Novell
Integration Manager™

6.0

INSTALLATION GUIDE

Novell.

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About This Book

Purpose

This book describes how to install Novell® Integration Manager™.

Audience

This book is for users and/or administrators responsible for installing and configuring the Novell Integration Manager for both development and production environments.

1 Preparing to Install Integration Manager

This Chapter provides an overview of the Novell Integration Manager installation program. The installation program is self-documenting, but there are some decisions you need to make before you run the install. This chapter helps you make them.

Topics include:

- About the installation program
- Starting the install
- What gets installed
- Installing in console mode
- Uninstalling Integration Manager
- Contacting Technical Support

Latest information For the latest information on hardware and software requirements, supported databases, and specific install issues, see the Release Notes.

About the installation program

The installation program is an Install Anywhere wizard that is similar on all platforms. There are three options for installing Novell Integration Manager:

Option	Description	Platform
Default	◆ Installs the Integration Manager Designer ◆ Installs the Integration Manager runtime engine (the Integration Manager Enterprise Server)	Windows, Linux
Designer	Installs the Integration Manager Designer only	Windows, Linux
Runtime	Installs the Integration Manager Enterprise Server only	Windows, Solaris, Linux
Custom	Lets you select options to install a specific configuration of products and features	Windows, UNIX, Linux

System Requirements

See the Integration Manager release notes for the latest system requirements.

Starting the install

When you're ready to install Integration Manager, read this section to learn about starting the Integration Manager installation program on your platform. You can get the installation program from the exteNd product CD or by downloading one of the following files from the Novell Web site:

Platform	File to download
Windows	NIM.exe
Solaris	NIM.bin
Linux	NIM.bin

After you download one of these archives, extract its contents to your file system. Then you can start the install:

Platform	How to start the Integration Manager install
Windows	1 Find the file **NIM.exe** on the product CD or, if you downloaded the installation program, on your file system. 2 Run this executable file.
Linux	1 In a terminal window, navigate to the file **NIM.bin** on the product CD or, if you downloaded the installation program, on your file system. 2 Type: `sh NIM.bin`

What gets installed

This section lists what gets installed or started during the installation:

- Files
- Startup items

If you uninstall manually, you need to make sure these are deleted or stopped.

Files

The installation program installs into the directory of your choice. The default depends on your platform:

Platform	Default install directory
Windows	C:\Novell\NIM6
Linux	/opt/novell/nim6

Startup items

In Windows, the Novell Integration Manager install creates the following program group on the **Start menu**:

```
Novell Integration Manager
```

Installing in console mode

If you've decided to run the installation program in console (text-based) mode, read this section to learn how.

➤ **To run the installation program in console mode:**

1 At the command prompt, start the installation program with the **-i console** switch. Here's the syntax for both UNIX and Linux:

```
sh installer-filename -i console
```

For example:

```
sh NIM.bin -i console
```

During the installation program, the following **commands** are available (at just about any time) to let you control its operation:

Type this command	If you want to
back	Go back to the previous prompt (to change your response or just review it)
quit	Cancel the install

2 Follow the prompts as they display on the console. The installation program displays the **Choose Product Features** prompt, including a list of the current feature selections:

```
Choose Product Features
-----------------------

ENTER A COMMA_SEPARATED LIST OF NUMBERS REPRESENTING THE FEATURES YOU WOULD
LIKE TO SELECT, OR DESELECT. TO VIEW A FEATURE'S DESCRIPTION, ENTER
'?<NUMBER>'.  PRESS <RETURN> WHEN YOU ARE DONE:

    1- [X] Default
    2-  |-[X] Runtime Engine
    3-  |-[X] Designer

Please choose the Features to be installed by this installer.
    :
```

This section provides some tips for completing this part of the install in console mode.

What the symbols mean   Here's a key to the Choose Product Features list:

Symbol	Meaning
[X]	The feature is **selected** and will be installed.
[ ]	The feature is **deselected** and will **not** be installed.
[-]	The feature is **partially selected**. You see this symbol for a parent item when one or more of its children are deselected. It indicates that a **subset** of the feature will be installed.
	IMPORTANT: If you deselect **all** of a parent item's children but leave the parent item partially selected, some files related to that parent item may get installed. If this is not what you want, be sure to **deselect the parent item** too.

How to select and deselect   The Choose Product Features prompt works by toggling any item(s) you specify:

If you	Then
Type the number of a **selected** or **partially selected** item: 8	That item will be **deselected**
Type the number of a **deselected** item: 22	That item will be **selected**

You can toggle **multiple items** at a time by typing the appropriate item numbers in a comma-separated list. For example:

    8,15,22

Toggling a **parent item** sets all of its children to the same state.

How to review your selections   After you respond to the Choose Product Features prompt, you can review your selections by typing the **back** command. You can then make further changes or continue on to the next install prompt.

Uninstalling Integration Manager

If you need to remove an existing Novell Integration Manager installation, you can run the Integration Manager **uninstall program**. To start the uninstall program, use one of the following approaches (depending on your platform).

