IBM Enterprise Content Management Widgets
Version 4.5.2

Installation and Upgrade Guide

SC19-2781-02

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Note

Before using this information and the product it supports, read the information in "Notices" on page 95.

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.

ibm.com and related resources

Product support and documentation are available from 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"
"Contacting IBM" on page iv

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/.
Parent topic: “ibm.com and related resources” on page iii

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/.
Parent topic: “ibm.com and related resources” on page iii

Contents

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

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:

"Installing IBM ECM Widgets on IBM WebSphere Application Server - Base"

"Collocating IBM ECM Widgets with a WebSphere Application Server Business Process Management product" on page 22

"Installing a Highly Available IBM WebSphere Application Server Network Deployment of IBM ECM Widgets" on page 35

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.

1. "Planning the installation"
2. "Installing prerequisite software" on page 4
3. "Installing IBM ECM Widgets" on page 5
4. "Installing the Business Space powered by WebSphere installation package to your WebSphere Application Server home directory" on page 7
5. "Preparing a database for Business Space powered by WebSphere" on page 9
6. "Deploying Business Space powered by WebSphere on IBM WebSphere Application Server" on page 12
7. "Running the IBM ECM Widgets Configuration Manager" on page 18
8. "(Optional) Setting the IBM FileNet Workplace XT cookie path" on page 20
9. "(Optional) Configuring step processor locations for IBM ECM Widgets" on page 20
10. "Verifying IBM ECM Widgets and Business Space powered by WebSphere deployment" on page 21

Parent topic: "Installing 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.

Parent topic: "Installing IBM ECM Widgets on IBM WebSphere Application Server - Base" on page 3
Next topic: "Installing prerequisite software"

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 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

  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

Parent topic: "Installing IBM ECM Widgets on IBM WebSphere Application Server - Base" on page 3
Previous topic: "Planning the installation" on page 3
Next topic: "Installing IBM ECM Widgets"

Installing IBM ECM Widgets

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 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 interactively"

"Installing IBM ECM Widgets V4.5.2 silently" on page 6

Parent topic: "Installing IBM ECM Widgets on IBM WebSphere Application Server - Base" on page 3
Previous topic: "Installing prerequisite software" on page 4
Next topic: "Installing the Business Space powered by WebSphere installation package to your WebSphere Application Server home directory" on page 7

Installing IBM ECM Widgets interactively

You can run the IBM ECM Widgets installation program interactively and step through the installer screens.

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	*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

Parent topic: "Installing IBM ECM Widgets" on page 5

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	`ECMWidgets4_5_2AIX.bin -i silent -f` *`target_file`*
Windows	`ECMWidgets4_5_2WIN.exe -i silent -f` *`target_file`*

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`

Parent topic: "Installing IBM ECM Widgets" on page 5

Installing the Business Space powered by WebSphere installation 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. Start IBM Installation Manager.
2. Click **File** → **Preferences**.
3. In the Repositories window, click **Add Repository**.
4. In the Add a Repository window, click **Browse**. Browse to the `BusinessSpace` directory within the IBM ECM Widgets installation location, select the `bscc.7000.repository.zip` file and click **OK**. The file is installed in following location:

Option	Description
AIX	*ECMWidgets_Home*/BusinessSpace/bscc.7000.repository.zip
Windows	*ECMWidgets_Home*\BusinessSpace\bscc.7000.repository.zip

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

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

5. In the Add a Repository window, click **Browse**.
6. Browse to the `BusinessSpace` directory within the IBM ECM Widgets installation location, select the `bspace7.IFix.repository.zip` file and click **OK**. The file is installed in the following location:

Option	Description
AIX	*ECMWidgets_Home*/bspace7.IFix.repository.zip
Windows	*ECMWidgets_Home*\bspace7.IFix.repository.zip

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

Option	Description
AIX	/opt/IBM/ECMWidgets/BusinessSpace/bspace7.IFix.repository.zip
Windows	C:\Program Files\IBM\ECMWidgets\BusinessSpace\bspace7.IFix.repository.zip

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 installed in the following location:

Option	Description
AIX	*ECMWidgets_Home*/BusinessSpace/was-sync/respository.config
Windows	*ECMWidgets_Home*\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/respository.config`
Windows	`C:\Program Files\IBM\ECMWidgets\BusinessSpace\was-sync\repository.config`

9. Click **OK** in the Repositories window.
10. Click the **Import** icon.
11. 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:\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.

Parent topic: "Installing IBM ECM Widgets on IBM WebSphere Application Server - Base" on page 3
Previous topic: "Installing IBM ECM Widgets" on page 5
Next topic: "Preparing a database for Business Space powered by WebSphere"

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" on page 10

"Preparing a database for IBM DB2 for Linux, UNIX and Windows configurations where DB2 is installed remotely from IBM ECM Widgets" on page 11

"Preparing a Business Space powered by WebSphere database for Oracle configurations" on page 12
Parent topic: "Installing IBM ECM Widgets on IBM WebSphere Application Server - Base" on page 3
Previous topic: "Installing the Business Space powered by WebSphere installation package to your WebSphere Application Server home directory" on page 7
Next topic: "Deploying Business Space powered by WebSphere on IBM WebSphere Application Server" on page 12

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	*WAS_Home*`/BusinessSpace/config.bspace/MetadataFiles/`
Windows	*WAS_home*`\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.

Parent topic: "Preparing a database for Business Space powered by WebSphere" on page 9

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	*WAS_Home*/BusinessSpace/config.bspace/MetadataFiles/
Windows	*WAS_home*\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.

   Important: 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.

Parent topic: "Preparing a database for Business Space powered by WebSphere" on page 9

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	*WAS_Home*/BusinessSpace/config.bspace/MetadataFiles/
Windows	*WAS_home*\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

2. Open the copy of the `BSpace_Oracle.properties` file in a text editor and, using the instructions in the file, edit the appropriate values.

   Important: 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 Oracle database that uses the UTF-8 character set.

Parent topic: "Preparing a database for Business Space powered by WebSphere" on page 9

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"

"Creating a new profile and deploying a pre-configured instance of Business Space powered by WebSphere" on page 15

Parent topic: "Installing IBM ECM Widgets on IBM WebSphere Application Server - Base" on page 3
Previous topic: "Preparing a database for Business Space powered by WebSphere" on page 9
Next topic: "Running the IBM ECM Widgets Configuration Manager" on page 18

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 adminstrator
   -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/BusnessSpace/

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	`wsadmin.sh -username username -password password -conntype NONE -lang jython -c "AdminTask.setAdminActiveSecuritySettings ('[-appSecurityEnabled true]')"`
Windows	`wsadmin -username username -password password -conntype NONE -lang jython -c "AdminTask.setAdminActiveSecuritySettings ('[-appSecurityEnabled true]')"`

Parent topic: "Deploying Business Space powered by WebSphere on IBM WebSphere Application Server" on page 12

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/BusnessSpace/*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	`wsadmin.sh -username username -password password -conntype NONE -lang jython -c "AdminTask.setAdminActiveSecuritySettings ('[-appSecurityEnabled true]')"`
Windows	`wsadmin -username username -password password -conntype NONE -lang jython -c "AdminTask.setAdminActiveSecuritySettings ('[-appSecurityEnabled true]')"`

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.

Parent topic: "Deploying Business Space powered by WebSphere on IBM WebSphere Application Server" on page 12

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`

Option	Description
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.

Parent topic: "Installing IBM ECM Widgets on IBM WebSphere Application Server - Base" on page 3
Previous topic: "Deploying Business Space powered by WebSphere on IBM WebSphere Application Server" on page 12
Next topic: "(Optional) Setting the IBM FileNet Workplace XT cookie path"

(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.

Parent topic: "Installing IBM ECM Widgets on IBM WebSphere Application Server - Base" on page 3
Previous topic: "Running the IBM ECM Widgets Configuration Manager" on page 18
Next topic: "(Optional) Configuring step processor locations for IBM ECM Widgets"

(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 **Location** 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.

Parent topic: "Installing IBM ECM Widgets on IBM WebSphere Application Server - Base" on page 3
Previous topic: "(Optional) Setting the IBM FileNet Workplace XT cookie path" on page 20
Next topic: "Verifying IBM ECM Widgets and Business Space powered by WebSphere deployment"

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.

Parent topic: "Installing IBM ECM Widgets on IBM WebSphere Application Server - Base" on page 3
Previous topic: "(Optional) Configuring step processor locations for IBM ECM Widgets" on page 20

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"

"Installing an IBM WebSphere Business Process Management product to an IBM ECM Widgets configuration" on page 30

Parent topic: "Installing IBM ECM Widgets" on page 3

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.

