

IBM Enterprise Content Management Widgets
Version 4.5.2.1

Installation and Upgrade Guide



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Note

Before using this information and the product it supports, read the information in "Notices" on page 113.

Edition notices

This edition applies to version 4.5.2 of IBM Enterprise Content Management Widgets (product number 5724-R76) and to all subsequent releases and modifications until otherwise indicated in new editions.

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ibm.com and related resources

Product support and documentation are available from [ibm.com](http://www.ibm.com)[®].

Support and assistance

Product support is available on the Web. Click Support from the product Web site at:

Content Manager EE

<http://www.ibm.com/software/data/cm/cmgr/mp/edition-enterprise.html>

Content Manager for z/OS[®]

<http://www.ibm.com/software/data/cm/cmgr/390/>

Information center

You can view the product documentation in an Eclipse-based information center that you can install when you install the product. By default, the information center runs in a Web server mode that other Web browsers can access. You can also run it locally on your workstation. See the information center at <http://publib.boulder.ibm.com/infocenter/cmgmt/v8r4m0/index.jsp>.

PDF publications

You can view the PDF files online using the Adobe Acrobat Reader for your operating system. If you do not have the Acrobat Reader installed, you can download it from the Adobe Web site at <http://www.adobe.com>.

See the following PDF publications Web sites:

Product	Web site
Content Manager EE	http://www.ibm.com/support/docview.wss?rs=86&uid=swg27015910
Content Manager for z/OS	http://www.ibm.com/support/docview.wss?rs=119&uid=swg27015911

How to send your comments

Your feedback is important in helping to provide the most accurate and highest quality information.

Send your comments by using the online reader comment form at https://www14.software.ibm.com/webapp/iwm/web/signup.do?lang=en_US&source=swg-rcf.

Consumability survey

You are invited to tell IBM how to improve the consumability of software products. If you want to help IBM make Content Manager EE easier to use, take the Consumability Survey at <http://www.ibm.com/software/data/info/consumability-survey/>.

Contacting IBM

To contact IBM customer service in the United States or Canada, call 1-800-IBM-SERV (1-800-426-7378).

To learn about available service options, call one of the following numbers:

- In the United States: 1-888-426-4343
- In Canada: 1-800-465-9600

For more information about how to contact IBM, see the Contact IBM Web site at <http://www.ibm.com/contact/us/>.

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Preparing for non-English installations

IBM® Enterprise Content Management Widgets is Unicode-enabled to support multiple languages and the installation package contains the necessary Multilingual user interface files. A separate installation step is not required to install the translated version.

Available languages for IBM ECM Widgets

The IBM ECM Widgets V4.5.2 installation program supports English only. The configuration manager supports multiple languages. In addition to English, IBM ECM Widgets displays the user interface in the following languages:

Language	Locale
Arabic	ar
Chinese (Simplified)	zh-CN
Chinese (Traditional)	zh-TW
French	fr
German	de
Italian	it
Japanese	ja
Korean	ko
Polish	pl
Portuguese (Brazilian)	pt-BR
Russian	ru
Spanish	es

For configurations that use IBM FileNet® Content Manager object stores

For platform-specific details regarding IBM FileNet P8 Platform on the supported levels of independent software vendor components and version requirements for non-English installations on configurations that use IBM FileNet Content Manager object stores, see:

- *IBM FileNet P8 Hardware and Software Requirements* guide
- *Non-English environment considerations* topic in the *Plan and Prepare Your Environment for IBM FileNet P8* guide
- *IBM FileNet P8 Non-English Support Guide*

To download these documents from the IBM Web site, see the Product Documentation for FileNet P8 Platform support page: <http://www.ibm.com/support/docview.wss?rs=3247&uid=swg27010422>.

Installing IBM ECM Widgets in Business Space

IBM ECM Widgets can be installed and deployed on IBM WebSphere® Application Server configurations using Business Space powered by WebSphere on AIX® and Windows platforms.

Based on your configuration, choose one of the following options to install and deploy IBM ECM Widgets for Business Space:

Installing IBM ECM Widgets on IBM WebSphere Application Server - Base

For WebSphere Application Server - Base configurations, Business Space powered by WebSphere must be deployed manually before you can install IBM ECM Widgets.

Use this configuration option to deploy Business Space powered by WebSphere on IBM WebSphere Application Server and then deploy IBM ECM Widgets.

Planning the installation

Before you install IBM ECM Widgets, you must decide which method you will use to deploy Business Space powered by WebSphere. The method you choose determines the order in which the various prerequisite software components must be installed.

For new installations on WebSphere Application Server, the order in which the prerequisite software is installed, deployed and configured is determined by whether you want to deploy Business Space to an existing WebSphere Application Server profile or a new profile.

Business Space powered by WebSphere must be installed and deployed in one of two ways:

- Deploy to an existing WebSphere Application Server profile that has all the prerequisite software already installed, deployed, and configured. You then configure Business Space.
- In one step, create a new profile and deploy an already-configured Business Space application, after which you then need to install, deploy, and configure all prerequisite components in the newly created profile.

Installing prerequisite software

Before you install IBM ECM Widgets, different prerequisite components are required, depending on which type of IBM Content Manager content server you use.

For IBM ECM Widgets upgrades:

Before IBM ECM Widgets V4.5.2.1 can be installed, IBM ECM Widgets V4.5.2 must be installed and configured in Business Space powered by WebSphere. For details on upgrading your configuration to IBM ECM Widgets V4.5.2, please download installation and upgrade from the IBM Web site in the following location:
<http://www-01.ibm.com/support/docview.wss?rs=3247&uid=swg27010422#wid>

For configurations that use IBM FileNet Content Manager object stores:

- IBM WebSphere Application Server
- IBM Installation Manager. This product can be downloaded from the IBM Web site at the following location: <http://www.ibm.com/support/docview.wss?uid=swg24024682>
- Database: use either DB2[®] for Linux, UNIX and Windows or Oracle
- Content Engine
- Process Engine

Important: The following components must be deployed to the same profile on the IBM WebSphere Application Server:

- IBM FileNet Workplace XT

Important: When you configure the site preferences, ensure that the Documentation Server URL is entered with the same protocol as your IBM ECM Widgets configuration. For details on configuring site preferences for Workplace XT, see the following IBM FileNet P8 help topic: http://publib.boulder.ibm.com/infocenter/p8docs/v4r5m1/index.jsp?topic=/com.ibm.p8.doc/ae_help/siteprefs/sp_bootstrap_preference_settings.htm.

Note: At this point, install IBM FileNet Workplace XT, but do not deploy yet.

- Content Engine Client
- Process Engine Client with REST service enabled

Note: For details regarding configuring REST services, see the Configuring REST Services topic in the *IBM FileNet P8 Platform Installation and Upgrade Guide* in the following location: http://publib.boulder.ibm.com/infocenter/p8docs/v4r5m1/topic/com.ibm.p8.doc/developer_help/process_java_api/guide/rest/rest_configure.htm.

- (Optional) eForms

For supported versions of required platform software, see the IBM FileNet P8 Hardware and Software Requirements document on the IBM Web site. For supported versions of required FileNet P8 Software, see the IBM FileNet P8 Compatibility document on the IBM Web site.

For configurations that use IBM DB2 Content Manager content servers

- IBM WebSphere Application Server
- IBM Installation Manager. This product can be downloaded from the IBM Web site at the following location: <http://www.ibm.com/support/docview.wss?uid=swg24024682>
- Database: use DB2 for Linux, UNIX and Windows or Oracle
- IBM DB2 Content Manager with IBM WEBi

For WebSphere Application Server Network Deployment High Availability configurations

To configure WebSphere Application Server Network Deployment for High Availability (HA) with IBM ECM Widgets, the following additional components are required:

- IBM HTTP Server
- IBM HTTP Server Plugin

You must install WebSphere Application Server Network Deployment or WebSphere Application Server - base on all nodes in your system.

For details on creating and configuring a clustered environment, see the WebSphere Application Server Network Deployment online information center: http://publib.boulder.ibm.com/infocenter/wasinfo/v7r0/index.jsp?topic=/com.ibm.websphere.nd.doc/info/ae/ae/welcome_nd.html

Installing IBM ECM Widgets V4.5.2

The IBM ECM Widgets installation program also installs the package that is used to deploy Business Space powered by WebSphere for systems where manual deployment is necessary.

Running the IBM ECM Widgets installation program adds the files necessary to install and deploy the following components:

- Business Space powered by WebSphere
- IBM ECM Widgets on Business Space powered by WebSphere or IBM Lotus® Mashups for configurations that use either IBM FileNet Content Manager object stores or IBM DB2 Content Manager content servers

You can run the IBM ECM Widgets installation program in one of two ways:

Installing IBM ECM Widgets V4.5.2 interactively

You can run the IBM ECM Widgets installation program interactively and step through the installer screens. You must install IBM ECM Widgets V4.5.2 before you can install the V4.5.2.1 update.

To install the IBM ECM Widgets software:

1. Log on to the host computer and copy the installation package to a local drive.
2. From the installation package, run the appropriate installation program for your configuration:

Option	Description
AIX	ECMWidgets4_5_2AIX.bin
Windows	ECMWidgets4_5_2WIN.exe

3. Complete the fields in the installation program.
4. Review the pre-installation summary and click **Install**.
5. Review the installation summary. If errors occurred, see the log file in the following location:

Option	Description
AIX	<i>ECMWidgets_Home/</i> IBM_ECM_Widgets_Install.log
Windows	<i>ECMWidgets_Home\</i> IBM_ECM_Widgets_Install.log

For example, the log file is saved to the following default path:

Option	Description
AIX	/opt/IBM/ECMWidgets/ IBM_ECM_Widgets_Install.log
Windows	C:\Program Files\IBM\ECMWidgets\ IBM_ECM_Widgets_Install.log

Installing IBM ECM Widgets V4.5.2 silently

You can run the IBM ECM Widgets installation silently. You must install IBM ECM Widgets V4.5.2 before you can install the V4.5.2.1 update.

To silently install IBM ECM Widgets, enter values about your environment in the `ECMWidgets_silent_input.properties` file. Then, start the silent installation from a command line. You can configure the required properties file in one of two ways:

- Manually edit and modify the options in the `ECMWidgets_silent_input.properties` file that is included in the installation package.
- Run an installation interactively and have the installer record the options that you set in the `ECMWidgets_silent_input.properties` file. This file can then be used to install silently on additional computers, and use the options that you recorded during your interactive installation. To silently install IBM ECM Widgets:

1. Log on to the host computer by using an account that has administrator privileges.
2. Copy the IBM ECM Widgets installation package to the host computer and prepare the properties file:
 - To modify the properties file included in the installation package, open the `ECMWidgets_silent_input.properties` file and follow the instructions within to modify the options. The properties that you enter are not case sensitive.

Restriction: You must change the license agreement option from false to true or the installation will not run.

- To create a properties file by running the installation program, select the option to create the file during the installation. After the file is created, replace the file in the installation package with the file that you generated.
3. For non-English installations only: If the `ECMWidgets_silent_input.properties` file contains non-English characters, convert the file by using the `native2ascii` tool:

Tip: If you accept the default installation paths that are recorded in the `ECMWidgets_silent_input.properties` file, conversion of the file will not be necessary.

- a. From the `JAVA_JDK_Home\bin` directory, run the following command:

```
native2ascii source_file target_file
```

For example:

```
native2ascii ECMWidgets_silent_input.properties intermediate.txt
```

4. Start the installation by running the following command:

Option	Description
AIX	<code>ECMWidgets4_5_2AIX.bin -i silent -f target_file</code>

Option	Description
Windows	ECMWidgets4_5_2WIN.exe -i silent -f <i>target_file</i>

5. Review the installation summary. If errors occurred, see the log file in the following location:

Option	Description
AIX	ECMWidgets_Home/ IBM_ECM_Widgets_Install.log
Windows	ECMWidgets_Home\ IBM_ECM_Widgets_Install.log

For example, the log file is saved to the following default path:

Option	Description
AIX	/opt/IBM/ECMWidgets/ IBM_ECM_Widgets_Install.log
Windows	C:\Program Files\IBM\ECMWidgets\ IBM_ECM_Widgets_Install.log

Installing the IBM ECM Widgets V4.5.2.1 software update

After you run the IBM ECM Widgets V4.5.2 installation program, you must install the V4.5.2.1 fix pack. Download and install this software update before you configure IBM ECM Widgets. You can choose to run the installation interactively or silently.

Installing the IBM ECM Widgets V4.5.2.1 software update interactively

The IBM ECM Widgets V4.5.2.1 fix pack provides an interactive installation program or a silent installation option. You can consult the fix pack readme for additional information and instructions.

Install IBM ECM Widgets V4.5.2 before you install this software update.

To install the IBM ECM Widgets V4.5.2.1 software update interactively:

1. Download the IBM ECM Widgets V4.5.2.1 software update from Fix Central to a local drive on the IBM ECM Widgets server.
2. From the installation package, run the appropriate installation type for your configuration:

Option	Description
AIX	ECMWidgets4_5_2_1AIX.bin
Windows	ECMWidgets4_5_2_1WIN.exe

3. Follow the instructions in the installation program screens.
4. When the installation is complete, run the version tool to verify that the version has been updated to 4.5.2.1.

Option	Description
AIX	<i>install_path</i> /IBM/ECMWidgets/version.sh

Option	Description
Windows	<i>install_path\IBM\ECMWidgets\version.bat</i>

Installing the IBM ECM Widgets V4.5.2.1 software update silently

To silently install the IBM ECM Widgets V4.5.2.1 software update, enter values about your environment in the silent installation properties file. You can then start the silent installation from a command line.

Install IBM ECM Widgets V4.5.2 before you install this software update.

To silently install the IBM ECM Widgets V4.5.2.1 software update:

1. Download the IBM ECM Widgets V4.5.2.1 software update from Fix Central to a local drive on the IBM ECM Widgets server.
2. Open the silent input properties file for editing:

Option	Description
AIX	ECMWidgets_silent_input_unix.properties
Windows	ECMWidgets_silent_input_win.properties

3. Set the value for LICENSE_ACCEPTED to TRUE.
4. Run the following installation command and specify the properties file as shown in the following example:

Option	Description
AIX	ECMWidgets4_5_2_1AIX.bin -i silent -f ECMWidgets_silent_input_unix.properties
Windows	ECMWidgets4_5_2_1WIN.exe -i silent -f ECMWidgets_silent_input_win.properties

5. When the installation is complete, run the version tool to verify that the version has been updated to 4.5.2.1.

Option	Description
AIX	<i>install_path/IBM/ECMWidgets/version.sh</i>
Windows	<i>install_path\IBM\ECMWidgets\version.bat</i>

Installing the Business Space powered by WebSphere package to your WebSphere Application Server home directory

Using IBM Installation Manager, you must install the Business Space package into the WebSphere Application Server directory structure before you can deploy Business Space.

Before you begin, ensure IBM Installation Manager V1.3.3 or later is installed.

To run IBM Installation Manager and install the Business Space installation package to the WebSphere Application Server home directory:

1. From the <http://www.ibm.com/support/docview.wss?uid=swg24026428> link, download the 7.0.0-WS-BSPACE-FP0000002.zip file to the *install_path\IBM\ECMWidgets\BusinessSpace* directory on the IBM ECM Widgets server.
2. Start IBM Installation Manager.
3. Click **File** → **Preferences**.
4. In the Repositories window, click **Add Repository**.
5. In the Add a Repository window, click **Browse**. Browse to the BusinessSpace directory within the IBM ECM Widgets installation location, select the *bssc.7000.repository.zip* file and click **OK**. The file is installed in the following location:

Option	Description
AIX	<i>ECMWidgets_Home/BusinessSpace/bssc.7000.repository.zip</i>
Windows	<i>ECMWidgets_Home\BusinessSpace\bssc.7000.repository.zip</i>

For example, the file is located in the following default path:

Option	Description
AIX	<i>/opt/IBM/ECMWidgets/BusinessSpace/bssc.7000.repository.zip</i>
Windows	<i>C:\Program Files\IBM\ECMWidgets\BusinessSpace\bssc.7000.repository.zip</i>

6. In the Add a Repository window, click **Browse**, and browse to the BusinessSpace directory within the IBM ECM Widgets installation location, select the 7.0.0-WS-BSPACE-FP0000002.zip file and click **OK**. The file is located in the following path:

Option	Description
AIX	<i>ECMWidgets_Home/BusinessSpace/7.0.0-WS-BSPACE-FP0000002.zip</i>
Windows	<i>ECMWidgets_Home\BusinessSpace\7.0.0-WS-BSPACE-FP0000002.zip</i>

For example, the file is located in the following default path:

Option	Description
AIX	<i>/opt/IBM/ECMWidgets/BusinessSpace/7.0.0-WS-BSPACE-FP0000002.zip</i>
Windows	<i>C:\Program Files\IBM\ECMWidgets\BusinessSpace\7.0.0-WS-BSPACE-FP0000002.zip</i>

7. In the Add a Repository window, click **Browse**.
8. Browse to the BusinessSpace directory within the IBM ECM Widgets installation location, open the was-sync directory and select the *repository.config* file. Click **OK**. The file is located in the following path:

Option	Description
AIX	<i>ECMWidgets_Home</i> /BusinessSpace/was-sync/ repository.config
Windows	<i>ECMWidgets_Home</i> \BusinessSpace\was-sync\ repository.config

For example, the file is located in the following default path:

Option	Description
AIX	/opt/IBM/ECMWidgets/BusinessSpace/was- sync/repository.config
Windows	C:\Program Files\IBM\ECMWidgets\ BusinessSpace\was-sync\repository.config

9. Click **OK** in the Repositories dialog.
10. Click the **Import** icon.
11. In the Import Existing WebSphere Installation dialog, click the **Installation Directory** dropdown menu and select the appropriate WebSphere installation directory, for example:

Option	Description
AIX	/opt/IBM/WebSphere/AppServer
Windows	C:\ProgramFiles\IBM\WebSphere\AppServer

12. Click **Next**.
13. Specify a **Shared Resources Directory** and click **Next**.
14. Click **Import**.
15. Click **Finish**.
16. Click the **Install** icon.
17. In the Install Packages window, select the `com.ibm.ws.bspace` package and click **Next**. The Install Packages window will display the package name and installation directory you have selected.
18. Verify the information and then click **Next**. The Install Packages window will display the package features that will be installed.
19. Click **Next**. The Install Packages window will display summary information about the options you have selected.
20. Click **Install**.
21. Click **Finish** after the installation completes and then exit IBM Installation Manager.

Preparing a database for Business Space powered by WebSphere

A database is required for Business Space powered by WebSphere in order to install IBM ECM Widgets.

The method you use to prepare the database depends on your configuration. Choose one of the following options:

Preparing an IBM DB2 for Linux, UNIX and Windows database for configurations where DB2 and IBM ECM Widgets are collocated

If DB2 and IBM ECM Widgets are collocated on the same computer, you must modify a properties file so a new database will be created when Business Space is deployed.

When you deploy Business Space powered by WebSphere, a new database for DB2 for Linux, UNIX and Windows is automatically created based on the properties you specify in the BSpace_DB2-distributed.properties file. To prepare the file:

1. Create a copy of the BSpace_DB2-distributed.properties template file and save it to a new location. The file is installed in the following location:

Option	Description
AIX	<i>WAS_Home</i> /BusinessSpace/config.bspace/MetadataFiles/
Windows	<i>WAS_home</i> \BusinessSpace\config.bspace\MetadataFiles\

For example:

Option	Description
AIX	Copy the file from: /opt/IBM/WebSphere/AppServer/ BusinessSpace/config.bspace/ MetadataFiles/BSpace_DB2- distributed.properties Save the file to: /tmp/BSpace_DB2-distributed.properties
Windows	Copy the file from: C:\Program Files\IBM\WebSphere\ AppServer\BusinessSpace\config.bspace\ MetadataFiles\BSpace_DB2- distributed.properties Save the file to: C:\BSpace_DB2-distributed.properties

2. Open the copy of the BSpace_DB2-distributed.properties file in a text editor and, using the instructions in the file, edit the appropriate values.

Attention: For Windows configurations, if Program Files is part of your temporary path location, it must be entered as:

C:/Progra~1/

3. Save and close the file.

Preparing a database for IBM DB2 for Linux, UNIX and Windows configurations where DB2 is installed remotely from IBM ECM Widgets

If DB2 is remote from the IBM ECM Widgets installation, you must create an empty database and modify a properties file.

To prepare an IBM DB2 for Linux, UNIX and Windows database for Business Space powered by WebSphere:

1. Create a copy of the BSpace_DB2-distributed.properties template file and save it to a new location. The file is installed in the following location:

Option	Description
AIX	<i>WAS_Home</i> /BusinessSpace/config.bspace/ MetadataFiles/
Windows	<i>WAS_home</i> \BusinessSpace\config.bspace\ MetadataFiles\

For example:

Option	Description
AIX	Copy the file from: /opt/IBM/WebSphere/AppServer/ BusinessSpace/config.bspace/ MetadataFiles/BSpace_DB2- distributed.properties Save the file to: /tmp/BSpace_DB2-distributed.properties
Windows	Copy the file from: C:\Program Files\IBM\WebSphere\ AppServer\BusinessSpace\config.bspace\ MetadataFiles\BSpace_DB2- distributed.properties Save the file to: C:\BSpace_DB2-distributed.properties

2. Open the copy of the BSpace_DB2-distributed.properties file in a text editor and, using the instructions in the file, edit the appropriate values.

Attention: For Windows configurations, if Program Files is part of your temporary path location, it must be entered as:

C:/Progra~1/

3. Save and close the file.
4. Create an empty DB2 database by using the createDatabase.sql script in the following location: *WAS_home*\BusinessSpace\mm.config\dbscripts\DB2\createDatabase.sql.

Tip: Change the value for @DB_NAME@ in the script to the name of the new database you are creating.

Preparing a Business Space powered by WebSphere database for Oracle configurations

For Oracle configurations, you must create an empty database and modify a properties file before you deploy Business Space.

To prepare an Oracle database for Business Space powered by WebSphere:

1. Create a copy of the BSpace_Oracle.properties template file and save it to a new location. The file is installed in the following location:

Option	Description
AIX	<i>WAS_Home</i> /BusinessSpace/config.bspace/ MetadataFiles/
Windows	<i>WAS_home</i> \BusinessSpace\config.bspace\ MetadataFiles\

For example:

Option	Description
AIX	Copy the file from: /opt/IBM/WebSphere/AppServer/ BusinessSpace/config.bspace/ MetadataFiles/BSpace_Oracle.properties Save the file to: /tmp/BSpace_Oracle.properties
Windows	Copy the file from: C:\Program Files\IBM\WebSphere\ AppServer\BusinessSpace\config.bspace\ MetadataFiles\BSpace_Oracle.properties Save the file to: C:\BSpace_Oracle.properties

- Open the copy of the `BSpace_Oracle.properties` file in a text editor and, using the instructions in the file, edit the appropriate values. You must set the values for `userName`, `databaseUser` and `schemaName` to the same value and set the value of `password` and `dbPassword` to the password for the user name.

Note: Ensure the value you choose for `userName`, `databaseUser` and `schemaName` is not already in use in the database system.

Important: For Windows configurations, if `Program Files` is part of your temporary path location, it must be entered as:

C:/Progra~1/

- Save and close the file.
- Create an empty Oracle database that uses the UTF-8 character set.

Deploying Business Space powered by WebSphere on IBM WebSphere Application Server

Depending on which method of installation you chose for deploying Business Space powered by WebSphere when you planned the installation, deploy Business Space using one of two command-line methods:

Deploying Business Space powered by WebSphere to an existing WebSphere Application Server profile

Use this method to deploy Business Space if you already have an IBM WebSphere Application Server profile.

To deploy Business Space powered by WebSphere:

1. From a command prompt, access the bin directory located in the WebSphere Application Server installation home directory and run the appropriate command for your configuration:

Windows

- For configurations that use IBM DB2 for Linux, UNIX and Windows database, enter the following command in one line:

```
manageprofiles.bat -augment -profileName profileName -cellName cellName
-nodeName nodeName -templatePath ..\profileTemplates\BusinessSpace
\default.bspace -enableAdminSecurity true -adminUserName Admin_username
-adminPassword Admin_PWD -bspacedbDesign temp_copy_path
\Bspace_DB2-distributed.properties -dbDelayConfig false -dbCreateNew
true_or_false
```

Important:

- For DB2 databases that are local to the IBM ECM Widgets installation, enter:
-dbCreateNew true
- For DB2 databases that are remote, enter:
-dbCreateNew false

For example, for a configuration with a local DB2 database, access C:\Program Files\IBM\WebSphere\AppServer\bin\ and enter the following command in one line:

```
manageprofiles.bat -augment -profileName AppSrv01 -nodeName myserverNode01
-cellName myserverNode01cell -templatePath ..\profileTemplates
\BusinessSpace\default.bspace -enableAdminSecurity true -adminUserName
administrator -adminPassword mypassword -bspacedbDesign
C:\Bspace_DB2-distributed.properties -dbDelayConfig false -dbCreateNew true
```

- For configurations that use Oracle database, enter the following command in one line:

```
manageprofiles.bat -augment -profileName profileName -cellName cellName
-nodeName nodeName -templatePath ..\profileTemplates\BusinessSpace
\default.bspace -enableAdminSecurity true -adminUserName Admin_username
-adminPassword Admin_PWD -bspacedbDesign temp_copy_path
Bspace_Oracle.properties -dbDelayConfig true -dbCreateNew false
```

For example, access C:\Program Files\IBM\WebSphere\AppServer\bin\ and enter the following command in one line:

```
manageprofiles.bat -augment -profileName AppSrv01 -nodeName myserverNode01
-cellName myserverNode01cell -templatePath ..\profileTemplates\BusinessSpace
\default.bspace -enableAdminSecurity true -adminUserName administrator
-adminPassword mypassword -bspacedbDesign C:\Bspace_Oracle.properties
-dbDelayConfig true -dbCreateNew false
```

AIX

- For configurations that use IBM DB2 for Linux, UNIX and Windows database, enter the following command in one line:

```
manageprofiles.sh -augment -profileName profileName -cellName cellName
-nodeName nodeName -templatePath ../profileTemplates/BusinessSpace
/default.bspace -enableAdminSecurity true -adminUserName Admin_username
-adminPassword Admin_PWD -bspacedbDesign temp_copy_path
/Bspace_DB2-distributed.properties -dbDelayConfig false -dbCreateNew
true_or_false
```

Important:

- For DB2 databases that are local to the IBM ECM Widgets installation, enter:

- dbCreateNew true
- For DB2 databases that are remote, enter:
- dbCreateNew false

For example, for a configuration with a local DB2 database, access C:\Program Files\IBM\WebSphere\AppServer\bin\ and enter the following command in one line:

```
manageprofiles.sh -augment -profileName AppSrv01 -nodeName myserverNode01
-cellName myserverNode01cell -templatePath ../profileTemplates
/BusinessSpace/default.bspace -enableAdminSecurity true -adminUserName
administrator -adminPassword mypassword -bspacedbDesign /tmp
/BSpace_DB2-distributed.properties -dbDelayConfig false -dbCreateNew true
```

- For configurations that use Oracle database, enter the following command in one line:

```
manageprofiles.sh -augment -profileName profileName -cellName cellName
-nodeName nodeName -templatePath ../profileTemplates/BusinessSpace
/default.bspace -enableAdminSecurity true -adminUserName Admin_username
-adminPassword Admin_PWD -bspacedbDesign temp_copy_path
/BSpace_Oracle.properties -dbDelayConfig true -dbCreateNew false
```

For example, access /opt/IBM/WebSphere/AppServer/bin/ and enter the following command in one line:

```
manageprofiles.bat -augment -profileName AppSrv01 -nodeName myserverNode01
-cellName myserverNode01cell -templatePath ../profileTemplates/BusinessSpace
/default.bspace -enableAdminSecurity true -adminUserName administrator
-adminPassword mypassword -bspacedbDesign /tmp/BSpace_Oracle.properties
-dbDelayConfig true -dbCreateNew false
```

Restriction: The command must complete with the following result to have been successful:

```
INSTCONFSUCCESS: Profile augmentation succeeded
```

If you did not receive the correct result, investigate the log files that are listed.

