

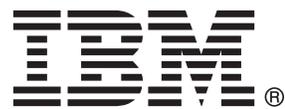
IBM FileNet P8 Platform
Version 4.5.1

*Installation Guide: Process Engine
for installation on Microsoft Windows
with Oracle, IBM WebSphere
Application Server, and Windows Active
Directory*



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Note

Before using this information and the product it supports, read the information in "Notices" on page 41.

This edition applies to version 4.5.1 of IBM FileNet Content Manager (product number 5724-R81), version 4.5.1 of IBM FileNet Business Process Manager (product number 5724-R76), and to all subsequent releases and modifications until otherwise indicated in new editions.

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ibm.com and related resources

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

Support and assistance

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

FileNet Content Manager Support

<http://www.ibm.com/software/data/content-management/filenet-content-manager/support.html>

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/p8docs/v4r5m1/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
Product Documentation for FileNet P8 Platform	http://www.ibm.com/support/docview.wss?rs=3278&uid=swg27010422

"How to send your comments"

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

"Contacting IBM" on page vi

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

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 IBM® FileNet® P8 easier to use, take the Consumability Survey at <http://www.ibm.com/software/data/info/consumability-survey/>.

Contacting IBM

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

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

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

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

Installing and configuring IBM FileNet P8 Platform

To set up IBM FileNet P8 Platform you install and configure the software and documentation for a number of core components, including Content Engine, Content Search Engine, Process Engine, and Application Engine.

As an alternative to the Application Engine component and its Workplace user application, you can set up Workplace XT. See the Workplace XT documentation for details.

“Installing IBM FileNet P8 Platform documentation”

You can link to the online version of the IBM FileNet P8 Platform documentation, or install and deploy the documentation package as part of your FileNet P8 environment.

“Installing and configuring Content Engine” on page 7

Content Engine is the content-management component of IBM FileNet P8 platform. To set up Content Engine, you install the content-management server software on an application server, and then configure and deploy the Content Engine web application. You must also configure the Global Configuration Data (GCD), create the FileNet P8 domain, and create at least one object store. The GCD contains system information about your particular configuration. The object stores contain information about the documents, records, forms, and other business objects that you store in your IBM FileNet P8 system.

“Installing and configuring Process Engine” on page 10

Installing and configuring Process Engine is a process requiring multiple steps, and the steps must be followed in sequence.

“Installing and configuring Application Engine” on page 23

Application Engine provides a client application called Workplace that you can use to access the information managed by Content Engine. After you install the server, you must also configure your application server to work with Application Engine, and deploy the application.

“Configuration and startup tasks” on page 25

After you install the IBM FileNet P8 components, there are some additional steps to configure the IBM FileNet P8 system. After you configure the IBM FileNet P8 components, familiarize yourself with IBM FileNet P8 system startup and shutdown procedures. See the **System Administration** → **Enterprise-wide Administration** → **Startup and Shutdown** help topic.

“Optional installation tasks” on page 30

You can install the additional or optional IBM FileNet P8 components in any order.

Installing IBM FileNet P8 Platform documentation

You can link to the online version of the IBM FileNet P8 Platform documentation, or install and deploy the documentation package as part of your FileNet P8 environment.

You can link your FileNet P8 software directly to the IBM FileNet P8 Platform Version 4.5.1 information center on www.ibm.com. The advantages of linking to the [ibm.com](http://www.ibm.com) information center are as follows:

- You do not have to maintain a documentation server or information center.
- The documentation is always up to date.

If you want to use the online information center, you do not need to install any documentation in your environment. During the installation and configuration of your IBM FileNet P8 Platform components, provide the following link for your P8 documentation URL: <http://publib.boulder.ibm.com/infocenter/p8docs/v4r5m1/topic/com.ibm.p8.doc>

If you want the documentation to be deployed directly in your FileNet P8 environment, you must install the `ecm_help` documentation package.

The procedures you follow to install the IBM FileNet P8 documentation package depend on whether your installation needs to include more than the core documentation for IBM FileNet P8 Platform. If you need to add IBM FileNet P8 documentation, then you must complete additional steps.

The other documentation that you might need to install can be for IBM FileNet P8 expansion products, for example, IBM FileNet Process Analyzer, IBM FileNet Process Simulator, IBM FileNet eForms for P8, IBM FileNet Content Federation Services, or IBM InfoSphere™ Enterprise Records. You might also include auxiliary documentation that includes release notes, technical notices, or documentation that is provided with a customized application.

