" button was clicked existed in a parent or nested pageflow, and does not exist in the current page flow, the error will be produced.

Workaround: Wait until the Groupware Portlets have finished processing and the page has been fully loaded into the browser.

Messages Which Contains BASEHREF Tags in Bodies May Cause HTML to Display Incorrectly

Description: Messages which contain "BASEHREF" tags in bodies may cause HTML to display incorrectly.

Refresh Action Specified in `CompozeGroupware.portlet` File May Not Work on SP2

Description: The `CompozeGroupware.portlet` specifies a "refreshAction". The SP2 version of the portal has a known issue where this action may not be properly executed. This issue was resolved with the SP3 version of the portal. Please refer to

<http://e-docs.bea.com/workshop/docs81/relnotes/relnotes.html>, CR174636 for more information. Patches CR129301 and CR174636 to resolve the issue, but installation of the SP3

version of the portal is highly recommended. The refresh action is triggered when the portlet reloads, and is most important if multiple instances of the portlet are deployed on the same desktop. If the refresh action is removed, and the “EDIT” mode of the portlet is enabled, and the user returns to “NORMAL” or “MAXIMIZED” mode of the portlet, the new preferences may not take because the portlet has not refreshed. As a workaround the refresh action (in bold) can be removed from the `CompozeGroupware.portlet` file. It is also recommended that users access the Options section of the portlet via the “Options” feature, rather than by entering the “EDIT” mode of the portlet.

Removing the refreshAction from the .portlet File

Alter the following code in your `CompozeGroupware.portlet` file

from:

```
<netuix:content>
<netuix:pageflowContent
contentUri="/portlets/compoze/content/contentController.jspf"
refreshAction="refreshAction"/>
```

to:

```
<netuix:content>
<netuix:pageflowContent
contentUri="/portlets/compoze/content/contentController.jspf"/>
</netuix:content>
```

Multiple Portlet Instances are Shown, Switching Accounts, and Then Clicking on an Item in a Portlet Instance Which Has Not Refreshed Can Cause Error

Description: With separate portlets configured in mini-views, switching accounts then accessing items in other portlets can cause errors.

Resolution: For more information, see “Refresh Action Specified in `CompozeGroupware.portlet` File May Not Work on SP2” on page B-3.

Known Issues and Workarounds