2. For configurations that use Oracle database, complete the following steps:

For configurations where Oracle is installed locally to IBM ECM Widgets

- a. Access the SQL files which are stored in the following location: *WAS_Home/profiles/profileName/dbscripts/BusinessSpace/nodeName/Oracle/databaseName*. For AIX systems, ensure the directory is set to have read/write/execute permissions for a user who will execute the SQL scripts.
- b. Open the createSchmea.sql file and replace *@DB_PASSWORD@* with the password in the database properties file.
- c. Log in as a user with permissions to run the configBusinessSpaceDB script. Run configBusinessSpaceDB.sh on AIX or configBusinessSpaceDB.bat on Windows. You will be prompted for a username and password for an Oracle DBA user.

For configurations where Oracle is installed remotely from IBM ECM Widgets

- a. Copy the SQL files directory from *Profile_Home\dbscripts\BusinessSpace\nodeName\Oracle\databaseName* to the database system. For AIX systems, ensure the directory is set to have read/write/execute permissions for a user who will execute the SQL scripts. For example, copy the files from:
WAS_Home/profiles/AppSrv01/dbscripts/BusinessSpace/myNode/Oracle/bspacedb
- b. Execute the following scripts:

- createTablespace.sql
- createSchema.sql

Important: Ensure you change the user password before executing createSchema.sql.

- createTable.sql
- createGrant.sql
- createTables_BusinessSpace.sql

3. Enable application security by entering the following command:

Option	Description
AIX	<code>wsadmin.sh -username <i>username</i> -password <i>password</i> -conntype NONE -lang jython -c "AdminTask.setAdminActiveSecuritySettings ('[-appSecurityEnabled true]')"</code>
Windows	<code>wsadmin -username <i>username</i> -password <i>password</i> -conntype NONE -lang jython -c "AdminTask.setAdminActiveSecuritySettings ('[-appSecurityEnabled true]')"</code>

Creating a new profile and deploying a pre-configured instance of Business Space powered by WebSphere

Use this method to deploy Business Space if you do not have an IBM WebSphere Application Server profile. The command will create a new profile and deploy a new instance of Business Space powered by WebSphere.

To create a new profile and deploy a pre-configured instance of Business Space powered by WebSphere to your WebSphere Application Server:

1. From a command prompt, access the bin directory located in your WebSphere Application Server profile home directory and run the appropriate command for your configuration:

Windows

- For configurations that use DB2 for Linux, UNIX and Windows database, enter the following command in one line:
`manageprofiles.bat -create -templatePath ..\profileTemplates\BusinessSpace\default.bspace -enableAdminSecurity true -adminUserName Admin_username -adminPassword Admin_PWD -bspacedbDesign temp_copy_path\BSpace_DB2-distributed.properties -dbDelayConfig false -dbCreateNew true`

Important:

- For DB2 databases that are local to the IBM ECM Widgets installation, enter:
`-dbCreateNew true`
- For DB2 databases that are remote, enter:
`-dbCreateNew false`

For example, for a configuration with a local DB2 database, access `C:\Program Files\IBM\WebSphere\AppServer\bin\` and enter the following command in one line:


```
manageprofiles.bat -create -templatePath ..\profileTemplates\BusinessSpace
\default.bspace -enableAdminSecurity true -adminUserName administrator
-adminPassword mypassword -bspacedbDesign
C:\Bspace_DB2-distributed.properties -dbDelayConfig true -dbCreateNew true
```

- For configurations that use Oracle database, enter the following command in one line:

```
manageprofiles.bat -create -templatePath ..\profileTemplates\BusinessSpace
\default.bspace -enableAdminSecurity true -adminUserName Admin_username
-adminPassword Admin_PWD -bspacedbDesign temp_copy_path
\Bspace_Oracle.properties -dbDelayConfig true
```

For example, access C:\Program Files\IBM\WebSphere\AppServer\bin\ and enter the following command in one line:

```
manageprofiles.sh -create -templatePath ..\profileTemplates\BusinessSpace
\default.bspace -enableAdminSecurity true -adminUserName administrator
-adminPassword mypassword -bspacedbDesign C:\Bspace_Oracle.properties
-dbDelayConfig false
```

AIX

- For configurations that use DB2 for Linux, UNIX and Windows database, enter the following command in one line:

```
manageprofiles.sh -create -templatePath ../profileTemplates/BusinessSpace
/default.bspace -enableAdminSecurity true -adminUserName
Admin_username -adminPassword Admin_PWD
-bspacedbDesign temp_copy_path/Bspace_DB2-distributed.properties
-dbDelayConfig false -dbCreateNew true
```

Important:

- For DB2 databases that are local to the IBM ECM Widgets installation, enter:
-dbCreateNew true
- For DB2 databases that are remote, enter:
-dbCreateNew false

For example, for a configuration with a local DB2 database, access C:\Program Files\IBM\WebSphere\AppServer\bin\ and enter the following command in one line:

```
manageprofiles.sh -create -templatePath ../profileTemplates/BusinessSpace
/default.bspace -enableAdminSecurity true -adminUserName administrator
-adminPassword mypassword -bspacedbDesign
/tmp/Bspace_DB2-distributed.properties -dbDelayConfig false
-dbCreateNew true
```

- For configurations that use Oracle database, enter the following command in one line:

```
manageprofiles.sh -create -templatePath ../profileTemplates/BusinessSpace
/default.bspace -enableAdminSecurity true -adminUserName
Admin_username -adminPassword Admin_PWD
-bspacedbDesign temp_copy_path/Bspace_Oracle.properties -dbDelayConfig true
```

For example, access /opt/IBM/WebSphere/AppServer/bin/ and enter the following command in one line:

```
manageprofiles.sh -create -templatePath ../profileTemplates/BusinessSpace
/default.bspace -enableAdminSecurity true -adminUserName administrator
-adminPassword mypassword -bspacedbDesign /tmp/Bspace_Oracle.properties
-dbDelayConfig true
```

2. For configurations that use Oracle database, complete the following steps:

For configurations where Oracle is installed locally to IBM ECM Widgets

- a. Access the SQL files which are stored in the following location: *WAS_Home/profiles/profileName/dbscripts/BusinessSpace/nodeName/Oracle/databaseName*. For AIX systems, ensure the directory is set to have read/write/execute permissions for a user who will execute the SQL scripts.
- b. Open the createSchmea.sql file and replace @DB_PASSWORD@ with the password in the database properties file.
- c. Log in as a user with permissions to run the configBusinessSpaceDB script. Run configBusinessSpaceDB.sh on AIX or configBusinessSpaceDB.bat on Windows. You will be prompted for a username and password for an Oracle DBA user.

For configurations where Oracle is installed remotely from IBM ECM Widgets

- a. Copy the SQL files directory from *Profile_Home\dbscripts\BusinessSpace\nodeName\Oracle\databaseName* to the database system. For AIX systems, ensure the directory is set to have read/write/execute permissions for a user who will execute the SQL scripts. For example, copy the files from:
WAS_Home/profiles/AppSrv01/dbscripts/BusinessSpace/myNode/Oracle/bspacedb
- b. Execute the following scripts:
 - createTablespace.sql
 - createSchema.sql

Important: Ensure you change the user password before executing createSchema.sql.

- createTable.sql
- createGrant.sql
- createTables_BusinessSpace.sql

3. Enable application security by entering the following command:

Option	Description
AIX	<code>wsadmin.sh -username <i>username</i> -password <i>password</i> -conntype NONE -lang jython -c "AdminTask.setAdminActiveSecuritySettings ('[-appSecurityEnabled true]')"</code>
Windows	<code>wsadmin -username <i>username</i> -password <i>password</i> -conntype NONE -lang jython -c "AdminTask.setAdminActiveSecuritySettings ('[-appSecurityEnabled true]')"</code>

4. For configurations that use IBM FileNet Content Manager object stores, install IBM FileNet Workplace XT and configure WebSphere Application Server for IBM FileNet Workplace XT but do not deploy the application until after you run the IBM ECM Widgets Configuration Manager to deploy IBM ECM Widgets. For details, see the IBM FileNet Workplace XT Installation and Upgrade Guide.

Related concepts

 IBM FileNet Workplace XT Installation and Upgrade Guide

Running the IBM ECM Widgets Configuration Manager

Run the Configuration Manager to deploy IBM ECM Widgets on your IBM WebSphere Application Server profile and configure the necessary settings.

Gather the following information before you start the deployment:

- IBM WebSphere Application Server Settings:
 - Home directory path
 - Profile name
 - Administrator log on credentials
 - SOAP Connector address port

For configurations that use IBM FileNet Content Manager object stores:

- Workplace XT installation path
- Process Engine REST API URL
- Content Engine services URL

For configurations that use IBM DB2 Content Manager content servers:

- IBM WEBi URL.

To deploy ECM Widgets on WebSphere Application Server:

1. Start the IBM WebSphere Application Server.
2. Launch the IBM ECM Widgets Configuration Manager:

Option	Description
AIX	Access the installation directory and run the ConfigMgr file. For example, run the file from the following default installation location: /opt/IBM/ECMWidgets/ConfigMgr/ConfigMgr
Windows	Click Start → All Programs → IBM ECM Widgets → Configuration Manager

3. Follow the instructions on the IBM ECM Widgets Configuration Manager screens and enter the required details about your configuration.
4. Click **Finish** to complete the deployment.
5. If any errors occurred, review the configuration log for details. Run the IBM ECM Widgets Configuration Manager again. The log is located in the logs directory of the installation path. For example, the log is stored in the following default location:

Option	Description
AIX	/opt/IBM/ECMWidgets/logs
Windows	C:\Program Files\IBM\ECMWidgets\logs

Tip: For configurations that use IBM FileNet Content Manager object stores, the IBM ECM Widgets configuration manager rebuilt the IBM FileNet Workplace XT WAR and EAR files.

6. (optional) Enable the ecmX theme. As part of the IBM ECM Widgets installation, a new Business Space theme was installed. In order to make this theme available to end users, you must enable it using the following procedure.

Note: To enable this style later, a restart of WebSphere Application Server will be necessary.

- a. Click **Servers** → **Server Types** → **WebSphere application servers**.
- b. Click on the server where Business Space is deployed.
- c. Click **Java and Process Management** → **Process Definition** → **Environment Entries**.
- d. Click **New** to create a new Environment Entry.
- e. Enter `BSPACE_STYLE_EXT_DIR` in the Name field.
- f. Enter the path to the styles folder in your IBM ECM Widgets installation directory. For example, the folder is installed in the following default location:

Option	Description
AIX	<code>/opt/IBM/ECMWidgets/BusinessSpace/styles</code>
Windows	<code>C:\Program Files\IBM\ECMWidgets\BusinessSpace\styles</code>

- g. Click **Apply** and then click **Save directly to the master configuration**.
7. For configurations that use IBM FileNet Content Manager object stores, redeploy IBM FileNet Workplace XT and set the Class load settings according to the instructions in the IBM FileNet Workplace XT Installation and Upgrade Guide.
8. Stop and restart the IBM WebSphere Application Server.
9. For configurations that use IBM FileNet Content Manager object stores, restart the Process WPXT Services Manager according to the instructions in the IBM FileNet Workplace XT Installation and Upgrade Guide.

(Optional) Setting the IBM FileNet Workplace XT cookie path

Complete this task only if your configuration uses IBM FileNet Content Manager object stores.

To set the IBM FileNet Workplace XT cookie path:

1. Access the WebSphere Application Server administrative console and click **Applications** → **Application Types** → **WebSphere Enterprise Applications**.
2. Click Workplace XT.
3. Click **Session management** under Web Module Properties.
4. Click **Enable cookies**.
5. Enter a unique path in which to store this application's cookies in the **Cookie path** field and click OK. For example:
`/WorkplaceXT`
6. Select the **Override session management** option under General Properties and click **Apply**.
7. Click **Save directly to the master configuration**.

- Restart Workplace XT.

(Optional) Configuring step processor locations for IBM ECM Widgets

Complete this task only if your configuration uses IBM FileNet Content Manager object stores and you want to configure step processors.

To configure step processor locations for IBM ECM Widgets:

- Create the Business Space powered by WebSphere pages for your step processor launch and steps, as appropriate for your configuration. For details about configuring and integrating IBM FileNet P8 workflow applications and step processor locations, see http://publib.boulder.ibm.com/infocenter/p8docs/v4r5m1/topic/com.ibm.p8.doc/pe_help/config/region_configure_step_processors.htm
- Log on to IBM FileNet Workplace XT and navigate to **Tools** → **Administration** → **Process Configuration Console**.
- Right-click the region you want to edit and choose **Connect**.
- Right-click the region you want to edit and choose **Properties**.
- Click the **Step Processor Info** tab.
- Click the **Add** icon.
- Select the **Type** for the new entry from the dropdown menu.
- Enter a name in the **Name** field.
- Select **HTML** from the **Language** dropdown menu.
- Double-click the **Location** field, then access the appropriate page URL for the step processor and copy the **#PID** into the **IBM ECM Widgets for Business SpaceLocation** field. For example, select the information in bold from the following URL and paste it into the **Location** field:

```
http://localhost:9080/mum/resources/  
bootstrap#pid=C0A876BCD8E8DACE43EB9E1F64E4C000012&
```
- Repeat as appropriate for each step processor you want to configure.
- Commit the changes.

Verifying IBM ECM Widgets and Business Space powered by WebSphere deployment

Verify your configuration by accessing the URLs for each component.

To verify that IBM ECM Widgets and Business Space powered by WebSphere deployed properly:

- Open a browser from a remote computer and enter the following default Business Space URL:

Configuration	URL
WebSphere Application Server	http://host_server_name:port/mum/enabler
WebSphere Application Server Highly Available (HA)	http://host_server_name/mum/enabler

- Open a browser from a remote computer and enter the following default ECM Widgets Version Information page URL:

Configuration	URL
WebSphere Application Server	http://host_server_name:port/ECMWidgets/About.jsp
WebSphere Application Server Highly Available (HA)	http://host_server_name/ECMWidgets/About.jsp

The IBM ECM Widgets product is deployed to an instance of Business Space powered by WebSphere on your server. You can now add IBM ECM Widgets to Business Spaces and create new Business Space pages.

Collocating IBM ECM Widgets with a WebSphere Application Server Business Process Management product

Business Space powered by WebSphere is automatically deployed as part of the installation of an IBM WebSphere Application Server Business Process Management product. In certain configurations, multiple instances of Business Space might be deployed. Widgets components must be deployed to one instance of Business Space powered by WebSphere on your configuration.

There are two methods of collocating IBM ECM Widgets with an IBM WebSphere Application Server Business Process Management product, depending on your current configuration.

Installing IBM ECM Widgets to an existing installation of a WebSphere Application Server Business Process Management product

If an IBM WebSphere Application Server Business Process Management product is installed on the configuration to which you want to add IBM ECM Widgets, you must deploy the IBM ECM Widgets software to the existing instance of Business Space powered by WebSphere.

Installing prerequisite software

Before you install IBM ECM Widgets, different prerequisite components are required, depending on which type of IBM Content Manager content server you use.

For IBM ECM Widgets upgrades:

Before IBM ECM Widgets V4.5.2.1 can be installed, IBM ECM Widgets V4.5.2 must be installed and configured in Business Space powered by WebSphere. For details on upgrading your configuration to IBM ECM Widgets V4.5.2, please download installation and upgrade from the IBM Web site in the following location: <http://www-01.ibm.com/support/docview.wss?rs=3247&uid=swg27010422#wid>

For configurations that use IBM FileNet Content Manager object stores:

- IBM WebSphere Application Server
- IBM Installation Manager. This product can be downloaded from the IBM Web site at the following location: <http://www.ibm.com/support/docview.wss?uid=swg24024682>
- Database: use either DB2 for Linux, UNIX and Windows or Oracle
- Content Engine
- Process Engine

Important: The following components must be deployed to the same profile on the IBM WebSphere Application Server:

- IBM FileNet Workplace XT

Important: When you configure the site preferences, ensure that the Documentation Server URL is entered with the same protocol as your IBM ECM Widgets configuration. For details on configuring site preferences for Workplace XT, see the following IBM FileNet P8 help topic: http://publib.boulder.ibm.com/infocenter/p8docs/v4r5m1/index.jsp?topic=/com.ibm.p8.doc/ae_help/siteprefs/sp_bootstrap_preference_settings.htm.

Note: At this point, install IBM FileNet Workplace XT, but do not deploy yet.

- Content Engine Client
- Process Engine Client with REST service enabled

Note: For details regarding configuring REST services, see the Configuring REST Services topic in the *IBM FileNet P8 Platform Installation and Upgrade Guide* in the following location: http://publib.boulder.ibm.com/infocenter/p8docs/v4r5m1/topic/com.ibm.p8.doc/developer_help/process_java_api/guide/rest/rest_configure.htm.

- (Optional) eForms

For supported versions of required platform software, see the IBM FileNet P8 Hardware and Software Requirements document on the IBM Web site. For supported versions of required FileNet P8 Software, see the IBM FileNet P8 Compatibility document on the IBM Web site.

For configurations that use IBM DB2 Content Manager content servers

- IBM WebSphere Application Server
- IBM Installation Manager. This product can be downloaded from the IBM Web site at the following location: <http://www.ibm.com/support/docview.wss?uid=swg24024682>
- Database: use DB2 for Linux, UNIX and Windows or Oracle
- IBM DB2 Content Manager with IBM WEBi

For WebSphere Application Server Network Deployment High Availability configurations

To configure WebSphere Application Server Network Deployment for High Availability (HA) with IBM ECM Widgets, the following additional components are required:

- IBM HTTP Server
- IBM HTTP Server Plugin

You must install WebSphere Application Server Network Deployment or WebSphere Application Server - base on all nodes in your system.

For details on creating and configuring a clustered environment, see the WebSphere Application Server Network Deployment online information center: http://publib.boulder.ibm.com/infocenter/wasinfo/v7r0/index.jsp?topic=/com.ibm.websphere.nd.doc/info/ae/ae/welcome_nd.html

Installing IBM ECM Widgets V4.5.2

The IBM ECM Widgets installation program also installs the package that is used to deploy Business Space powered by WebSphere for systems where manual deployment is necessary.

Running the IBM ECM Widgets installation program adds the files necessary to install and deploy the following components:

- Business Space powered by WebSphere
- IBM ECM Widgets on Business Space powered by WebSphere or IBM Lotus Mashups for configurations that use either IBM FileNet Content Manager object stores or IBM DB2 Content Manager content servers

You can run the IBM ECM Widgets installation program in one of two ways:

Installing IBM ECM Widgets V4.5.2 interactively:

You can run the IBM ECM Widgets installation program interactively and step through the installer screens. You must install IBM ECM Widgets V4.5.2 before you can install the V4.5.2.1 update.

To install the IBM ECM Widgets software:

1. Log on to the host computer and copy the installation package to a local drive.
2. From the installation package, run the appropriate installation program for your configuration:

Option	Description
AIX	ECMWidgets4_5_2AIX.bin
Windows	ECMWidgets4_5_2WIN.exe

3. Complete the fields in the installation program.
4. Review the pre-installation summary and click **Install**.
5. Review the installation summary. If errors occurred, see the log file in the following location:

Option	Description
AIX	<i>ECMWidgets_Home/</i> IBM_ECM_Widgets_Install.log
Windows	<i>ECMWidgets_Home\</i> IBM_ECM_Widgets_Install.log

For example, the log file is saved to the following default path:

Option	Description
AIX	<i>/opt/IBM/ECMWidgets/</i> IBM_ECM_Widgets_Install.log
Windows	<i>C:\Program Files\IBM\ECMWidgets\</i> IBM_ECM_Widgets_Install.log

Installing IBM ECM Widgets V4.5.2 silently:

You can run the IBM ECM Widgets installation silently. You must install IBM ECM Widgets V4.5.2 before you can install the V4.5.2.1 update.

To silently install IBM ECM Widgets, enter values about your environment in the `ECMWidgets_silent_input.properties` file. Then, start the silent installation from a command line. You can configure the required properties file in one of two ways:

- Manually edit and modify the options in the `ECMWidgets_silent_input.properties` file that is included in the installation package.
- Run an installation interactively and have the installer record the options that you set in the `ECMWidgets_silent_input.properties` file. This file can then be used to install silently on additional computers, and use the options that you recorded during your interactive installation. To silently install IBM ECM Widgets:
 1. Log on to the host computer by using an account that has administrator privileges.
 2. Copy the IBM ECM Widgets installation package to the host computer and prepare the properties file:
 - To modify the properties file included in the installation package, open the `ECMWidgets_silent_input.properties` file and follow the instructions within to modify the options. The properties that you enter are not case sensitive.

Restriction: You must change the license agreement option from false to true or the installation will not run.

- To create a properties file by running the installation program, select the option to create the file during the installation. After the file is created, replace the file in the installation package with the file that you generated.
- 3. For non-English installations only: If the `ECMWidgets_silent_input.properties` file contains non-English characters, convert the file by using the `native2ascii` tool:

Tip: If you accept the default installation paths that are recorded in the `ECMWidgets_silent_input.properties` file, conversion of the file will not be necessary.

- a. From the `JAVA_JDK_Home\bin` directory, run the following command:


```
native2ascii source_file target_file
```

For example:

```
native2ascii ECMWidgets_silent_input.properties intermediate.txt
```

4. Start the installation by running the following command:

Option	Description
AIX	<code>ECMWidgets4_5_2AIX.bin -i silent -f target_file</code>
Windows	<code>ECMWidgets4_5_2WIN.exe -i silent -f target_file</code>

5. Review the installation summary. If errors occurred, see the log file in the following location:

Option	Description
AIX	<code>ECMWidgets_Home/IBM_ECM_Widgets_Install.log</code>
Windows	<code>ECMWidgets_Home\IBM_ECM_Widgets_Install.log</code>

For example, the log file is saved to the following default path:

Option	Description
AIX	/opt/IBM/ECMWidgets/ IBM_ECM_Widgets_Install.log
Windows	C:\Program Files\IBM\ECMWidgets\ IBM_ECM_Widgets_Install.log

Installing the IBM ECM Widgets V4.5.2.1 software update

After you run the IBM ECM Widgets V4.5.2 installation program, you must install the V4.5.2.1 fix pack. Download and install this software update before you configure IBM ECM Widgets. You can choose to run the installation interactively or silently.

Installing the IBM ECM Widgets V4.5.2.1 software update interactively:

The IBM ECM Widgets V4.5.2.1 fix pack provides an interactive installation program or a silent installation option. You can consult the fix pack readme for additional information and instructions.

Install IBM ECM Widgets V4.5.2 before you install this software update.

To install the IBM ECM Widgets V4.5.2.1 software update interactively:

1. Download the IBM ECM Widgets V4.5.2.1 software update from Fix Central to a local drive on the IBM ECM Widgets server.
2. From the installation package, run the appropriate installation type for your configuration:

Option	Description
AIX	ECMWidgets4_5_2_1AIX.bin
Windows	ECMWidgets4_5_2_1WIN.exe

3. Follow the instructions in the installation program screens.
4. When the installation is complete, run the version tool to verify that the version has been updated to V4.5.2.1.

Option	Description
AIX	<i>install_path</i> /IBM/ECMWidgets/version.sh
Windows	<i>install_path</i> \IBM\ECMWidgets\version.bat

Installing the IBM ECM Widgets V4.5.2.1 software update silently:

To silently install the IBM ECM Widgets V4.5.2.1 software update, enter values about your environment in the silent installation properties file. You can then start the silent installation from a command line.

Install IBM ECM Widgets V4.5.2 before you install this software update.

To silently install the IBM ECM Widgets V4.5.2.1 software update:

1. Download the IBM ECM Widgets V4.5.2.1 software update from Fix Central to a local drive on the IBM ECM Widgets server.
2. Open the silent input properties file for editing:

Option	Description
AIX	ECMWidgets_silent_input_unix.properties
Windows	ECMWidgets_silent_input_win.properties

- Set the value for LICENSE_ACCEPTED to TRUE.
- Run the following installation command and specify the properties file as shown in the following example:

Option	Description
AIX	ECMWidgets4_5_2_1AIX.bin -i silent -f ECMWidgets_silent_input_unix.properties
Windows	ECMWidgets4_5_2_1WIN.exe -i silent -f ECMWidgets_silent_input_win.properties

- When the installation is complete, run the version tool to verify that the version has been updated to V4.5.2.1.

Option	Description
AIX	<i>install_path</i> /IBM/ECMWidgets/version.sh
Windows	<i>install_path</i> \IBM\ECMWidgets\version.bat

Running the IBM ECM Widgets Configuration Manager

Run the Configuration Manager to deploy IBM ECM Widgets on your IBM WebSphere Application Server profile and configure the necessary settings.

Gather the following information before you start the deployment:

- IBM WebSphere Application Server Settings:
 - Home directory path
 - Profile name
 - Administrator log on credentials
 - SOAP Connector address port

For configurations that use IBM FileNet Content Manager object stores:

- Workplace XT installation path
- Process Engine REST API URL
- Content Engine services URL

For configurations that use IBM DB2 Content Manager content servers:

- IBM WEBi URL.

To deploy ECM Widgets on WebSphere Application Server:

- Start the IBM WebSphere Application Server.
- Launch the IBM ECM Widgets Configuration Manager:

Option	Description
AIX	Access the installation directory and run the ConfigMgr file. For example, run the file from the following default installation location: /opt/IBM/ECMWidgets/ConfigMgr/ConfigMgr
Windows	Click Start → All Programs → IBM ECM Widgets → Configuration Manager

3. Follow the instructions on the IBM ECM Widgets Configuration Manager screens and enter the required details about your configuration.
4. Click **Finish** to complete the deployment.
5. If any errors occurred, review the configuration log for details. Run the IBM ECM Widgets Configuration Manager again. The log is located in the logs directory of the installation path. For example, the log is stored in the following default location:

Option	Description
AIX	/opt/IBM/ECMWidgets/logs
Windows	C:\Program Files\IBM\ECMWidgets\logs

Tip: For configurations that use IBM FileNet Content Manager object stores, the IBM ECM Widgets configuration manager rebuilt the IBM FileNet Workplace XT WAR and EAR files.