1. "Installing prerequisite software"
2. "Installing IBM ECM Widgets" on page 24
3. "Running the IBM ECM Widgets Configuration Manager" on page 26
4. "(Optional) Setting the IBM FileNet Workplace XT cookie path" on page 28
5. "(Optional) Configuring step processor locations for IBM ECM Widgets" on page 28
6. "Verifying IBM ECM Widgets and Business Space powered by WebSphere deployment" on page 29

Parent topic: "Collocating IBM ECM Widgets with a WebSphere Application Server Business Process Management product"

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 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

  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

Parent topic: "Installing IBM ECM Widgets to an existing installation of a WebSphere Application Server Business Process Management product" on page 22
Next topic: "Installing IBM ECM Widgets"

Installing IBM ECM Widgets

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 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 interactively"

"Installing IBM ECM Widgets V4.5.2 silently" on page 25

Parent topic: "Installing IBM ECM Widgets to an existing installation of a WebSphere Application Server Business Process Management product" on page 22
Previous topic: "Installing prerequisite software" on page 22
Next topic: "Running the IBM ECM Widgets Configuration Manager" on page 26

Installing IBM ECM Widgets interactively:

You can run the IBM ECM Widgets installation program interactively and step through the installer screens.

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	*`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`

Option	Description
Windows	`C:\Program Files\IBM\ECMWidgets\IBM_ECM_Widgets_Install.log`

Parent topic: "Installing IBM ECM Widgets" on page 24

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	`ECMWidgets4_5_2AIX.bin -i silent -f` *`target_file`*

Option	Description
Windows	`ECMWidgets4_5_2WIN.exe -i silent -f target_file`

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

Parent topic: "Installing IBM ECM Widgets" on page 24

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	`/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.

Parent topic: "Installing IBM ECM Widgets to an existing installation of a WebSphere Application Server Business Process Management product" on page 22
Previous topic: "Installing IBM ECM Widgets" on page 24
Next topic: "(Optional) Setting the IBM FileNet Workplace XT cookie path"

(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.

Parent topic: "Installing IBM ECM Widgets to an existing installation of a WebSphere Application Server Business Process Management product" on page 22
Previous topic: "Running the IBM ECM Widgets Configuration Manager" on page 26
Next topic: "(Optional) Configuring step processor locations for IBM ECM Widgets"

(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 **Location** 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.

Parent topic: "Installing IBM ECM Widgets to an existing installation of a WebSphere Application Server Business Process Management product" on page 22
Previous topic: "(Optional) Setting the IBM FileNet Workplace XT cookie path" on page 28
Next topic: "Verifying IBM ECM Widgets and Business Space powered by WebSphere deployment"

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.

Parent topic: "Installing IBM ECM Widgets to an existing installation of a WebSphere Application Server Business Process Management product" on page 22
Previous topic: "(Optional) Configuring step processor locations for IBM ECM Widgets" on page 28

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.

1. "Installing an IBM WebSphere Business Process Management product"
2. "Setting the new Business Space powered by WebSphere deployment to use the IBM ECM Widgets database"
3. "Running the IBM ECM Widgets configuration manager on an IBM WebSphere Application Server Business Process Management configuration" on page 31
4. "Deploying IBM FileNet Workplace XT to the new profile directory" on page 33
5. "(Optional) Setting the IBM FileNet Workplace XT cookie path" on page 33
6. "(Optional) Configuring step processor locations for IBM ECM Widgets" on page 34
7. "Verifying IBM ECM Widgets and Business Space powered by WebSphere deployment" on page 34

Parent topic: "Collocating IBM ECM Widgets with a WebSphere Application Server Business Process Management product" on page 22

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.

Parent topic: "Installing an IBM WebSphere Business Process Management product to an IBM ECM Widgets configuration"
Next topic: "Setting the new Business Space powered by WebSphere deployment to use the IBM ECM Widgets database"

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.

Parent topic: "Installing an IBM WebSphere Business Process Management product to an IBM ECM Widgets configuration" on page 30
Previous topic: "Installing an IBM WebSphere Business Process Management product" on page 30
Next topic: "Running the IBM ECM Widgets configuration manager on an IBM WebSphere Application Server Business Process Management configuration"

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: `/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 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.

Parent topic: "Installing an IBM WebSphere Business Process Management product to an IBM ECM Widgets configuration" on page 30
Previous topic: "Setting the new Business Space powered by WebSphere deployment to use the IBM ECM Widgets database" on page 30
Next topic: "Deploying IBM FileNet Workplace XT to the new profile directory"

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.

Parent topic: "Installing an IBM WebSphere Business Process Management product to an IBM ECM Widgets configuration" on page 30
Previous topic: "Running the IBM ECM Widgets configuration manager on an IBM WebSphere Application Server Business Process Management configuration" on page 31
Next topic: "(Optional) Setting the IBM FileNet Workplace XT cookie path"

(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.

Parent topic: "Installing an IBM WebSphere Business Process Management product to an IBM ECM Widgets configuration" on page 30
Previous topic: "Deploying IBM FileNet Workplace XT to the new profile directory" on page 33
Next topic: "(Optional) Configuring step processor locations for IBM ECM Widgets"

(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 **Location** 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.

Parent topic: "Installing an IBM WebSphere Business Process Management product to an IBM ECM Widgets configuration" on page 30
Previous topic: "(Optional) Setting the IBM FileNet Workplace XT cookie path" on page 33
Next topic: "Verifying IBM ECM Widgets and Business Space powered by WebSphere deployment"

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.

Parent topic: "Installing an IBM WebSphere Business Process Management product to an IBM ECM Widgets configuration" on page 30
Previous topic: "(Optional) Configuring step processor locations for IBM ECM Widgets" on page 34

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

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.

1. "Installing prerequisite software" on page 36
2. "Installing IBM ECM Widgets on the WebSphere Application Server Network Deployment configuration" on page 37
3. "Installing the Business Space powered by WebSphere installation package to your WebSphere Application Server Network Deployment configuration" on page 38
4. "Preparing a Business Space powered by WebSphere database for High Availability configurations" on page 40
5. "Configuring the WebSphere Application Server Network Deployment deployment manager profile for Business Space powered by WebSphere" on page 42
6. "Creating a data source for a WebSphere Application Server Network Deployment configuration" on page 43
7. "Deploying Business Space powered by WebSphere on the WebSphere Application Server Network Deployment configuration" on page 45
8. "Deploying IBM ECM Widgets on a WebSphere Application Server Network Deployment configuration" on page 47
9. "Configuring and deploying IBM FileNet Workplace XT on a WebSphere Application Server Network Deployment configuration" on page 48
10. "(Optional) Setting the IBM FileNet Workplace XT cookie path" on page 50

11. "(Optional) Configuring step processor locations for IBM ECM Widgets" on page 50
12. "Enable templates for Business Space powered by WebSphere" on page 51
13. "Verifying IBM ECM Widgets and Business Space powered by WebSphere deployment" on page 51

Parent topic: "Installing IBM ECM Widgets" on page 3

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 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

  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

Parent topic: "Installing a Highly Available IBM WebSphere Application Server Network Deployment of IBM ECM Widgets" on page 35
Next topic: "Installing IBM ECM Widgets on the WebSphere Application Server Network Deployment configuration"

Installing IBM ECM Widgets 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`

Parent topic: "Installing a Highly Available IBM WebSphere Application Server Network Deployment of IBM ECM Widgets" on page 35
Previous topic: "Installing prerequisite software" on page 36
Next topic: "Installing the Business Space powered by WebSphere installation package to your WebSphere Application Server Network Deployment configuration"

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. Log on to the deployment manager computer by using an account that has administrator privileges.
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**.
6. Browse to the IBM ECM Widgets installation directory, select the `bscc.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`

7. Browse to the `BusinessSpace` directory within the IBM ECM Widgets installation location, select the `bspace7.IFix.repository.zip` file and click **OK**. The file is installed in the following location:

Option	Description
AIX	*ECMWidgets_Home*`/bspace7.IFix.repository.zip`
Windows	*ECMWidgets_Home*`\bspace7.IFix.repository.zip`

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

Option	Description
AIX	`/opt/IBM/ECMWidgets/BusinessSpace/bspace7.IFix.repository.zip`
Windows	`C:\Program Files\IBM\ECMWidgets\BusinessSpace\bspace7.IFix.repository.zip`

8. In the Add a Repository window, click **Browse**.
9. 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	*ECMWidgets_Home*`/BusinessSpace/was-sync/respository.config`
Windows	*ECMWidgets_Home*`\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/respository.config`
Windows	`C:\Program Files\IBM\ECMWidgets\BusinessSpace\was-sync\repository.config`

10. Click **OK** on the Repositories window.
11. Click the **Import** icon.
12. 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`

13. Click **Next**.
14. Specify a **Shared Resources Directory** and click **Next**.
15. Click **Import**.
16. Click **Finish**.
17. Click the **Install** icon.
18. 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.
19. Verify the information and then click **Next**. The Install Packages window will display the package features that will be installed.
20. Click **Next**. The Install Packages window will display summary information about the options you have selected.
21. Click **Install**.