IMPORTANT: Before you uninstall (by using the uninstall program or manually), make sure you **shut down** all Novell Integration Manager programs and utilities.

Platform	How to run the uninstall program
Windows	**1** Navigate to the \NIM6\Uninstall_Novell Integration Manager folder. **2** Double-click Uninstall Novell Integration Manager.exe.
	1 Go to the Windows **Control Panel** and select **Add or Remove Programs**. **2** Select **Novell Integration Manager**, then click the **Change/Remove** button.
Windows, UNIX, Linux	**1** In a terminal window, navigate to the **/novell/nim/Uninstall_Novell Integration Manager** directory. **2** Type "sh **Uninstall_Novell_Integration_Manager**".

The uninstall program won't remove files that were created or changed after Integration Manager was installed. You can examine the remaining files to decide if there are any (as described in) that you want to keep. You can remove the other files and folders yourself.

Uninstalling manually   As an alternative to using the uninstall program, you can manually remove the files and other artifacts of an Integration Manager Installation.

    See the section on for a list of files and other artifacts to remove.

Contacting Technical Support

To learn about the online product support available to you, visit the Novell Integration Manager Web site (http://www.novell.com/products/integrationmanager).

If you contact the Novell Integration Manager support staff for assistance, you will be asked to provide the following:

- Information about your environment
- Information about your problem

Information about your environment

Category	Details
Product versions	Available from the **About...** help menu
Operating system	The platform for your server
Database platform	The DBMS you are using for application deployment and application data, including versions
Database drivers	The types and versions of the database drivers you are using
Browser	The name and version number of the Web browser that you are using
Java Virtual Machine version (JVM)	The version of the JVM that you are using
Proxy servers and firewalls	Whether you are using a proxy server or firewall in your system configuration

Information about your problem

- Does the problem occur in the **development environment** or at **runtime**?
- What was the **specific action** that caused the error?
- What **error message** did you see?
- Can the problem be **recreated** consistently?
- What are the **exact steps** to recreate the error? Please be prepared to provide an **example**

2 Installing Integration Manager

This section presents an overview the Integration Manager installation options. These options allow you to quickly install the Integration Manager design and runtime components. Topics include:

- About the Installation Process
- Running the Installation Program
- Installing JCE Jurisdiction Policy Files
- Creating Access Control Files for JBoss

About the Installation Process

The Novell Integration Manager installation program allows you to install the Integration Manager design components, runtime components, or both. You can use the installation program to install the runtime components to the JBoss application server. To install the runtime components to other application servers, see "Manually Deploying the Integration Manager Enterprise Server" on page 19.

Running the Installation Program

To install Novell Integration Manager:

1 Exit all other programs (if running on Windows), then launch the Novell Integration Manager installation program as described in "Starting the install" on page 10.

The **License Agreement** panel displays:
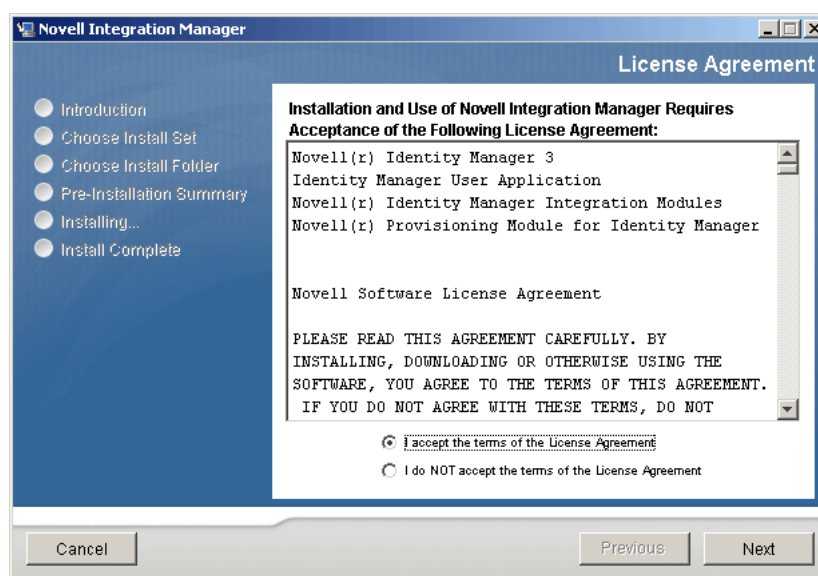
2 To continue with the install, you must select the **accept the license agreement** button, then click **Next**. The Introduction screen is displayed.