6. (optional) Enable the ecmX theme. As part of the IBM ECM Widgets installation, a new Business Space theme was installed. In order to make this theme available to end users, you must enable it using the following procedure.

Note: To enable this style later, a restart of WebSphere Application Server will be necessary.

- a. Click **Servers** → **Server Types** → **WebSphere application servers**.
- b. Click on the server where Business Space is deployed.
- c. Click **Java and Process Management** → **Process Definition** → **Environment Entries**.
- d. Click **New** to create a new Environment Entry.
- e. Enter BSPACE_STYLE_EXT_DIR in the Name field.
- f. Enter the path to the styles folder in your IBM ECM Widgets installation directory. For example, the folder is installed in the following default location:

Option	Description
AIX	/opt/IBM/ECMWidgets/BusinessSpace/styles
Windows	C:\Program Files\IBM\ECMWidgets\BusinessSpace\styles

- g. Click **Apply** and then click **Save directly to the master configuration**.
7. For configurations that use IBM FileNet Content Manager object stores, redeploy IBM FileNet Workplace XT and set the Class load settings according to the instructions in the IBM FileNet Workplace XT Installation and Upgrade Guide.

8. Stop and restart the IBM WebSphere Application Server.
9. For configurations that use IBM FileNet Content Manager object stores, restart the Process WPXT Services Manager according to the instructions in the IBM FileNet Workplace XT Installation and Upgrade Guide.

(Optional) Setting the IBM FileNet Workplace XT cookie path

Complete this task only if your configuration uses IBM FileNet Content Manager object stores.

To set the IBM FileNet Workplace XT cookie path:

1. Access the WebSphere Application Server administrative console and click **Applications** → **Application Types** → **WebSphere Enterprise Applications**.
2. Click Workplace XT.
3. Click **Session management** under Web Module Properties.
4. Click **Enable cookies**.
5. Enter a unique path in which to store this application's cookies in the **Cookie path** field and click OK. For example:
/WorkplaceXT
6. Select the **Override session management** option under General Properties and click **Apply**.
7. Click **Save directly to the master configuration**.
8. Restart Workplace XT.

(Optional) Configuring step processor locations for IBM ECM Widgets

Complete this task only if your configuration uses IBM FileNet Content Manager object stores and you want to configure step processors.

To configure step processor locations for IBM ECM Widgets:

1. Create the Business Space powered by WebSphere pages for your step processor launch and steps, as appropriate for your configuration. For details about configuring and integrating IBM FileNet P8 workflow applications and step processor locations, see http://publib.boulder.ibm.com/infocenter/p8docs/v4r5m1/topic/com.ibm.p8.doc/pe_help/config/region_configure_step_processors.htm
2. Log on to IBM FileNet Workplace XT and navigate to **Tools** → **Administration** → **Process Configuration Console**.
3. Right-click the region you want to edit and choose **Connect**.
4. Right-click the region you want to edit and choose **Properties**.
5. Click the **Step Processor Info** tab.
6. Click the **Add** icon.
7. Select the **Type** for the new entry from the dropdown menu.
8. Enter a name in the **Name** field.
9. Select **HTML** from the **Language** dropdown menu.
10. Double-click the **Location** field, then access the appropriate page URL for the step processor and copy the **#PID** into the **IBM ECM Widgets for Business SpaceLocation** field. For example, select the information in bold from the following URL and paste it into the **Location** field:
<http://localhost:9080/mum/resources/bootstrap#pid=C0A876BCD8E8DACED43EB9E1F64E4C000012&>
11. Repeat as appropriate for each step processor you want to configure.

- Commit the changes.

Verifying IBM ECM Widgets and Business Space powered by WebSphere deployment

Verify your configuration by accessing the URLs for each component.

To verify that IBM ECM Widgets and Business Space powered by WebSphere deployed properly:

- Open a browser from a remote computer and enter the following default Business Space URL:

Configuration	URL
WebSphere Application Server	<code>http://host_server_name:port/mum/enabler</code>
WebSphere Application Server Highly Available (HA)	<code>http://host_server_name/mum/enabler</code>

- Open a browser from a remote computer and enter the following default ECM Widgets Version Information page URL:

Configuration	URL
WebSphere Application Server	<code>http://host_server_name:port/ECMWidgets/About.jsp</code>
WebSphere Application Server Highly Available (HA)	<code>http://host_server_name/ECMWidgets/About.jsp</code>

The IBM ECM Widgets product is deployed to an instance of Business Space powered by WebSphere on your server. You can now add IBM ECM Widgets to Business Spaces and create new Business Space pages.

Installing an IBM WebSphere Business Process Management product to an IBM ECM Widgets configuration

Installing the IBM WebSphere Business Process Management product deploys an additional instance of Business Space powered by WebSphere. You must modify the existing IBM ECM Widgets configuration to use the new Business Space deployment.

Installing an IBM WebSphere Business Process Management product

Installing an IBM WebSphere Business Process Management product will deploy an additional instance of Business Space powered by WebSphere to your profile. The existing instance must be removed and the IBM ECM Widgets installation will have to be moved to the new instance of Business Space.

Install the WebSphere BPM product to your IBM WebSphere Application Server according to the application's installation instructions. For example, run the installation for the WebSphere Business Monitor application.

Important: When you create the IBM WebSphere Application Server profile, ensure you select the **Advanced profile creation** option and set the Business Space configuration to use either **DB2 Universal Database** or **Oracle**, and enter the appropriate database configuration information. If your database is remote from your IBM ECM Widgets installation, ensure you select the **Delay execution of database scripts** option.

Setting the new Business Space powered by WebSphere deployment to use the IBM ECM Widgets database

You must adjust your configuration to set the new installation of Business Space to use the data source and database that was created for the IBM ECM Widgets deployment.

To adjust the configuration:

1. Access the WebSphere Application Server administrative console for the newly installed WebSphere Application Server BPM application. For example, access the Integrated Solutions Console for WebSphere Business Monitor.
2. Click **Resources** → **JDBC** → **Data Sources**.
3. Click **Business Space Datasource**.
4. Click **JAAS - J2C authentication data** under **Related Items**.
5. Click **New** on the JAAS - J2C authentication data page.
6. Enter a name for the Alias and set the User ID and Password. Click **Apply**.

Restriction: The User ID account requires privileges to access the database and all tables in the database.

7. Click **Save directly to the master configuration**.
8. Click **Business Space Data Source** to return to the Business Space Data Source General Properties page.
9. From the **Component-managed authentication alias** menu, select the JAAS - J2C authentication alias that you just created.
10. From the **Container-managed authentication alias** menu, select the JAAS - J2C authentication alias that you just created.
11. From the **Mapping-configuration alias** menu, select the JAAS - J2C authentication alias that you just created.
12. Enter the name of the database that you created for your existing IBM ECM Widgets installation in the **Database name** field, under **DB2 Universal data source properties**.
13. Click **Save directly to the master configuration** and then restart the WebSphere Application Server.
14. Verify the connection to the data source that you created:
 - a. Open the WebSphere Application Server administrative console.
 - b. Access **Resources** → **JDBC** → **Data Sources**.
 - c. Click **Business Space Datasource**.
 - d. Click **Test connection**. A WebSphere Application Server message indicates whether connection to the data source was successful.

Running the IBM ECM Widgets configuration manager on an IBM WebSphere Application Server Business Process Management configuration

Run the IBM ECM Widgets configuration manager to deploy the product to the new instance of Business Space powered by WebSphere.

Gather the following information before you start the deployment:

- IBM WebSphere Application Server Settings:
 - Home directory path
 - Profile name
 - Administrator log on credentials

- SOAP Connector address port

For configurations that use IBM FileNet Content Manager object stores:

- Workplace XT installation path
- Process Engine REST API URL
- Content Engine services URL

For configurations that use IBM DB2 Content Manager content servers

- IBM WEBi URL.

To deploy ECM Widgets to the new instance of Business Space:

1. Start the IBM WebSphere Application Server.
2. Launch the IBM ECM Widgets Configuration Manager:

Option	Description
AIX	Access the installation directory and run the ConfigMgr file. For example, run the file from the following default installation location: <code>/opt/IBM/ECMWidgets/ConfigMgr/ConfigMgr</code>
Windows	Click Start → All Programs → IBM ECM Widgets → Configuration Manager .

3. Follow the instructions on the IBM ECM Widgets Configuration Manager screens and enter the required details about your configuration.
4. Click **Finish** to complete the deployment.
5. If any errors occurred, review the configuration log for details. Run the IBM ECM Widgets Configuration Manager again. The log is located in the logs directory of the installation path. For example, the log is stored in the following default location:

Option	Description
AIX	<code>/opt/IBM/ECMWidgets/logs</code>
Windows	<code>C:\Program Files\IBM\ECMWidgets\logs</code>

Tip: For configurations that use IBM FileNet Content Manager object stores, the IBM ECM Widgets configuration manager rebuilt the IBM FileNet Workplace XT WAR and EAR files.

6. (optional) Enable the ecmX theme. As part of the IBM ECM Widgets installation, a new Business Space theme was installed. In order to make this theme available to end users, you must enable it using the following procedure.

Note: To enable this style later, a restart of WebSphere Application Server will be necessary.

- a. Click **Servers** → **Server Types** → **WebSphere application servers**.
- b. Click on the server where Business Space is deployed.
- c. Click **Java and Process Management** → **Process Definition** → **Environment Entries**.
- d. Click **New** to create a new Environment Entry.
- e. Enter `BSPACE_STYLE_EXT_DIR` in the Name field.

- f. Enter the path to the styles folder in your IBM ECM Widgets installation directory. For example, the folder is stored in the following default location:

Option	Description
AIX	/opt/IBM/ECMWidgets/BusinessSpace/styles
Windows	C:\Program Files\IBM\ECMWidgets\BusinessSpace\styles

- g. Click **Apply** and then click **Save directly to the master configuration**.
7. For configurations that use IBM FileNet Content Manager object stores, redeploy IBM FileNet Workplace XT and set the Class load settings according to the instructions in the IBM FileNet Workplace XT Installation and Upgrade Guide.
8. Stop and restart the IBM WebSphere Application Server.
9. For configurations that use IBM FileNet Content Manager object stores, restart the Process WPXT Services Manager according to the instructions in the IBM FileNet Workplace XT Installation and Upgrade Guide.

Deploying IBM FileNet Workplace XT to the new profile directory

Deploy IBM FileNet Workplace XT to the new IBM WebSphere Application Server profile directory, where the new IBM WebSphere BPM instance of Business Space powered by WebSphere is deployed, and configure Workplace XT accordingly.

For details, see the IBM FileNet Workplace XT Installation and Upgrade Guide that can be downloaded from the IBM Web site Product Documentation for FileNet P8 Platform support page at the following location: <http://www.ibm.com/support/docview.wss?rs=3278&uid=swg27010422>.

(Optional) Setting the IBM FileNet Workplace XT cookie path

Complete this task only if your configuration uses IBM FileNet Content Manager object stores.

To set the IBM FileNet Workplace XT cookie path:

1. Access the WebSphere Application Server administrative console and click **Applications** → **Application Types** → **WebSphere Enterprise Applications**.
2. Click Workplace XT.
3. Click **Session management** under Web Module Properties.
4. Click **Enable cookies**.
5. Enter a unique path in which to store this application's cookies in the **Cookie path** field and click OK. For example:
/WorkplaceXT
6. Select the **Override session management** option under General Properties and click **Apply**.
7. Click **Save directly to the master configuration**.
8. Restart Workplace XT.

(Optional) Configuring step processor locations for IBM ECM Widgets

Complete this task only if your configuration uses IBM FileNet Content Manager object stores and you want to configure step processors.

To configure step processor locations for IBM ECM Widgets:

1. Create the Business Space powered by WebSphere pages for your step processor launch and steps, as appropriate for your configuration. For details about configuring and integrating IBM FileNet P8 workflow applications and step processor locations, see http://publib.boulder.ibm.com/infocenter/p8docs/v4r5m1/topic/com.ibm.p8.doc/pe_help/config/region_configure_step_processors.htm
2. Log on to IBM FileNet Workplace XT and navigate to **Tools** → **Administration** → **Process Configuration Console**.
3. Right-click the region you want to edit and choose **Connect**.
4. Right-click the region you want to edit and choose **Properties**.
5. Click the **Step Processor Info** tab.
6. Click the **Add** icon.
7. Select the **Type** for the new entry from the dropdown menu.
8. Enter a name in the **Name** field.
9. Select **HTML** from the **Language** dropdown menu.
10. Double-click the **Location** field, then access the appropriate page URL for the step processor and copy the **#PID** into the **IBM ECM Widgets for Business SpaceLocation** field. For example, select the information in bold from the following URL and paste it into the **Location** field:
<http://localhost:9080/mum/resources/bootstrap#pid=C0A876BCD8E8DACE43EB9E1F64E4C000012&>
11. Repeat as appropriate for each step processor you want to configure.
12. Commit the changes.

Verifying IBM ECM Widgets and Business Space powered by WebSphere deployment

Verify your configuration by accessing the URLs for each component.

To verify that IBM ECM Widgets and Business Space powered by WebSphere deployed properly:

1. Open a browser from a remote computer and enter the following default Business Space URL:

Configuration	URL
WebSphere Application Server	http://host_server_name:port/mum/enabler
WebSphere Application Server Highly Available (HA)	http://host_server_name/mum/enabler

2. Open a browser from a remote computer and enter the following default ECM Widgets Version Information page URL:

Configuration	URL
WebSphere Application Server	http://host_server_name:port/ECMWidgets/About.jsp
WebSphere Application Server Highly Available (HA)	http://host_server_name/ECMWidgets/About.jsp

The IBM ECM Widgets product is deployed to an instance of Business Space powered by WebSphere on your server. You can now add IBM ECM Widgets to Business Spaces and create new Business Space pages.

Installing a Highly Available IBM WebSphere Application Server Network Deployment of IBM ECM Widgets

You can install a Highly Available WebSphere Application Server Network Deployment of IBM ECM Widgets on a multi-server configuration. IBM ECM Widgets must be deployed manually on a Highly Available WebSphere Application Server Network Deployment system because the configuration manager cannot be used to deploy the components or configure the system.

IBM ECM Widgets configurations that are not part of a cluster are not supported for High Availability. Managed or unmanaged nodes that are not part of the cluster are not supported as part of the HA configuration for IBM ECM Widgets

Installing prerequisite software

Before you install IBM ECM Widgets, different prerequisite components are required, depending on which type of IBM Content Manager content server you use.

For IBM ECM Widgets upgrades:

Before IBM ECM Widgets V4.5.2.1 can be installed, IBM ECM Widgets V4.5.2 must be installed and configured in Business Space powered by WebSphere. For details on upgrading your configuration to IBM ECM Widgets V4.5.2, please download installation and upgrade from the IBM Web site in the following location: <http://www-01.ibm.com/support/docview.wss?rs=3247&uid=swg27010422#wid>

For configurations that use IBM FileNet Content Manager object stores:

- IBM WebSphere Application Server
- IBM Installation Manager. This product can be downloaded from the IBM Web site at the following location: <http://www.ibm.com/support/docview.wss?uid=swg24024682>
- Database: use either DB2 for Linux, UNIX and Windows or Oracle
- Content Engine
- Process Engine

Important: The following components must be deployed to the same profile on the IBM WebSphere Application Server:

- IBM FileNet Workplace XT

Important: When you configure the site preferences, ensure that the Documentation Server URL is entered with the same protocol as your IBM ECM Widgets configuration. For details on configuring site preferences for Workplace XT, see the following IBM FileNet P8 help topic: http://publib.boulder.ibm.com/infocenter/p8docs/v4r5m1/index.jsp?topic=/com.ibm.p8.doc/ae_help/siteprefs/sp_bootstrap_preference_settings.htm.

Note: At this point, install IBM FileNet Workplace XT, but do not deploy yet.

- Content Engine Client
- Process Engine Client with REST service enabled

Note: For details regarding configuring REST services, see the Configuring REST Services topic in the *IBM FileNet P8 Platform Installation and Upgrade Guide* in the

following location:http://publib.boulder.ibm.com/infocenter/p8docs/v4r5m1/topic/com.ibm.p8.doc/developer_help/process_java_api/guide/rest/rest_configure.htm.

- (Optional) eForms

For supported versions of required platform software, see the IBM FileNet P8 Hardware and Software Requirements document on the IBM Web site. For supported versions of required FileNet P8 Software, see the IBM FileNet P8 Compatibility document on the IBM Web site.

For configurations that use IBM DB2 Content Manager content servers

- IBM WebSphere Application Server
- IBM Installation Manager. This product can be downloaded from the IBM Web site at the following location: <http://www.ibm.com/support/docview.wss?uid=swg24024682>
- Database: use DB2 for Linux, UNIX and Windows or Oracle
- IBM DB2 Content Manager with IBM WEBi

For WebSphere Application Server Network Deployment High Availability configurations

To configure WebSphere Application Server Network Deployment for High Availability (HA) with IBM ECM Widgets, the following additional components are required:

- IBM HTTP Server
- IBM HTTP Server Plugin

You must install WebSphere Application Server Network Deployment or WebSphere Application Server - base on all nodes in your system.

For details on creating and configuring a clustered environment, see the WebSphere Application Server Network Deployment online information center: http://publib.boulder.ibm.com/infocenter/wasinfo/v7r0/index.jsp?topic=/com.ibm.websphere.nd.doc/info/ae/ae/welcome_nd.html

Installing IBM ECM Widgets V4.5.2 on the WebSphere Application Server Network Deployment configuration

Install IBM ECM Widgets on the deployment manager and each node of your WebSphere Application Server Network Deployment cluster.

To install IBM ECM Widgets on your WebSphere Application Server Network Deployment configuration:

1. Log on to the host computer by using an account that has administrator privileges.
2. Copy the installation package to the host computer.
3. Access the installation package and run the appropriate installation program for your configuration:

Option	Description
AIX	ECMWidgets4_5_2AIX.bin
Windows	ECMWidgets4_5_2WIN.exe

4. In the Specify Installation Options window, select one or both of the following installation options:
 - Install IBM ECM Widgets on this computer to install the product.
 - Save your settings in a response file to record the options that you select during this installation in a file. The response file can be used to silently install the product on another computer that will use the same settings that you select during this installation.
5. Specify a directory in which to install the software:
 - To accept the default installation path, click **Next**.
 - To repopulate the field with the default installation path, click **Restore Default Folder**.
 - To navigate to a different installation path, click **Choose** and browse for the directory you want to use.
6. Review the pre-installation summary and click **Install**.
7. Review the installation summary. If errors occurred, see the log file in the following default location:

Option	Description
AIX	/opt/IBM/ECMWidgets/ IBM_ECM_Widgets_Install.log
Windows	C:\Program Files\IBM\ECMWidgets\ IBM_ECM_Widgets_Install.log

Installing the IBM ECM Widgets V4.5.2.1 software update to your WebSphere Application Server Network Deployment configuration

After you run the IBM ECM Widgets installation program, you must install the V4.5.2.1 fix pack to the deployment manager and each node of your WebSphere Application Server Network Deployment cluster. Download and install this software update before you configure IBM ECM Widgets. You can choose to run the installation interactively or silently.

Installing the IBM ECM Widgets V4.5.2.1 software update interactively

The IBM ECM Widgets V4.5.2.1 fix pack provides an interactive installation program. You must install the software update on the IBM ECM Widgets deployment manager and in each node of the cluster. You can consult the fix pack readme for additional information and instructions.

Ensure that you have installed or upgraded to IBM ECM Widgets V4.5.2 before you install this software update.

To install the IBM ECM Widgets V4.5.2.1 software update:

1. Download the IBM ECM Widgets V4.5.2.1 software update from Fix Central to a local drive on the IBM ECM Widgets server.
2. From the installation package, run the appropriate installation program for your configuration:

Option	Description
AIX	ECMWidgets4_5_2_1AIX.bin

Option	Description
Windows	ECMWidgets4_5_2_1WIN.exe

- Follow the instructions in the installation program screens.
- When the installation is complete, run the version tool in the *install_path\IBM\ECMWidgets* directory to verify that the version has been updated to 4.5.2.1.

Option	Description
AIX	<i>install_path</i> /IBM/ECMWidgets/version.sh
Windows	<i>install_path</i> \IBM\ECMWidgets\version.bat

Installing the IBM ECM Widgets V4.5.2.1 software update silently

To silently install the IBM ECM Widgets V4.5.2.1 software update, enter values about your environment in the silent installation properties file. You can then start the silent installation from a command line. You must perform this installation on each node in the cluster.

Install IBM ECM Widgets V4.5.2 before you install this software update.

To silently install the IBM ECM Widgets V4.5.2.1 software update:

- Download the IBM ECM Widgets V4.5.2.1 software update from Fix Central to a local drive on the IBM ECM Widgets server.
- Open the silent input properties file for editing:

Option	Description
AIX	ECMWidgets_silent_input_unix.properties
Windows	ECMWidgets_silent_input_win.properties

- Set the value for LICENSE_ACCEPTED to TRUE.
- Run the following installation command and specify the properties file as shown in the following example:

Option	Description
AIX	ECMWidgets4_5_2_1AIX.bin -i silent -f ECMWidgets_silent_input_unix.properties
Windows	ECMWidgets4_5_2_1WIN.exe -i silent -f ECMWidgets_silent_input_win.properties

- When the installation is complete, run the version tool to verify that the version has been updated to 4.5.2.1.

Option	Description
AIX	<i>install_path</i> /IBM/ECMWidgets/version.sh
Windows	<i>install_path</i> \IBM\ECMWidgets\version.bat

Installing the Business Space powered by WebSphere installation package to your WebSphere Application Server Network Deployment configuration

Install the Business Space powered by WebSphere installation package to the deployment manager and each node of your WebSphere Application Server Network Deployment cluster.

Ensure IBM Installation Manager V1.3.3 or later is installed.

To install the Business Space powered by WebSphere installation package to your WebSphere Application Server Network Deployment configuration:

1. From the <http://www.ibm.com/support/docview.wss?uid=swg24026428> link, download the 7.0.0-WS-BSPACE-FP0000002.zip to the *install_path*\IBM\ECMWidgets\BusinessSpace directory on the IBM ECM Widgets server.
2. Log on to the deployment manager computer by using an account that has administrator privileges.
3. Start IBM Installation Manager.
4. Click **File** → **Preferences**.
5. In the Repositories window, click **Add Repository**.
6. In the Add a Repository window, click **Browse**.
7. Browse to the IBM ECM Widgets installation directory, select the bsc.7000.repository.zip file from the BusinessSpace directory, and click **OK**. For example:

Option	Description
AIX	C:\Program Files\IBM\ECMWidgets\BusinessSpace\bscc.7000.repository.zip
Windows	/opt/IBM/ECMWidgets/BusinessSpace/bscc.7000.repository.zip

8. In the Add a Repository window, click **Browse**, and browse to the BusinessSpace directory within the IBM ECM Widgets installation location, select the 7.0.0-WS-BSPACE-FP0000002.zip file and click **OK**. The file is located in the following path:

Option	Description
AIX	ECMWidgets_Home/BusinessSpace/7.0.0-WS-BSPACE-FP0000002.zip
Windows	ECMWidgets_Home\BusinessSpace\7.0.0-WS-BSPACE-FP0000002.zip

For example, the file is located in the following default path:

Option	Description
AIX	/opt/IBM/ECMWidgets/BusinessSpace/7.0.0-WS-BSPACE-FP0000002.zip
Windows	C:\Program Files\IBM\ECMWidgets\BusinessSpace\7.0.0-WS-BSPACE-FP0000002.zip

9. In the Add a Repository window, click **Browse**.

- Browse to the BusinessSpace directory within the IBM ECM Widgets installation location, open the was-sync directory and select the repository.config file. Click **OK**. The file is installed in the following location:

Option	Description
AIX	<i>ECMWidgets_Home</i> /BusinessSpace/was-sync/repository.config
Windows	<i>ECMWidgets_Home</i> \BusinessSpace\was-sync\repository.config

For example, the file is located in the following default path:

Option	Description
AIX	/opt/IBM/ECMWidgets/BusinessSpace/was-sync/repository.config
Windows	C:\Program Files\IBM\ECMWidgets\BusinessSpace\was-sync\repository.config

- Click **OK** on the Repositories window.
- Click the **Import** icon.
- In the Import Existing WebSphere Installation window, click the **Installation Directory** dropdown menu and select the appropriate WebSphere installation directory. For example:

Option	Description
AIX	/opt/IBM/WebSphere/AppServer
Windows	C:\Program Files\IBM\WebSphere\AppServer

- Click **Next**.
- Specify a **Shared Resources Directory** and click **Next**.
- Click **Import**.
- Click **Finish**.
- Click the **Install** icon.
- In the Install Packages window, select the com.ibm.ws.bspace package and click **Next**. The Install Packages window will display the package name and installation directory you have selected.
- Verify the information and then click **Next**. The Install Packages window will display the package features that will be installed.
- Click **Next**. The Install Packages window will display summary information about the options you have selected.
- Click **Install**.
- Click **Finish** after the installation completes and then exit IBM Installation Manager.

Preparing a Business Space powered by WebSphere database for High Availability configurations

A database is required for Business Space powered by WebSphere in order to install IBM ECM Widgets. The method you use to prepare the database depends on your configuration.

For configurations that use IBM DB2 for Linux, UNIX and Windows

For DB2 configurations, you will create an empty database, modify a properties file and then apply the properties to the empty database before you deploy Business Space.

For configurations that use Oracle

For Oracle configurations, you will create an empty database, modify a properties file and then apply the properties to the empty database before you deploy Business Space.

Preparing an IBM DB2 for Linux, UNIX and Windows database

For this type of configuration, when you deploy Business Space powered by WebSphere on your cluster, you must create a new database for DB2 for Linux, UNIX and Windows and modify a properties file.

To prepare an IBM DB2 for Linux, UNIX and Windows database for configurations where DB2 is installed on the deployment manager computer:

1. Create a copy of the BSpace_DB2-distributed.properties template file and save it to a new location. The file is installed in the following location:

Option	Description
AIX	<i>WAS_Home</i> /BusinessSpace/config.bspace/ MetadataFiles/
Windows	<i>WAS_home</i> \BusinessSpace\config.bspace\ MetadataFiles\

For example:

Option	Description
AIX	Copy the file from: /opt/IBM/WebSphere/AppServer/ BusinessSpace/config.bspace/ MetadataFiles/BSpace_DB2- distributed.properties Save the file to: /tmp/BSpace_DB2-distributed.properties
Windows	Copy the file from: C:\Program Files\IBM\WebSphere\ AppServer\BusinessSpace\config.bspace\ MetadataFiles\BSpace_DB2- distributed.properties Save the file to: C:\BSpace_DB2-distributed.properties

2. Open the copy of the BSpace_DB2-distributed.properties file in a text editor and, using the instructions within, edit the appropriate values.

Important: Do not change the default value of `databaseName=BSPACE`.