1. “Before you install the `ecm_help` documentation package”
If you intend to access online help from any IBM FileNet P8 applications, for example, Workplace, Enterprise Manager, and Process Task Manager, or use the full-text search feature, you must install the documentation for IBM FileNet P8 Platform information center on a supported Web application server, for example, IBM WebSphere® Application Server, Oracle WebLogic Server, or JBoss Application Server.
2. “Installing the core IBM FileNet P8 Platform documentation” on page 3
You must install the core IBM FileNet P8 Platform documentation as a Web application on a supported application server to view and search installation, administration, and user information.
3. “Installing and re-indexing expansion-products, custom, and auxiliary documentation” on page 4
To install documentation for IBM FileNet P8 expansion products, you must copy that documentation onto the application server where IBM FileNet P8 Platform documentation is already installed. You then rebuild the documentation search index.
4. “Starting and verifying the IBM FileNet P8 documentation Web application” on page 6
After you install and optionally index the IBM FileNet P8 documentation again on the application server, verify that you can access its URL address and run its search feature. These tests ensure that the installed documentation can be used as a help system in the various IBM FileNet P8 component applications.
5. “Backing up and redeploying the FileNet P8 documentation” on page 7
After you verify the installation of your FileNet P8 documentation, it is a best practice to store a backup copy. This action prepares you for quicker recovery from disaster and for future redeployment to other servers. Backing up a copy is especially advisable if you have expansion-product documentation installed with the core IBM FileNet P8 Platform documentation.

Before you install the `ecm_help` documentation package

If you intend to access online help from any IBM FileNet P8 applications, for example, Workplace, Enterprise Manager, and Process Task Manager, or use the full-text search feature, you must install the documentation for IBM FileNet P8

Platform information center on a supported Web application server, for example, IBM WebSphere Application Server, Oracle WebLogic Server, or JBoss Application Server.

Optionally, you can install and index auxiliary documentation that is available only on the IBM Web site. You make this documentation searchable with the rest of the installed product documentation. For a complete list of additional documentation, see "Gather auxiliary documentation" in *Plan and Prepare Your Environment for IBM FileNet P8*.

You can use multipart root directories if your application server supports them, for example, `/docs/ecm_help` instead of simply `/ecm_help`.

You can collocate the documentation information center on an application server with either Application Engine or Content Engine server components installed. You can also install it on a separate application server.

Consider the following installation requirements by application server type:

Table 1. Documentation installation requirements

Application server	Requirement
WebSphere Application Server	IBM FileNet P8 documentation must be installed as a WAR file (<code>ecm_help.war</code>).

Installing the core IBM FileNet P8 Platform documentation

You must install the core IBM FileNet P8 Platform documentation as a Web application on a supported application server to view and search installation, administration, and user information.

Before you install the FileNet P8 information center, you must ensure that you have Java™ support enabled on the application server you choose. You must also fulfill other application server requirements and determine the scope of the documentation you plan to install.

- To ensure that the documentation can be searched, ensure that JavaScript™ support is enabled on each browser client.
- Depending on your operating system and application server levels, your options might be slightly different from the options that are documented.

To install the core IBM FileNet P8 Platform documentation:

1. Access the IBM FileNet P8 Platform documentation package and perform the following actions. The deploy operation can take several minutes because of the size of the documentation files.

Option	Description
WebSphere Application Server	<ol style="list-style-type: none"> 1. Copy the IBM FileNet P8 ecm_help.war file from the IBM FileNet P8 documentation package to the local hard drive. 2. From the WebSphere administrative console, install the ecm_help.war file as a Web application by using ecm_help as the Context Root. Tip: In the configuration windows, you can accept the default values for all choices. In addition, ensure that you save to the primary configuration when prompted.

2. Add more documentation or continue with verifying the documentation Web application:
 - To add documentation for any IBM FileNet P8 expansion product or any auxiliary documentation, such as release notes or technical notices, continue with “Installing and re-indexing expansion-products, custom, and auxiliary documentation.”
 - If you have no further documentation to install, continue with “Starting and verifying the IBM FileNet P8 documentation Web application” on page 6.

Installing and re-indexing expansion-products, custom, and auxiliary documentation

To install documentation for IBM FileNet P8 expansion products, you must copy that documentation onto the application server where IBM FileNet P8 Platform documentation is already installed. You then rebuild the documentation search index.