22. Click **Finish** after the installation completes and then exit IBM Installation Manager.

Parent topic: "Installing a Highly Available IBM WebSphere Application Server Network Deployment of IBM ECM Widgets" on page 35
Previous topic: "Installing IBM ECM Widgets on the WebSphere Application Server Network Deployment configuration" on page 37
Next topic: "Preparing a Business Space powered by WebSphere database for High Availability configurations"

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 IBM DB2 for Linux, UNIX and Windows configurations where DB2 is installed on the deployment manager computer

If DB2 is installed on deployment manager computer, you will modify a properties file that is used to automatically create a new database as part of the Business Space deployment.

For IBM DB2 for Linux, UNIX and Windows configurations where DB2 is remote from the deployment manager computer

If DB2 is remote from the computer with your IBM ECM Widgets installation, 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"

"Creating a new Business Space powered by WebSphere Oracle database for a WebSphere Application Server Network Deployment configuration" on page 41

Parent topic: "Installing a Highly Available IBM WebSphere Application Server Network Deployment of IBM ECM Widgets" on page 35
Previous topic: "Installing the Business Space powered by WebSphere installation package to your WebSphere Application Server Network Deployment configuration" on page 38
Next topic: "Configuring the WebSphere Application Server Network Deployment deployment manager profile for Business Space powered by WebSphere" on page 42

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	*WAS_Home*/BusinessSpace/config.bspace/MetadataFiles/
Windows	*WAS_home*\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

Parent topic: "Preparing a Business Space powered by WebSphere database for High Availability configurations" on page 40

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	*WAS_Home*/BusinessSpace /config.bspace/MetadataFiles/
Windows	*WAS_Home*\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

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:

   - *SchmaName* 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.

Parent topic: "Preparing a Business Space powered by WebSphere database for High Availability configurations" on page 40

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 Windows or AIX:

```
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 true
```

   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 true
   ```

   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 true
   ```

   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.

Parent topic: "Installing a Highly Available IBM WebSphere Application Server Network Deployment of IBM ECM Widgets" on page 35
Previous topic: "Preparing a Business Space powered by WebSphere database for High Availability configurations" on page 40
Next topic: "Creating a data source for a WebSphere Application Server Network Deployment configuration"

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	• **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	• **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	IBM DB2 for Linux, UNIX and Windows • `/opt/IBM/SQLLIB/java` for the DB2UNIVERSAL_JDBC_DRIVER_PATH • `/opt/IBM/SQLLIB/lib` for the DB2UNIVERSAL_JDBC_DRIVER _NATIVEPATH 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. • *oraclehome*`/jdbc/lib/` in the ${ORACLE_JDBC_DRIVER_PATH} field
Windows	IBM DB2 for Linux, UNIX and Windows • `C:\Program Files\IBM\SQLLIB\java` for the DB2UNIVERSAL_JDBC_DRIVER_PATH • `C:\Program Files\IBM\SQLLIB\lib` for the DB2UNIVERSAL_JDBC_DRIVER _NATIVEPATH 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. • *oraclehome*`\jdbc\lib\` 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	• Value of **4** for the Driver type • The *name* of the database you created in the Database name field • `localhost` for the Server name field • Accept the default Port number
Oracle database	• 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.

Parent topic: "Installing a Highly Available IBM WebSphere Application Server Network Deployment of IBM ECM Widgets" on page 35
Previous topic: "Configuring the WebSphere Application Server Network Deployment deployment manager profile for Business Space powered by WebSphere" on page 42
Next topic: "Deploying Business Space powered by WebSphere on the WebSphere Application Server Network Deployment configuration"

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`

Parent topic: "Installing a Highly Available IBM WebSphere Application Server Network Deployment of IBM ECM Widgets" on page 35
Previous topic: "Creating a data source for a WebSphere Application Server Network Deployment configuration" on page 43
Next topic: "Deploying IBM ECM Widgets on a WebSphere Application Server Network Deployment configuration"

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 for either Windows or AIX 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	`$AdminTask installBusinessSpaceWidgets {-clusterName` *`cluster_name`* `-widgets` *`widgets_home`* `/Widgets_ECMWidgetsP8.zip}`
Windows	`$AdminTask installBusinessSpaceWidgets {-clusterName` *`cluster_name`* `-widgets` *`widgets_home`* `\Widgets_ECMWidgetsP8.zip}`

For example:

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

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 Enterprise Content Management Widgets configuration settings" on page 77.

Parent topic: "Installing a Highly Available IBM WebSphere Application Server Network Deployment of IBM ECM Widgets" on page 35
Previous topic: "Deploying Business Space powered by WebSphere on the WebSphere Application Server Network Deployment configuration" on page 45
Next topic: "Configuring and deploying IBM FileNet Workplace XT on a WebSphere Application Server Network Deployment configuration"

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.

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**.

Parent topic: "Installing a Highly Available IBM WebSphere Application Server Network Deployment of IBM ECM Widgets" on page 35
Previous topic: "Deploying IBM ECM Widgets on a WebSphere Application Server Network Deployment configuration" on page 47
Next topic: "(Optional) Setting the IBM FileNet Workplace XT cookie path"

(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.

Parent topic: "Installing a Highly Available IBM WebSphere Application Server Network Deployment of IBM ECM Widgets" on page 35
Previous topic: "Configuring and deploying IBM FileNet Workplace XT on a WebSphere Application Server Network Deployment configuration" on page 48
Next topic: "(Optional) Configuring step processor locations for IBM ECM Widgets"

(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 **Location** 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.

Parent topic: "Installing a Highly Available IBM WebSphere Application Server Network Deployment of IBM ECM Widgets" on page 35
Previous topic: "(Optional) Setting the IBM FileNet Workplace XT cookie path" on page 50
Next topic: "Enable templates for Business Space powered by WebSphere"

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 computer, the node agent and the node server.
4. Log into Business Space and verify that the templates are enabled.

Parent topic: "Installing a Highly Available IBM WebSphere Application Server Network Deployment of IBM ECM Widgets" on page 35
Previous topic: "(Optional) Configuring step processor locations for IBM ECM Widgets" on page 50
Next topic: "Verifying IBM ECM Widgets and Business Space powered by WebSphere deployment"

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.

Parent topic: "Installing a Highly Available IBM WebSphere Application Server Network Deployment of IBM ECM Widgets" on page 35
Previous topic: "Enable templates for Business Space powered by WebSphere" on page 51

Upgrading IBM ECM Widgets

The version of IBM WebSphere Application Server on your system determines which method you will use to upgrade IBM ECM Widgets.

Depending on which version of IBM WebSphere Application Server you are upgrading from, choose one of the following options:

Important: Once the IBM ECM Widgets V4.5.2 software upgrade is installed, you cannot roll back to V4.5.1 of IBM ECM Widgets. If you want to return to the previous version, you must uninstall V4.5.2 and run a new installation of IBM ECM Widgets V4.5.1.

"Upgrading a WebSphere Application Server - Base installation of IBM ECM Widgets V4.5.1"

"Upgrading an IBM WebSphere Application Server Network Deployment Highly Available installation of IBM ECM Widgets V4.5.1" on page 64

Upgrading a WebSphere Application Server - Base installation of IBM ECM Widgets V4.5.1

To upgrade an installation of IBM ECM Widgets 4.5.1 on IBM WebSphere Application Server - Base, you must install WebSphere Application Server V7.0 and Business Space powered by WebSphere V7.0 while the previous configuration is still in place. Widgets information from your existing configuration can then be migrated to the upgraded configuration.

To keep the same port numbers that you used for your IBM ECM Widgets 4.5.1 configuration, when you upgrade to V7.0 of WebSphere Application Server, you can either create a new WebSphere Application Server profile or you can migrate your existing WebSphere Application Server profile into the new installation of WebSphere Application Server V7.0 to maintain your existing associated ports and settings and your IBM FileNet Workplace XT configuration.

The method in which you will deploy V7.0 of Business Space powered by WebSphere, depends on whether you choose to migrate your existing profile or you choose to create a new profile and then reconfigure the IBM ECM Widgets prerequisite software.

1. "Upgrading IBM ECM Widgets software" on page 54
2. "Upgrading the IBM WebSphere Application Server profile" on page 54
3. "Installing the Business Space powered by WebSphere installation package to your WebSphere Application Server home directory" on page 57
4. "Deploying Business Space powered by WebSphere to the WebSphere Application Server profile" on page 59
5. "Running the IBM ECM Widgets Configuration Manager" on page 60
6. "Migrating your IBM ECM Widgets V4.5.1 Business Space powered by WebSphere database into the new configuration" on page 61
7. "Configuring migrated IBM ECM Widgets V4.5.1 step processor locations" on page 63
8. "Verifying IBM ECM Widgets and Business Space powered by WebSphere deployment" on page 63

9. "Setting the IBM FileNet Workplace XT cookie path" on page 64

Parent topic: "Upgrading IBM ECM Widgets" on page 53

Upgrading IBM ECM Widgets software

Upgrading the IBM ECM Widgets software installs the components necessary to deploy IBM ECM Widgets V4.5.2 and Business Space powered by WebSphere V7.0.