Attention: For Windows configurations, if Program Files is part of your temporary path location, it must be entered as:

`C:/Progra~1/`

3. Save and close the file.
4. Create a database by running the following SQL command: `create database DBName using codeset UTF-8 territory US PAGESIZE 32768`

Creating a new Business Space powered by WebSphere Oracle database for a WebSphere Application Server Network Deployment configuration

For this type of configuration, when you deploy Business Space powered by WebSphere on your cluster, a new database for Oracle is created based on the properties you specify in the `BSpace_Oracle.properties` file.

To create a new Business Space powered by WebSphere Oracle database for a WebSphere Application Server Network Deployment configuration:

1. Create a copy of the `BSpace_Oracle.properties` template file and save it to a new location. The file is installed in the following location:

Option	Description
AIX	<code>WAS_Home/BusinessSpace /config.bspace/MetadataFiles/</code>
Windows	<code>WAS_Home\BusinessSpace \config.bspace\MetadataFiles\</code>

For example:

Option	Description
AIX	Copy the file from: <code>/opt/IBM/WebSphere/AppServer/ BusinessSpace/config.bspace/ MetadataFiles/BSpace_Oracle.properties</code> Save the file to: <code>/tmp/BSpace_Oracle.properties</code>
Windows	Copy the file from: <code>C:\Program Files\IBM\WebSphere\ AppServer\BusinessSpace\config.bspace\ MetadataFiles\BSpace_Oracle.properties</code> Save the file to: <code>C:\BSpace_Oracle.properties</code>

2. On the deployment manager computer, open the `BSpace_Oracle.properties` file in a text editor and using the instructions within the file, edit the appropriate values. The values for `userName` and `schemaName` must be the same.

Attention:

- *SchemaName* and *userName* must be the same value.
- The database user, used to create the database, must have privileges to create Business Space tables and tablespaces.
- For Windows configurations, if Program Files is part of your temporary path location, it must be entered as:

C:/Progra~1/

3. Save and close the file.

Configuring the WebSphere Application Server Network Deployment deployment manager profile for Business Space powered by WebSphere

The deployment manager profile for your cluster must be configured for Business Space by running the `augment` command.

To configure the WebSphere Application Server Network Deployment deployment manager profile for Business Space powered by WebSphere:

1. Log on to the deployment manager using an account that has administrator privileges.
2. From a command prompt, access the bin directory located in the WebSphere Application Server Network Deployment root directory and run the following command for either operating system:

```
manageprofiles -augment -profileName DmgrProfile -nodeName
DmgrHostnameCellManagerCellMgrNum -cellName DmgrHostnameCellCelNum
-templatePath ../profileTemplates/BusinessSpace/dmgr.bspace
-enableAdminSecurity true -adminUserName administrator -adminPassword
AdminPwd -bspacedbDesign WAS_Home/BusinessSpace/config.bspace
/MetadataFiles/BSpace_DB2-distributed.properties -dbDelayConfig false
-dbCreateNew false
```

For example:

AIX Access `/opt/IBM/WebSphere/AppServer/bin/` and run the following command:

```
manageprofiles -augment -profileName Dmgr01 -nodeName DmgrHostCellManager01
-cellName DmgrHostCell01 -templatePath ../profileTemplates/BusinessSpace
/dmgr.bspace -enableAdminSecurity true -adminUserName administrator
-adminPassword myPassword -bspacedbDesign /opt/IBM/WebSphere/AppServer
/BusinessSpace/config.bspace/MetadataFiles
/BSpace_DB2-distributed.properties -dbDelayConfig false
-dbCreateNew false
```

Windows

Access `C:\Program Files\IBM\WebSphere\AppServer\bin\` and run the following command:

```
manageprofiles -augment -profileName Dmgr01 -nodeName DmgrHostCellManager01
-cellName DmgrHostCell01 -templatePath ../profileTemplates/BusinessSpace
/dmgr.bspace -enableAdminSecurity true -adminUserName administrator
-adminPassword myPassword -bspacedbDesign C:/Progra~1/IBM/WebSphere
/AppServer/BusinessSpace/config.bspace/MetadataFiles
/BSpace_DB2-distributed.properties -dbDelayConfig false
-dbCreateNew false
```

Restriction: The command must complete with the following result to have been successful:

```
INSTCONFSUCCESS: Profile augmentation succeeded
```

If you did not receive the correct result, investigate the log files, as indicated by the command result. The logs will vary, depending on the specific error.

Creating a data source for a WebSphere Application Server Network Deployment configuration

You must create a new data source and JDBC provider, based on the database used for your configuration.

To create a WebSphere Application Server Network Deployment data source:

1. Open the WebSphere Application Server Network Deployment Integrated Solutions console.
2. Navigate to **Resources** → **JDBC** → **Data Sources**.
3. Select the cluster from the **Scopes** menu.
4. Click **New** on the Data sources page.
5. Enter a name for the data source in the **Data source name** field.
6. Enter jdbc/mashupDS in the **JNDI name** field and click **Next**.
7. Click **Create new JDBC provider** and click **Next** on the Select JDBC provider page.
8. Select the following options on the Create new JDBC Provider page and click **Next**:

Option	Description
IBM DB2 for Linux, UNIX and Windows database	<ul style="list-style-type: none"> • DB2 in the Database type field • DB2 Universal JDBC Driver Provider in the Provider type field • XA data source in the Implementation type field • DB2 Universal JDBC Driver Provider (XA) (default) in the Name field
Oracle database	<ul style="list-style-type: none"> • Oracle in the Database type field • Oracle JDBC Driver in the Provider type field • XA data source in the Implementation type field • Oracle JDBC Driver (XA) (default) in the Name field

9. Enter the paths to the JDBC drivers and click **Next**. For example:

Option	Description
AIX	<p>IBM DB2 for Linux, UNIX and Windows</p> <ul style="list-style-type: none"> • /opt/IBM/SQLLIB/java for the DB2UNIVERSAL_JDBC_DRIVER_PATH • /opt/IBM/SQLLIB/lib for the DB2UNIVERSAL_JDBC_DRIVER_NATIVEPATH <p>Oracle database (path to ojdbc6.jar file) Note: If Oracle database is not installed on the deployment manager computer, then you must copy the ojdbc6.jar file to the deployment manager computer.</p> <ul style="list-style-type: none"> • <i>oraclehome/jdbc/lib/</i> in the \${ORACLE_JDBC_DRIVER_PATH} field
Windows	<p>IBM DB2 for Linux, UNIX and Windows</p> <ul style="list-style-type: none"> • C:\Program Files\IBM\SQLLIB\java for the DB2UNIVERSAL_JDBC_DRIVER_PATH • C:\Program Files\IBM\SQLLIB\lib for the DB2UNIVERSAL_JDBC_DRIVER_NATIVEPATH <p>Oracle database (path to ojdbc6.jar file) Note: If Oracle database is not installed on the deployment manager computer, then you must copy the ojdbc6.jar file to the deployment manager computer.</p> <ul style="list-style-type: none"> • <i>oraclehome\jdbc\lib\</i> in the \${ORACLE_JDBC_DRIVER_PATH} field

10. Enter the following information on the Enter database-specific properties for the data source page and click **Next**:

Option	Description
IBM DB2 for Linux, UNIX and Windows database	<ul style="list-style-type: none"> • Value of 4 for the Driver type • The <i>name</i> of the database you created in the Database name field • localhost for the Server name field • Accept the default Port number
Oracle database	<ul style="list-style-type: none"> • URL: jdbc:oracle:thin:@hostname:port:service_name • Data store helper, as appropriate • Check Use this data source in container managed persistence (CMP)

11. Click **Next** on the Setup security aliases page.
12. Review the information on the Summary page and click **Finish**.
13. Click **Save** directly to the master configuration.
14. Access **Resources** → **JDBC** → **Data sources** and click on the new data source you created.
15. click **JAAS - J2C authentication data** and then click **New** on the JAAS - J2C authentication data page.

16. Enter an alias and authentication information and click **OK**.
17. Click **Save** directly to the master configuration.
18. Access **Resources** → **JDBC** → **Data sources** and click on the new data source you created.
19. Scroll down to Security settings, select the authentication alias you just created from the dropdown list below Component-managed authentication alias and click **OK**.
20. Click **Save** directly to the master configuration.
21. Restart the deployment manager server and all nodes.
22. Verify the connection to the data source that you created:
 - a. Open the WebSphere Application Server administrative console.
 - b. Access **Resources** → **JDBC** → **Data Sources**
 - c. Select the data source that you created and click **Test connection**. A WebSphere Application Server message indicates whether connection to the data source was successful.

Deploying Business Space powered by WebSphere on the WebSphere Application Server Network Deployment configuration

Business Space powered by WebSphere must be deployed manually on the WebSphere Application Server Network Deployment configuration.

To deploy Business Space powered by WebSphere on the WebSphere Application Server Network Deployment configuration:

1. Log on to the deployment manager computer by using an account that has administrator privileges.
2. From a command prompt, access the bin directory located in the WebSphere Application Server Network Deployment root directory:

Option	Description
AIX	/opt/IBM/WebSphere/AppServer/bin/
Windows	C:\Program Files\IBM\WebSphere\AppServer\bin\

3. Access the wsadmin command prompt by entering the following command:
wsadmin.bat -conntype NONE
4. Enter the following command to deploy Business Space to the deployment manager profile:
\$AdminTask installBusinessSpace {-clusterName *ClusterName*}
For example:
\$AdminTask installBusinessSpace {-clusterName myCluster}
5. Enter the following command:
\$AdminConfig save
6. Configure Business Space on the deployment manager, enter the following command from the wsadmin command prompt:
\$AdminTask configureBusinessSpace {-clusterName *ClusterName* -schemaName BSPACE -tableSpaceName BSPACE -storageGroup BSPACE}
For example:
\$AdminTask configureBusinessSpace {-clusterName myCluster -schemaName BSPACE -tableSpaceName BSPACE -storageGroup BSPACE}

7. Enter the following command:
`$AdminConfig save`
8. Skip this step if your database is local and you created a new database using `dbcreateNew=true`. In all other cases, run the following database scripts:

For DB2 databases

- a. Access the database scripts located in

`DMGR_PROFILE_HOME\dbscripts\BusinessSpace\clusterName\DB2\databaseName`

For example:

`C:\IBM\WebSphere\AppServer\profiles\Dmgr01\dbscripts\BusinessSpace\mycluster\DB2\bspacedb`

- b. Copy the scripts to the DB2 server. Create a new database and execute the following scripts on the database:
 - `createTablespace.sql`
 - `createSchema.sql`
 - `createTable.sql`
 - `createTables_BusinessSpace.sql`

For Oracle databases

- a. Access the database scripts located in

`DMGR_PROFILE_HOME\dbscripts\BusinessSpace\clusterName\Oracle\databaseName`

For example:

`C:\IBM\WebSphere\AppServer\profiles\Dmgr01\dbscripts\BusinessSpace\mycluster\Oracle\bspacedb`

- b. Create a new database that uses the UTF-8 character set and execute the following scripts:
 - `createTablespace.sql`
 - `createSchema.sql`

Important: Ensure you change the user password before executing `createSchema.sql`.

- `createTable.sql`
- `createGrant.sql`
- `createTables_BusinessSpace.sql`

Deploying IBM ECM Widgets on a WebSphere Application Server Network Deployment configuration

You must manually deploy IBM ECM Widgets to your cluster.

Ensure IBM FileNet Workplace XT and related REST services are installed.

To deploy IBM ECM Widgets to the cluster:

1. Log on to the host computer using an account that has administrator privileges.
2. From a command prompt, access the `bin` directory located in the WebSphere Application Server Network Deployment deployment manager profile root directory and run the following command to access the `wsadmin` command prompt:

```
wsadmin -conntype NONE
```

For example, run the command from the following directory:

Option	Description
AIX	/opt/IBM/WebSphere/AppServer/profiles/Dmgr01/bin/
Windows	C:\Program Files\IBM\WebSphere\AppServer\profiles\Dmgr01\bin\

3. At the wsadmin command prompt, enter the following command in one line:

Option	Description
AIX	<code>\$AdminTask installBusinessSpaceWidgets {-clusterName <i>cluster_name</i> -widgets <i>widgets_home</i> /Widgets_ECMWidgetsP8.zip}</code>
Windows	<code>\$AdminTask installBusinessSpaceWidgets {-clusterName <i>cluster_name</i> -widgets <i>widgets_home</i> \Widgets_ECMWidgetsP8.zip}</code>

For example:

Option	Description
AIX	<code>\$AdminTask installBusinessSpaceWidgets {-clusterName myCluster -widgets /opt/IBM/ECMWidgets/Widgets_ECMWidgetsP8.zip}</code>
Windows	<code>\$AdminTask installBusinessSpaceWidgets {-clusterName myCluster -widgets C:\Program Files\IBM\Widgets_ECMWidgetsP8.zip}</code>

4. Enter `$AdminConfig save`
5. Adjust the settings in the `bootstrap.json` file, as appropriate for your configuration. For details on modifying IBM ECM Widgets configuration settings, see “Modifying IBM ECM Widgets configuration settings in Business Space powered by WebSphere deployments” on page 89.

(Optional) Configuring and deploying IBM FileNet Workplace XT on a WebSphere Application Server Network Deployment configuration

To deploy Workplace XT on a WebSphere Application Server Network Deployment configuration, the product must be installed on the deployment manager and cluster nodes.

Complete this task only if your configuration uses IBM® FileNet® Content Manager object stores. To configure and deploy IBM FileNet Workplace XT on a WebSphere Application Server Network Deployment system:

1. Log on to the deployment manager computer using an account that has administrator privileges.
2. In a text editor, open the `web.xml` file from the `WEB-INF` directory in the IBM FileNet Workplace XT installation location. For example:

Option	Description
AIX	/opt/IBM/FileNet/WebClient/WorkplaceXT/WEB-INF
Windows	C:\Program Files\IBM\FileNet\WebClient\WorkplaceXT\WEB-INF

3. Locate the <servlet> entries section and add the following entries:

```
<servlet>
  <servlet-name>P8CERESTServlet</servlet-name>
  <servlet-class>com.ibm.im.ecmwidgets.rest.P8CERESTServlet</servlet-class>
</servlet>
<servlet>
  <servlet-name>ecmWidgetForm</servlet-name>
  <servlet-class>com.filenet.eforms.apps.server.servlet.ECMWidgetFormServlet</servlet-class>
</servlet>
```

4. Locate the <servlet-mapping> entries section and add the following entries:

```
<servlet-mapping>
  <servlet-name>ecmWidgetForm</servlet-name>
  <url-pattern>/ecmWidgetForm/*</url-pattern>
</servlet-mapping>
<servlet-mapping>
  <servlet-name>P8CERESTServlet</servlet-name>
  <url-pattern>/P8CEREST/*</url-pattern>
</servlet-mapping>
```

5. Copy the ceREST.jar file from the following lib directory in the IBM ECM Widgets installation location. For example:

Option	Description
AIX	/opt/IBM/ECMWidgets/ContentList/lib/ceREST.jar
Windows	C:\Program Files\IBM\ECMWidgets\ContentList\lib\ceREST.jar

Save the file to the lib directory in the Workplace XT installation location. For example:

Option	Description
AIX	/opt/IBM/FileNet/WebClient/WorkplaceXT/WEB-INF/lib/ceREST.jar
Windows	C:\Program Files\IBM\FileNet\WebClient\WorkplaceXT\WEB-INF\lib\ceREST.jar

6. Copy the ECMWidgetFormServlet.jar file from the IBM ECM Widgets installation location. For example:

Option	Description
AIX	/opt/IBM/ECMWidgets/eFormsECMWidgetFormServlet.jar
Windows	C:\Program Files\IBM\ECMWidgets\eForms\ECMWidgetFormServlet.jar

Save the file to the lib directory in the Workplace XT installation location. For example:

Option	Description
AIX	/opt/IBM/FileNet/WebClient/WorkplaceXT/WEB-INF/lib/ECMWidgetFormServlet.jar
Windows	C:\Program Files\IBM\FileNet\WebClient\WorkplaceXT\WEB-INF\lib\ECMWidgetFormServlet.jar

7. Recreate the Workplace XT WAR and EAR files and deploy Workplace XT. For details, see the IBM FileNet Workplace XT Installation and Upgrade Guide which can be downloaded from the IBM Web site Product Documentation for FileNet P8 Platform support page at the following location: <http://www.ibm.com/support/docview.wss?rs=3278&uid=swg27010422>. Use the following options which are unique to deploying on a WebSphere Application Server Network Deployment configuration:
 - Select the **CellManager** as the node name that contains your Workplace XT application.
 - Choose **Detailed - Show all installation options and parameters** on the Preparing for the application installation page.
 - On the Map modules to servers page, select the cluster, the web server and the application and then click **Apply**.

(Optional) Setting the IBM FileNet Workplace XT cookie path

Complete this task only if your configuration uses IBM FileNet Content Manager object stores.

To set the IBM FileNet Workplace XT cookie path:

1. Access the WebSphere Application Server administrative console and click **Applications** → **Application Types** → **WebSphere Enterprise Applications**.
2. Click Workplace XT.
3. Click **Session management** under Web Module Properties.
4. Click **Enable cookies**.
5. Enter a unique path in which to store this application's cookies in the **Cookie path** field and click OK. For example:
/WorkplaceXT
6. Select the **Override session management** option under General Properties and click **Apply**.
7. Click **Save directly to the master configuration**.
8. Restart Workplace XT.

(Optional) Configuring step processor locations for IBM ECM Widgets

Complete this task only if your configuration uses IBM FileNet Content Manager object stores and you want to configure step processors.

To configure step processor locations for IBM ECM Widgets:

1. Create the Business Space powered by WebSphere pages for your step processor launch and steps, as appropriate for your configuration. For details about configuring and integrating IBM FileNet P8 workflow applications and step processor locations, see http://publib.boulder.ibm.com/infocenter/p8docs/v4r5m1/topic/com.ibm.p8.doc/pe_help/config/region_configure_step_processors.htm

2. Log on to IBM FileNet Workplace XT and navigate to **Tools** → **Administration** → **Process Configuration Console**.
3. Right-click the region you want to edit and choose **Connect**.
4. Right-click the region you want to edit and choose **Properties**.
5. Click the **Step Processor Info** tab.
6. Click the **Add** icon.
7. Select the **Type** for the new entry from the dropdown menu.
8. Enter a name in the **Name** field.
9. Select **HTML** from the **Language** dropdown menu.
10. Double-click the **Location** field, then access the appropriate page URL for the step processor and copy the #PID into the **IBM ECM Widgets for Business SpaceLocation** field. For example, select the information in bold from the following URL and paste it into the **Location** field:

```
http://localhost:9080/mum/resources/  
bootstrap#pid=C0A876BCD8E8DACED43EB9E1F64E4C000012&
```
11. Repeat as appropriate for each step processor you want to configure.
12. Commit the changes.

Enable templates for Business Space powered by WebSphere

Templates for Business Space powered by WebSphere must be enabled on your cluster to make them available for Business Space.

To enable templates for Business Space powered by WebSphere:

1. Open the oobLoadedStatus.properties on the node 1 server of your HA configuration from the following location:

```
WAS_PROFILE_HOME\BusinessSpace\cluster_name\mm.runtime.prof\public
```

For example:

```
C:\IBM\WebSphere\AppServer1\profiles\AppSrv01\BusinessSpace  
\mycluster\mm.runtime.prof\public\oobLoadedStatus.properties
```

2. Update the importTemplates.txt entry to true:

```
importTemplates.txt=true
```
3. Restart the deployment manager server, the node agent and the node server.
4. Log into Business Space and verify that the templates are enabled.

Verifying IBM ECM Widgets and Business Space powered by WebSphere deployment

Verify your configuration by accessing the URLs for each component.

To verify that IBM ECM Widgets and Business Space powered by WebSphere deployed properly:

1. Open a browser from a remote computer and enter the following default Business Space URL:

Configuration	URL
WebSphere Application Server	<code>http://host_server_name:port/mum/enabler</code>
WebSphere Application Server Highly Available (HA)	<code>http://host_server_name/mum/enabler</code>

2. Open a browser from a remote computer and enter the following default ECM Widgets Version Information page URL:

Configuration	URL
WebSphere Application Server	<code>http://host_server_name:port/ECMWidgets/About.jsp</code>
WebSphere Application Server Highly Available (HA)	<code>http://host_server_name/ECMWidgets/About.jsp</code>

The IBM ECM Widgets product is deployed to an instance of Business Space powered by WebSphere on your server. You can now add IBM ECM Widgets to Business Spaces and create new Business Space pages.

Installing IBM ECM Widgets in IBM Mashup Center

IBM ECM Widgets can be installed and deployed on IBM Mashup Center configurations.

Installing IBM ECM Widgets in IBM Mashup Center

IBM ECM Widgets can be installed and deployed on IBM Mashup Center configurations.

Based on your configuration, choose one of the following options to install and deploy IBM ECM Widgets in IBM Mashup Center:

Installing prerequisite software for IBM ECM Widgets in IBM Lotus Mashups

Before you install IBM ECM Widgets in IBM Lotus Mashups, different prerequisite components are required, depending on which type of IBM Content Manager content server you use.

For IBM ECM Widgets upgrades:

IBM Lotus Mashups V4.5.0 configurations can not be upgraded.

For configurations that use IBM FileNet Content Manager object stores:

- IBM Lotus Mashups.
- Database: use either DB2 for Linux, UNIX and Windows or Oracle
- Content Engine
- Process Engine

Important: The following components must be deployed to the same profile on Lotus Mashups:

- IBM FileNet Workplace XT

Important: When you configure the site preferences, ensure that the Documentation Server URL is entered with the same protocol as your IBM ECM Widgets configuration. For details on configuring site preferences for Workplace XT, see the following IBM FileNet P8 help topic: http://publib.boulder.ibm.com/infocenter/p8docs/v4r5m1/index.jsp?topic=/com.ibm.p8.doc/ae_help/siteprefs/sp_bootstrap_preference_settings.htm.

- Content Engine Client
- Process Engine Client with REST service enabled

Note: For details regarding configuring REST services, see the Configuring REST Services topic in the *IBM FileNet P8 Platform Installation and Upgrade Guide* in the following location: http://publib.boulder.ibm.com/infocenter/p8docs/v4r5m1/topic/com.ibm.p8.doc/developer_help/process_java_api/guide/rest/rest_configure.htm.

- (Optional) eForms

For supported versions of required platform software, see the IBM FileNet P8 Hardware and Software Requirements document on the IBM Web site. For supported versions of required FileNet P8 Software, see the IBM FileNet P8 Compatibility document on the IBM Web site.

For configurations that use IBM DB2 Content Manager content servers

- IBM Lotus Mashups.
- Database: use DB2 for Linux, UNIX and Windows or Oracle
- IBM DB2 Content Manager with IBM WEBi

For High Availability configurations

To configure Lotus Mashups for High Availability (HA) with IBM ECM Widgets, the following additional components are required:

- IBM HTTP Server
- IBM HTTP Server Plugin

You must install Lotus Mashups on all nodes in your system.

For details on creating and configuring a clustered environment, see the Lotus Mashups online information center: http://publib.boulder.ibm.com/infocenter/mashhelp/v2/index.jsp?topic=/com.ibm.help.mashups.intro.doc/mash_intro_cluster_parent.html&resultof=%22clustered%22%20%22cluster%22%20%22environment%22%20%22environ%22

Configuring the database for IBM ECM Widgets on IBM Lotus Mashups

Depending on your configuration, move the default Lotus Mashups derby database to either IBM DB2 for Linux, UNIX and Windows or Oracle.

Lotus Mashups configurations create a derby database by default. To move the default derby database to either IBM DB2 for Linux, UNIX and Windows or Oracle:

To configure the new database, refer to the IBM Lotus Mashups documentation for the appropriate database:

- To configure the IBM Lotus Mashups database for IBM DB2 for Linux, UNIX and Windows, see http://publib.boulder.ibm.com/infocenter/mashhelp/v2/topic/com.ibm.help.mashups.admin.doc/mash_admin_db2.html.
- To configure the IBM Lotus Mashups database for Oracle, see http://publib.boulder.ibm.com/infocenter/mashhelp/v2/topic/com.ibm.help.mashups.admin.doc/mash_admin_oracle.html.

Installing IBM ECM Widgets V4.5.2

The IBM ECM Widgets installation program also installs the package that is used to deploy Business Space powered by WebSphere for systems where manual deployment is necessary.

Running the IBM ECM Widgets installation program adds the files necessary to install and deploy the following components:

- Business Space powered by WebSphere

- IBM ECM Widgets on Business Space powered by WebSphere or IBM Lotus Mashups for configurations that use either IBM FileNet Content Manager object stores or IBM DB2 Content Manager content servers

You can run the IBM ECM Widgets installation program in one of two ways:

Installing IBM ECM Widgets V4.5.2 interactively

You can run the IBM ECM Widgets installation program interactively and step through the installer screens. You must install IBM ECM Widgets V4.5.2 before you can install the V4.5.2.1 update.

To install the IBM ECM Widgets software:

1. Log on to the host computer and copy the installation package to a local drive.
2. From the installation package, run the appropriate installation program for your configuration:

Option	Description
AIX	ECMWidgets4_5_2AIX.bin
Windows	ECMWidgets4_5_2WIN.exe

3. Complete the fields in the installation program.
4. Review the pre-installation summary and click **Install**.
5. Review the installation summary. If errors occurred, see the log file in the following location:

Option	Description
AIX	<i>ECMWidgets_Home/</i> IBM_ECM_Widgets_Install.log
Windows	<i>ECMWidgets_Home\</i> IBM_ECM_Widgets_Install.log

For example, the log file is saved to the following default path:

Option	Description
AIX	/opt/IBM/ECMWidgets/ IBM_ECM_Widgets_Install.log
Windows	C:\Program Files\IBM\ECMWidgets\ IBM_ECM_Widgets_Install.log

Installing IBM ECM Widgets V4.5.2 silently

You can run the IBM ECM Widgets installation silently. You must install IBM ECM Widgets V4.5.2 before you can install the V4.5.2.1 update.

To silently install IBM ECM Widgets, enter values about your environment in the `ECMWidgets_silent_input.properties` file. Then, start the silent installation from a command line. You can configure the required properties file in one of two ways:

- Manually edit and modify the options in the `ECMWidgets_silent_input.properties` file that is included in the installation package.
- Run an installation interactively and have the installer record the options that you set in the `ECMWidgets_silent_input.properties` file. This file can then be

used to install silently on additional computers, and use the options that you recorded during your interactive installation. To silently install IBM ECM Widgets:

1. Log on to the host computer by using an account that has administrator privileges.
2. Copy the IBM ECM Widgets installation package to the host computer and prepare the properties file:
 - To modify the properties file included in the installation package, open the `ECMWidgets_silent_input.properties` file and follow the instructions within to modify the options. The properties that you enter are not case sensitive.

Restriction: You must change the license agreement option from false to true or the installation will not run.

- To create a properties file by running the installation program, select the option to create the file during the installation. After the file is created, replace the file in the installation package with the file that you generated.
3. For non-English installations only: If the `ECMWidgets_silent_input.properties` file contains non-English characters, convert the file by using the `native2ascii` tool:

Tip: If you accept the default installation paths that are recorded in the `ECMWidgets_silent_input.properties` file, conversion of the file will not be necessary.