Optionally, you can copy auxiliary documentation that is available solely on the IBM Web site into your IBM FileNet P8 documentation Web application. You can then search the auxiliary documentation in the documentation search feature. For example, you can copy *IBM FileNet P8 Release Notes*[®] and *IBM FileNet P8 Troubleshooting Guide* from the IBM Web site to the documentation server. Users looking for product news or troubleshooting information can then find information quickly from the documentation Web application.

Also, you might be required to install documentation for a customized application onto the IBM FileNet P8 documentation server. Check with your application vendor for installation details.

Important: Every time you update the documentation search index, a backup copy of the files in the existing Index/core subdirectory is automatically copied to the Index/Index01d subdirectory. If you must return to the previous indexed state, you can reapply these backed up files to the Index/core subdirectory. You must first move or delete the files that are created there.

To install and index expansion product, custom, and auxiliary documentation:

1. Determine the expansion products documentation location, either on local media source or a network location. For most expansion products, use the documentation package that is included as part of the particular software product.

2. Stop the IBM FileNet P8 Platform ecm_help documentation application:

Option	Description
IBM WebSphere Application Server	Use the administrative console.

3. Verify that no processes are accessing the documentation Web application.
4. Copy the IBM FileNet P8 expansion product documentation, to the core IBM FileNet P8 Platform documentation location. Include all directories and files below the ecm_help directory.
By default, the IBM FileNet P8 Platform documentation is installed in an ecm_help directory.
You can copy documentation sets for more than one expansion product to the documentation application server. When you finish, you have one ecm_help directory structure that contains the core documentation set and one or more sets of expansion product documentation files.
5. Download the latest Web-posted updates of planning and installation guides for IBM FileNet P8 Platform and the various expansion products you use.
6. Download any auxiliary documentation you want included in documentation searches to the ecm_help/installation/web directory in the core IBM FileNet P8 Platform documentation location.
7. Install the documentation for any custom application that is integrated with the IBM FileNet P8 Platform documentation. See the instructions provided with that software product.
8. To index the new documentation, open a terminal or command prompt on the application server.
9. From the command line, navigate to the search subdirectory under the application root directory, for example, ecm_help.
10. Complete the search indexing steps:

Option	Description
Windows®	<ol style="list-style-type: none"> 1. Modify the search-indexing script file by setting Read and Execute permissions on the indexFiles.bat file, which is preset to read-only permissions in the documentation package. 2. Using a text editor, open the indexFiles.bat search-indexing script file. 3. If necessary for your environment, set the JAVA_HOME variable in the script file with the path to your Java Runtime Environment (JRE) installation location. Important: The Java JRE installation subdirectory can be user-defined, so substitute your actual location. 4. Save your changes and close the text editor. 5. From the ecm_help/search directory, run the updated indexFiles.bat search-indexing script file. As you run the script file, you might notice periodic Parse Abort errors. You can ignore these error conditions because they are benign and do not affect the overall indexing process.

Related information

 Product documentation for IBM FileNet P8 Platform

Download the latest web-posted updates of the planning and installation guides, as well as the rest of the IBM FileNet P8 Platform documentation.

Starting and verifying the IBM FileNet P8 documentation Web application

After you install and optionally index the IBM FileNet P8 documentation again on the application server, verify that you can access its URL address and run its search feature. These tests ensure that the installed documentation can be used as a help system in the various IBM FileNet P8 component applications.

To verify the IBM FileNet P8 documentation installation:

1. Start the IBM FileNet P8 documentation Web application (ecm_help) on the application server.
2. From a Web browser, access the documentation URL by using the application server name and port number for your Web environment, for example:

Option	Description
IBM WebSphere Application Server	http://yourdocserver:9080/ecm_help/

If the installation was a success, the IBM FileNet P8 documentation opens the same way as for an IBM FileNet P8 component application.

3. Note the URL for your application server because you must enter it as the documentation URL for the IBM FileNet P8 components while running installation programs or setting site preferences later, for example, in Workplace or Workplace XT.
4. Click the **Search** link on the Help Directory toolbar and verify that it opens the documentation Search page.
5. Enter a value for your Search query and verify that the query runs as expected.
6. Select one of the Search query result links and verify that the help page opens.

Backing up and redeploying the FileNet P8 documentation

After you verify the installation of your FileNet P8 documentation, it is a best practice to store a backup copy. This action prepares you for quicker recovery from disaster and for future redeployment to other servers. Backing up a copy is especially advisable if you have expansion-product documentation installed with the core IBM FileNet P8 Platform documentation.