**3** Click **Next**. The **Choose Install Set** screen is displayed:
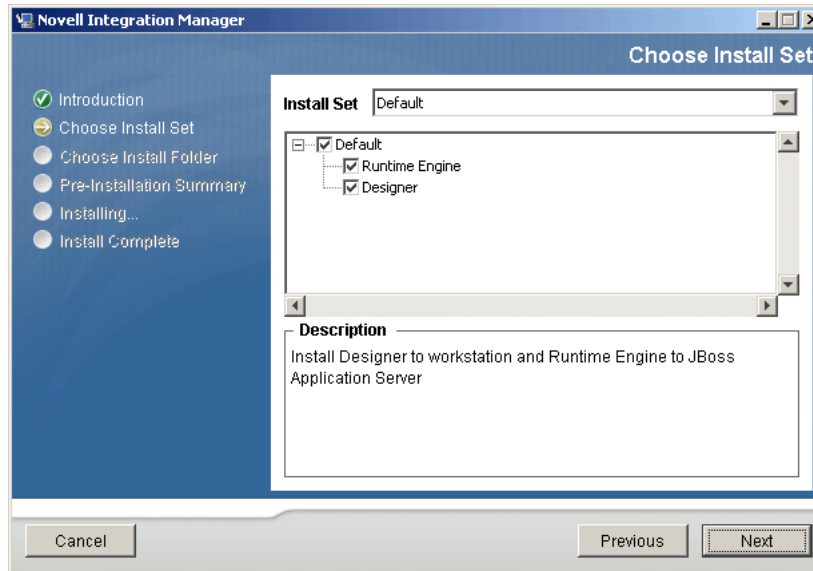
You can choose to install the Integration Manager Designer, the Integration Manager Enterprise Server, or both. The default is to install both. To install the Integration Manager Enterprise Server, you must have a JBoss application server Version 4.0.3 or higher installed. JBoss does not have to be running before you install the runtime engine.

4 Select Designer, Runtime Engine, or both, then click **Next**.

The installation program displays Choose Install Folder screen, which asks you to specify where you would like to have Integration Manager installed. The default installation location is c:\Novell\NIM6 (Windows) or /opt/novell/nim (Linux).

5 Specify the a directory in which to install Integration Manager, then click **Next**.

If you selected the runtime engine as part of the install set, the installation program displays the JBoss Configuration screen, which asks you to specify the location of your JBoss application server installation:
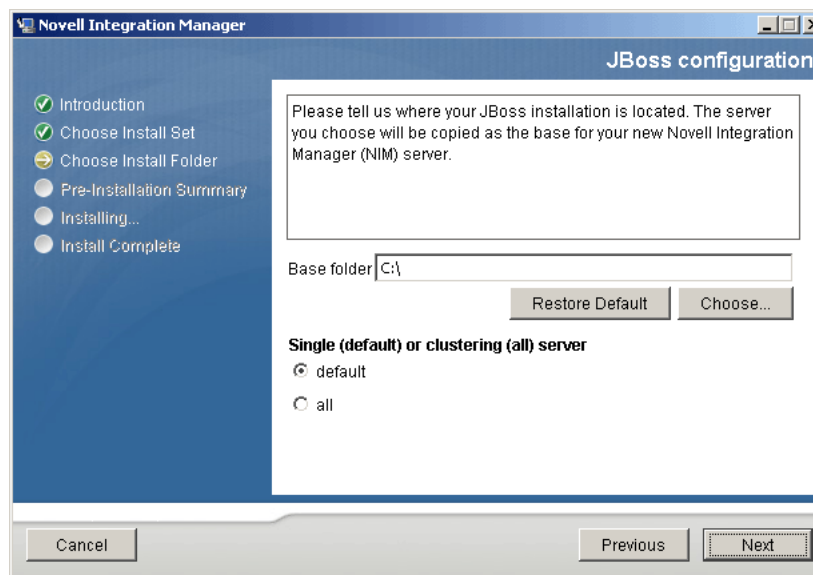
NOTE: The Integration Manager installation program only installs the Integration Manager Enterprise Server to the JBoss application server. To install the Integration Manager Enterprise Server to other application servers, see "Manually Deploying the Integration Manager Enterprise Server" on page 19.

6 Specify the JBoss installation directory.

7 If you are installing the Integration Manager engine into a JBoss cluster, select the **all** option. Otherwise, select **default**.

Your choice specifies which JBoss server configuration will be copied for use with the Integration Manager Enterprise server. If you select **all**, the installation program copies the JBoss server **all** directory, renames the copy NIM, then installs the Integration Manager Enterprise Server into the NIM directory. Use this option if you are clustering your JBoss servers. If you select **default**, the installation program copies the JBoss server **default** directory, renames the copy NIM, then installs the Integration Manager Enterprise Server into the NIM directory.

8 After you have specified the JBoss configuration options, click **Next**. The Pre-installation Summary screen is displayed.

9 Click **Install**. The Novell Integration Manager installation program installs Integration Manager using the options that you specified.

After the installation completes, you should start Integration Manager and set your preferences for the various external editors (for example, browser, XML editor, JSP editor, XSL editor) by selecting **Tools** > **Preferences** > **General** and **Tools** > **Preferences** > **Editor**.