- a. From the `JAVA_JDK_Home\bin` directory, run the following command:


```
native2ascii source_file target_file
```

For example:

```
native2ascii ECMWidgets_silent_input.properties intermediate.txt
```

4. Start the installation by running the following command:

Option	Description
AIX	<code>ECMWidgets4_5_2AIX.bin -i silent -f target_file</code>
Windows	<code>ECMWidgets4_5_2WIN.exe -i silent -f target_file</code>

5. Review the installation summary. If errors occurred, see the log file in the following location:

Option	Description
AIX	<code>ECMWidgets_Home/IBM_ECM_Widgets_Install.log</code>
Windows	<code>ECMWidgets_Home\IBM_ECM_Widgets_Install.log</code>

For example, the log file is saved to the following default path:

Option	Description
AIX	<code>/opt/IBM/ECMWidgets/IBM_ECM_Widgets_Install.log</code>
Windows	<code>C:\Program Files\IBM\ECMWidgets\IBM_ECM_Widgets_Install.log</code>

Installing IBM ECM Widgets V4.5.2.1 fix pack

The IBM ECM Widgets V4.5.1.1 installation program installs components for updating deployments of V4.5.2 on Business Space powered by WebSphere and new installations of IBM Lotus Mashups.

You can run the IBM ECM Widgets V4.5.2.1 installation program in one of two ways:

Installing IBM ECM Widgets V4.5.2.1 fix pack Interactively

Run the IBM ECM Widgets installation program interactively and step through the installer screens.

To install the IBM ECM Widgets V4.5.2.1 software:

1. Log on to the host computer and copy the installation package to a local drive.
2. From the installation package, run the appropriate installation program for your configuration:

Option	Description
AIX	ECMWidgets4_5_2_1AIX.bin
Windows	ECMWidgets4_5_2_1WIN.exe

3. Select the option to upgrade your IBM ECM Widgets software.
4. Review the upgrade summary. If errors occurred, see the log file in the following location:

Option	Description
AIX	<i>ECMWidgets_Home/</i> IBM_ECM_Widgets_Install.log
Windows	<i>ECMWidgets_Home\</i> IBM_ECM_Widgets_Install.log

For example, the log file is saved to the following default path:

Option	Description
AIX	<i>/opt/IBM/ECMWidgets/</i> IBM_ECM_Widgets_Install.log
Windows	<i>C:\Program Files\IBM\ECMWidgets\</i> IBM_ECM_Widgets_Install.log

Installing IBM ECM Widgets V4.5.2.1 fix pack silently

You can run the IBM ECM Widgets installation silently.

To silently install IBM ECM Widgets V4.5.2.1, enter values about your environment in the `ECMWidgets_silent_input.properties` file. Then, start the silent installation from a command line. You can configure the required properties file in one of two ways:

- Manually edit and modify the options in the `ECMWidgets_silent_input.properties` file that is included in the installation package.
- Run an installation interactively and have the installer record the options that you set in the `ECMWidgets_silent_input.properties` file. This file can then be

used to install silently on additional computers, and use the options that you recorded during your interactive installation. To silently install IBM ECM Widgets:

1. Log on to the host computer by using an account that has administrator privileges.
2. Copy the IBM ECM Widgets installation package to the host computer and prepare the properties file:
 - To modify the properties file included in the installation package, open the `ECMWidgets_silent_input.properties` file and follow the instructions within to modify the options. The properties that you enter are not case sensitive.

Restriction: You must change the license agreement option from false to true or the installation will not run.

- To create a properties file by running the installation program, select the option to create the file during the installation. After the file is created, replace the file in the installation package with the file that you generated.
3. For non-English installations only: If the `ECMWidgets_silent_input_platform.properties` file contains non-English characters, convert the file by using the `native2ascii` tool:

Tip: If you accept the default installation paths that are recorded in the `ECMWidgets_silent_input_platform.properties` file, conversion of the file will not be necessary.

- a. From the `JAVA_JDK_Home\bin` directory, run the following command:


```
native2ascii source_file target_file
```

For example:

```
native2ascii ECMWidgets_silent_input_win.properties intermediate.txt
```

4. Start the installation by running the following command:

Option	Description
AIX	<code>ECMWidgets4_5_2_1AIX.bin -i silent -f target_file</code>
Windows	<code>ECMWidgets4_5_2_1WIN.exe -i silent -f target_file</code>

5. Review the installation log for errors after the installation is complete. The log is located in the installation directory. For example, the default log location is:


```
C:\Program Files\IBM\ECMWidgets\ECM_Widgets_InstallLog.log
```

(optional) Configuring and deploying IBM FileNet Workplace XT on an IBM Lotus Mashups configuration

If your configuration uses IBM FileNet Content Manager object stores, you must modify the `web.xml` file, relocate some JAR files, and then redeploy Workplace XT.

Complete this task only if your configuration uses IBM FileNet Content Manager object stores. To configure and deploy Workplace XT on an IBM Lotus Mashups configuration:

1. Log on to the host computer using an account that has administrator privileges.
2. In a text editor, open the `web.xml` file from the `WEB-INF` directory in the IBM FileNet Workplace XT installation location. For example:

Option	Description
AIX	/opt/IBM/FileNet/WebClient/WorkplaceXT/WEB-INF/web.xml
Windows	C:\Program Files\IBM\FileNet\WebClient\WorkplaceXT\WEB-INF\web.xml

3. Locate the <servlet> entries section and add the following entries:

```
<servlet>
  <servlet-name>P8CERESTServlet</servlet-name>
  <servlet-class>com.ibm.im.ecmwidgets.rest.P8CERESTServlet</servlet-class>
</servlet>
<servlet>
  <servlet-name>ecmWidgetForm</servlet-name>
  <servlet-class>com.filenet.eforms.apps.server.servlet.ECMWidgetFormServlet</servlet-class>
</servlet>
```

4. Locate the <servlet-mapping> entries section and add the following entries:

```
<servlet-mapping>
  <servlet-name>ecmWidgetForm</servlet-name>
  <url-pattern>/ecmWidgetForm/*</url-pattern>
</servlet-mapping>
<servlet-mapping>
  <servlet-name>P8CERESTServlet</servlet-name>
  <url-pattern>/P8CEREST/*</url-pattern>
</servlet-mapping>
```

5. Copy the ceREST.jar file and the ECMWidgetFormServlet.jar file from the lib directory in the IBM ECM Widgets installation location. For example:

Option	Description
AIX	/opt/IBM/ECMWidgets/ECMW_MashupCenter/lib/ceREST.jar /opt/IBM/ECMWidgets/ECMW_MashupCenter/lib/ECMWidgetFormServlet.jar
Windows	C:\Program Files\IBM\ECMWidgets\ECMW_MashupCenter\lib\ceREST.jar C:\Program Files\IBM\ECMWidgets\ECMW_MashupCenter\lib\ECMWidgetFormServlet.jar

Save the file to the lib directory in the Workplace XT installation location. For example:

Option	Description
AIX	/opt/IBM/FileNet/WebClient/WorkplaceXT/WEB-INF/lib/ceREST.jar /opt/IBM/FileNet/WebClient/WorkplaceXT/WEB-INF/lib/ECMWidgetFormServlet.jar
Windows	C:\Program Files\IBM\FileNet\WebClient\WorkplaceXT\WEB-INF\lib\ceREST.jar C:\Program Files\IBM\FileNet\WebClient\WorkplaceXT\WEB-INF\lib\ECMWidgetFormServlet.jar

6. Recreate the Workplace XT WAR and EAR files and deploy Workplace XT. For details, see the IBM FileNet Workplace XT Installation and Upgrade Guide

which can be downloaded from the IBM Web site Product Documentation for FileNet P8 Platform support page at the following location:
<http://www.ibm.com/support/docview.wss?rs=3278&uid=swg27010422>.

Deploying IBM ECM Widgets on an IBM Lotus Mashups configuration

Deploy the IBM ECM Widgets application on IBM Lotus Mashups by installing the ECMWidgets.ear file using the WebSphere Application Server administrative console.

To deploy the ECMWidgets.ear file:

1. Access the WebSphere Application Server administrative console and click **Application** → **New Application** → **New Enterprise Application**.
2. Browse to the ECMWidgets.ear file in the IBM ECM Widgets installation location, select the file, and click **OK**. For example, the file is stored in the following default location:

Option	Description
AIX	/opt/IBM/ECMWidgets/ECMW_MashupCenter/ECMWidgets.ear
Windows	C:\Program Files\IBM\ECMWidgets\ECMW_MashupCenter\ECMWidgets.ear

3. Click **Next** and complete the installation.
4. Save changes directly to the master configuration.
5. In a text editor, open the catalog_template.xml file from the config directory in the Mashup Center home directory. For example:

Option	Description
AIX	/opt/IBM/Mashup Center/2.0/mm/config/catalog_template.xml
Windows	C:\Program Files\IBM\Mashup Center\2.0\mm\config\catalog_template.xml

6. Locate the <catalog id="template" unique-name="optional_name"> entry section and add the following entry after <include catalog="default"/>:
 <include catalog="catalog_name"/>

Replace *catalog_name* with one of the follow options, depending on your configuration:

- ECMWidgetsP8 for configurations that use IBM FileNet Content Manager object stores.
- ECMWidgetsCM for configurations that use IBM DB2 Content Manager content servers
- ECMWidgets for configurations that use both IBM FileNet Content Manager object stores and IBM DB2 Content Manager content servers

For example, on a configuration that uses IBM FileNet Content Manager object stores, enter the following:

```

<catalog id="template" unique-name="optional_name">
  <resource-type>Catalog</resource-type>
  <include catalog="default"/>
  <include catalog="ECMWidgetsP8"/>
</catalog>

```

7. In a text editor, open the addContent.json file from the following default location of your deployed Mashup Center home directory. For example:

Option	Description
AIX	/opt/IBM/Mashup Center/2.0/mm_profile/installedApps/cell/themes.ear/themes.war/tabTheme/addContent.json
Windows	C:\Program Files\IBM\Mashup Center\2.0\mm_profile\installedApps\cell\themes.ear\themes.war\tabTheme\addContent.json

8. Locate the "category":"Tools", entry section. After the <mm_profile> line, add the following entries:

```

,
{
  "catalog":"ECMWidgets",
  "category":"ECMWidgets",
  "datastore":"com.ibm.data.MashupCatalogFeedStore",
  "renderers":[]
},
{
  "catalog":"ECMWidgets",
  "category":"ECMWidgetsToolbarActions",
  "datastore":"com.ibm.data.MashupCatalogFeedStore",
  "renderers":[]
}

```

For example:

```

"category":"Tools",
"datastore":"com.ibm.data.MashupCatalogFeedStore",
"renderers":[]
}
,
{
  "catalog":"ECMWidgets",
  "category":"ECMWidgets",
  "datastore":"com.ibm.data.MashupCatalogFeedStore",
  "renderers":[]
},
{
  "catalog":"ECMWidgets",
  "category":"ECMWidgetsToolbarActions",
  "datastore":"com.ibm.data.MashupCatalogFeedStore",
  "renderers":[]
}
]
}

```

9. In a text editor, open the addContent.json file from the following default location of your deployed Mashup Center home directory:

Option	Description
AIX	/opt/IBM/Mashup Center/2.0/mm_profile/ installedApps/cell/themes.ear/ themes.war/tabThemeColumned/ addContent.json
Windows	C:\Program Files\IBM\Mashup Center\2.0\mm_profile\installedApps\ cell\themes.ear\themes.war\ tabThemeColumned\addContent.json

10. Locate the "category":"Tools", entry section. After the <mm_profile> line, add the following entries:

```
,
{
  "catalog":"ECMWidgets",
  "category":"ECMWidgets",
  "datastore":"com.ibm.data.MashupCatalogFeedStore",
  "renderers":[]
},
{
  "catalog":"ECMWidgets",
  "category":"ECMWidgetsToolBarActions",
  "datastore":"com.ibm.data.MashupCatalogFeedStore",
  "renderers":[]
}
```

For example:

```
"category":"Tools",
"datastore":"com.ibm.data.MashupCatalogFeedStore",
"renderers":[]
}
,
{
  "catalog":"ECMWidgets",
  "category":"ECMWidgets",
  "datastore":"com.ibm.data.MashupCatalogFeedStore",
  "renderers":[]
},
{
  "catalog":"ECMWidgets",
  "category":"ECMWidgetsToolBarActions",
  "datastore":"com.ibm.data.MashupCatalogFeedStore",
  "renderers":[]
}
]
```

11. From a command line, access the Mashup_Center_root/Config directory. For example:

Option	Description
AIX	/opt/IBM/Mashup Center/2.0/Config
Windows	C:\Program Files\IBM\Mashup Center\2.0\Config

12. Run the following command:

```
config.bat import-config-file -DMMImportFileDir="Widgets_Home/  
ECMW_MashupCenter/catalog/catalog.xml"
```

Replace *catalog.xml* with one of the follow options, depending on your configuration:

Important: The option you choose must match the entry you added in step 6.

- `catalog_ECMWidgetsP8.xml` for configurations that use IBM FileNet Content Manager object stores.
- `catalog_ECMWidgetsCM.xml` for configurations that use IBM DB2 Content Manager content servers
- `catalog_ECMWidgets.xml` for configurations that use both IBM FileNet Content Manager object stores and IBM DB2 Content Manager content servers

For example, on a configuration that uses IBM FileNet Content Manager object stores, run the following command:

Option	Description
AIX	<code>config.bat import-config-file -DMMImportFileDir= "/opt/IBM/ECMWidgets/ECMW_MashupCenter/catalog/catalog_ECMWidgetsP8.xml"</code>
Windows	<code>config.bat import-config-file -DMMImportFileDir= "C:/Progra~1/IBM/ECMWidgets/ECMW_MashupCenter/catalog/catalog_ECMWidgetsP8.xml"</code>

13. Verify that the `catalog.xml` file was successfully imported:

- Access the WebSphere Application Server administrative console and click **Resources** → **Resource Environment Providers** → **Mashups BlobConfigService** → **Custom properties**.
- Verify that the name of the catalog you entered in step 12 is listed. If the catalog is not listed, you may have made an error when entering the import command in step 12. Try the import process again.

14. Run the following command:

```
config.bat import-config-file -DMMImportFileDir="Mashup_Center_Home/mm/config/catalog_template.xml"
```

For example:

Option	Description
AIX	<code>config.bat import-config-file -DMMImportFileDir= "/opt/IBM/MashupCenter/2.0/mm/config/catalog_template.xml"</code>
Windows	<code>config.bat import-config-file -DMMImportFileDir= "C:/Progra~1/IBM/Mashup Center/2.0/mm/config/catalog_template.xml"</code>

15. From a browser, access the following URL:

```
http://servername:port/mum/osgi/defaultPaletteReset
```

For example:

```
http://myserver:9080/mum/osgi/defaultPaletteReset
```

Important: Accessing this URL requires IBM WebSphere Application Server administrator credentials.

16. Restart the IBM WebSphere Application Server.

Deploying IBM ECM Widgets templates on an IBM Lotus Mashups configuration using InfoSphere MashupHub

You must deploy the IBM ECM Widgets template files on IBM Lotus Mashups using InfoSphere™ MashupHub.

To deploy the ECMProcessingWork.zip file on IBM Lotus Mashups using InfoSphere MashupHub:

1. Log on to the host computer using an account that has administrator privileges and launch InfoSphere MashupHub.
2. Access **Upload** → **Upload Space Template**.
3. Browse to the templates directory in the IBM ECM Widgets installation directory, select the ECMProcessingWork.zip file, and click **Open**. The templates directory is located in the Mashup Center home directory. For example:

Option	Description
AIX	/opt/IBM/Mashup Center/templates
Windows	C:\Program Files\IBM\Mashup Center\templates

4. Click **Next**. On the Specify the following information page, enter ECM - Processing Work in the **Title** field and click **Finish**.
5. Click **Add to Mashup Builder**.
6. Click **Next** to accept the default settings.
7. Enter ECM - Processing Work in the **Title** field and click **Finish**.
8. Click **Close Tab**.
9. Access **Upload** → **Upload Space Template**.
10. Browse to the templates directory in the IBM ECM Widgets installation directory, select the ECMStepProcessors.zip file, and click **Open**.
11. Click **Next**. On the Specify the following information page, enter ECM - Step Processors in the **Title** field and click **Finish**.
12. Click **Add to Mashup Builder**.
13. Click **Next** to accept the default settings.
14. Enter ECM - Step Processors in the **Title** field and click **Finish**.

Modify the IBM ECM Widgets bootstrap.json file on an IBM Lotus Mashups configuration

Modify the settings in the bootstrap.json file according to your IBM ECM Widgets configuration.

To modify the bootstrap.json file:

1. Log on to the host computer using an account that has administrator privileges.
2. Access the bootstrap.json file in the ecwidgets directory in the deployed IBM Lotus Mashups path. For example, access the file in the following default location:

Option	Description
AIX	/opt/IBM/Mashup Center/2.0/mm_profile/installedApps/cell/ECMWidgets.ear/ECMWidgets.war/catalog/com/ibm/im/ecmwidgets/bootstrap.json
Windows	C:\Program Files\IBM\Mashup Center\2.0\mm_profile\installedApps\cell\ECMWidgets.ear\ECMWidgets.war\catalog\com\ibm\im\ecmwidgets\bootstrap.json

- Open the bootstrap.json file in a text editor and adjust the settings in the file, as appropriate for your configuration. For details on modifying IBM ECM Widgets settings, see “Modifying IBM ECM Widgets configuration settings in Lotus Mashups” on page 93
- Restart the WebSphere Application Server.

(optional) Configuring step processor locations for IBM ECM Widgets

Complete this task only if your configuration uses IBM FileNet Content Manager object stores and you want to configure step processors.

To configure step processor locations for IBM ECM Widgets:

- Create the pages for your step processor launch and steps, as appropriate for your configuration. For details about configuring and integrating IBM FileNet P8 workflow applications and step processor locations, see http://publib.boulder.ibm.com/infocenter/p8docs/v4r5m1/topic/com.ibm.p8.doc/pe_help/config/region_configure_step_processors.htm
- Log on to IBM FileNet Workplace XT and navigate to **Tools** → **Administration** → **Process Configuration Console**.
- Right-click the region you want to edit and choose **Connect**.
- Right-click the region you want to edit and choose **Properties**.
- Click the **Step Processor Info** tab.
- Click the **Add** icon.
- Select the **Type** for the new entry from the dropdown menu.
- Enter a name in the **Name** field.
- Select **HTML** from the **Language** dropdown menu.
- Double-click the **Location** field, then access the appropriate page URL for the step processor and copy the **#PID** into the IBM ECM Widgets for Lotus Mashups **Location** field. For example, select the information in bold from the following URL and paste it into the IBM ECM Widgets for Lotus Mashups **Location** field:
<http://localhost:9080/mum/enabler#pid=C0A876BCD8E8DACED43EB9E1F64E4C000012&>
- Repeat as appropriate for each step processor you want to configure.
- Commit the changes.

Verifying IBM ECM Widgets deployment

Verify your configuration by accessing the URLs for each component.

To verify that IBM ECM Widgets deployed properly:

1. Open a browser from a remote computer and enter the following default IBM Mashup Center URL: `http://host_server_name:port/mum/enabler`
2. Click Go to Edit. Verify that **ECM Widgets** and **ECM Widgets Toolbar Actions** are available menu options.
3. Open a browser from a remote computer and enter the following default ECM Widgets Version Information page URL: `http://host_server_name:port/ECMWidgets/About.jsp` The IBM ECM Widgets product is deployed to an instance of IBM Mashup Center on your server. You can now add IBM ECM Widgets to pages.

Installing a Highly Available deployment of IBM ECM Widgets in IBM Mashup Center

IBM ECM Widgets must be deployed manually on a Highly Available deployment of IBM ECM Widgets in IBM Mashup Center because the configuration manager cannot be used to deploy the components or configure the system.

Use this configuration option to implement a Highly Available deployment of IBM ECM Widgets in IBM Mashup Center on a multi-server configuration.

IBM ECM Widgets configurations that are not part of a cluster are not supported for High Availability. Managed or unmanaged nodes that are not part of the cluster are not supported as part of the HA configuration for IBM ECM Widgets.

Installing prerequisite software for IBM ECM Widgets in IBM Lotus Mashups

Before you install IBM ECM Widgets in IBM Lotus Mashups, different prerequisite components are required, depending on which type of IBM Content Manager content server you use.

For IBM ECM Widgets upgrades:

IBM Lotus Mashups V4.5.0 configurations can not be upgraded.

For configurations that use IBM FileNet Content Manager object stores:

- IBM Lotus Mashups.
- Database: use either DB2 for Linux, UNIX and Windows or Oracle
- Content Engine
- Process Engine

Important: The following components must be deployed to the same profile on Lotus Mashups:

- IBM FileNet Workplace XT

Important: When you configure the site preferences, ensure that the Documentation Server URL is entered with the same protocol as your IBM ECM Widgets configuration. For details on configuring site preferences for Workplace XT, see the following IBM FileNet P8 help topic: http://publib.boulder.ibm.com/infocenter/p8docs/v4r5m1/index.jsp?topic=/com.ibm.p8.doc/ae_help/siteprefs/sp_bootstrap_preference_settings.htm.

- Content Engine Client

- Process Engine Client with REST service enabled

Note: For details regarding configuring REST services, see the Configuring REST Services topic in the *IBM FileNet P8 Platform Installation and Upgrade Guide* in the following location: http://publib.boulder.ibm.com/infocenter/p8docs/v4r5m1/topic/com.ibm.p8.doc/developer_help/process_java_api/guide/rest/rest_configure.htm.

- (Optional) eForms

For supported versions of required platform software, see the IBM FileNet P8 Hardware and Software Requirements document on the IBM Web site. For supported versions of required FileNet P8 Software, see the IBM FileNet P8 Compatibility document on the IBM Web site.

For configurations that use IBM DB2 Content Manager content servers

- IBM Lotus Mashups.
- Database: use DB2 for Linux, UNIX and Windows or Oracle
- IBM DB2 Content Manager with IBM WEBi

For High Availability configurations

To configure Lotus Mashups for High Availability (HA) with IBM ECM Widgets, the following additional components are required:

- IBM HTTP Server
- IBM HTTP Server Plugin

You must install Lotus Mashups on all nodes in your system.

For details on creating and configuring a clustered environment, see the Lotus Mashups online information center: http://publib.boulder.ibm.com/infocenter/mashhelp/v2/index.jsp?topic=/com.ibm.help.mashups.intro.doc/mash_intro_cluster_parent.html&resultof=%22clustered%22%20%22cluster%22%20%22environment%22%20%22environ%22

Configuring the database for IBM ECM Widgets on IBM Lotus Mashups

Depending on your configuration, move the default Lotus Mashups derby database to either IBM DB2 for Linux, UNIX and Windows or Oracle.

Lotus Mashups configurations create a derby database by default. To move the default derby database to either IBM DB2 for Linux, UNIX and Windows or Oracle:

To configure the new database, refer to the IBM Lotus Mashups documentation for the appropriate database:

- To configure the IBM Lotus Mashups database for IBM DB2 for Linux, UNIX and Windows, see http://publib.boulder.ibm.com/infocenter/mashhelp/v2/topic/com.ibm.help.mashups.admin.doc/mash_admin_db2.html.
- To configure the IBM Lotus Mashups database for Oracle, see http://publib.boulder.ibm.com/infocenter/mashhelp/v2/topic/com.ibm.help.mashups.admin.doc/mash_admin_oracle.html.

Installing IBM ECM Widgets V4.5.2 on the IBM Lotus Mashups multi-server configuration

Install IBM ECM Widgets V4.5.2 on the deployment manager and each node of your IBM Lotus Mashups cluster.

To install IBM ECM Widgets V4.5.2 on your deployment manager and each node of your IBM Lotus Mashups cluster:

1. Log on to the host computer by using an account that has administrator privileges.
2. Copy the installation package to the host computer.
3. Access the installation package and run the appropriate installation program for your configuration:

Option	Description
AIX	ECMWidgets4_5_2AIX.bin
Windows	ECMWidgets4_5_2WIN.exe

4. In the Specify Installation Options window, select one or both of the following installation options:
 - Install IBM ECM Widgets on this computer to install the product.
 - Save your settings in a response file to record the options that you select during this installation in a file. The response file can be used to silently install the product on another computer that will use the same settings that you select during this installation.
5. Specify a directory in which to install the software:
 - To accept the default installation path, click **Next**.
 - To repopulate the field with the default installation path, click **Restore Default Folder**.
 - To navigate to a different installation path, click **Choose** and browse for the directory you want to use.
6. Review the pre-installation summary and click **Install**.
7. Review the installation summary. If errors occurred, see the log file in the following default location:

Option	Description
AIX	/opt/IBM/ECMWidgets/ IBM_ECM_Widgets_Install.log
Windows	C:\Program Files\IBM\ECMWidgets\ IBM_ECM_Widgets_Install.log

Installing IBM ECM Widgets V4.5.2.1 fix pack on the IBM Lotus Mashups multi-server configuration

Install IBM ECM Widgets V4.5.2.1 on the deployment manager and each node of your IBM Lotus Mashups cluster.

To install IBM ECM Widgets V4.5.2.1 on your deployment manager and each node of your IBM Lotus Mashups cluster:

1. Log on to the host computer and copy the installation package to a local drive.

- From the installation package, run the appropriate installation program for your configuration:

Option	Description
AIX	ECMWidgets4_5_2_1AIX.bin
Windows	ECMWidgets4_5_2_1WIN.exe

- Select the option to upgrade your IBM ECM Widgets software.
- Review the upgrade summary. If errors occurred, see the log file in the following location:

Option	Description
AIX	<i>ECMWidgets_Home/</i> IBM_ECM_Widgets_Install.log
Windows	<i>ECMWidgets_Home\</i> IBM_ECM_Widgets_Install.log

For example, the log file is saved to the following default path:

Option	Description
AIX	/opt/IBM/ECMWidgets/ IBM_ECM_Widgets_Install.log
Windows	C:\Program Files\IBM\ECMWidgets\ IBM_ECM_Widgets_Install.log

(optional) Configuring and deploying IBM FileNet Workplace XT on an IBM Lotus Mashups multi-server configuration

If your configuration uses IBM FileNet Content Manager object stores, on each node and on the deployment manager you must modify the `web.xml` file, relocate some JAR files, and then redeploy Workplace XT.