To back up your FileNet P8 documentation for easy recovery or redeployment:

1. Create an `ecm_help.war` or `ecm_help` compressed file that contains the entire `ecm_help` directory structure.
2. Place the file into a safe storage area that you can readily access to redeploy the FileNet P8 documentation to new or updated application servers.

Installing and configuring Content Engine

Content Engine is the content-management component of IBM FileNet P8 platform. To set up Content Engine, you install the content-management server software on an application server, and then configure and deploy the Content Engine web application. You must also configure the Global Configuration Data (GCD), create the FileNet P8 domain, and create at least one object store. The GCD contains system information about your particular configuration. The object stores contain information about the documents, records, forms, and other business objects that you store in your IBM FileNet P8 system.

You install the Content Engine software once on each web application server in your environment. You can configure and deploy one or more Content Engine application instances on that server. A single Content Engine application instance equates to one deployed application on your application server.

When you deploy Content Engine in a WebSphere Application Server managed environment, you must install and configure Content Engine on the network deployment node to avoid cross-network configuration issues. Install and configure Content Engine on the administration server. Then use the administration server tools to deploy the Content Engine EAR file to the managed servers. The managed servers can be in a cluster.

When you deploy Content Engine in a WebSphere Application Server non-managed environment, install and configure Content Engine on a single server in the environment. After deploying the bootstrapped Content Engine EAR file on the initial server, copy the bootstrapped EAR file to the other servers. On each additional server, configure the LDAP provider, the JDBC data sources, and the login modules. Then deploy the bootstrapped EAR file that was copied from the initial server.

1. “Installing Content Engine and related client software”
You must install the Content Engine software and related client software to place the binary files for its components on the server.

Installing Content Engine and related client software

You must install the Content Engine software and related client software to place the binary files for its components on the server.

1. “Installing the latest Process Engine Client files on Content Engine servers”
Install the Process Engine Client files on the Content Engine to enable communication between Content Engine and Process Engine. You can install the files interactively by using the installation wizard or silently by using the command line and a silent input file.

Installing the latest Process Engine Client files on Content Engine servers

Install the Process Engine Client files on the Content Engine to enable communication between Content Engine and Process Engine. You can install the files interactively by using the installation wizard or silently by using the command line and a silent input file.

“Installing the latest Process Engine Client files on Content Engine servers interactively”

The installation wizard provides an interactive way to install the Process Engine Client files. You can use the values you collected on your worksheet to fill in the required value for each field on the wizard screens.

“Installing the latest Process Engine Client files on Content Engine servers silently” on page 9

You can install the Process Engine Client software on the Content Engine server by using a silent input text file and running the installation program from the command line. Use the values in your installation worksheet to edit the silent input text file before you run the installation.

Installing the latest Process Engine Client files on Content Engine servers interactively:

The installation wizard provides an interactive way to install the Process Engine Client files. You can use the values you collected on your worksheet to fill in the required value for each field on the wizard screens.

Be sure that you have available the Installation and Upgrade Worksheet that was completed during your planning activities.

Except where noted, the following steps apply to IBM WebSphere Application Server, Oracle WebLogic Server, and JBoss Application Server.

To install the Process Engine Client files:

1. Open your completed Installation and Upgrade Worksheet file.

Tip: In the worksheet file, verify that the **Data → Filter → AutoFilter** command is enabled. To view only Content Engine values, filter by **PE Client Installer** in the **Installation or Configuration Program** column.

2. On the machine where Content Engine is to be deployed, log on as *ce_install_user*.

3. Locate the Process Engine Client installation software. The version of the Process Engine Client software must match the version of Process Engine software.
4. Expand the TAR or ZIP file of the Process Engine Client installation software.
5. Start the installation program by running the following command.

Operating System	Install Program
Windows	P8PE-CLIENT-PE_version-WIN.EXE

6. Complete the Process Engine Client installation screens by using the values from your worksheet.
7. If the Process Engine is configured to use the IPv6 network protocol, locate and edit the taskman.properties file and add the following lines to that file:
 - Djava.net.preferIPv6Addresses=true
 - Djava.net.preferIPv4Stack=false

Related concepts

 Installation and upgrade worksheet

For more information about the installation and upgrade worksheet, see the worksheet topics in *Plan and Prepare Your Environment for IBM FileNet P8*.