Creating Access Control Files for JBoss

After installing the Installation Manager runtime to JBoss, you must create the following access control files in the {jboss server root}\server\nim\conf directory:

◆ roles.properties
◆ users.properties

You use the **roles.properties** file to map one or more user names of your choosing to the role ComposerAdministrators, which is required by Novell Integration Manager. You use **users.properties** to map a password to the user or users specified in roles.properties.

To create access control files for JBoss:

1 Use a text editor to create a file named roles.properties, with the following contents (if **roles.properties** already exists, add the following to the file):

username=ComposerAdministrators

where username is any user name of your choosing

2 Save the **roles.properties** file in the {jboss server root}\server\nim\conf directory.

3 Use a text editor to create a file named users.properties, with the following contents (if **users.properties** already exists, add the following to the file):

username=password

where username is the username specified in **roles.properties**, and password is the password that you want to assign to that user. Repeat this step for each user specified in **roles.properties**.

4 Save the **users.properties** file in the {jboss server root}\server\nim\conf directory.

Installing JCE Jurisdiction Policy Files

Due to import control restrictions of some countries, the jurisdiction policy files shipped with Novell Integration Manager allow strong but limited cryptography. An unlimited strength version of these files is available for those living in eligible countries (which is most countries).

NOTE: This step is particularly important if you are upgrading from previous versions of exteNd Composer. Without the unlimited strength JCE Jurisdiction Policy files, when working with projects created with previous versions of exteNd Composer, you will receive the error message "error decrypting password" on any object that contains a password field (for example, connection resources, WS Interchange actions).

To install JCE unlimited JCE Jurisdiction Policy files:

1 Download the JCE "Unlimited Strength" Jurisdiction Policy Files from http://java.sun.com/products/jce/index-14.html#UnlimitedDownload. The policy files are contained in a zip archive file.

2 Uncompress and extract the downloaded file to a temporary directory. This creates a subdirectory named "jce". This directory contains the following files:

README.txt

COPYRIGHT.html

local_policy.jar

US_export_policy.jar

3 Copy the local_policy.jar and US_export_policy.jar files to the \nim\Common\jre\lib\security directory.

3 Manually Deploying the Integration Manager Enterprise Server

The Integration Manager installation program provides automated installation of the Integration Manager Enterprise Server (also know as the Integration Manager runtime) to JBoss application servers. To deploy Integration Manager applications to other supported application servers, you must manually install the Integration Manager Enterprise Server. The following sections provide instructions for manually installing the Integration Manager Enterprise Server to supported application servers.

Runtime Files

To install the Integration Manager Enterprise Server to a supported application server, you need the Integration Manager runtime files, which are included in the Server Resources directory within the NIM6 (Windows) or nim (Linux) installation directory. The Server Resources directory contains the following sub-directories:

\conf

\deploy

\lib

\Tomcat

The files in these directories are used in the procedures that follow.

JBoss

The Integration Manager installation program provides automated installation of the Integration Manager Enterprise Server (also know as the Integration Manager runtime) to JBoss application servers. You can install the Integration Manager Enterprise server to a JBoss application server at any time by running the Integration Manager installation program. If for any reason you need to install the Integration Manager Enterprise server to JBoss Version 4 manually, follow these steps:

NOTE: **Note:** The steps to manually deploy the Integration Manager Enterprise Server from versions of Integration Manager before version 5.2.1 are different. Contact Novell Customer Support for instructions.

1   Copy the contents of the Runtime Files conf directory (see) to the {JBoss install directory}\server\{server configuration directory}\conf directory.

   NOTE: The JBoss server **default** directory is set as the server configuration directory in the supplied files. If you want to use a different JBoss server configuration, you will have to modify the xconfig.xml located in the \server\{server configuration directory}\conf directory. Locate the line <XC_DIR Desc="Location of eXtendComposer Installation">../server/default/deploy</XC_DIR> in the xconfig.xml file, and change "default" to the name of the server configuration directory that you want to use.

2   Copy the contents of the Runtime Files **deploy** directory (see) to the {JBoss install directory}\server\{server configuration directory}\deploy directory.

3   Copy the contents of the Runtime Files **lib** directory (see) to the {JBoss install directory}\server\{server configuration directory}\lib directory.

4   Following the instructions given in , create a text file named **users.properties** in the {JBoss install directory}\server\{server configuration directory}\conf directory.

5 Following the instructions given in "Creating Access Control Files for JBoss" on page 17, create a text file named **roles.properties** in the {jboss install directory}\server\{server configuration directory}\conf directory.

6 Start JBoss.

You can now start the Integration Manager Enterprise Server using the URL "http://localhost:8080/exteNdComposer". Use the user ID and password that you specified when you created the **users.properties** and **roles.properties** files.

WebLogic 8.1.1

Follow these steps to manually deploy the Integration Manager Enterprise Server to WebLogic 8.1.1.