Complete this task only if your configuration uses IBM FileNet Content Manager object stores. To configure and deploy Workplace XT on an IBM Lotus Mashups multi-server configuration:

- On each node and on the deployment manager, log on to the host computer using an account that has administrator privileges.
- In a text editor, open the `web.xml` file from the WEB-INF directory in the IBM FileNet Workplace XT installation location. For example:

Option	Description
AIX	/opt/IBM/FileNet/WebClient/WorkplaceXT/ WEB-INF/web.xml
Windows	C:\Program Files\IBM\FileNet\WebClient\ WorkplaceXT\WEB-INF\web.xml

- Locate the `<servlet>` entries section and add the following entries:

```
<servlet>
  <servlet-name>P8CERESTServlet</servlet-name>
  <servlet-class>com.ibm.im.ecmwidgets.rest.P8CERESTServlet</servlet-class>
</servlet>
```

```

<servlet>
  <servlet-name>ecmWidgetForm</servlet-name>
  <servlet-class>com.filenet.eforms.apps.server.servlet.ECMWidgetFormServlet</servlet-class>
</servlet>

```

4. Locate the <servlet-mapping> entries section and add the following entries:

```

<servlet-mapping>
  <servlet-name>ecmWidgetForm</servlet-name>
  <url-pattern>/ecmWidgetForm/*</url-pattern>
</servlet-mapping>
<servlet-mapping>
  <servlet-name>P8CERESTServlet</servlet-name>
  <url-pattern>/P8CEREST/*</url-pattern>
</servlet-mapping>

```

5. Copy the ceREST.jar file from the following lib directory in the IBM ECM Widgets installation location. For example:

Option	Description
AIX	/opt/IBM/ECMWidgets/ECMW_MashupCenter/ libs/ceREST.jar
	/opt/IBM/ECMWidgets/ECMW_MashupCenter/ libs/ECMWidgetFormServlet.jar
Windows	C:\Program Files\IBM\ECMWidgets\ ECMW_MashupCenter\libs\ceREST.jar
	C:\Program Files\IBM\ECMWidgets\ ECMW_MashupCenter\libs\ ECMWidgetFormServlet.jar

Save the file to the lib directory in the Workplace XT installation location. For example:

Option	Description
AIX	/opt/IBM/FileNet/WebClient/WorkplaceXT/ WEB-INF/lib/ceREST.jar
	/opt/IBM/FileNet/WebClient/WorkplaceXT/ WEB-INF/lib/ECMWidgetFormServlet.jar
Windows	C:\Program Files\IBM\FileNet\WebClient\ WorkplaceXT\WEB-INF\lib\ceREST.jar
	C:\Program Files\IBM\FileNet\WebClient\ WorkplaceXT\WEB-INF\lib\ ECMWidgetFormServlet.jar

6. On the deployment manager, recreate the Workplace XT WAR and EAR files and deploy Workplace XT. For details, see the IBM FileNet Workplace XT Installation and Upgrade Guide which can be downloaded from the IBM Web site Product Documentation for FileNet P8 Platform support page at the following location: <http://www.ibm.com/support/docview.wss?rs=3278&uid=swg27010422>.

Deploying IBM ECM Widgets on an IBM Lotus Mashups multi-server configuration

Deploy the IBM ECM Widgets application on IBM Lotus Mashups multi-server configuration by installing the ECMWidgets.ear file on the deployment manager using the WebSphere Application Server administrative console.

Important: These steps apply to an HA configuration in which the deployment manager is located on the same computer as at least one of the cluster nodes. Information about installing IBM ECM Widgets on a configuration where the deployment manager is on a dedicated server is available in technotes that are published in the IBM Support Portal.

To deploy the ECMWidgets.ear file on the deployment manager:

1. Access the WebSphere Application Server administrative console and click **Application** → **New Application** → **New Enterprise Application**.
2. Browse to the ECMWidgets.ear file in the IBM ECM Widgets installation location, select the file, and click **OK**. For example, the file is stored in the following default location:

Option	Description
AIX	/opt/IBM/ECMWidgets/ECMW_MashupCenter/ECMWidgets.ear
Windows	C:\Program Files\IBM\ECMWidgets\ECMW_MashupCenter\ECMWidgets.ear

3. Click **Next** and complete the installation.
4. Save changes directly to the master configuration.
5. On the deployment manager computer and on each node in your cluster, open the catalog_template.xml file in a text editor from the config directory in the Mashup Center home directory. For example:

Option	Description
AIX	/opt/IBM/Mashup Center/2.0/mm/config/catalog_template.xml
Windows	C:\Program Files\IBM\Mashup Center\2.0\mm\config\catalog_template.xml

6. Locate the <catalog id="template" unique-name="optional_name"> entry section and add the following entry after <include catalog="default"/>:


```
<include catalog="catalog_name"/>
```

Replace *catalog_name* with one of the follow options, depending on your configuration:

- ECMWidgetsP8 for configurations that use IBM FileNet Content Manager object stores.
- ECMWidgetsCM for configurations that use IBM DB2 Content Manager content servers
- ECMWidgets.xml for configurations that use both IBM FileNet Content Manager object stores and IBM DB2 Content Manager content servers

For example, on a configuration that uses IBM FileNet Content Manager object stores, enter the following:

```
<catalog id="template" unique-name="optional_name">
  <resource-type>Catalog</resource-type>
  <include catalog="default"/>
  <include catalog="ECMWidgetsP8"/>
</catalog>
```

- On the deployment manager computer and on each node in your cluster, open the `addContent.json` file in a text editor from the following default location of your deployed Mashup Center home directory. For example:

Option	Description
AIX	<code>/opt/IBM/Mashup Center/2.0/mm_profile/installedApps/cell/themes.ear/themes.war/tabTheme/addContent.json</code>
Windows	<code>C:\Program Files\IBM\Mashup Center\2.0\mm_profile\installedApps\cell\themes.ear\themes.war\tabTheme\addContent.json</code>

- Locate the `"category": "Tools"`, entry section. After the `<mm_profile>` line, add the following entries:

```

,
{
  "catalog": "ECMWidgets",
  "category": "ECMWidgets",
  "datastore": "com.ibm.data.MashupCatalogFeedStore",
  "renderers": []
},
{
  "catalog": "ECMWidgets",
  "category": "ECMWidgetsToolbarActions",
  "datastore": "com.ibm.data.MashupCatalogFeedStore",
  "renderers": []
}

```

For example:

```

"category": "Tools",
"datastore": "com.ibm.data.MashupCatalogFeedStore",
"renderers": []
}
,
{
  "catalog": "ECMWidgets",
  "category": "ECMWidgets",
  "datastore": "com.ibm.data.MashupCatalogFeedStore",
  "renderers": []
},
{
  "catalog": "ECMWidgets",
  "category": "ECMWidgetsToolbarActions",
  "datastore": "com.ibm.data.MashupCatalogFeedStore",
  "renderers": []
}
]
}

```

- On the deployment manager computer and on each node in your cluster, open the `addContent.json` file in a text editor from the following default location of your deployed Mashup Center home directory:

Option	Description
AIX	<code>/opt/IBM/Mashup Center/2.0/mm_profile/installedApps/cell/themes.ear/themes.war/tabThemeColumned/addContent.json</code>

Option	Description
Windows	C:\Program Files\IBM\Mashup Center\2.0\mm_profile\installedApps\cell\themes.ear\themes.war\tabThemeColumned\addContent.json

10. Locate the "category":"Tools", entry section. After the <mm_profile> line, add the following entries:

```
,
{
  "catalog":"ECMWidgets",
  "category":"ECMWidgets",
  "datastore":"com.ibm.data.MashupCatalogFeedStore",
  "renderers":[]
},
{
  "catalog":"ECMWidgets",
  "category":"ECMWidgetsToolbarActions",
  "datastore":"com.ibm.data.MashupCatalogFeedStore",
  "renderers":[]
}
```

For example:

```
"category":"Tools",
"datastore":"com.ibm.data.MashupCatalogFeedStore",
"renderers":[]
}
{
  "catalog":"ECMWidgets",
  "category":"ECMWidgets",
  "datastore":"com.ibm.data.MashupCatalogFeedStore",
  "renderers":[]
},
{
  "catalog":"ECMWidgets",
  "category":"ECMWidgetsToolbarActions",
  "datastore":"com.ibm.data.MashupCatalogFeedStore",
  "renderers":[]
}
]
```

11. On the primary node in your cluster, open the config.properties file in a text editor from the config directory in the Mashup Center home directory. For example:

Option	Description
AIX	/opt/IBM/Mashup Center/2.0/config/config.properties
Windows	C:\Program Files\IBM\Mashup Center\2.0\config\config.properties

12. Enter the values for the following entries and then save and close the file:

- DeploymentManagerHostname
- DeploymentManagerConnectorPort
- DeploymentManagerAdminuser
- DeploymentManagerAdminpass
- CLUSTER_NAME

13. On the primary node in your cluster, from a command line access the Mashup_Center_root/Config directory. For example:

Option	Description
AIX	/opt/IBM/Mashup Center/2.0/Config
Windows	C:\Program Files\IBM\Mashup Center\2.0\Config

14. Run the following command:

```
config.bat import-config-file -DMMImportFileDir="Widgets_Home/ECMW_MashupCenter/catalog/catalog.xml"
```

Replace *catalog.xml* with one of the follow options, depending on your configuration:

Important: The option you choose must match the entry you added in step 6.

- catalog_ECMWidgetsP8.xml for configurations that use IBM FileNet Content Manager object stores.
- catalog_ECMWidgetsCM.xml for configurations that use IBM DB2 Content Manager content servers
- catalog_ECMWidgets.xml for configurations that use both IBM FileNet Content Manager object stores and IBM DB2 Content Manager content servers

For example, on a configuration that uses IBM FileNet Content Manager object stores, run the following command:

Option	Description
AIX	config.bat import-config-file -DMMImportFileDir= "/opt/IBM/ECMWidgets/ECMW_MashupCenter/catalog/catalog_ECMWidgetsP8.xml"
Windows	config.bat import-config-file -DMMImportFileDir= "C:/Progra~1/IBM/ECMWidgets/ECMW_MashupCenter/catalog/catalog_ECMWidgetsP8.xml"

15. Verify that the *catalog.xml* file was successfully imported:

- Access the WebSphere Application Server administrative console and click **Resources** → **Resource Environment Providers** → **Mashups BlobConfigService** → **Custom properties**.
- Verify that the name of the catalog you entered in step 12 is listed. If the catalog is not listed, you may have made an error when entering the import command in step 12. Try the import process again.

16. Run the following command:

```
config.bat import-config-file -DMMImportFileDir="Mashup_Center_Home/mm/config/catalog_template.xml"
```

For example:

Option	Description
AIX	config.bat import-config-file -DMMImportFileDir= "/opt/IBM/Mashup Center/2.0/mm/config/catalog_template.xml"

Option	Description
Windows	config.bat import-config-file -DMMImportFileDir= "C:/Progra~1/IBM/ Mashup Center/2.0/mm/config/ catalog_template.xml"

17. From a browser, access the following URL:

`http://servername:port/mum/osgi/defaultPaletteReset`

For example:

`http://myserver:9080/mum/osgi/defaultPaletteReset`

18. Restart the IBM WebSphere Application Server on the deployment manager and restart the cluster.

Deploying IBM ECM Widgets templates on the IBM Lotus Mashups deployment manager computer

You must deploy the IBM ECM Widgets template files on IBM Lotus Mashups using InfoSphere MashupHub.

To deploy the IBM ECM Widgets templates for IBM Lotus Mashups:

1. Log on to the host computer using an account that has administrator privileges and launch InfoSphere MashupHub.
2. Access **Upload** → **Upload Space Template**.
3. Browse to the templates directory in the IBM ECM Widgets installation directory, select the `ECMProcessingWork.zip` file, and click **Open**. The templates directory is located in the Mashup Center home directory. For example:

Option	Description
AIX	/opt/IBM/Mashup Center/templates
Windows	C:\Program Files\IBM\Mashup Center\templates

4. Click **Next**. On the Specify the following information page, enter ECM - Processing Work in the **Title** field and click **Finish**.
5. Click **Add to Mashup Builder**.
6. Click **Next** to accept the default settings.
7. Enter ECM - Processing Work in the **Title** field and click **Finish**.
8. Click **Close Tab**
9. Access **Upload** → **Upload Space Template**.
10. Browse to the templates directory in the IBM ECM Widgets installation directory, select the `ECMStepProcessors.zip` file, and click **Open**.
11. Click **Next**. On the Specify the following information page, enter ECM - Step Processors in the **Title** field and click **Finish**.
12. Click **Add to Mashup Builder**.
13. Click **Next** to accept the default settings.
14. Enter ECM - Step Processors in the **Title** field and click **Finish**.

Modify the IBM ECM Widgets bootstrap.json file on an IBM Lotus Mashups multi-server configuration

On the deployment manager computer and on each node in your cluster, modify the settings in the bootstrap.json file according to your IBM ECM Widgets configuration.

To modify the bootstrap.json file on the deployment manager computer and on each node in your cluster:

1. Log on to the host computer using an account that has administrator privileges.
2. Access the bootstrap.json file in the ecmwidgets directory in the deployed IBM Lotus Mashups path. For example, access the file in the following default location:

Option	Description
AIX	/opt/IBM/Mashup Center/2.0/mm_profile/installedApps/cell/ECMWidgets.ear/ECMWidgets.war/catalog/com/ibm/im/ecmwidgets/bootstrap.json
Windows	C:\Program Files\IBM\Mashup Center\2.0\mm_profile\installedApps\cell\ECMWidgets.ear\ECMWidgets.war\catalog\com\ibm\im\ecmwidgets\bootstrap.json

3. Open the bootstrap.json file in a text editor and adjust the settings in the file, as appropriate for your configuration. For details on modifying IBM ECM Widgets settings, see “Modifying IBM ECM Widgets configuration settings in Lotus Mashups” on page 93
4. Restart the cluster.

(optional) Configuring step processor locations for IBM ECM Widgets

Complete this task only if your configuration uses IBM FileNet Content Manager object stores and you want to configure step processors.

To configure step processor locations for IBM ECM Widgets:

1. Create the pages for your step processor launch and steps, as appropriate for your configuration. For details about configuring and integrating IBM FileNet P8 workflow applications and step processor locations, see http://publib.boulder.ibm.com/infocenter/p8docs/v4r5m1/topic/com.ibm.p8.doc/pe_help/config/region_configure_step_processors.htm
2. Log on to IBM FileNet Workplace XT and navigate to **Tools** → **Administration** → **Process Configuration Console**.
3. Right-click the region you want to edit and choose **Connect**.
4. Right-click the region you want to edit and choose **Properties**.
5. Click the **Step Processor Info** tab.
6. Click the **Add** icon.
7. Select the **Type** for the new entry from the dropdown menu.
8. Enter a name in the **Name** field.
9. Select **HTML** from the **Language** dropdown menu.

10. Double-click the **Location** field, then access the appropriate page URL for the step processor and copy the **#PID** into the IBM ECM Widgets for Lotus Mashups **Location** field. For example, select the information in bold from the following URL and paste it into the IBM ECM Widgets for Lotus Mashups **Location** field:

```
http://localhost:9080/mum/  
enabler#pid=C0A876BCD8E8DACED43EB9E1F64E4C000012&
```

11. Repeat as appropriate for each step processor you want to configure.
12. Commit the changes.

Verifying IBM ECM Widgets deployment

Verify your configuration by accessing the URLs for each component.

To verify that IBM ECM Widgets deployed properly:

1. Open a browser from a remote computer and enter the following default IBM Mashup Center URL: `http://host_server_name/mum/enabler`
2. Click Go to Edit. Verify that **ECM Widgets** and **ECM Widgets Toolbar Actions** are available menu options.
3. Open a browser from a remote computer and enter the following default ECM Widgets Version Information page URL: `http://HTTP_Server_name/ECMWidgets/About.jsp` The IBM ECM Widgets product is deployed to an instance of IBM Mashup Center on your server. You can now add IBM ECM Widgets to pages.

Upgrading IBM ECM Widgets from V4.5.2 to V4.5.2.1

Upgrading to IBM ECM Widgets V4.5.2.1 requires a starting installation of IBM ECM Widgets V4.5.2. If you have an earlier version, you must first upgrade your installation to V4.5.2 using the upgrade instructions for that version.

Upgrading an IBM WebSphere Application Server - Base installation of IBM ECM Widgets V4.5.2 to V4.5.2.1

In order to upgrade to IBM ECM Widgets V4.5.2.1, you must download and install software updates and files to your IBM ECM Widgets server. After the upgrade installation, you can configure the new files and redeploy the IBM ECM Widgets by using the Configuration Manager.

Installing the IBM ECM Widgets V4.5.2.1 software update

The V4.5.2.1 fix pack supplies necessary additional supported platforms and updates for the IBM ECM Widgets product. Download and install this software update before you configure IBM ECM Widgets. You can run the installation interactively or silently.

Important: Once the IBM ECM Widgets V4.5.2.1 software update is installed, you cannot roll back to V4.5.2 of IBM ECM Widgets. If you want to return to the previous version, you must uninstall V4.5.2.1 and run a new installation of IBM ECM Widgets V4.5.2.

Installing the IBM ECM Widgets V4.5.2.1 software update interactively

The IBM ECM Widgets V4.5.2.1 fix pack provides an interactive installation program. You can consult the fix pack readme for additional information and instructions.

Ensure that you have installed or upgraded to IBM ECM Widgets V4.5.2 before you install this software update.

To install the IBM ECM Widgets V4.5.2.1 software update interactively:

1. Download the IBM ECM Widgets V4.5.2.1 software update from Fix Central to a local drive on the IBM ECM Widgets server.
2. From the installation package, run the appropriate installation program for your configuration:

Option	Description
AIX	ECMWidgets4_5_2_1AIX.bin
Windows	ECMWidgets4_5_2_1WIN.exe

3. Follow the instructions in the installation program screens.
4. When the installation is complete, run the version tool to verify that the version has been updated to 4.5.2.1.

Option	Description
AIX	<code>install_path/IBM/ECMWidgets/version.sh</code>

Option	Description
Windows	<i>install_path\IBM\ECMWidgets\version.bat</i>

Installing the IBM ECM Widgets V4.5.2.1 software update silently

To silently install the IBM ECM Widgets V4.5.2.1 software update, enter values about your environment in the silent installation properties file. You can then start the silent installation from a command line.

Install IBM ECM Widgets V4.5.2 before you install this software update.

To silently install the IBM ECM Widgets V4.5.2.1 software update:

1. Download the IBM ECM Widgets V4.5.2.1 software update from Fix Central to a local drive on the IBM ECM Widgets server.
2. Open the silent input properties file for editing:

Option	Description
AIX	<i>ECMWidgets_silent_input_unix.properties</i>
Windows	<i>ECMWidgets_silent_input_win.properties</i>

3. Set the value for `LICENSE_ACCEPTED` to `TRUE`.
4. Run the following installation command and specify the properties file as shown in the following example:

Option	Description
AIX	<i>ECMWidgets4_5_2_1AIX.bin -i silent -f ECMWidgets_silent_input_unix.properties</i>
Windows	<i>ECMWidgets4_5_2_1WIN.exe -i silent -f ECMWidgets_silent_input_win.properties</i>

5. When the installation is complete, run the version tool to verify that the version has been updated to 4.5.2.1.

Option	Description
AIX	<i>install_path/IBM/ECMWidgets/version.sh</i>
Windows	<i>install_path\IBM\ECMWidgets\version.bat</i>

Installing the Business Space powered by WebSphere package to your WebSphere Application Server home directory

Using IBM Installation Manager, you must install the Business Space package and updates into the WebSphere Application Server directory structure before you can deploy Business Space.

Before you begin, ensure IBM Installation Manager V1.3.3 or later is installed.

To run IBM Installation Manager and install the Business Space package to the WebSphere Application Server home directory:

1. From the <http://www.ibm.com/support/docview.wss?uid=swg24026356> link, download the 7.0.0.0-WS-BSPACE-IFJR36142.zip file to the *install_path\IBM\ECMWidgets\BusinessSpace* directory on the IBM ECM Widgets server.
2. From the <http://www.ibm.com/support/docview.wss?uid=swg24026428> link, download the 7.0.0-WS-BSPACE-FP0000002.zip to the *install_path\IBM\ECMWidgets\BusinessSpace* directory on the IBM ECM Widgets server.
3. Start IBM Installation Manager.
4. Click **File** → **Preferences**.
5. In the Repositories window, click **Add Repository**.
6. In the Add a Repository window, click **Browse**, and browse to the BusinessSpace directory within the IBM ECM Widgets installation location, select the 7.0.0.0-WS-BSPACE-IFJR36142.zip file and click **OK**. The file is located in the following path:

Option	Description
AIX	<i>ECMWidgets_Home</i> /BusinessSpace/7.0.0.0-WS-BSPACE-IFJR36142.zip
Windows	<i>ECMWidgets_Home\BusinessSpace\7.0.0.0-WS-BSPACE-IFJR36142.zip</i>

For example, the file is located in the following default path:

Option	Description
AIX	/opt/IBM/ECMWidgets/BusinessSpace/7.0.0.0-WS-BSPACE-IFJR36142.zip
Windows	C:\Program Files\IBM\ECMWidgets\BusinessSpace\7.0.0.0-WS-BSPACE-IFJR36142.zip

7. In the Add a Repository window, click **Browse**, and browse to the BusinessSpace directory within the IBM ECM Widgets installation location, select the 7.0.0-WS-BSPACE-FP0000002.zip file and click **OK**. The file is located in the following path:

Option	Description
AIX	<i>ECMWidgets_Home</i> /BusinessSpace/7.0.0-WS-BSPACE-FP0000002.zip
Windows	<i>ECMWidgets_Home\BusinessSpace\7.0.0-WS-BSPACE-FP0000002.zip</i>

For example, the file is located in the following default path:

Option	Description
AIX	/opt/IBM/ECMWidgets/BusinessSpace/7.0.0-WS-BSPACE-FP0000002.zip
Windows	C:\Program Files\IBM\ECMWidgets\BusinessSpace\7.0.0-WS-BSPACE-FP0000002.zip

8. Click **OK** in the Repositories dialog.
9. From the main IBM Installation Manager screen, click the **Update** icon.
10. In the Update Packages dialog, click **Next** and select the iFix update.

11. Click **Next** through the screens to verify the updates, fixes, features, and summary information.
12. Click **Update**.
13. From the main IBM Installation Manager screen, click the **Update** icon.
14. In the Update Packages dialog, click **Next** and select the Business Space fix pack update.
15. Click **Next** through the screens to verify the updates, fixes, features, and summary information.
16. Click **Update**.
17. Click **Finish** after the update completes and then exit IBM Installation Manager.

Deploying IBM ECM Widgets by using the Configuration Manager

You can use the Configuration Manager to deploy IBM ECM Widgets on your IBM WebSphere Application Server profile and configure the necessary settings.

Verify that you have the following information before you start the deployment:

- IBM WebSphere Application Server Settings:
 - Home directory path
 - Profile name
 - Administrator log on credentials
 - SOAP Connector address port

For configurations that use IBM FileNet Content Manager object stores:

- Workplace XT installation path
- Process Engine REST API URL
- Content Engine services URL

For configurations that use IBM DB2 Content Manager content servers:

- IBM WEBi URL.

To deploy ECM Widgets on WebSphere Application Server:

1. Start the IBM WebSphere Application Server.
2. Launch the IBM ECM Widgets Configuration Manager:

Option	Description
AIX	Access the installation directory and run the ConfigMgr file. For example, run the file from the following default installation location: /opt/IBM/ECMWidgets/ConfigMgr/ConfigMgr
Windows	Click Start → All Programs → IBM ECM Widgets → Configuration Manager

3. For each Configuration Manager screen, validate the details of your configuration and click **Next**.
4. Click **Finish** to complete the deployment.

5. If any errors occurred, review the configuration log for details. Run the IBM ECM Widgets Configuration Manager again. The log is located in the logs directory of the installation path. For example, the log is stored in the following default location:

Option	Description
AIX	/opt/IBM/ECMWidgets/logs
Windows	C:\Program Files\IBM\ECMWidgets\logs

6. Stop and restart the IBM WebSphere Application Server.
7. Verify that the upgrade was successful by viewing the IBM ECM Widgets version page, http://host_server_name:port/ECMWidgets/About.jsp, in a browser.

Upgrading an IBM WebSphere Application Server Network Deployment Highly Available installation of IBM ECM Widgets from V4.5.2 to V4.5.2.1

To upgrade a highly available installation of IBM ECM Widgets to V4.5.2.1 on IBM WebSphere Application Server Network Deployment, you must install the software updates and files on the deployment manager and each node in the cluster. After you apply the updates, you can redeploy IBM ECM Widgets on the deployment manager to create the highly available installation.

IBM ECM Widgets supports only clusters in WebSphere Application Server Network Deployment. Unmanaged servers and managed servers that are not in the IBM ECM Widgets cluster are not supported.

Installing the IBM ECM Widgets V4.5.2.1 software update

After you run the IBM ECM Widgets installation program, you must install the V4.5.2.1 fix pack to the deployment manager and each node in the IBM WebSphere Application Server Network Deployment cluster. The V4.5.2.1 fix pack supplies necessary additional supported platforms and updates for the IBM ECM Widgets product. Download and install this software update before you configure IBM ECM Widgets.

Important: Once the IBM ECM Widgets V4.5.2.1 software update is installed, you cannot roll back to V4.5.2 of IBM ECM Widgets. If you want to return to the previous version, you must uninstall V4.5.2.1 and run a new installation of IBM ECM Widgets V4.5.2.

Installing the IBM ECM Widgets V4.5.2.1 software update interactively

The IBM ECM Widgets V4.5.2.1 fix pack provides an interactive installation program. You must install the software updates on your deployment manager and on each node in the cluster. You can consult the fix pack readme for additional information and instructions.

To install the IBM ECM Widgets V4.5.2.1 software update:

1. Download the IBM ECM Widgets V4.5.2.1 software update from Fix Central to a local drive on the IBM ECM Widgets server.

- From the installation package, run the appropriate installation program for your configuration on the deployment manager and on each node in the cluster:

Option	Description
AIX	ECMWidgets4_5_2_1AIX.bin
Windows	ECMWidgets4_5_2_1WIN.exe

- Follow the instructions in the installation program screens.
- When the installation is complete, run the version tool to verify that the version has been updated to 4.5.2.1.

Option	Description
AIX	<i>install_path</i> /IBM/ECMWidgets/version.sh
Windows	<i>install_path</i> \IBM\ECMWidgets\version.bat

Installing the IBM ECM Widgets V4.5.2.1 software update silently

To silently install the IBM ECM Widgets V4.5.2.1 software update, enter values about your environment in the silent installation properties file. You can then start the silent installation from a command line. You must run this installation on the IBM ECM Widgets deployment manager and on each node in the cluster.

Install IBM ECM Widgets V4.5.2 before you install this software update.

To silently install the IBM ECM Widgets V4.5.2.1 software update:

- Download the IBM ECM Widgets V4.5.2.1 software update from Fix Central to a local drive on the IBM ECM Widgets server.
- Open the silent input properties file for editing:

Option	Description
AIX	ECMWidgets_silent_input_unix.properties
Windows	ECMWidgets_silent_input_win.properties

- Set the value for LICENSE_ACCEPTED to TRUE.
- Run the following installation command and specify the properties file as shown in the following example:

Option	Description
AIX	ECMWidgets4_5_2_1AIX.bin -i silent -f ECMWidgets_silent_input_unix.properties
Windows	ECMWidgets4_5_2_1WIN.exe -i silent -f ECMWidgets_silent_input_win.properties

- When the installation is complete, run the version tool to verify that the version has been updated to 4.5.2.1.