Installing the latest Process Engine Client files on Content Engine servers silently:

You can install the Process Engine Client software on the Content Engine server by using a silent input text file and running the installation program from the command line. Use the values in your installation worksheet to edit the silent input text file before you run the installation.

Be sure that you have available the Installation and Upgrade Worksheet that was completed during your planning activities.

Except where noted, the following steps apply to IBM WebSphere Application Server, Oracle WebLogic Server, and JBoss Application Server.

To install the Process Engine Client files:

1. Open your completed Installation and Upgrade Worksheet file.

Tip: In the worksheet file, verify that the **Data** → **Filter** → **AutoFilter** command is enabled. To view only Content Engine values, filter by **PE Client Installer** in the **Installation or Configuration Program** column.

2. On the machine where Content Engine is to be deployed, log on as *ce_install_user*.
3. Locate the Process Engine Client installation software. The version of the Process Engine Client software must match the version of Process Engine software.
4. Expand the TAR or ZIP file of the Process Engine Client installation software.
5. In the expanded installation software, open the file `PEClient_silent_install.txt` and make the following changes:
 - a. Change the `Variable_CheckboxCE` line to:
 - V `Variable_CheckboxCE="true"`
 - b. Save your changes.
6. Start the installation program by running the following command:

Operating System	Install Program
Windows	P8PE-CLIENT-PE_version0-WIN.EXE -silent -options "PEClient_silent_install.txt"

7. If the Process Engine is configured to use the IPv6 network protocol, locate and edit the `taskman.properties` file and add the following lines to that file:

```
-Djava.net.preferIPv6Addresses=true
-Djava.net.preferIPv4Stack=false
```

Related concepts

 [Installation and upgrade worksheet](#)

For more information about the installation and upgrade worksheet, see the worksheet topics in *Plan and Prepare Your Environment for IBM FileNet P8*.

Installing and configuring Process Engine

Installing and configuring Process Engine is a process requiring multiple steps, and the steps must be followed in sequence.

The following steps must be completed in order to install Process Engine software, configure Process Engine on the IBM FileNet P8 Platform and install the latest software updates.

1. "Installing Process Engine"
You can install Process Engine software either interactively or silently. A number of configuration steps follow the execution of the Process Engine installation program.
2. "Installing the latest Content Engine client files on Process Engine servers" on page 18
Installing the Content Engine Client files on all Process Engine enables communication between the Content Engine and the Process Engine. You can install these files interactively by using the installation wizard or silently by using the command line and a silent input file.
3. "Configuring Process Task Manager" on page 20
Start the Process Task Manager and set initial configuration parameters on the Process Engine.
4. "Verifying connection to the Process Engine database" on page 21
To verify the connection to the Process Engine database, issue the **vwcomp** command.
5. "Completing post-installation Process Engine configuration (Windows only)" on page 22
You must enable Process Engine to use the largest available contiguous free memory area for shared memory allocations. Otherwise, at some point during normal execution, the system fails to allocate shared memory and ceases to function correctly.
6. "Installing Process Engine software updates" on page 22
You can install software updates such as modified releases, fix packs, or interim fixes to Process Engine.

Installing Process Engine

You can install Process Engine software either interactively or silently. A number of configuration steps follow the execution of the Process Engine installation program.

You will find references to logging on as the root and fnsw users within the following procedures. For all UNIX® operating systems, the root user must run in the Bourne or Korn shell and the fnsw user must run in the Korn shell.

Important: Before starting the Process Engine installation, verify that you have completed the steps in Configuring the /etc/hosts file.

1. “Verifying the Process Engine database connection”
Verify the ability to connect to the Process Engine database. The Process Engine installation program will connect to the database during software installation.
2. “Installing Process Engine interactively” on page 12
Use these procedures to install Process Engine using the installation wizard screens included with the installation package.
3. “Installing Process Engine silently” on page 13
Modify the silent installation response file according to the values in the installation worksheet before installing the software.
4. “Resetting administrative user passwords” on page 14
Process Engine installation automatically sets the passwords for several internally required local users. For Oracle and SQL Server databases, if default users and passwords were configured, Process Engine installation also creates several database users.
5. “Verifying the connection to the Process Engine database” on page 16
Verify the ability to connect to the Process Engine database after installing the software.
6. “Completing Oracle post-installation steps” on page 17
Complete additional steps after installing Process Engine with an Oracle database.
7. “Completing post-installation steps on Windows platforms” on page 17
There are additional steps required to complete installation of Process Engine on all Windows platforms.