To upgrade IBM ECM Widgets software:

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. Run the `ECMWidgets4_5_2WIN.exe` installation program.
4. Select the option to upgrade.
5. Review the pre-upgrade summary and click **Install**.
6. Review the Upgrade Complete summary. If errors occurred, see the log file in the following default location: `/opt/IBM/ECMWidgets /IBM_ECM_Widgets_Install.log` IBM ECM Widgets software is backed up to the following directory during the upgrade:

   ```
   C:\Program Files\IBM\ECMWidgets\backup\
   ```

   CAUTION:
   If you run the installation program again, all files in the backup location will be overwritten with the current IBM ECM Widgets V4.5.2 information. If you intend to run the installation program more than once, ensure you move your IBM ECM Widgets V4.5.1 information from the backup location first.

Parent topic: "Upgrading a WebSphere Application Server - Base installation of IBM ECM Widgets V4.5.1" on page 53

Next topic: "Upgrading the IBM WebSphere Application Server profile"

Upgrading the IBM WebSphere Application Server profile

When you upgrade the IBM WebSphere Application Server profile, you can migrate the profile from your previous configuration and keep all of your existing settings or you can delete the existing profile and create a new profile with the same settings as your previous configuration.

"Upgrading from IBM ECM Widgets V4.5.1 by creating a new IBM WebSphere Application Server V7.0 profile"

"Upgrading from IBM ECM Widgets V4.5.1 by migrating an existing WebSphere Application Server profile" on page 55

Parent topic: "Upgrading a WebSphere Application Server - Base installation of IBM ECM Widgets V4.5.1" on page 53

Previous topic: "Upgrading IBM ECM Widgets software"

Next topic: "Installing the Business Space powered by WebSphere installation package to your WebSphere Application Server home directory" on page 57

Upgrading from IBM ECM Widgets V4.5.1 by creating a new IBM WebSphere Application Server V7.0 profile

You can migrate your existing WebSphere Application Server profile and keep your settings or you can delete your existing profile and create a new one with the same settings.

If you do not need to keep the profile from your previous installation of WebSphere Application Server you can delete it and then install V7.0 of WebSphere Application Server to a new location and create a new profile with the same port settings.

If you want to keep the same port number settings but do not need to keep your existing WebSphere Application Server profile settings, you can delete the existing profile and then create a new WebSphere Application Server V7.0 profile. You will then deploy Business Space powered by WebSphere V7.0 using the schema name and database from your previous configuration. You must then reconfigure WebSphere Application Server and reconfigure IBM FileNet P8 Workplace XT and related components.

After the installation and reconfiguration is complete, you can then deploy IBM ECM Widgets V4.5.2 to the new profile to complete the upgrade.

1. "Installing IBM WebSphere Application Server V7.0 and creating a new profile"

Parent topic: "Upgrading the IBM WebSphere Application Server profile" on page 54

Installing IBM WebSphere Application Server V7.0 and creating a new profile:

If you do not need to keep the WebSphere Application Server profile from your previous installation IBM ECM Widgets, you can delete it and then install WebSphere Application Server V7.0 to a new location and create a new profile with the same configuration settings.

To install IBM WebSphere Application Server V7.0 and create a new profile:

1. Stop the server and delete the WebSphere Application Server profile from your IBM Enterprise Content Management Widgets V4.5.1 configuration.
2. With the previous installation of WebSphere Application Server still in place, install WebSphere Application Server V7.0 to a new location, for example:

   ```
   C:\Program Files\IBM\WebSphere\AppServer1
   ```

3. Create a profile with the same name and port numbers as your previous configuration in order to maintain your previous settings. Select **Enable Administrative Security** on the Administrative Security page.
4. Install the appropriate maintenance package and appropriate SDK maintenance package.

Parent topic: "Upgrading from IBM ECM Widgets V4.5.1 by creating a new IBM WebSphere Application Server V7.0 profile" on page 54

Upgrading from IBM ECM Widgets V4.5.1 by migrating an existing WebSphere Application Server profile

You can keep your existing IBM ECM Widgets WebSphere Application Server configuration settings, including existing port numbers, LDAP settings and IBM FileNet Workplace XT settings.

You can keep your existing IBM ECM Widgets WebSphere Application Server configuration settings, including existing port numbers, LDAP settings and IBM FileNet Workplace XT settings by migrating the existing profile to the new installation of WebSphere Application Server V7.0. This method of upgrade is accomplished by installing V7.0 of WebSphere Application Server while leaving your existing installation in place. During the WebSphere Application Server V7.0 installation, you will specify the option to install without creating a new profile.

After the installation is complete, you will run the WebSphere Application Server Migration Wizard to migrate your old profile and IBM FileNet Workplace XT configuration over to the new installation. Business Space powered by WebSphere V7.0 and IBM ECM Widgets V4.5.2 can then be deployed.

1. "Removing deployed IBM ECM Widgets V4.5.1 applications"
2. "Installing IBM WebSphere Application Server V7.0 to migrate a V4.5.1 IBM ECM Widgets profile"
3. "Migrating your IBM ECM Widgets V4.5.1 WebSphere Application Server profile" on page 57

Parent topic: "Upgrading the IBM WebSphere Application Server profile" on page 54

Removing deployed IBM ECM Widgets V4.5.1 applications:

You must undeploy all applications from your previous installation.

To undeploy the IBM Enterprise Content Management Widgets applications from IBM WebSphere Application Server V6.1:

1. Open the WebSphere Application Server administrative console and click **Applications → Enterprise Applications**.
2. Select the following applications and click **Uninstall**:
   - BusinessSpaceManager
   - ECMWidgets
   - IBM_BSPACE_WIDGETS

   IBM ECM Widgets and Business Space powered by WebSphere have been undeployed from the WebSphere Application Server.
3. Open the WebSphere Application Server administrative console and delete the datasource with the JNDI name of **jdbc/bpm/BusinessSpace** which was used in your previous IBM ECM Widgets configuration.

Parent topic: "Upgrading from IBM ECM Widgets V4.5.1 by migrating an existing WebSphere Application Server profile" on page 55
Next topic: "Installing IBM WebSphere Application Server V7.0 to migrate a V4.5.1 IBM ECM Widgets profile"

Installing IBM WebSphere Application Server V7.0 to migrate a V4.5.1 IBM ECM Widgets profile:

You must install IBM WebSphere Application Server V7.0 before you can migrate your existing profile.

To install IBM WebSphere Application Server V7.0 and migrate an IBM ECM Widgets V4.5.1 profile:

1. Run the appropriate V7.0 WebSphere Application Server installer and choose the following settings:
   - Install to a new location, for example: `AppServer1`.
   - Ensure that you do not create a new profile during the installation. Select **None** on the WebSphere Application Server Environments window and confirm that you want to proceed without creating a profile.
   - At the end of the installation, ensure that you clear the option to create a new profile and click **Finish**.
2. Install the appropriate maintenance package and ensure that you select the new installation location that you created in step 1.

3. Install the appropriate SDK maintenance package and ensure that you select the new installation location that you created in step 1.

Parent topic: "Upgrading from IBM ECM Widgets V4.5.1 by migrating an existing WebSphere Application Server profile" on page 55
Previous topic: "Removing deployed IBM ECM Widgets V4.5.1 applications" on page 56
Next topic: "Migrating your IBM ECM Widgets V4.5.1 WebSphere Application Server profile"

Migrating your IBM ECM Widgets V4.5.1 WebSphere Application Server profile:

You can migrate the profile you used for IBM ECM Widgets 4.5.1 to the new installation of IBM WebSphere Application Server V7.0.

This will allow you to keep the same port numbers and related settings that you used in IBM ECM Widgets 4.5.1. Using this approach, your IBM FileNet Workplace XT configuration, and LDAP settings will also be migrated into the new profile.

To migrate your IBM WebSphere Application Server V6.1 profile from your IBM ECM Widgets 4.5.1 configuration to IBM WebSphere Application Server V7.0:

1. Access the WebSphere Application Server administrative console and click **Applications → Application Types → WebSphere Enterprise Applications**.
2. On Windows, click **Start → All programs → IBM WebSphere → Application Server V7.0 → Migration Wizard**
3. Complete the wizard dialogs using the following settings:
   - Select your WebSphere Application Server V6.1 installation for Existing installations.
   - Specify the WebSphere Application Server V6.1 profile as the Source profile selection.
   - Click **<Create new profile>** as the Target profile.
   - Click **Migrate and install the applications** as the Application migration settings option.
   - Click **Use the port values assigned to the previous (source) installation** for the Port value settings option.
4. Verify that the IBM FileNet Workplace XT application has migrated correctly by setting the Class loader settings according to the instructions in the IBM FileNet Workplace XT Installation and Upgrade Guide and then log into IBM FileNet Workplace XT.