Option	Description
AIX	<i>install_path</i> /IBM/ECMWidgets/version.sh
Windows	<i>install_path</i> \IBM\ECMWidgets\version.bat

Installing the Business Space powered by WebSphere package to your WebSphere Application Server home directory

Using IBM Installation Manager, you must install the Business Space package and updates into the WebSphere Application Server directory structure before you can deploy Business Space. You must install the package onto the deployment manager and each node of the cluster.

Before you begin, ensure IBM Installation Manager V1.3.3 or later is installed.

To run IBM Installation Manager and install the Business Space package to the WebSphere Application Server home directory:

1. From the <http://www.ibm.com/support/docview.wss?uid=swg24026356> link, download the 7.0.0.0-WS-BSPACE-IFJR36142.zip file to the *install_path*\IBM\ECMWidgets\BusinessSpace directory on the IBM ECM Widgets server.
2. From the <http://www.ibm.com/support/docview.wss?uid=swg24026428> link, download the 7.0.0-WS-BSPACE-FP0000002.zip to the *install_path*\IBM\ECMWidgets\BusinessSpace directory on the IBM ECM Widgets server.
3. Start IBM Installation Manager.
4. Click **File** → **Preferences**.
5. In the Repositories window, click **Add Repository**.
6. In the Add a Repository window, click **Browse**, and browse to the BusinessSpace directory within the IBM ECM Widgets installation location, select the 7.0.0.0-WS-BSPACE-IFJR36142.zip file and click **OK**. The file is located in the following path:

Option	Description
AIX	<i>ECMWidgets_Home</i> /BusinessSpace/7.0.0.0-WS-BSPACE-IFJR36142.zip
Windows	<i>ECMWidgets_Home</i> \BusinessSpace\7.0.0.0-WS-BSPACE-IFJR36142.zip

For example, the file is located in the following default path:

Option	Description
AIX	/opt/IBM/ECMWidgets/BusinessSpace/7.0.0.0-WS-BSPACE-IFJR36142.zip
Windows	C:\Program Files\IBM\ECMWidgets\BusinessSpace\7.0.0.0-WS-BSPACE-IFJR36142.zip

7. In the Add a Repository window, click **Browse**, and browse to the BusinessSpace directory within the IBM ECM Widgets installation location, select the 7.0.0-WS-BSPACE-FP0000002.zip file and click **OK**. The file is located in the following path:

Option	Description
AIX	<i>ECMWidgets_Home</i> /BusinessSpace/7.0.0-WS-BSPACE-FP0000002.zip
Windows	<i>ECMWidgets_Home</i> \BusinessSpace\7.0.0-WS-BSPACE-FP0000002.zip

For example, the file is located in the following default path:

Option	Description
AIX	/opt/IBM/ECMWidgets/BusinessSpace/7.0.0-WS-BSPACE-FP0000002.zip
Windows	C:\Program Files\IBM\ECMWidgets\BusinessSpace\7.0.0-WS-BSPACE-FP0000002.zip

8. Click **OK** in the Repositories dialog.
9. From the main IBM Installation Manager screen, click the **Update** icon.
10. In the Update Packages dialog, click **Next** and select the iFix update.
11. Click **Next** through the screens to verify the updates, fixes, features, and summary information.
12. Click **Update**.
13. From the main IBM Installation Manager screen, click the **Update** icon.
14. In the Update Packages dialog, click **Next** and select the Business Space fix pack update.
15. Click **Next** through the screens to verify the updates, fixes, features, and summary information.
16. Click **Update**.
17. Click **Finish** after the update completes and then exit IBM Installation Manager.

Remember: Complete this configuration on each node in the cluster.

Upgrading Business Space powered by WebSphere for your IBM ECM Widgets Highly Available configuration

After you install the Business Space powered by WebSphere package on your cluster, you must upgrade your existing Business Space powered by WebSphere installation.

To upgrade Business Space powered by WebSphere on your cluster:

1. Log on to the deployment manager computer using an account that has administrator privileges.
2. Stop the WebSphere Application Server deployment manager profile, the node agent and the node server profile.
3. From a command prompt, access `dmgr_home\BusinessSpace\scripts` and run the following command to upgrade the existing Business Space application:
`UpgradeBspaceProfile.bat -profileName dmgr_Profile_Name -clusterName clusterName`

For example, access the following directory:

Option	Description
AIX	/opt/IBM/WebSphere/AppServer/BusinessSpace/scripts/
Windows	C:\Program Files\IBM\WebSphere\AppServer\BusinessSpace\scripts\

Run the following command:

```
upgradeBspaceProfile.bat -profileName Dmgr01 -clusterName bspaceclust
```

4. Start all servers.

Upgrading IBM ECM Widgets to V4.5.2.1 fix pack on a WebSphere Application Server Network Deployment configuration

After you install the IBM ECM Widgets V4.5.2.1 software update and upgrade Business Space, you must manually deploy IBM ECM Widgets to your cluster.

To deploy IBM ECM Widgets V4.5.2.1 to the cluster:

1. Log on to the host computer using an account that has administrator privileges.
2. From a command prompt, access the bin directory located in the WebSphere Application Server Network Deployment deployment manager profile root directory and run the following command for your platform to access the wsadmin command prompt:

```
wsadmin -conntype NONE
```

For example, run the command from the following directory:

Option	Description
AIX	/opt/IBM/WebSphere/AppServer/profiles/Dmgr01/bin/
Windows	C:\Program Files\IBM\WebSphere\AppServer\profiles\Dmgr01\bin\

3. At the wsadmin command prompt, enter the following command in one line:

Option	Description
AIX	<code>\$AdminTask installBusinessSpaceWidgets {-clusterName <i>cluster_name</i> -widgets <i>widgets_home</i> /Widgets_ECMWidgetsP8.zip}</code>
Windows	<code>\$AdminTask installBusinessSpaceWidgets {-clusterName <i>cluster_name</i> -widgets <i>widgets_home</i> \Widgets_ECMWidgetsP8.zip}</code>

For example:

Option	Description
AIX	<code>\$AdminTask installBusinessSpaceWidgets {-clusterName myCluster -widgets /opt/IBM/ECMWidgets/Widgets_ECMWidgetsP8.zip}</code>
Windows	<code>\$AdminTask installBusinessSpaceWidgets {-clusterName myCluster -widgets C:\Program Files\IBM\Widgets_ECMWidgetsP8.zip}</code>

4. Enter `$AdminConfig save`
5. Recreate the Workplace XT WAR and EAR files and deploy Workplace XT. For details, see the IBM FileNet Workplace XT Installation and Upgrade Guide which can be downloaded from the IBM Web site Product Documentation for FileNet P8 Platform support page at the following location:
<http://www.ibm.com/support/docview.wss?rs=3278&uid=swg27010422>.

Use the following options which are unique to deploying on a WebSphere Application Server Network Deployment configuration:

- Select the **CellManager** as the node name that contains your Workplace XT application.
 - Choose **Detailed - Show all installation options and parameters** on the Preparing for the application installation page.
 - On the Map modules to servers page, select the cluster, the web server and the application and then click **Apply**.
6. Restart the node agent and the cluster.

Modifying IBM ECM Widgets configuration settings in Business Space powered by WebSphere deployments

There are a number of settings in your IBM ECM Widgets configuration that may require adjustment or verification after product deployment.

The method you use to modify settings may vary based on your specific configuration. For example, for multi-server High Availability configurations, most settings must be made by manually editing files.

Configuration file locations and modification instructions

P8BPMRESTConfig.xml

This file contains settings for the IBM FileNet Content Engine URL and the IBM FileNet Process Engine connection point. If these settings are not correct, the PE REST service will fail. The P8BPMRESTConfig.xml file is located in the following default paths:

Installation location	Deployed location
<i>Workplace_XT_Home</i> \WebClient\WorkplaceXT\WEB-INF\P8BPMRESTConfig.xml	<i>WAS_Profile_Home</i> \installedApps\cell\WorkplaceXT.ear\web_client.war\WEB-INF\P8BPMRESTConfig.xml

Verify that the CE URL and PE Connection point are set correctly. For example:

```
<perest:filenet.pe.bootstrap.ceuri value="iiop://localhost:2810/FileNet/Engine"/>  
<perest:connection.point value="PEConnection"/>
```

For details regarding configuring REST services, see the Configuring REST Services topic in the *IBM FileNet P8 Platform Installation and Upgrade Guide* in the following location:http://publib.boulder.ibm.com/infocenter/p8docs/v4r5m1/topic/com.ibm.p8.doc/developer_help/process_java_api/guide/rest/rest_configure.htm.

bootstrap.json

The bootstrap.json file contains configuration settings for an IBM ECM Widgets deployment. The settings in this file are modified by running the IBM ECM Widgets configuration manager program. However, there may be instances when you need to manually modify the file. For example, some deployment configurations, such as High Availability, require that all components of the configuration be deployed manually, and the configuration manager will not be run in this case.

Attention: To manually modify configuration settings in the bootstrap.json file, you must edit the file in its deployed location in the WebSphere Application Server directory structure. If you manually edit this file, ensure you make a backup copy in a location outside of the WebSphere Application Server directory structure. The settings will be lost if you redeploy IBM ECM Widgets and you will have to make the modifications again.

Important: For non-HA configurations, modify the URLs in the bootstrap.json settings by rerunning the configuration manager. Do not change any other settings.

The deployed bootstrap.json file is located in the following deployed location:

```
WAS_Home\IBM\WebSphere\AppServer\profiles\AppSrv\installedApps\
NodeCell\ECMWidgets.ear\ECMWidgets.war\catalog\com\ibm\im\
ecmwidgets\bootstrap.json
```

Settings	Entries
<p>URLs</p> <p>Important: For High Availability configurations, remove the port numbers for these entries.</p>	<ul style="list-style-type: none"> • PE REST URL: "bpmServiceBaseURL": "http://localhost:9080/WorkplaceXT/P8BPMREST/p8/bpm/v1", • CE REST URL: "contentEngineServiceBaseURL": "http://localhost:9080/WorkplaceXT/P8CEREST/p8/ce/v1", • Workplace XT URL: "workplaceXTBaseURL": "http://localhost:9080/WorkplaceXT",
<p>Default application space for IBM FileNet Process Engine. The Process Engine uses named application spaces. Enter the appropriate name. For example, the default application space when you deploy Process Engine is DefaultApplication</p>	<p>"applicationSpace": "DefaultApplication",</p>
<p>Service timeout settings in milliseconds. To adjust the timeout settings, locate the timeout entries and adjust as needed. You do not need to restart any servers or services after changing the values, but you must clear the browser cache and refresh again to pick up new settings.</p> <p>Important: These settings should not be changed unless there is a timing problem unique to your configuration.</p>	<p>Default values:</p> <p>"bpmServiceTimeout": 60000, "contentEngineServiceTimeout": 900000,</p>
<p>Process Engine web application ID setting. This setting corresponds to settings in the Process Engine. A number is associated with a specific application, depending on how your IBM FileNet Process Engine is configured.</p>	<p>Default value:</p> <p>"webAppID": 9,</p>
<p>IBM FileNet Workplace XT keep alive interval (in minutes).</p>	<p>Default value:</p> <p>"keepAliveInterval": 5,</p>
<p>IBM WEBi settings. If you have configured IBM WEBi, set the URL and enter true or false for an IBM WEBi proxy.</p>	<p>"webiURL": "http://localhost:9080/wccommonservices",</p> <p>"webiProxy": true_or_false,</p>

Settings	Entries
<p>Show repository types. Set the values as appropriate for your configuration. Use these settings to indicate which repository types you have configured. If your configuration contains both IBM FileNet Content Manager object stores and IBM DB2 Content Manager Content servers, use these settings to hide one or show both and to set which one is the default.</p>	<p>"repositoryTypesToShow": [3,4],</p> <p>Repository types:</p> <ul style="list-style-type: none"> • 3 - IBM FileNet Content Manager (FN repository) • 4 - IBM DB2 Content Manager Content servers (CM repository) <p>Value settings:</p> <ul style="list-style-type: none"> • [3]- FN repository only • [4]- CM repository only • [3,4] - both FN and CM repositories, set FN as the default • [4,3] - both FN and CM repositories, set CM as the default
<p>Configuration state entry. This value set the repository types that are configured for your system. Set the value as appropriate for your configuration.</p>	<p>"ConfigurationState":0 (default)</p> <ul style="list-style-type: none"> • 0 - Not configured • 1 - Configured for IBM FileNet Content Manager object stores • 2 - Configured for IBM DB2 Content Manager content servers • 3 - Configured for both IBM FileNet Content Manager object stores and IBM DB2 Content Manager content servers

Important: Save the bootstrap.json file with UTF-8 encoding.

Configuring for SSL

To configure IBM ECM Widgets for SSL, you must update the URL settings in the bootstrap.json file as follows:

Settings	Entries
<p>Component URLs</p> <p>Important: For High Availability configurations, remove the port numbers for these entries and use the <i>HTTP_server_name</i> in place of <i>localhost</i>.</p>	<p>Change the default settings to display https:// as the prefix and update the ports as appropriate. For example:</p> <pre>"bpmServiceBaseURL": "https://localhost:9443/WorkplaceXT/P8BPMREST/p8/bpm/v1",</pre> <pre>"contentEngineServiceBaseURL": "https://localhost:9443/WorkplaceXT/P8CEREST/p8/ce/v1",</pre> <pre>"workplaceXTBaseURL": "https://localhost:9443/WorkplaceXT",</pre>

Settings	Entries
Documentation Server URL	Update the protocol of the Documentation Server URL entry in the Bootstrap Settings of the Workplace XT Site Preferences. For details, see the IBM FileNet Workplace XT Installation and Upgrade Guide which can be downloaded from the IBM Web site Product Documentation for FileNet P8 Platform support page at the following location: http://www.ibm.com/support/docview.wss?rs=3278&uid=swg27010422 .

Important: If you configure these settings for SSL, then the protocol and port you enter to access IBM ECM Widgets and Business Space powered by WebSphere must match the settings entered in the bootstrap.json file.

Modifying IBM ECM Widgets configuration settings in Lotus Mashups

There are a number of settings in your IBM ECM Widgets Lotus Mashups configuration that may require adjustment or verification after product deployment.

Most settings must be made by manually editing files.

Configuration file locations and modification instructions

P8BPMRESTConfig.xml

This file contains settings for the IBM FileNet Content Engine URL and the IBM FileNet Process Engine connection point. If these settings are not correct, the PE REST service will fail. The P8BPMRESTConfig.xml file is located in the following default paths:

Installation location	Deployed location
<i>Workplace_XT_Install_Home</i> \WebClient\ WorkplaceXT\WEB-INF\P8BPMRESTConfig.xml	<i>Mashup_Center_Home</i> \mm_profile\ installedApps\cell\WorkplaceXT.ear\ web_client.war\WEB-INF\ P8BPMRESTConfig.xml

Verify that the CE URL and PE Connection point are set correctly. For example:

```
<perest:filenet.pe.bootstrap.ceuri value="iiop://localhost:2810/FileNet/Engine"/>  
<perest:connection.point value="PEConnection"/>
```

For details regarding configuring REST services, see the Configuring REST Services topic in the *IBM FileNet P8 Platform Installation and Upgrade Guide* in the following location:http://publib.boulder.ibm.com/infocenter/p8docs/v4r5m1/topic/com.ibm.p8.doc/developer_help/process_java_api/guide/rest/rest_configure.htm.

bootstrap.json

The bootstrap.json file contains configuration settings for an IBM ECM Widgets deployment.

Attention: To manually modify configuration settings in the bootstrap.json file, you must edit the file in its deployed location in the WebSphere Application Server directory structure. If you manually edit this file, ensure you make a backup copy in a location outside of the WebSphere Application Server directory structure. The settings will be lost if you redeploy Workplace XT and you will have to make the modifications again.

The deployed bootstrap.json file is located in the following deployed location:

```
Mashup_Center_Home\mm_profile\installedApps\NodeName\ECMWidgets.ear\  
ECMWidgets.war\catalog\com\ibm\im\ecmwidgets\bootstrap.json
```

Settings	Entries
<p>URLs</p> <p>Important: For High Availability configurations, remove the port numbers for these entries and use the <i>HTTP_server_name</i> in place of <i>localhost</i>.</p>	<ul style="list-style-type: none"> • PE REST URL: "bpmServiceBaseUrl": "http://localhost:9080/WorkplaceXT/P8BPMREST/p8/bpm/v1", • CE REST URL: "contentEngineServiceBaseUrl": "http://localhost:9080/WorkplaceXT/P8CEREST/p8/ce/v1", • Workplace XT URL: "workplaceXTBaseUrl": "http://localhost:9080/WorkplaceXT",
<p>Default application space for IBM FileNet Process Engine. The Process Engine uses named application spaces. Enter the appropriate name. For example, the default application space when you deploy Process Engine is DefaultApplication</p>	<p>"applicationSpace": "DefaultApplication",</p>
<p>Service timeout settings in milliseconds. To adjust the timeout settings, locate the timeout entries and adjust as needed. You do not need to restart any servers or services after changing the values, but you must clear the browser cache and refresh again to pick up new settings.</p> <p>Important: These settings should not be changed unless there is a timing problem unique to your configuration.</p>	<p>Default values:</p> <p>"bpmServiceTimeout": 60000, "contentEngineServiceTimeout": 900000,</p>
<p>Process Engine web application ID setting. This setting corresponds to settings in the Process Engine. A number is associated with a specific application, depending on how your IBM FileNet Process Engine is configured.</p>	<p>Set value:</p> <p>"webAppID": 8,</p>
<p>IBM FileNet Workplace XT keep alive interval (in minutes).</p>	<p>Default value:</p> <p>"keepAliveInterval": 5,</p>
<p>IBM WEBi settings. If you have configured IBM WEBi, set the URL and enter true or false for an IBM WEBi proxy.</p>	<p>"webiURL": "http://localhost:9080/wccommonservices",</p> <p>"webiProxy": <i>true_or_false</i>,</p>
<p>Show repository types. Set the values as appropriate for your configuration. Use these settings to indicate which repository types you have configured. If your configuration contains both IBM FileNet Content Manager object stores and IBM DB2 Content Manager Content servers, use these settings to hide one or show both and to set which one is the default.</p>	<p>"repositoryTypesToShow": [3,4],</p> <p>Repository types:</p> <ul style="list-style-type: none"> • 3 - IBM FileNet Content Manager (FN repository) • 4 - IBM DB2 Content Manager Content servers (CM repository) <p>Value settings:</p> <ul style="list-style-type: none"> • [3]- FN repository only • [4]- CM repository only • [3,4] - both FN and CM repositories, set FN as the default • [4,3] - both FN and CM repositories, set CM as the default

Settings	Entries
Configuration state entry. This value set the repository types that are configured for your system. Set the value as appropriate for your configuration.	"ConfigurationState":0 (default) <ul style="list-style-type: none"> • 0 - Not configured • 1 - Configured for IBM FileNet Content Manager object stores • 2 - Configured for IBM DB2 Content Manager content servers • 3 - Configured for both IBM FileNet Content Manager object stores and IBM DB2 Content Manager content servers

Important: Save the bootstrap.json file with UTF-8 encoding.

Configuring for SSL

To configure IBM ECM Widgets for SSL, you must update the URL settings in the bootstrap.json file as follows:

Settings	Entries
Component URLs Important: For High Availability configurations, remove the port numbers for these entries.	Change the default settings to display https:// as the prefix and update the ports as appropriate. For example: <pre>"bpmServiceBaseURL": "https://localhost:9443/WorkplaceXT/P8BPMREST/p8/bpm/v1",</pre> <pre>"contentEngineServiceBaseURL": "https://localhost:9443/WorkplaceXT/P8CEREST/p8/ce/v1",</pre> <pre>"workplaceXTBaseURL": "https://localhost:9443/WorkplaceXT",</pre>
Documentation Server URL	Update the protocol of the Documentation Server URL entry in the Bootstrap Settings of the Workplace XT Site Preferences. For details, see the IBM FileNet Workplace XT Installation and Upgrade Guide which can be downloaded from the IBM Web site Product Documentation for FileNet P8 Platform support page at the following location: http://www.ibm.com/support/docview.wss?rs=3278&uid=swg27010422 .

Important: If you configure these settings for SSL, then the protocol and port you enter to access IBM ECM Widgets and Business Space powered by WebSphere must match the settings entered in the bootstrap.json file.

Configuring step processor URL templates and e-mail notification for IBM ECM Widgets

For configurations that use IBM FileNet Content Manager object stores, if you want to use step processors or email notification, you must configure them for IBM ECM Widgets.

After you have installed and configured IBM ECM Widgets, the following must be configured:

- Step processor URL templates in IBM FileNet Workplace XT
- E-mail notification on the IBM FileNet Process Engine

Choose one of the following options, based on your IBM ECM Widgets configuration:

Configuring IBM FileNet Process Engine for a single-instance configuration of IBM ECM Widgets V4.5.2.1

To configure step processor URL templates and e-mail notification for your system, you must edit settings in IBM FileNet Workplace XT and on the Process Engine server computer.

Configuring the step processor URL templates

IBM ECM Widgets V4.5.2.1 must be installed and configured before you proceed.

To configure the step processor URL templates for a single instance of IBM ECM Widgets V4.5.2.1 for new installations and upgrades:

1. Log on to IBM FileNet Workplace XT and navigate to **Tools** → **Administration** → **Process Configuration Console**.
2. Right-click the region you want to edit and choose **Connect**.
3. Right-click the region you want to edit and choose **Properties**.
4. Click the **Web Applications** tab.
5. Depending on which container you configured, click **IBM ECM Widgets for Business Space** or **IBM ECM Widgets for Lotus Mashups** in the Web Application column.
6. Enter the URL for the Business Space powered by WebSphere V7.0 installation in the **Server Base URL** field. For example, enter `http://www.bpm.com:9443/mum/enabler`
7. Click **Advanced** icon.
8. Depending on which container you configured, select **IBM ECM Widgets for Business Space** or **IBM ECM Widgets for Lotus Mashups** in the Launch step processor URL Templates section and enter the following URL, in one line, in the **Template** field:

```
{0}?nst=pid%3D{1}%26pageContext%3D%257B%2522workflowName%2522%253A%2522{2}%2522%257D
```
9. Select **IBM ECM Widgets for Business Space** in the step processor URL Templates section and enter the following URL, in one line, in the **Step Processor URL Template** field:

```
{0}?nst=pid%3D{1}%26pageContext%3D%257B%2522queueName%2522%253A%2522{2}%2522%252C%2522wobNum%2522%253A%2522{3}%2522%257D
```

10. Click **OK** and then **Commit Changes**.

Configuring e-mail notification

IBM ECM Widgets V4.5.2.1 must be installed and configured before you proceed.

To configure e-mail notification for a single instance of IBM ECM Widgets V4.5.2.1, for new installations and upgrades:

1. Log into IBM FileNet Workplace XT and navigate to **Tools** → **Administration** → **Process Configuration Console**.
2. Right-click the region you want to edit and choose **Connect**.
3. Right-click the region you want to edit and choose **Properties**.
4. Click the **Web Applications** tab.
5. Depending on which container you configured, click **IBM ECM Widgets for Business Space** or **IBM ECM Widgets for Lotus Mashups** in the **Web Application** column.
6. Enter the URL for the IBM ECM Widgets URL installation in the **Server Base URL** field. For example, enter `http://www.bpm.com:8080/mum/enabler`
7. Access the IBM ECM Widgets installation package and copy the appropriate e-mail templates for your locale from the `ProcessEngine_Templates` directory to the e-mail template directory on the IBM FileNet Process Engine server computer. For example:

Option	Description
AIX	<p>Copy the files from:</p> <p><i>Installation_Package_Location</i> /ProcessEngine_Templates/email</p> <p>On the Process Engine server computer, save the files to:</p> <p>(for Lotus Mashups) /opt/fnsw/local/sd/msg/8</p> <p>(for Business Space) /opt/fnsw/local/sd/msg/9</p>
Windows	<p>Copy the files from:</p> <p><i>Installation_Package_Location</i> \ProcessEngine_Templates\email</p> <p>On the Process Engine server computer, save the files to:</p> <p>(for Lotus Mashups) C:\fnsw_loc\sd\msg\8</p> <p>(for Business Space) C:\fnsw_loc\sd\msg\8</p>

8. Run Process Task Manager on the Process Engine.
9. Click the **Process Engine** icon and then the **Notification** tab.
10. Enter your SMTP server configuration information.
11. Right-click the **Language Packs** folder and click **New**.

12. Select a locale and then click **Browse**.
13. Browse to the msg directory where you saved the e-mail templates and click **Select**. For example:

Option	Description
AIX	/opt/fnsw/local/sd/msg
Windows	C:\fnsw_loc\sd\msg

Important: Do not select a subdirectory within the msg folder.

14. Save all changes and restart the Process Engine.

Configuring IBM FileNet Process Engine for a multi-version configuration of IBM ECM Widgets V4.5.1, V4.5.2, and V4.5.2.1

To configure step processor URL templates and e-mail notification for your system, you must edit settings in IBM FileNet Workplace XT and on the Process Engine server computer.

Configuring the step processor URL templates

Any combination of IBM ECM Widgets V4.5.1, V4.5.2, and V4.5.2.1 must be installed and configured before you proceed.

As part of your IBM ECM Widgets V4.5.1, or V4.5.2 configuration, IBM FileNet Process Engine step processor URL templates are already configured to use the IBM ECM Widgets for Business Space web application with a URL of:

`http://hostname/BusinessSpace/banner.jsp`

If you have any configurations on Lotus Mashups, Step processor URL templates for V4.5.2.1 must be configured to use the **IBM ECM Widgets for Lotus Mashups** web application.

To configure step processor URL templates for a multi-version configuration of IBM ECM Widgets V4.5.1, V4.5.2, and V4.5.2.1:

1. Log on to IBM FileNet Workplace XT and navigate to **Tools** → **Administration** → **Process Configuration Console**.
2. Right-click the region you want to edit and choose **Connect**.
3. Right-click the region you want to edit and choose **Properties**.
4. Click the **Web Applications** tab.
5. Depending on which container you want to configure, click **IBM ECM Widgets for Business Space** or **IBM ECM Widgets for Lotus Mashups** in the **Web Application** column.
6. Enter the URL for the IBM ECM Widgets installation in the **Server Base URL** field. For example, enter `http://www.bpm.com:8080/mum/enabler`
7. Click **Advanced** icon.
8. Depending on which version you configured, select **IBM ECM Widgets for Business Space** or **IBM ECM Widgets for Lotus Mashups** in the Launch Step Processor URL Templates section and enter the following URL, in the **Template** field, in one line:

```
{0}?nst=pid%3D{1}%26pageContext%3D%257B%2522workFlowName%2522%253A%2522{2}%2522%257D
```

- Depending on which version you configured, select **IBM ECM Widgets for Business Space** or **IBM ECM Widgets for Lotus Mashups** in the Step Processor URL Templates section and enter the following URL, in one line, in the **Step Processor URL Template** field:

```
{0}?nst=pid%3D{1}%26pageContext%3D%257B%2522queueName%2522%253A%2522{2}%2522%252C%2522wobNum%2522%253A%2522{3}%2522%257D
```

- Click **OK** and then **Commit Changes**.