1 Create a directory named Composer in the weblogic81 directory.

2 Create the following subdirectories in the Composer directory:

bin
console
lib
log
tmp

3 Copy the contents of the Runtime Files **lib** directory (see "Runtime Files" on page 19) to the weblogic81\Composer\lib directory**.**

4 Move the **exteNdComposer.ear** file from the weblogic81\Composer\lib directory to the weblogic81\Composer\console directory.

5 Copy the **xconfig.xml** file from the Runtime Files **conf** directory (see "Runtime Files" on page 19) to the weblogic81\Composer\lib directory.

6 Edit the **xconfig.xml** file in the weblogic81\Composer\lib directory and make the following changes:

    6a Locate the **XC_DIR** element (near the beginning of the xconfig.xml file) and change the path contained in this element from "../server/default/deploy" to the path to the Composer directory that you created in step 1 (for example, D:\bea\weblogic81\Composer).

    6b Locate the **FRAMEWORKFACTORY** element and replace it with the following:

```
<FRAMEWORKFACTORY Desc="Class name that is used to resolve resource
references">com.sssw.b2b.xs.weblogic.GXSWL60FrameworkFactory</FRAMEWORKFACTORY
>
```

    6c Locate the JBOSS_40 element and replace the JBoss element and its contents with the following:

```
<WEBLOGIC_600>
      <ADMIN_HOST>Your_Host_Name_or_IP</ADMIN_HOST>
      <ADMIN_PORT>7001</ADMIN_PORT>

<HELPER_CLASS>com.sssw.b2b.xs.deploy2.wl70.GXSWL70DeployHelper</HELPER_CLASS>
      <WEBLOGIC_HOME>D:\bea\weblogic81</WEBLOGIC_HOME>
      <STAGING_LOCATION>D:\bea\weblogic81\Composer\tmp</STAGING_LOCATION>
      <DEPLOY_INPUT>deploy/wl60/DeployInput.jsp</DEPLOY_INPUT>
      <DEPLOY_HANDLER>Composer.wl60.DeployHandler</DEPLOY_HANDLER>
   </WEBLOGIC_600>
```

    NOTE: Change the host name contained in the **ADMIN_HOST** element to match your environment. Change the paths contained in the **WEBLOGIC_HOME** and **STAGING_LOCATION** elements to match the paths in your environment.

7 Edit the **startWebLogic.cmd** file in the directory for your domain (for example, \weblogic81\user_projects\domains\{your domain}, and make the following additions:

7a Before the **set CLASSPATH** statement, add a variable called **XCSCLASSPATH**, and assign to the variable the path to the **xcs-all.jar** file in the Composer **lib** directory. For example:

```
set XCS_CLASSPATH=D:\bea\weblogic81\Composer\lib\xcs-
all.jar;D:\bea\weblogic81\Composer\lib\;
```

7b Add the **XCSCLASSPATH** variable to the **CLASSPATH** variable. For example (additions that you must add to the supplied files are shown in bold):

```
set
CLASSPATH=%XCS_CLASSPATH%;%WEBLOGIC_CLASSPATH%;%POINTBASE_CLASSPATH%;%JAVA_HOM
E%\jre\lib\rt.jar;%WL_HOME%\server\lib\webservices.jar;%CLASSPATH%
```

8 Edit the **fileRealm.properties** file in the {install path}\bea81\user_projects\domains\{your domain} directory and add the line **group.ComposerAdministrators=system** to the file.

9 Start the WebLogic application server.

10 Using the WebLogic Administration console, select Security | Realms | {your realm} | Groups.

10a Click on the **Configure New Group** link.

10b Create a Group named **ComposerAdministrators**.

10c Select the Membership tab.

10d Assign the ComposerAdministrators group to the Administrators group.

11 Using the WebLogic Administration console, select Security > Realms > {your realm} > Users.

11a Select the User name of the Composer Administrator.

11b Select the Groups tab.

11c Assign the user to the group ComposerAdministrators.

12 Using the WebLogic Administration console, select {your domain} | Servers | Deployments | Applications.

12a Select the **Deploy a New Application** link in the right frame of the WebLogic Administration console window.

12b Using the Location links, navigate to the \weblogic81\Composer\console directory, select the **exteNdComposer.ear** file, then select Continue.

12c Select Deploy.

You can now start the Integration Manager Enterprise Server using the URL "http://localhost:7001/exteNdComposer". Use the user name and password of the user that you assigned to the ComposerAdministrator role.

WebSphere 5

Follow these steps to manually deploy the Integration Manager Enterprise Server to WebSphere 5.

1 In the \WebSphere\AppServer directory, create the following directory structure:

Composer

    bin
    console
    lib
    log
    tmp

2 Copy the **updateLicense.bat** and **updateLicense.sh** files from the Runtime Files **conf** directory (see "Runtime Files" on page 19) to the \WebSphere\AppServer\Composer\bin directory.

3 Copy the contents of the **lib** directory from the Runtime Files **lib** directory (see "Runtime Files" on page 19) to the \WebSphere\AppServer\Composer\lib directory.