Parent topic: "Upgrading from IBM ECM Widgets V4.5.1 by migrating an existing WebSphere Application Server profile" on page 55
Previous topic: "Installing IBM WebSphere Application Server V7.0 to migrate a V4.5.1 IBM ECM Widgets profile" on page 56

Installing the Business Space powered by WebSphere installation 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. Start IBM Installation Manager.
2. Click **File** → **Preferences**.
3. In the Repositories window, click **Add Repository**.
4. In the Add a Repository window, click **Browse**. Browse to the `BusinessSpace` directory within the IBM ECM Widgets installation location, select the `bscc.7000.repository.zip` file and click **OK**. The file is installed in following location:

Option	Description
AIX	*ECMWidgets_Home*/BusinessSpace/ bscc.7000.repository.zip
Windows	*ECMWidgets_Home*\BusinessSpace\ bscc.7000.repository.zip

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

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

5. In the Add a Repository window, click **Browse**.
6. Browse to the `BusinessSpace` directory within the IBM ECM Widgets installation location, select the `bspace7.IFix.repository.zip` file and click **OK**. The file is installed in the following location:

Option	Description
AIX	*ECMWidgets_Home*/ bspace7.IFix.repository.zip
Windows	*ECMWidgets_Home*\ bspace7.IFix.repository.zip

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

Option	Description
AIX	/opt/IBM/ECMWidgets/BusinessSpace/ bspace7.IFix.repository.zip
Windows	C:\Program Files\IBM\ECMWidgets \BusinessSpace\ bspace7.IFix.repository.zip

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 installed in the following location:

Option	Description
AIX	*ECMWidgets_Home*/BusinessSpace/was-sync/ respository.config

Option	Description
Windows	*ECMWidgets_Home*\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/respository.config
Windows	C:\Program Files\IBM\ECMWidgets\BusinessSpace\was-sync\repository.config

9. Click **OK** in the Repositories window.
10. Click the **Import** icon.
11. 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:\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.

Parent topic: "Upgrading a WebSphere Application Server - Base installation of IBM ECM Widgets V4.5.1" on page 53
Previous topic: "Upgrading the IBM WebSphere Application Server profile" on page 54
Next topic: "Deploying Business Space powered by WebSphere to the WebSphere Application Server profile"

Deploying Business Space powered by WebSphere to the WebSphere Application Server profile

For IBM ECM Widgets upgrades, you must deploy Business Space powered by WebSphere manually by running the WebSphere Application Server augment command.

To deploy Business Space powered by WebSphere to the WebSphere Application Server profile:

1. From a command prompt, access the bin directory located in the WebSphere Application Server installation home directory and run the following command in one line:

   ```
   manageprofiles -augment -profileName profileName -cellName
    cellName -nodeName nodeName -templatePath
    ..\profileTemplates\BusinessSpace\default.bspace -enableAdminSecurity true
    -adminUserName Admin_username -adminPassword
    Admin_PWD -bspacedbDesign WAS_HOME/BusinessSpace/config.bspace/MetadataFiles
   /BSpace_DB2-distributed.properties -dbDelayConfig false
    -dbCreateNew true
   ```

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

   ```
   manageprofiles -augment -profileName AppSrv01 -nodeName myserverNode01
    -cellName myserverNode01cell -templatePath ..\profileTemplates
   \BusinessSpace\default.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 true
   ```

   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.

2. Enable application security by entering the following command:

   ```
   wsadmin -username username -password password -conntype NONE
    -lang jython -c "AdminTask.setAdminActiveSecuritySettings
    ('[-appSecurityEnabled true]')"
   ```

Parent topic: "Upgrading a WebSphere Application Server - Base installation of IBM ECM Widgets V4.5.1" on page 53
Previous topic: "Installing the Business Space powered by WebSphere installation package to your WebSphere Application Server home directory" on page 57
Next topic: "Running the IBM ECM Widgets Configuration Manager"

Running the IBM ECM Widgets Configuration Manager

Run the Configuration Manager to deploy the upgraded version of 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
- IBM FileNet Workplace XT settings:
  - Workplace XT installation path
  - Process Engine REST API URL
  - Content Engine services URL

To deploy ECM Widgets on WebSphere Application Server:

1. Start the IBM WebSphere Application Server.
2. Launch the IBM ECM Widgets Configuration Manager:
3. Click **Start** → **All Programs** → **IBM ECM Widgets** → **Configuration Manager**.
4. Follow the instructions on the IBM ECM Widgets Configuration Manager screens and enter the required details about your configuration.
5. Click **Finish** to complete the deployment.
6. If any errors occurred, review the configuration log for details. Run the IBM ECM Widgets Configuration Manager again. The log is located in the following default location:

   ```
   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.
7. (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 located 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**.
8. Stop and restart the IBM WebSphere Application Server.
9. Restart the Process WPXT Services Manager process according to the instructions in the IBM FileNet Workplace XT Installation and Upgrade Guide.

Parent topic: "Upgrading a WebSphere Application Server - Base installation of IBM ECM Widgets V4.5.1" on page 53
Previous topic: "Deploying Business Space powered by WebSphere to the WebSphere Application Server profile" on page 59
Next topic: "Migrating your IBM ECM Widgets V4.5.1 Business Space powered by WebSphere database into the new configuration"

Migrating your IBM ECM Widgets V4.5.1 Business Space powered by WebSphere database into the new configuration

You must reuse the database from your previous configuration by migrating it into the upgraded configuration.

The following data will be migrated:

- database
- spaces
- pages
- styles
- widget wiring information

To migrate your IBM ECM Widgets V4.5.1 Business Space powered by WebSphere database into the new configuration:

1. Access the `BusinessSpace` directory in your WebSphere profile home directory. Create a new directory called `datamigration` and then create a subdirectory within called `widgets`. For example:

   ```
   C:\Program Files\IBM\WebSphere\AppServer\profiles\AppSrv01
   \BusinessSpace\datamigration\widgets\
   ```

2. Access the `iwidget` directory in the following path of the WebSphere home directory where you deployed IBM ECM Widgets:

   ```
   WAS_HOME\profiles\AppSrv\installedApps\Node_Name
   \ECMWidgets.ear\ECMWidgets.war\catalog\com\ibm\im\ecmwidgets\iwidget
   ```

3. Copy the XML files from the `iwidgets` directory into the new `datamigration\widgets` directory you created. For example, copy `Header.xml`, `Inbasket.xml` and all other XML files from:

   ```
   C:\Program Files\IBM\WebSphere\AppServer\profiles\AppSrv01\installedApps
   \MyServerNode01Cell\ECMWidgets.ear\ECMWidgets.war\catalog\com\ibm\im
   \ecmwidgets\iwidget
   ```

   Paste the files into the following directory:

   ```
   C:\Program Files\IBM\WebSphere\AppServer\profiles\AppSrv01
   \BusinessSpace\datamigration\widgets\
   ```

4. Start the WebSphere Application Server profile.
5. From a command line, access the `scripts` directory in the WebSphere Application Server home directory. For example:

   ```
   C:\Program files\IBM\WebSphere\AppServer\BusinessSpace\scripts
   ```

6. Enter the following command in one line to migrate the IBM ECM Widgets data:

   ```
   migrateBSpaceData.bat -host hostname -port SOAP_PORT -user Admin_User
    -password Admin_Pwd -cluster cluster_Name
   ```

   For example:

   ```
   migrateBSpaceData.bat -host localhost -port 8880 -user administrator
    -password mypassword -cluster mycluster
   ```

7. Verify the data migration by reviewing the logs in the following locations:
   - *WAS_HOME*\logs\bspace\BusinessSpaceDataMigration.log
   - *WAS_PROFILE_HOME*\logs*server*\SystemErr.log
   - *WAS_PROFILE_HOME*\logs*server*\SystemOut.log

Parent topic: "Upgrading a WebSphere Application Server - Base installation of IBM ECM Widgets V4.5.1" on page 53
Previous topic: "Running the IBM ECM Widgets Configuration Manager" on page 60
Next topic: "Configuring migrated IBM ECM Widgets V4.5.1 step processor locations"

Configuring migrated IBM ECM Widgets V4.5.1 step processor locations

Step processors created for IBM ECM Widgets V4.5.1 must be modified before they can be used for IBM ECM Widgets V4.5.2.

To modify step processor locations for IBM ECM Widgets V4.5.2:

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 **Step Processor Info** tab.
5. For each IBM ECM Widgets V4.5.1 step processor that you want to use in IBM ECM Widgets V4.5.2, modify the IBM ECM Widgets for Business Space Web Application **Location** field data as follows:
   a. On the **Step Processor Info** tab, double-click the **Location** field.
   b. Edit the IBM ECM Widgets for Business Space Web Application **Location** field. From the entry in the field, delete `spaceID=` and all following characters, up to and including `pageID=`. This will leave only the page ID value in the field. For example, in the following entry, delete all the non-bold characters and leave only the bold characters:

      `spaceId=c51676b061a711deabd4fbec886409ec`
      `&pageId=`**`1245951012739_d6b92d3061ad11de87c7fb510db2aa38`**
6. Commit the changes.

Parent topic: "Upgrading a WebSphere Application Server - Base installation of IBM ECM Widgets V4.5.1" on page 53
Previous topic: "Migrating your IBM ECM Widgets V4.5.1 Business Space powered by WebSphere database into the new configuration" on page 61
Next topic: "Verifying IBM ECM Widgets and Business Space powered by WebSphere deployment"

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.

Parent topic: "Upgrading a WebSphere Application Server - Base installation of IBM ECM Widgets V4.5.1" on page 53
Previous topic: "Configuring migrated IBM ECM Widgets V4.5.1 step processor locations" on page 63
Next topic: "Setting the IBM FileNet Workplace XT cookie path"

Setting the IBM FileNet Workplace XT cookie path

You must enable cookies and set a unique cookie path for your configuration.

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.

Parent topic: "Upgrading a WebSphere Application Server - Base installation of IBM ECM Widgets V4.5.1" on page 53
Previous topic: "Verifying IBM ECM Widgets and Business Space powered by WebSphere deployment" on page 63

Upgrading an IBM WebSphere Application Server Network Deployment Highly Available installation of IBM ECM Widgets V4.5.1

To upgrade IBM ECM Widgets V4.5.1, you must install IBM WebSphere Application Server Network Deployment V7.0 and Business Space powered by WebSphere V7.0 while the previous configuration is still in place.

To upgrade an IBM WebSphere Application Server Network Deployment Highly Available installation of IBM ECM Widgets V4.5.1, you must install WebSphere Application Server Network Deployment V7.0 and Business Space powered by WebSphere V7.0 while the previous installation of WebSphere Application Server Network Deployment is still in place. IBM ECM Widgets information from your existing configuration can then be migrated to the upgraded configuration and the upgraded product can then be deployed.

1. “Installing prerequisite software”
2. “Installing IBM ECM Widgets on the WebSphere Application Server Network Deployment configuration” on page 66
3. “Installing the Business Space powered by WebSphere installation package to your WebSphere Application Server Network Deployment configuration” on page 66
4. “Preparing a database for IBM DB2 for Linux, UNIX and Windows” on page 68
5. “Configuring the WebSphere Application Server Network Deployment deployment manager profile for Business Space powered by WebSphere” on page 68
6. “Creating a data source for a WebSphere Application Server Network Deployment V7.0 upgraded IBM ECM Widgets configuration” on page 69
7. “Deploying Business Space powered by WebSphere on the WebSphere Application Server Network Deployment configuration” on page 70
8. “Deploying IBM ECM Widgets on a WebSphere Application Server Network Deployment configuration” on page 71
9. “Migrating your IBM ECM Widgets V4.5.1 Business Space powered by WebSphere database into the new configuration” on page 72
10. “Configuring and deploying IBM FileNet Workplace XT on a WebSphere Application Server Network Deployment configuration” on page 73
11. “Configuring migrated IBM ECM Widgets V4.5.1 step processor locations” on page 74
12. “Enable templates for Business Space powered by WebSphere” on page 75
13. “Verifying IBM ECM Widgets and Business Space powered by WebSphere deployment” on page 75
14. “Setting the IBM FileNet Workplace XT cookie path” on page 76

Parent topic: “Upgrading IBM ECM Widgets” on page 53

Installing prerequisite software

You must upgrade the WebSphere Application Server Network Deployment software on all servers in your clustered environment before you can upgrade your IBM ECM Widgets software.

To upgrade an IBM WebSphere Application Server Network Deployment Highly Available installation of IBM ECM Widgets V4.5.1:

1. Upgrade all servers in your clustered environment to WebSphere Application Server Network Deployment V7.0 while the previous installation is still in place.
2. Create a WebSphere Application Server Network Deployment V7.0 clustered environment. 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

Parent topic: "Upgrading an IBM WebSphere Application Server Network Deployment Highly Available installation of IBM ECM Widgets V4.5.1" on page 64
Next topic: "Installing IBM ECM Widgets on the WebSphere Application Server Network Deployment configuration"

Installing IBM ECM Widgets 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 the 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 `ECMWidgets4_5_2WIN.exe` installation program.
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:

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

Parent topic: "Upgrading an IBM WebSphere Application Server Network Deployment Highly Available installation of IBM ECM Widgets V4.5.1" on page 64
Previous topic: "Installing prerequisite software" on page 65
Next topic: "Installing the Business Space powered by WebSphere installation package to your WebSphere Application Server Network Deployment configuration"

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. Log on to the deployment manager computer by using an account that has administrator privileges.
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**.
6. Browse to the IBM ECM Widgets installation directory, select the `bscc.7000.repository.zip` file from the `BusinessSpace` directory, and click **OK**. For example: `C:\Progam Files\IBM\ECMWidgets\BusinessSpace\bscc.7000.repository.zip`
7. Browse to the `BusinessSpace` directory within the IBM ECM Widgets installation location, select the `bspace7.IFix.repository.zip` file and click **OK**. The file is installed in the following location:

   ECMWidgets_Home`\bspace7.IFix.repository.zip`

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

   `C:\Program Files\IBM\ECMWidgets \BusinessSpace\bspace7.IFix.repository.zip`
8. In the Add a Repository window, click **Browse**.
9. 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:

   ECMWidgets_Home`\BusinessSpace\was-sync\repository.config`

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

   `C:\Program Files\IBM\ECMWidgets\BusinessSpace\was-sync\repository.config`
10. Click **OK** on the Repositories window.
11. Click the **Import** icon.
12. In the Import Existing WebSphere Installation window, click the **Installation Directory** dropdown menu and select the appropriate WebSphere installation directory. For example: `C:\Program Files\IBM\WebSphere\AppServer`
13. Click **Next**.
14. Specify a **Shared Resources Directory** and click **Next**.
15. Click **Import**.
16. Click **Finish**.
17. Click the **Install** icon.
18. 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.
19. Verify the information and then click **Next**. The Install Packages window will display the package features that will be installed.
20. Click **Next**. The Install Packages window will display summary information about the options you have selected.
21. Click **Install**.
22. Click **Finish** after the installation completes and then exit IBM Installation Manager.

Parent topic: "Upgrading an IBM WebSphere Application Server Network Deployment Highly Available installation of IBM ECM Widgets V4.5.1" on page 64
Previous topic: "Installing IBM ECM Widgets on the WebSphere Application Server Network Deployment configuration" on page 66
Next topic: "Preparing a database for IBM DB2 for Linux, UNIX and Windows"

Preparing a database for IBM DB2 for Linux, UNIX and Windows

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:

   WAS_home`\BusinessSpace\config.bspace\MetadataFiles\`

   For example, 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.

   Attention: If `Program Files` is part of your temporary path location, it must be entered as:

   ```
   C:/Progra~1/
   ```
3. Save and close the file.

Parent topic: "Upgrading an IBM WebSphere Application Server Network Deployment Highly Available installation of IBM ECM Widgets V4.5.1" on page 64
Previous topic: "Installing the Business Space powered by WebSphere installation package to your WebSphere Application Server Network Deployment configuration" on page 66
Next topic: "Configuring the WebSphere Application Server Network Deployment deployment manager profile for Business Space powered by WebSphere"

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:

```
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 true
```

For example, 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 true
```

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.

Parent topic: "Upgrading an IBM WebSphere Application Server Network Deployment Highly Available installation of IBM ECM Widgets V4.5.1" on page 64
Previous topic: "Preparing a database for IBM DB2 for Linux, UNIX and Windows" on page 68
Next topic: "Creating a data source for a WebSphere Application Server Network Deployment V7.0 upgraded IBM ECM Widgets configuration"

Creating a data source for a WebSphere Application Server Network Deployment V7.0 upgraded IBM ECM Widgets configuration

You must create a new data source and JDBC provider, based on the database used for your previous IBM ECM Widgets V4.5.1 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**:
   - **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
9. Enter the paths to the JDBC drivers and click **Next**. For example:

- `C:\Program Files\IBM\SQLLIB\java` for the DB2UNIVERSAL_JDBC_DRIVER_PATH
- `C:\Program Files\IBM\SQLLIB\lib` for the DB2UNIVERSAL_JDBC_DRIVER_NATIVEPATH

10. Enter the following information on the Enter database-specific properties for the data source page and click **Next**:
    - Value of **4** for the Driver type
    - The *name* of the IBM ECM Widgets V4.5.1 database in the Database name field
    - `localhost` for the Server name field
    - Accept the default Port number
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.