Configuring e-mail notification

Any combination of IBM ECM Widgets V4.5.1, V4.5.2, and V4.5.2.1 must be installed and configured before you proceed.

As part of your IBM ECM Widgets V4.5.1, or V4.5.2 configuration, IBM FileNet Process Engine step processor URL templates are already configured to use the IBM ECM Widgets for Business Space web application with a URL of `http://hostname/BusinessSpace/banner.jsp`

If you have any installations on Lotus Mashups, Step processor URL templates for V4.5.2.1 must be configured to use the **IBM ECM Widgets for Lotus Mashups** web application.

To configure e-mail notification for a multi-version configuration of IBM ECM Widgets V4.5.1, V4.5.2, and V4.5.2.1:

- Log on to the server computer that hosts the IBM ECM Widgets V4.5.2.1 installation and open the `bootstrap.json` file located in the following default directory:
 - For Business Space powered by WebSphere configurations: `WAS_Home\profiles\AppSrv\installedApps\Node_Cell\ECMWidgets_node.ear\ECMWidgets.war\catalog\com\ibm\im\ecmwidgets\bootstrap.json`
 - For Lotus Mashups configurations: `Mashup_Center_Home\mm_profile\installedApps\NodeName\ECMWidgets.ear\ECMWidgets.war\catalog\com\ibm\im\ecmwidgets\bootstrap.json`
- Find the "webappID": entry and set the value to 8 for Lotus Mashups configurations or 9 for Business Space powered by WebSphere configurations.
- Log on to IBM FileNet Workplace XT and navigate to **Tools** → **Administration** → **Process Configuration Console**.
- Right-click the region you want to edit and choose **Connect**.
- Right-click the region you want to edit and choose **Properties**.
- Click the **Web Applications** tab.
- Depending on which container you want to configure, click **IBM ECM Widgets for Business Space** or **IBM ECM Widgets for Lotus Mashups** in the **Web Application** column.
- Enter the URL for the IBM ECM Widgets installation in the **Server Base URL** field. For example, enter `http://www.bpm.com:8080/mum/enabler`
- Access the IBM ECM Widgets installation package and copy the appropriate e-mail templates for your locale from the `ProcessEngine_Templates` directory to the e-mail template directory on the IBM FileNet Process Engine server computer. For example:

Option	Description
AIX	<p>Copy the files from:</p> <p><i>Installation_Package_Location</i> /ProcessEngine_Templates/email</p> <p>On the Process Engine server computer, save the files to:</p> <p>(for Lotus Mashups) /opt/fnsw/local/sd/msg/8</p> <p>(for Business Space) /opt/fnsw/local/sd/msg/9</p>
Windows	<p>Copy the files from:</p> <p><i>Installation_Package_Location</i> \ProcessEngine_Templates\email</p> <p>On the Process Engine server computer, save the files to:</p> <p>(for Lotus Mashups) C:\fnsw_loc\sd\msg\8</p> <p>(for Business Space) C:\fnsw_loc\sd\msg\8</p>

10. Run Process Task Manager on the Process Engine.
11. Click the **Process Engine** icon and then the **Notification** tab.
12. Enter your SMTP server configuration information.
13. Right-click the **Language Packs** folder and click **New**.
14. Select a locale and then click **Browse**.
15. Browse to the msg directory where you saved the e-mail templates and click **Select**. For example:

Option	Description
AIX	/opt/fnsw/local/sd/msg
Windows	C:\FNSW_LOC\sd\msg

Important: Do not select a subdirectory within the msg folder.

16. Save all changes and restart the Process Engine.

Configuring IBM FileNet Process Engine for an IBM ECM Widgets V4.5.2.1 installation on Business Space powered by WebSphere and V4.5.2.1 on IBM Lotus Mashups

To configure step processor URL templates and e-mail notification for your system, you must edit settings in IBM FileNet Workplace XT and on the Process Engine server computer.

Configuring the step processor URL templates

Before you begin, configure the step processor URL templates for the Business Space powered by WebSphere installation of IBM ECM Widgets using the instructions for a single-instance configuration. For instructions, see “Configuring IBM FileNet Process Engine for a single-instance configuration of IBM ECM Widgets V4.5.2.1” on page 97.

To configure the IBM ECM Widgets V4.5.2.1 step processor URL templates for IBM ECM Widgets V4.5.2.1 on Lotus Mashups:

1. Log on to IBM FileNet Workplace XT and navigate to **Tools** → **Administration** → **Process Configuration Console**.
2. Right-click the region you want to edit and choose **Connect**.
3. Right-click the region you want to edit and choose **Properties**.
4. Click the **Web Applications** tab.
5. Depending on which container you want to configure, click **IBM ECM Widgets for Business Space** or **IBM ECM Widgets for Lotus Mashups** in the **Web Application** column.
6. Enter the URL for the IBM ECM Widgets installation in the **Server Base URL** field. For example, enter `http://www.bpm.com:8080/mum/enabler`
7. Click **Advanced** icon.
8. Depending on which version you configured, select **IBM ECM Widgets for Business Space** or **IBM ECM Widgets for Lotus Mashups** in the Launch Step Processor URL Templates section and enter the following URL, in the **Template** field, in one line:


```
{0}?nst=pid%3D{1}%26pageContext%3D%257B%2522workflowName%2522%253A%2522{2}%2522%257D
```
9. Depending on which version you configured, select **IBM ECM Widgets for Business Space** or **IBM ECM Widgets for Lotus Mashups** in the Step Processor URL Templates section and enter the following URL, in one line, in the **Step Processor URL Template** field:


```
{0}?nst=pid%3D{1}%26pageContext%3D%257B%2522queueName%2522%253A%2522{2}%2522%252C%2522wobNum%2522%253A%2522{3}%2522%257D
```
10. Click **OK** and then **Commit Changes**.

Configuring e-mail notification

Before you begin, configure e-mail notification for the Business Space powered by WebSphere installation of IBM ECM Widgets using the instructions for a single-instance configuration. For instructions, see “Configuring IBM FileNet Process Engine for a single-instance configuration of IBM ECM Widgets V4.5.2.1” on page 97.

To configure e-mail notification for a system with IBM ECM Widgets deployed on both Business Space powered by WebSphere and IBM Lotus Mashups:

1. Log on to the server computer that hosts the IBM ECM Widgets V4.5.2.1 installation and open the `bootstrap.json` file located in the following default directory:
 - For Business Space powered by WebSphere configurations: `WAS_Home\profiles\AppSrv\installedApps\Node_Cell\ECMWidgets_node.ear\ECMWidgets.war\catalog\com\ibm\im\ecmwidgets\bootstrap.json`
 - For Lotus Mashups configurations: `Mashup_Center_Home\mm_profile\installedApps\NodeName\ECMWidgets.ear\ECMWidgets.war\catalog\com\ibm\im\ecmwidgets\bootstrap.json`

2. Find the "webappID": entry and set the value to 8 for Lotus Mashups configurations or 9 for Business Space powered by WebSphere configurations.
3. Log on to IBM FileNet Workplace XT and navigate to **Tools** → **Administration** → **Process Configuration Console**.
4. Right-click the region you want to edit and choose **Connect**.
5. Right-click the region you want to edit and choose **Properties**.
6. Click the **Web Applications** tab.
7. Depending on which container you want to configure, click **IBM ECM Widgets for Business Space** or **IBM ECM Widgets for Lotus Mashups** in the **Web Application** column.
8. Enter the URL for the IBM ECM Widgets installation in the **Server Base URL** field. For example, enter `http://www.bpm.com:8080/mum/enabler`
9. Access the IBM ECM Widgets installation package and copy the appropriate e-mail templates for your locale from the `ProcessEngine_Templates` directory to the e-mail template directory on the IBM FileNet Process Engine server computer. For example:

Option	Description
AIX	<p>Copy the files from:</p> <p><i>Installation_Package_Location</i> /ProcessEngine_Templates/email</p> <p>On the Process Engine server computer, save the files to:</p> <p>(for Lotus Mashups) /opt/fnsw/local/sd/msg/8</p> <p>(for Business Space) /opt/fnsw/local/sd/msg/9</p>
Windows	<p>Copy the files from:</p> <p><i>Installation_Package_Location</i> \ProcessEngine_Templates\email</p> <p>On the Process Engine server computer, save the files to:</p> <p>(for Lotus Mashups) C:\fnsw_loc\sd\msg\8</p> <p>(for Business Space) C:\fnsw_loc\sd\msg\8</p>

10. Run Process Task Manager on the Process Engine.
11. Click the **Process Engine** icon and then the **Notification** tab.
12. Enter your SMTP server configuration information.
13. Right-click the **Language Packs** folder and click **New**.
14. Select a locale and then click **Browse**.
15. Browse to the msg directory where you saved the e-mail templates and click **Select**. For example:

Option	Description
AIX	/opt/fnsw/local/sd/msg
Windows	C:\fnsw_loc\sd\msg

- Important:** Do not select a subdirectory within the msg folder.
16. Save all changes and restart the Process Engine.

Configuring IBM FileNet Process Engine for multiple instances of IBM ECM Widgets V4.5.2.1

If you have more than two instances of IBM ECM Widgets V4.5.2.1 running on IBM WebSphere Application Server, use this procedure to configure the step processor URL templates and e-mail notification.

Tip: Use this procedure if you want to configure IBM FileNet Process Engine for multiple instances of IBM ECM Widgets V4.5.2 and V4.5.2.1.

To configure step processor URL templates and e-mail notification for your system, you must edit settings in IBM FileNet Workplace XT and on the Process Engine server computer.

Configuring the step processor URL templates

All instances of IBM ECM Widgets V4.5.2.1 must be installed and configured before you proceed.

Note: If your configuration contains two instances of IBM ECM Widgets V4.5.2.1, follow the instructions for multi-version configurations and set one of the instances for **IBM ECM Widgets for Lotus Mashups** web application. For details see “Configuring IBM FileNet Process Engine for a multi-version configuration of IBM ECM Widgets V4.5.1, V4.5.2, and V4.5.2.1” on page 99

To configure the step processor URL templates for a configuration with three or more instances of IBM ECM Widgets V4.5.2.1:

Use this procedure to configure step processor URL templates for three or more instances of IBM ECM Widgets V4.5.2.1, for new installations and upgrades. To configure the step processor URL templates:

1. For each instance of IBM ECM Widgets V4.5.2, log on to IBM FileNet Workplace XT and navigate to **Tools** → **Administration** → **Process Configuration Console**.
2. Right-click the region you want to edit and choose **Connect**.
3. Right-click the region you want to edit and choose **Properties**.
4. Click the **Web Applications** tab.
5. Click the **Add** button to create a new web application.
6. Depending on which container you want to configure, click **IBM ECM Widgets for Business Space** or **IBM ECM Widgets for Lotus Mashups** in the **Web Application** column.
7. Enter the URL for the IBM ECM Widgets installation in the **Server Base URL** field. For example, enter `http://www.bpm.com:8080/mum/enabler`
8. Click **Advanced** icon.
9. Select **IBM ECM Widgets for Business Space** in the Launch Step Processor URL Templates section and enter the following URL, in one line, in the **Template** field:

```
{0}?nst=pid%3D{1}%26pageContext%3D%257B%2522workflowName%2522%253A%2522{2}%2522%257D
```


- Depending on which version you configured, select **IBM ECM Widgets for Business Space** or **IBM ECM Widgets for Lotus Mashups** in the Step Processor URL Templates section and enter the following URL, in one line, in the **Step Processor URL Template** field:

```
{0}?nst=pid%3D{1}%26pageContext%3D%257B%2522queueName%2522%253A%2522{2}%2522%252C%2522wobNum%2522%253A%2522{3}%2522%257D
```

- Click **OK** and then **Commit Changes**.

Configuring e-mail notification

All instances of IBM ECM Widgets V4.5.2.1 must be installed and configured before you proceed.

Note: If your configuration contains two instances of IBM ECM Widgets V4.5.2.1, follow the instructions for multi-version configurations and set one of the instances to **IBM ECM Widgets for Lotus Mashups** web application. For details see “Configuring IBM FileNet Process Engine for a multi-version configuration of IBM ECM Widgets V4.5.1, V4.5.2, and V4.5.2.1” on page 99

Tip: If you configured step processor URL templates, begin at step 7.

To configure e-mail notification:

Use this procedure to configure e-mail notification for three or more instances of IBM ECM Widgets V4.5.2.1, for new installations and upgrades. To configure e-mail notification:

- For each instance of IBM ECM Widgets V4.5.2.1, log on to IBM FileNet Workplace XT and navigate to **Tools** → **Administration** → **Process Configuration Console**.
- Right-click the region you want to edit and choose **Connect**.
- Right-click the region you want to edit and choose **Properties**.
- Click the **Web Applications** tab.
- Click the **Add** button to create a new web application.
- Depending on which container you want to configure, click **IBM ECM Widgets for Business Space** or **IBM ECM Widgets for Lotus Mashups** in the **Web Application** column.
- For each instance of IBM ECM Widgets V4.5.2.1, log on to the server computer that hosts the installation and open the bootstrap.json file located in the following default directory:
 - For Business Space powered by WebSphere configurations: `WAS_Home\profiles\AppSrv\installedApps\Node_Cell\ECMWidgets_node.ear\ECMWidgets.war\catalog\com\ibm\im\ecmwidgets\bootstrap.json`
 - For Lotus Mashups configurations: `Mashup_Center_Home\mm_profile\installedApps\NodeName\ECMWidgets.ear\ECMWidgets.war\catalog\com\ibm\im\ecmwidgets\bootstrap.json`
- Find the "webappID": entry and set the value to the number of the new web application you created. For example, 100.
- Enter the URL for the IBM ECM Widgets installation in the **Server Base URL** field. For example, enter `http://www.bpm.com:8080/mum/enabler`

10. Access the IBM ECM Widgets installation package and copy the appropriate e-mail templates for your locale from the ProcessEngine_Templates directory to the e-mail template directory on the IBM FileNet Process Engine server computer. For example:

Option	Description
AIX	<p>Copy the files from:</p> <p><i>Installation_Package_Location</i> /ProcessEngine_Templates/email</p> <p>On the Process Engine server computer, save the files to:</p> <p>(for Lotus Mashups) /opt/fnsw/local/sd/msg/8</p> <p>(for Business Space) /opt/fnsw/local/sd/msg/9</p>
Windows	<p>Copy the files from:</p> <p><i>Installation_Package_Location</i> \ProcessEngine_Templates\email</p> <p>On the Process Engine server computer, save the files to:</p> <p>(for Lotus Mashups) C:\fnsw_loc\sd\msg\8</p> <p>(for Business Space) C:\fnsw_loc\sd\msg\8</p>

11. Run Process Task Manager on the Process Engine.
12. Click the **Process Engine** icon and then the **Notification** tab.
13. Enter your SMTP server configuration information.
14. Right-click the **Language Packs** folder and click **New**.
15. Select a locale and then click **Browse**.
16. Browse to the msg directory where you saved the e-mail templates and click **Select**. For example:

Option	Description
AIX	/opt/fnsw/local/sd/msg
Windows	C:\fnsw_loc\sd\msg

Important: Do not select a subdirectory within the msg folder.

17. Save all changes and restart the Process Engine.

Configuring AJAX proxy for remote IBM WEBi installations

For IBM WEBi configurations that run remotely from the IBM ECM Widgets installation, AJAX proxy must be configured to limit access to only specified servers.

Before you configure the AJAX proxy, ensure the following system components have been installed and configured:

- IBM ECM Widgets.
- IBM WEBi, on a remote server.

By default, the AJAX proxy is configured to allow access to any server. Access must be restricted to ensure access to only the servers you specify. To configure AJAX proxy for exclusive access by remote IBM WEBi installations, choose one of the following configuration options:

Configuring AJAX proxy with a hidden IBM WEBi URL address

You can configure AJAX proxy to operate with a URL that does not display the address of your IBM WEBi server.

To configure AJAX proxy for exclusive access by remote IBM WEBi installations and maintain a hidden IBM WEBi URL address:

1. Stop the IBM WebSphere Application Server.
2. In a text editor, open the `proxy-config.xml` file from the following location:

```
WAS_Home\AppServer\BusinessSpace\mm.runtime\config\proxy-config.xml
```

3. Find the following entry:

```
<proxy:mapping contextpath="/proxy/*"/>
```

4. Modify the entry as follows:

```
<proxy:mapping contextpath="/WEBiAlias" url="WEBi_URL/*"/>
```

Tip: The name you enter for *WEBiAlias* displays in the URL in place of the IBM WEBi address.

5. Save and close the file.
6. Access the `com.ibm.mm.proxy.config_Build_Date.jar` file from the following location:

```
WAS_Home\AppServer\BusinessSpace\mm.runtime\eclipse\plugins\  
com.ibm.mm.proxy.config_Build_Date.jar
```

Tip: The *Build_Date* portion of the file name varies, depending on the build date.

7. Unpack the JAR file and then open `plugin.xml` in a text editor. Add the *WEBiAlias* entry as follows:

Tip:

- On AIX, to unpack the JAR file, run the `jar -xvf` command. After you edit the `plugin.xml` file, run the `jar -cvf` command to repackage the contents.

- On Windows, to unpack the JAR file, open it using a compression utility, or rename the file with a ZIP suffix and then open the file. After you edit the `plugin.xml` file, change the suffix back to JAR.

```
<servlet alias="/WEBiAlias" class="
com.ibm.mm.proxy.servlet.AjaxProxyServlet">
  <init-param name="useJNDI" value="false" />
</servlet>
```

8. From the `WAS_Profile_Home\Server\bin` directory, run the following commands:
 - a. `osgiCfgInit.bat`
 - b. `clearClassCache.bat`
9. Start the WebSphere Application Server.
10. From the `WAS_Profile_Home\Server\bin` directory, run the following commands:
 - a. `wsadmin`
 - b. `$AdminTask updateBlobConfig {-serverName Server_Name -nodeName Node_Name -propertyDirectoryName "WAS_Home\AppServer\BusinessSpace\mm.runtime\config" -prefix "Mashups_"}`
 - c. `$AdminConfig save`
 - d. `quit`
11. Restart the WebSphere Application Server.

Configuring AJAX proxy with a visible IBM WEBi URL address

You can configure AJAX proxy to operate with a URL that displays the address of your IBM WEBi server.

To configure AJAX proxy for exclusive access by remote IBM WEBi installations in situations where you are not concerned about users seeing the IBM WEBi address:

1. Stop the IBM WebSphere Application Server.
2. In a text editor, open the `proxy-config.xml` file from the following location:
`WAS_Home\AppServer\BusinessSpace\mm.runtime\config\proxy-config.xml`
3. Find following entry:
`<proxy:policy url="*/">`
4. Modify the entry as follows:
`<proxy:policy url="WEBi_URL/*">`
5. Save and close the file.
6. From the `WAS_Profile_Home\Server\bin` directory, run the following commands:
 - a. `osgiCfgInit.bat`
 - b. `clearClassCache.bat`
7. Start the WebSphere Application Server.
8. From the `WAS_Profile_Home\Server\bin` directory, run the following commands:
 - a. `wsadmin`
 - b. `$AdminTask updateBlobConfig {-serverName Server_Name -nodeName Node_Name -propertyDirectoryName "WAS_Home\AppServer\BusinessSpace\mm.runtime\config" -prefix "Mashups_"}`
 - c. `$AdminConfig save`
 - d. `quit`
9. Restart the WebSphere Application Server.

Removing IBM ECM Widgets software

IBM ECM Widgets provides an uninstallation program. However, you must also complete some manual steps to completely remove IBM ECM Widgets from your environment.

Removing IBM ECM Widgets for Business Space powered by WebSphere

You can delete IBM ECM Widgets from the Business Space powered by WebSphere Palette without removing Business Space.

To remove IBM ECM Widgets:

1. Log into Business Space and delete all pages and spaces.
2. Remove the IBM ECM Widgets catalog and templates:
 - a. Access *WAS_Home/BusinessSpace/nodeName/serverName/mm.runtime.prof/config/* and delete the following files:
 - *catalog_ecmwidgetsP8Widgets.xml*
 - *catalog_ecmwidgetsCMWidgets.xml*
 - b. Open *catalog_default.xml* and delete the following entries:
 - `<include catalog="ecmwidgetsCMWidgets"/>`
 - `<include catalog="ecmwidgetsP8Widgets"/>`
 - c. Access *WAS_Home/BusinessSpace/nodeName/serverName/mm.runtime.prof/templates/* and delete the following files:
 - *ECMProcessingWork.zip*
 - *ECMStepProcessors.zip*
 - d. Enter the following commands from a command line:
 - `WSadmin -conntype NONE`
 - `$AdminTask updateBlobConfig {-serverName serverName -nodeName nodeName -propertyDirectoryName profileRoot/BusinessSpace/nodeName/serverName/mm.runtime.prof/config}`
 - `$AdminTask updateSpaceTemplate {-serverName serverName -nodeName nodeName -spaceTemplateDirectoryName profileRoot/BusinessSpace/nodeName/serverName/mm.runtime.prof/templates -clean true}`
 - `$AdminConfig save`
3. Restart the IBM WebSphere Application Server profile.
4. Open the WebSphere Application Server administrative console and click **Applications** → **Enterprise Applications**.
5. Select the **ECMWidgets** application and click **Uninstall**.
6. Run the IBM ECM Widgets uninstall program.

Option	Description
AIX	<i>ecmWidgetsHome\ECMWidgets-Uninstall\ECMWidgets-Uninstall</i>
Windows	<i>ecmWidgetsHome\ECMWidgets-Uninstall\ECMWidgets-Uninstall.exe</i>

Removing IBM ECM Widgets for IBM Lotus Mashups

You must uninstall the IBM ECM Widgets product manually.

To remove IBM ECM Widgets:

1. Log on to the Lotus Mashups host computer using an account that has administrator privileges.
2. In a text editor, open the `catalog_template.xml` file from the `config` directory in the Mashup Center home directory. For example:

Option	Description
AIX	<code>/opt/IBM/Mashup Center/2.0/mm/config/catalog_template.xml</code>
Windows	<code>C:\Program Files\IBM\Mashup Center\2.0\mm\config\catalog_template.xml</code>

3. Locate and delete the following entry that was added during installation:
`<include catalog="catalog_name"/>`

Replace `catalog_name` with one of the follow options, depending on your configuration:

- `ECMWidgetsP8` for configurations that use IBM FileNet Content Manager object stores.
- `ECMWidgetsCM` for configurations that use IBM DB2 Content Manager content servers
- `ECMWidgets` for configurations that use both IBM FileNet Content Manager object stores and IBM DB2 Content Manager content servers

For example, on a configuration that uses IBM FileNet Content Manager object stores, delete the following:

```
<catalog id="template" unique-name="optional_name">
  <resource-type>Catalog</resource-type>
  <include catalog="default"/>
  <include catalog="ECMWidgetsP8"/>
</catalog>
```

4. In a text editor, open the `addContent.json` file from the following default location of your deployed Mashup Center home directory. For example:

Option	Description
AIX	<code>/opt/IBM/Mashup Center/2.0/mm_profile/installedApps/cell/themes.ear/themes.war/tabTheme/addContent.json</code>
Windows	<code>C:\Program Files\IBM\Mashup Center\2.0\mm_profile\installedApps\cell\themes.ear\themes.war\tabTheme\addContent.json</code>

5. Locate the `"category": "Tools"`, entry section. After the `<mm_profile>` line, delete the following entries:

```

{
  "catalog": "ECMWidgets",
  "category": "ECMWidgets",
  "datastore": "com.ibm.data.MashupCatalogFeedStore",

```

```

"renderers": []
},
{
"catalog": "ECMWidgets",
"category": "ECMWidgetsToolBarActions",
"datastore": "com.ibm.data.MashupCatalogFeedStore",
"renderers": []
}

```

For example, delete the following in bold:

```

"category": "Tools",
"datastore": "com.ibm.data.MashupCatalogFeedStore",
"renderers": []
}
,
{
"catalog": "ECMWidgets",
"category": "ECMWidgets",
"datastore": "com.ibm.data.MashupCatalogFeedStore",
"renderers": []
},
{
"catalog": "ECMWidgets",
"category": "ECMWidgetsToolBarActions",
"datastore": "com.ibm.data.MashupCatalogFeedStore",
"renderers": []
}
]
}

```

6. In a text editor, open the `addContent.json` file from the following default location of your deployed Mashup Center home directory:

Option	Description
AIX	<code>/opt/IBM/Mashup Center/2.0/mm_profile/installedApps/cell/themes.ear/themes.war/tabThemeColumned/addContent.json</code>
Windows	<code>C:\Program Files\IBM\Mashup Center\2.0\mm_profile\installedApps\cell\themes.ear\themes.war\tabThemeColumned\addContent.json</code>

7. Locate the `"category": "Tools"`, entry section. After the `<mm_profile>` line, delete the following entries:

```

,
{
"catalog": "ECMWidgets",
"category": "ECMWidgets",
"datastore": "com.ibm.data.MashupCatalogFeedStore",
"renderers": []
},
{
"catalog": "ECMWidgets",
"category": "ECMWidgetsToolBarActions",
"datastore": "com.ibm.data.MashupCatalogFeedStore",
"renderers": []
}

```

For example, delete the following in bold:

```

"category": "Tools",
"datastore": "com.ibm.data.MashupCatalogFeedStore",
"renderers": []

```

```

}
,
{
"catalog":"ECMWidgets",
"category":"ECMWidgets",
"datastore":"com.ibm.data.MashupCatalogFeedStore",
"renderers":[]
},
{
"catalog":"ECMWidgets",
"category":"ECMWidgetsToolBarActions",
"datastore":"com.ibm.data.MashupCatalogFeedStore",
"renderers":[]
}
]
}

```

- From a command line, access the Mashup_Center_root/Config directory. For example:

Option	Description
AIX	/opt/IBM/Mashup Center/2.0/Config
Windows	C:\Program Files\IBM\Mashup Center\2.0\Config

- Run the following command:

```
config.bat import-config-file -DMMImportFileDir="Widgets_Home/ECMW_MashupCenter/catalog/catalog_template.xml"
```

For example, run the following command:

Option	Description
AIX	config.bat import-config-file -DMMImportFileDir= "/opt/IBM/ECMWidgets/ECMW_MashupCenter/catalog/catalog_template.xml"
Windows	config.bat import-config-file -DMMImportFileDir= "C:/Progra~1/IBM/ECMWidgets/ECMW_MashupCenter/catalog/catalog_template.xml"

- Restart the IBM WebSphere Application Server profile.
- Open the WebSphere Application Server administrative console and click **Applications** → **Enterprise Applications**.
- Select the **ECMWidgets** application and click **Uninstall**.
- Log into InfoSphere Mashup Hub and delete the IBM ECM Widgets **ECM - Step Processors** template and the **ECM - Processing Work** template.
- Run the IBM ECM Widgets uninstall program.

Option	Description
AIX	ecmWidgetsHome\ECMWidgets-Uninstall\ECMWidgets-Uninstall
Windows	ecmWidgetsHome\ECMWidgets-Uninstall\ECMWidgets-Uninstall.exe

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