4 Move the **exteNdComposer.ear** file from the \WebSphere\AppServer\Composer\lib directory to the \WebSphere\AppServer\Composer\console directory.

5 Copy the **xconfig.xml** file from the Runtime Files **conf** directory (see) to the \WebSphere\AppServer\Composer\lib directory.

6 Edit the **xconfig.xml** file in the \WebSphere\AppServer\Composer\lib directory and make the following changes:

    6a Locate the **XC_DIR** element (near the beginning of the xconfig.xml file) and change the path contained in this element from "../server/default/deploy" to the path to the Composer directory that you created in step 1 (for example, D:\WebSphere\AppServer\Composer).

    6b Locate the **FRAMEWORKFACTORY** element and replace it with the following:

```
<FRAMEWORKFACTORY Desc="Class name that is used to resolve resource
references">com.sssw.b2b.xs.websphere.GXSWS40FrameworkFactory</FRAMEWORKFACTOR
Y>
```

    6c Locate the **JBOSS_40** element and replace the JBoss element and its contents with the following:

```
<WEBSPHERE_40>
        <ADMIN_HOST>Your_Server_Name_or_IP</ADMIN_HOST>
        <ADMIN_PORT>2809</ADMIN_PORT>
        <STAGING_LOCATION>D:\WebSphere\AppServer\Composer\tmp</STAGING_LOCATION>
        <DEPLOY_INPUT>deploy/ws50/DeployInput.jsp</DEPLOY_INPUT>
        <DEPLOY_HANDLER>Composer.ws50.DeployHandler</DEPLOY_HANDLER>
    </WEBSPHERE_40>
```

    NOTE: Change the host name or IP address contained in the **ADMIN_HOST** element to match your environment. Change the path contained in the **STAGING_LOCATION** element to match the paths in your environment.

7 Start the WebSphere Application Server.

8 Start the WebSphere Administrative Console.

9 Select Environment > Manage WebSphere Variables.

10 Create a new variable with the following values:

Name: EXTEND_COMPOSER_HOME
Value: $(WAS_INSTALL_ROOT)/Composer
Description: The root directory for the Integration Manager installation.

11 Create another new variable, with the following values:

12 Name: EXTEND_COMPOSER_LIB
Value: ${EXTEND_COMPOSER_HOME}/lib
Description: The Integration Manager directory where the system Jars can be located.

13 Select Servers > Application Servers, then select the name of the application server to which you want to install the Integration Manager Enterprise Server. The Administrative Console displays the configuration page for the application server.

14 Select **Process Definition**.

15 Select **Java Virtual Machine** from the **Additional Properties** list.

16 Select **Custom Properties** from the **Additional Properties** list.

17 Create a new custom property, with the following values:

Name: ws.ext.dirs
Value: ${EXTEND_COMPOSER_LIB}
Description: The Integration Manager extension directory

18 Select Applications > Enterprise Applications.

19 Select Install.

20 Select the **exteNdComposer.ear** file in the {WebSphere install directory}\AppServer\Composer\console directory.

21 Accept the default settings for bindings.

22 Accept the default settings for AppDeployment Options.

23 Select the appropriate options for mapping virtual hosts to web modules, and mapping modules to application servers.

24 Map the ComposerAdministrators security role to the appropriate users and groups.

25 Select Finish to complete the installation.

26 Save the changes to the application server master configuration.

27 Stop and restart the application server before attempting to start the Integration Manager Enterprise Server.

You can now start the Integration Manager Enterprise Server using the URL "http://localhost:9080/exteNdComposer".

exteNd Application Server 5.2

Follow these steps to manually deploy the Integration Manager Enterprise Server to the exteNd Application Server Version 5.2.

1 In the \exteNd5\AppServer directory, create the following directory structure:

Composer

> bin
> console
> lib
> log
> tmp

2 Copy the contents of the **lib** directory from the Runtime Files **lib** directory (see "Runtime Files" on page 19) to the \exteNd5\AppServer\Composer\lib directory.

3 Move the **exteNdComposer.ear** file from the \exteNd5\AppServer\lib directory to the \exteNd5\AppServer\Composer\console directory.

4 Copy the **xconfig.xml** file from the Runtime Files **conf** directory (see "Runtime Files" on page 19) to the \exteNd5\AppServer\Composer\lib directory.

5 Edit the **xconfig.xml** file in the \exteNd5\AppServer\Composer\lib directory and make the following changes:

5a Locate the **XC_DIR** element (near the beginning of the xconfig.xml file) and change the path contained in this element from "../server/default/deploy" to the path to the Composer directory that you created in step 1 (for example, D:\exteNd5\AppServer\Composer).