Parent topic: "Upgrading an IBM WebSphere Application Server Network Deployment Highly Available installation of IBM ECM Widgets V4.5.1" on page 64
Previous topic: "Configuring the WebSphere Application Server Network Deployment deployment manager profile for Business Space powered by WebSphere" on page 68
Next topic: "Deploying Business Space powered by WebSphere on the WebSphere Application Server Network Deployment configuration"

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:

   ```
   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
   ```

Parent topic: "Upgrading an IBM WebSphere Application Server Network Deployment Highly Available installation of IBM ECM Widgets V4.5.1" on page 64
Previous topic: "Creating a data source for a WebSphere Application Server Network Deployment V7.0 upgraded IBM ECM Widgets configuration" on page 69
Next topic: "Deploying IBM ECM Widgets on a WebSphere Application Server Network Deployment configuration"

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:

   ```
   C:\Program Files\IBM\WebSphere\AppServer\bin\
   ```
3. At the `wsadmin` command prompt, enter the following command in one line:

   ```
   $AdminTask installBusinessSpaceWidgets {-clusterName cluster_name -widgets widgets_home
    \Widgets_ECMWidgetsP8.zip}
   ```

   For example:

```
$AdminTask installBusinessSpaceWidgets {-clusterName myCluster -widgets
 C:\Program Files\IBM\Widgets_ECMWidgetsP8.zip}
```

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 Enterprise Content Management Widgets configuration settings" on page 77.

Parent topic: "Upgrading an IBM WebSphere Application Server Network Deployment Highly Available installation of IBM ECM Widgets V4.5.1" on page 64
Previous topic: "Deploying Business Space powered by WebSphere on the WebSphere Application Server Network Deployment configuration" on page 70
Next topic: "Migrating your IBM ECM Widgets V4.5.1 Business Space powered by WebSphere database into the new configuration"

Migrating your IBM ECM Widgets V4.5.1 Business Space powered by WebSphere database into the new configuration

You must reuse the database from your previous configuration by migrating it into the upgraded configuration.

The following data will be migrated:

- database
- spaces
- pages
- styles
- widget wiring information

To migrate your IBM ECM Widgets V4.5.1 Business Space powered by WebSphere database into the new configuration:

1. 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
   ```

2. Copy the scripts to the DB2 server. Execute the following scripts on the Business Space database from your IBM ECM Widgets V4.5.1 configuration:
   - `createTablespace.sql`
   - `createTable.sql`
   - `createTables_BusinessSpace.sql`
3. Access the `BusinessSpace` directory in your WebSphere profile home directory. Create a new directory called `datamigration` and then create a subdirectory within called `widgets`. For example:

   ```
   C:\Program Files\IBM\WebSphere\AppServer\profiles\AppSrv01
   \BusinessSpace\datamigration\widgets\
   ```

4. Access the `iwidget` directory in the following path of the WebSphere home directory where you deployed IBM ECM Widgets:

   WAS_HOME\profiles*AppSrv*\installedApps*Node_Name*
   \ECMWidgets.ear\ECMWidgets.war\catalog\com\ibm\im\ecmwidgets\iwidget
5. Copy the XML files from the `iwidgets` directory into the new `datamigration\widgets` directory you created. For example, copy `Header.xml`, `Inbasket.xml` and all other XML files from:

```
C:\Program Files\IBM\WebSphere\AppServer\profiles\AppSrv01\installedApps
\MyServerNode01Cell\ECMWidgets.ear\ECMWidgets.war\catalog\com\ibm\im
\ecmwidgets\iwidget
```

Paste the files into the following directory:

```
C:\Program Files\IBM\WebSphere\AppServer\profiles\AppSrv01
\BusinessSpace\datamigration\widgets\
```

6. Start the WebSphere Application Server profile.
7. From a command line, access the `scripts` directory in the WebSphere Application Server home directory. For example:

   ```
   C:\Program files\IBM\WebSphere\AppServer\BusinessSpace\scripts
   ```

8. Enter the following command in one line to migrate the IBM ECM Widgets data:

   ```
   migrateBSpaceData.bat -host hostname -port SOAP_PORT -user Admin_User
    -password Admin_Pwd -cluster cluster_Name
   ```

   For example:

   ```
   migrateBSpaceData.bat -host localhost -port 8880 -user administrator
    -password mypassword -cluster mycluster
   ```

9. Verify the data migration by reviewing the logs in the following locations:
   - *WAS_HOME*\logs\bspace\BusinessSpaceDataMigration.log
   - *WAS_PROFILE_HOME*\logs*server*\SystemErr.log
   - *WAS_PROFILE_HOME*\logs*server*\SystemOut.log

Parent topic: "Upgrading an IBM WebSphere Application Server Network Deployment Highly Available installation of IBM ECM Widgets V4.5.1" on page 64
Previous topic: "Deploying IBM ECM Widgets on a WebSphere Application Server Network Deployment configuration" on page 71
Next topic: "Configuring and deploying IBM FileNet Workplace XT on a WebSphere Application Server Network Deployment configuration"

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.

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: `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 `lib` directory in the IBM ECM Widgets installation location. For example: `C:\Program Files\IBM\ECMWidgets\ContentList\lib\ceREST.jar`

   Save the file to the `lib` directory in the Workplace XT installation location. For example: `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: `C:\Program Files\IBM\ECMWidgets\eForms\ECMWidgetFormServlet.jar`

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

Parent topic: "Upgrading an IBM WebSphere Application Server Network Deployment Highly Available installation of IBM ECM Widgets V4.5.1" on page 64
Previous topic: "Migrating your IBM ECM Widgets V4.5.1 Business Space powered by WebSphere database into the new configuration" on page 72
Next topic: "Configuring migrated IBM ECM Widgets V4.5.1 step processor locations"

Configuring migrated IBM ECM Widgets V4.5.1 step processor locations

Step processors created for IBM ECM Widgets V4.5.1 must be modified before they can be used for IBM ECM Widgets V4.5.2.

To modify step processor locations for IBM ECM Widgets V4.5.2:

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 **Step Processor Info** tab.

5. For each IBM ECM Widgets V4.5.1 step processor that you want to use in IBM ECM Widgets V4.5.2, modify the IBM ECM Widgets for Business Space Web Application **Location** field data as follows:
   a. On the **Step Processor Info** tab, double-click the **Location** field.
   b. Edit the IBM ECM Widgets for Business Space Web Application **Location** field. From the entry in the field, delete `spaceID=` and all following characters, up to and including `pageID=`. This will leave only the page ID value in the field. For example, in the following entry, delete all the non-bold characters and leave only the bold characters:

      ```
      spaceId=c51676b061a711deabd4fbec886409ec
      &pageId=1245951012739_d6b92d3061ad11de87c7fb510db2aa38
      ```
6. Commit the changes.

Parent topic: "Upgrading an IBM WebSphere Application Server Network Deployment Highly Available installation of IBM ECM Widgets V4.5.1" on page 64
Previous topic: "Configuring and deploying IBM FileNet Workplace XT on a WebSphere Application Server Network Deployment configuration" on page 73
Next topic: "Enable templates for Business Space powered by WebSphere"

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 computer, the node agent and the node server.
4. Log into Business Space and verify that the templates are enabled.

Parent topic: "Upgrading an IBM WebSphere Application Server Network Deployment Highly Available installation of IBM ECM Widgets V4.5.1" on page 64
Previous topic: "Configuring migrated IBM ECM Widgets V4.5.1 step processor locations" on page 74
Next topic: "Verifying IBM ECM Widgets and Business Space powered by WebSphere deployment"

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.

Parent topic: "Upgrading an IBM WebSphere Application Server Network Deployment Highly Available installation of IBM ECM Widgets V4.5.1" on page 64
Previous topic: "Enable templates for Business Space powered by WebSphere" on page 75
Next topic: "Setting the IBM FileNet Workplace XT cookie path"

Setting the IBM FileNet Workplace XT cookie path

You must enable cookies and set a unique cookie path for your configuration.

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.

Parent topic: "Upgrading an IBM WebSphere Application Server Network Deployment Highly Available installation of IBM ECM Widgets V4.5.1" on page 64
Previous topic: "Verifying IBM ECM Widgets and Business Space powered by WebSphere deployment" on page 75

Modifying IBM Enterprise Content Management Widgets configuration settings

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
ECMWidgets_Home\IBM\FileNet\WebClient\WorkplaceXT\WEB-INF\P8BPMRESTConfig.xml	*WAS_Profile_Home*\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 `boostrap.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*Node*Cell\ECMWidgets.ear\ECMWidgets.war\catalog\com\ibm\im\ecmwidgets\bootstrap.json

Settings	Entries

URLs
Important: For High Availability configurations, remove the port numbers for these entries.
	`"bpmServiceBaseURL": "http://localhost:9080/WorkplaceXT/P8BPMREST/p8/bpm/v1",`
	
	`"contentEngineServiceBaseURL": "http://localhost:9080/WorkplaceXT/P8CEREST/p8/ce/v1",`
	
	`"workplaceXTBaseURL": "http://localhost:9080/WorkplaceXT",`

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`	`"applicationSpace": "DefaultApplication",`

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.
Important: These settings should not be changed unless there is a timing problem unique to your configuration.
	Default values:
	`"bpmServiceTimeout": 60000,`
	`"contentEngineServiceTimeout": 900000,`

Process Engine web application ID setting. This setting corresponds to settings in the Process Engine. A number is associated with a specific application.	Default value: `"webAppID": 9,`
IBM FileNet Workplace XT keep alive interval (in minutes).	Default value: `"keepAliveInterval": 5,`

IBM WEBi settings. If you have configured IBM WEBi, set the URL and enter true or false for an IBM WEBi proxy.	`"webiURL":"http://localhost:9080/wccommonservices",`
	
	`"webiProxy": true_or_false,`

Settings	Entries
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.	`"repositoryTypesToShow": [3,4],` Repository types: • 3 - IBM FileNet Content Manager (FN repository) • 4 - IBM DB2 Content Manager Content servers (CM repository) Value settings: • [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
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) • 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

URLs
Important: For High Availability configurations, remove the port numbers for these entries.
	Change the default settings to display the https:// as the prefix and update the ports as appropriate. For example:
	
	`"bpmServiceBaseURL": "https://`*`localhost`*`:9443/WorkplaceXT/P8BPMREST/p8/bpm/v1",`
	
	`"contentEngineServiceBaseURL": "https://`*`localhost`*`:9443/WorkplaceXT/P8CEREST/p8/ce/v1",`
	
	`"workplaceXTBaseURL": "https://`*`localhost`*`:9443/WorkplaceXT",`

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, the step processor URL templates and e-mail notification must be configured.

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"

"Configuring IBM FileNet Process Engine for a multi-version configuration of IBM ECM Widgets V4.5.1 and V4.5.2" on page 83

"Configuring IBM FileNet Process Engine for multiple instances of IBM ECM Widgets V4.5.2" on page 85

Configuring IBM FileNet Process Engine for a single-instance configuration of IBM ECM Widgets V4.5.2

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"

"Configuring e-mail notification" on page 82

Parent topic: "Configuring step processor URL templates and e-mail notification for IBM ECM Widgets"

Configuring the step processor URL templates

IBM ECM Widgets V4.5.2 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 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. Click **IBM ECM Widgets for Business Space** 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:9080/mum/enabler`
7. Click **Advanced** icon.

8. 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
   ```

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**.

Parent topic: "Configuring IBM FileNet Process Engine for a single-instance configuration of IBM ECM Widgets V4.5.2" on page 81

Configuring e-mail notification

IBM ECM Widgets V4.5.2 must be installed and configured before you proceed.

To configure e-mail notification for a single instance of IBM ECM Widgets V4.5.2, 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. Click **IBM ECM Widgets for Business Space** 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: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	Copy the files from:
	
	Installation_Package_Location
	`/ProcessEngine_Templates/email`
	
	On the Process Engine server computer, save the files to:
	
	`/opt/fnsw/local/sd/msg/9`

Windows	Copy the files from:
	
	Installation_Package_Location
	`\ProcessEngine_Templates\email`
	
	On the Process Engine server computer, save the files to:
	
	`C:\fnsw_loc\sd\msg\9`

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.

Parent topic: "Configuring IBM FileNet Process Engine for a single-instance configuration of IBM ECM Widgets V4.5.2" on page 81

Configuring IBM FileNet Process Engine for a multi-version configuration of IBM ECM Widgets V4.5.1 and V4.5.2

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.

Parent topic: "Configuring step processor URL templates and e-mail notification for IBM ECM Widgets" on page 81

Configuring the step processor URL templates

IBM ECM Widgets V4.5.1 and V4.5.2 must be installed and configured before you proceed.

As part of your IBM ECM Widgets V4.5.1 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
```

Step processor URL templates for IBM ECM Widgets V4.5.2 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 and V4.5.2:

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. Click **IBM ECM Widgets for Lotus Mashups** for IBM ECM Widgets V4.5.2 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:8080/mum/enabler`
7. Click **Advanced** icon.
8. Select **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. Select **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**.

Parent topic: "Configuring IBM FileNet Process Engine for a multi-version configuration of IBM ECM Widgets V4.5.1 and V4.5.2" on page 83

Configuring e-mail notification

IBM ECM Widgets V4.5.1 and V4.5.2 must be installed and configured before you proceed.

As part of your IBM ECM Widgets V4.5.1 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
```

Step processor URL templates for IBM ECM Widgets V4.5.2 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 and V4.5.2

1. Log on to the server computer that hosts the IBM ECM Widgets V4.5.2 installation and open the `bootstrap.json` file located in the following default directory:

   WAS_Home\profiles*AppSrv*\installedApps*Node_Cell**ECMWidgets_node*.ear\ECMWidgets.war\catalog\com\ibm\im\ecmwidgets\bootstrap.json
2. Find the `"webappID":` entry and set the value to 8.
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. Click **IBM ECM Widgets for Lotus Mashups** for IBM ECM Widgets V4.5.2 in the Web Application column.
8. 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: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	Copy the files from:
	
	Installation_Package_Location
	`/ProcessEngine_Templates/email`
	
	On the Process Engine server computer, save the files to:
	
	`/opt/fnsw/local/sd/msg/8`

Windows	Copy the files from:
	
	Installation_Package_Location
	`\ProcessEngine_Templates\email`
	
	On the Process Engine server computer, save the files to:
	
	`C:\fnsw_loc\sd\msg\8`

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.

Parent topic: "Configuring IBM FileNet Process Engine for a multi-version configuration of IBM ECM Widgets V4.5.1 and V4.5.2" on page 83

Configuring IBM FileNet Process Engine for multiple instances of IBM ECM Widgets V4.5.2

If you have more than two instances of IBM ECM Widgets V4.5.2 running on IBM WebSphere Application Server, use this procedure to configure the step processor URL templates and e-mail notification.

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" on page 86

"Configuring e-mail notification"

Parent topic: "Configuring step processor URL templates and e-mail notification for IBM ECM Widgets" on page 81

Configuring the step processor URL templates

All instances of IBM ECM Widgets V4.5.2 must be installed and configured before you proceed.

Note: If your configuration contains two instances of IBM ECM Widgets V4.5.2, 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 and V4.5.2" on page 83

To configure the step processor URL templates for a configuration with three or more instances of IBM ECM Widgets V4.5.2:

Use this procedure to configure step processor URL templates for three or more instances of IBM ECM Widgets V4.5.2, 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. Click **IBM ECM Widgets for Business Space** in the Web Application column.
7. 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: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
   ```
10. 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
    ```
11. Click **OK** and then **Commit Changes**.

Parent topic: "Configuring IBM FileNet Process Engine for multiple instances of IBM ECM Widgets V4.5.2" on page 85

Configuring e-mail notification

All instances of IBM ECM Widgets V4.5.2 must be installed and configured before you proceed.

Note: If your configuration contains two instances of IBM ECM Widgets V4.5.2, 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 and V4.5.2" on page 83

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, for new installations and upgrades. To configure e-mail notification:

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. Click **IBM ECM Widgets for Business Space** in the Web Application column.
7. For each instance of IBM ECM Widgets V4.5.2, log on to the server computer that hosts the installation and open the `bootstrap.json` file located in the following default directory:

   WAS_Home\profiles*AppSrv*\installedApps*Node_Cell**ECMWidgets_node*.ear\ECMWidgets.war\catalog\com\ibm\im\ecmwidgets\bootstrap.json
8. Find the `"webappID":` entry and set the value to the number of the new web application you created. For example, `100`.
9. 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: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	Copy the files from: *Installation_Package_Location* /ProcessEngine_Templates/email On the Process Engine server computer, save the files to: /opt/fnsw/local/sd/msg/9
Windows	Copy the files from *Installation_Package_Location* \ProcessEngine_Templates\email On the Process Engine server computer, save the files to: C:\fnsw_loc\sd\msg\9

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.

Parent topic: "Configuring IBM FileNet Process Engine for multiple instances of IBM ECM Widgets V4.5.2" on page 85

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 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"

"Configuring AJAX proxy with a visible IBM WEBi URL address" on page 90

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 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 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.
- 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.

```
<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.

Parent topic: "Configuring AJAX proxy for remote IBM WEBi installations" on page 89

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.

Parent topic: "Configuring AJAX proxy for remote IBM WEBi installations" on page 89

Removing IBM ECM Widgets

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	*ecmWidgetsHome*\ECMWidgets-Uninstall\ECMWidgets-Uninstall
Windows	*ecmWidgetsHome*\ECMWidgets-Uninstall\ECMWidgets-Uninstall.exe

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Parent topic: "Notices" on page 95

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