5b Locate the **FRAMEWORKFACTORY** element and replace it with the following:

```
<FRAMEWORKFACTORY Desc="Class name that is used to resolve resource
references">com.sssw.b2b.xs.sssw.GXSS3FrameworkFactory</FRAMEWORKFACTORY>
```

5c Locate the JBOSS_40 element and replace the JBoss element and its contents with the following:

```
<NOVL>
  <BIN_DIR>.</BIN_DIR>
  <DEPLOY_INPUT>deploy/novl/DeployInput.jsp</DEPLOY_INPUT>
  <DEPLOY_HANDLER>Composer.novl.DeployHandler</DEPLOY_HANDLER>
</NOVL>
```

6 Copy the following code into a text file, and save the file in the \exteNd5\AppServer\Composer\console directory, using the name **exteNdComposerEARDeplPlan.xml**:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE earJarOptions PUBLIC "-//SilverStream Software, Inc.//DTD J2EE EAR
Deployment Plan 1.3//EN" "deploy-ear_1_3.dtd">

<earJarOptions isObject="true">
    <earJar isObject="true">
        <version type="String">1.0</version>
        <earJarName type="String">extendComposer.ear</earJarName>
        <moduleList isObject="true">
            <module isObject="true">
                <warJar isObject="true">
                    <warJarName type="String">exteNdComposer.war</warJarName>
                    <isEnabled type="Boolean">True</isEnabled>
                    <deployToFilesystem>False</deployToFilesystem>
                    <urls type="StringArray">
                        <el>exteNdComposer</el>
                    </urls>
                    <deployedObject
type="String">exteNdComposer</deployedObject>
                    <excludedJSPs type="StringArray">
                        <el>deploy/wl60/DeployInput.jsp</el>
                        <el>deploy/wl60/DeployInput-page2.jsp</el>
                        <el>deploy/wl60/DeployInput-page3.jsp</el>
                        <el>deploy/wl60/DeployInput-validate-page2.jsp</el>
                        <el>deploy/wl60/DeployInput-validate.jsp</el>
                        <el>deploy/ws40/DeployInput.jsp</el>
                        <el>deploy/ws40/DeployInput-page2.jsp</el>
                        <el>deploy/ws40/DeployInput-page2-validate.jsp</el>
                        <el>deploy/ws40/DeployInput-page3.jsp</el>
                        <el>deploy/ws40/DeployInput-validate.jsp</el>
                    </excludedJSPs>
                    <roleMap isObject="true">
                        <roleMapping isObject="true">
                            <name type="String">ComposerAdministrators</name>
                            <userOrGroupName
type="String">ComposerAdministrators</userOrGroupName>
                        </roleMapping>
                    </roleMap>
                </warJar>
            </module>
        </moduleList>
        <roleMap isObject="true">
            <roleMapping isObject="true">
                <name type="String">ComposerAdministrators</name>
                <userOrGroupName
type="String">ComposerAdministrators</userOrGroupName>
            </roleMapping>
        </roleMap>
    </earJar>
</earJarOptions>
```

7 Locate the AgJars.conf file in the \exteNd5\AppServer\bin directory and open the file in a text editor.

8 Add the following lines to the "MODULE COMMON" section, near the end of the file:

```
$SS_LIB ../Composer/lib/xcs-all.jar
$SS_LIB ../Composer/lib/xcs-ejb-res-stub.jar
$SS_LIB ../Composer/lib/
$SS_LIB ../Composer/lib/commons-codec-1.3.jar
$SS_LIB ../Composer/lib/IDMLogging.jar
$SS_LIB ../Composer/lib/jaxrpc-api.jar
$SS_LIB ../Composer/lib/saaj-api.jar
$SS_LIB ../Composer/lib/xpp3.jar
```

NOTE: You may need to add other JARs, depending on the Integration Manager Connects that you are using (for example, $SS_LIB ../Composer/lib/xc-iway.jar, $SS_LIB ../Composer/lib/iwpsci.jar). See your Integration Manager Connect documentation for the JARs needed for a specific Integration Manager Connect.

9   Start the application server.

10 From a command prompt, navigate to the \exteNd5\AppServer\bin directory.

11 Type the following command at the command prompt (replacing the information in brackets with the information that is appropriate for your environment):

```
silvercmd deployEAR {server name}:{http port number 80} SilverMaster50 {server
install path}\AppServer\Composer\console\exteNdComposer.ear -f {server install
path}\AppServer\Composer\console\exteNdComposerEARDeplPlan.xml -U {admin} -P
{admin password}.
```

For example, if your server is named "myserver", is set up to use port 80 for http (this is the default setting), you have installed the application server in the default location, and the administrator is named "admin" with the password "admin", you would type:

```
silvercmd deployEAR myserver:80 SilverMaster50 C:\Program
Files\Novell\exteNd5\AppServer\Composer\console\exteNdComposer.ear -f
C:\Program
Files\Novell\exteNd5\AppServer\Composer\console\exteNdComposerEARDeplPlan.xml
-U admin -P admin.
```

This command deploys the Integration Manager Enterprise Server to the application server. The next step is to add a security group and role for the Integration Manager Enterprise Server to the application server.

12 Start the exteNd application server Server Management Console.

13 Select **View** > **Security**.

14 Select **Users & Groups**.

15 Double-click **Silver Security**.

16 Double-click **Groups**.

17 Add a new group named **ComposerAdministrators**.

18 Click on **ComposerAdministrators**, then select the **Add User to Group** button from the buttons on the bottom of the page (hold the mouse pointer over a button to display a tool tip that gives the button name).

19 In the **Add Users to Group** dialog box, double-click **SilverSecurity**, then **Users**.

20 Click on the name of the user that you want to add to the **ComposerAdministrators** group, then select **Add**.

21 Select **Close**.

22 Select **File** > **Restart Server**.

After the application server has restarted, you can start the Integration Manager Enterprise Server using the URL "http://localhost:{port number}/exteNdComposer". The default port number is 80.

Apache Tomcat 4

Follow these steps to manually deploy the Integration Manager Enterprise Server to the Apache Tomcat application server.

1   Make sure that the Tomcat application server is *not* running.

2   In the Tomcat directory, create the following directory structure:

Composer

> bin
> console
> lib
> log
> tmp

3 Copy the contents of the **lib** directory from the Runtime Files **lib** directory (see "Runtime Files" on page 19) to the {Tomcat install directory}\Composer\lib and the {Tomcat install directory}\shared\lib directories.

4 Copy the jca10apis.jar file from the Runtime Files **Tomcat** directory (see "Runtime Files" on page 19) to the {Tomcat install directory}\Composer\lib and the {Tomcat install directory}\shared\lib directories.

5 Use an archive tool (for example, WinZip, File Roller) to extract the **exteNdComposer.war** file from the **exteNdComposer.ear** file, and place one copy of the **exteNdComposer.war** file in the {Tomcat install directory}\Composer\console directory, and another copy in the {Tomcat install directory}\webapps directory.

6 Copy the **xconfig.xml** file from the Runtime Files **conf** directory (see "Runtime Files" on page 19) to the {Tomcat install directory}\Composer\lib directory.

7 Edit the **xconfig.xml** file in the {Tomcat install directory}\Composer\lib directory and make the following changes:

7a Locate the **XC_DIR** element (near the beginning of the xconfig.xml file) and change the path contained in this element from "../server/default/deploy" to the path to the Composer directory that you created in step 1 (for example, D:\Tomcat 4.1.24\Composer).

7b Locate the **FRAMEWORKFACTORY** element and replace it with the following:

```
<FRAMEWORKFACTORY Desc="Class name that is used to resolve resource
references">com.sssw.b2b.xs.tomcat.GXSTCFrameworkFactory</FRAMEWORKFACTORY>
```

7c Locate the JBOSS_40 element and replace the JBoss element and its contents with the following:

```
<TOMCAT_41>
    <ADMIN_HOST>localhost</ADMIN_HOST>
    <ADMIN_PORT>8080</ADMIN_PORT>
    <TOMCAT_HOME>D:\Tomcat 4.1.24</TOMCAT_HOME>
    <STAGING_LOCATION>D:\Tomcat 4.1.24\Composer\tmp</STAGING_LOCATION>
    <DEPLOY_INPUT>deploy/tc41/DeployInput.jsp</DEPLOY_INPUT>
    <DEPLOY_HANDLER>Composer.tc41.DeployHandler</DEPLOY_HANDLER>
</TOMCAT_41>
```

NOTE: Change the host name or IP address contained in the **ADMIN_HOST** element to match your environment. Change the paths contained in the **TOMCAT_HOME** and **STAGING_LOCATION** elements to match the paths in your environment.

8 Using a text editor, open the **tomcat-users.xml** file in the {Tomcat install directory}\conf directory, and add the following lines:

```
<user password="novell" roles="admin,manager,ComposerAdministrators"
username="novell"/>
<role rolename="ComposerAdministrators"/>
```

NOTE: Substitute any desired username and user password for "novell".

9 Using a text editor, open the **setclasspath.bat** (Windows) or **setclasspath.sh** (Linux) file in the {Tomcat install directory}\bin directory, and add the path to the \Composer\lib directory to the CLASSPATH variable. For example, if you installed Tomcat in a directory named Tomcat 4.1.24, the CLASSPATH variable assignment would look like this (additions that you must add to the supplied files are shown in bold):

Windows

```
set CLASSPATH=%JAVA_HOME%\lib\tools.jar;D:\Tomcat 4.1.24\Composer\lib
```

Linux

```
CLASSPATH="$JAVA_HOME"/lib/tools.jar:home/jdoe/jakarta-tomcat-4.1.24/Composer/lib
```

10 From a command prompt, navigate to the {Tomcat install directory}\bin directory, and start Tomcat by running the **startup.bat** (Windows) or **startup.sh** (Linux\Unix) file.

11 You can now start the Integration Manager Enterprise Server using the URL "http://localhost:8080/exteNdComposer". Use the user name and password of the user that you assigned to the ComposerAdministrator role in Step 8.