Verifying the Process Engine database connection

Verify the ability to connect to the Process Engine database. The Process Engine installation program will connect to the database during software installation.

“Verifying the Process Engine database connection (Oracle)”

Verify that the Oracle database instance used by Process Engine is accessible. How you log on to sqlplus will vary, depending upon how you will choose to execute the SQL scripts. Make whatever corrections are necessary before proceeding.

Verifying the Process Engine database connection (Oracle):

Verify that the Oracle database instance used by Process Engine is accessible. How you log on to sqlplus will vary, depending upon how you will choose to execute the SQL scripts. Make whatever corrections are necessary before proceeding.

This procedure will verify that you can connect to the Oracle database in the same way the Process Engine installation program will. Make whatever corrections are necessary before proceeding.

To verify the Process Engine database connection:

1. Run the following at a command prompt on the Process Engine:
`su - oracle -c "sqlplus"`
2. Enter one of the following commands at the SQLPlus prompt, as follows:

- If the Process Engine pre-installation SQL scripts will be run from the Process Engine installation program by prompting for the sys password, type the following command:
`sys/password as sysdba`
- If the SQL scripts will be run from the Process Engine installation program by using operating system authentication, type the following command:
`/ as sysdba`

3. At the prompt, enter the following SQL command:

```
SQL> select instance_name, host_name, version
from v$instance;
```

The following represents an example of the information returned:

```
INSTANCE_NAME
-----
HOST_NAME
-----
VERSION
-----
p8dbshr HQVWBUCS 10.2.0.2.0
```

where:

- `p8dbshr` is the instance ORACLE_SID.
- `HQVWBUCS` is the database server name.
- `10.2.0.2.0` is the Oracle server version.

Installing Process Engine interactively

Use these procedures to install Process Engine using the installation wizard screens included with the installation package.

Important: Before starting the Process Engine installation, verify that you have completed the steps in the To configure your `/etc/hosts` file section in the *Plan and Prepare Your Environment for IBM FileNet P8*.

“Installing the Process Engine software interactively (Windows)”

You can install Process Engine by using the Process Engine installation wizard.

Installing the Process Engine software interactively (Windows):

You can install Process Engine by using the Process Engine installation wizard.

1. Open your completed Installation and Upgrade Worksheet file.

Tip: In the worksheet file, verify that the **Data** → **Filter** → **AutoFilter** command is enabled. To view only Process Engine values, filter by **PE Installer** in the **Installation or Configuration Program** column.

2. Log on to the Process Engine server as `fnsfw`, `pe_install_user_domain`, or `pe_install_user_local`.

3. Navigate to the Process Engine software package, and start the P8PE-4.5.1-WIN.exe installation program. To run the Process Engine installation from disk, you must copy the installation files to a disk volume where 8.3 name generation is enabled, or if 8.3 name generation is disabled, you must copy the installation to a path that uses only short (8.3) names.

When running from disk, either interactively or silently, be aware that the Process Engine installation program has a 64-character path limitation when the

path is expressed in 8.3 format. This limitation applies to the IMSInst subdirectory. For example, the original path is:

```
\\server08\Software\InstallationDisks\FileNet\Release P8  
4.5.1\ProcessEngine\Windows\IMSInst
```

When expressed in 8.3 format the path might be:

```
\\server08\Software\INSTAL~1\FileNet\RELEAS~1.0\PROCES~1\Windows\IMSInst
```

This compressed path is 73 characters long, exceeding the 64-character limit.

4. Check for any .log files that were generated when the installation program ran. The files could be in any of the following locations, depending on whether the installation was successful and, if not, where errors occurred. Correct any errors or failures indicated before proceeding to the next step.
 - C:\Program Files\IBM\FileNet\PE\PE451_setup.log
 - C:\Program Files\IBM\FileNet\PE
 - C:\FNSW\tmp_installer
 - C:\Program Files\IBM\FileNet\IS\mini_installer.log, Windows Event logs, and log files under \FNSW_LOC\logs
 - For 64-bit Windows, these paths will be C:\Program Files(x86)\..

Related concepts

 Installation and upgrade worksheet

For more information about the installation and upgrade worksheet, see the worksheet topics in *Plan and Prepare Your Environment for IBM FileNet P8*.

Installing Process Engine silently

Modify the silent installation response file according to the values in the installation worksheet before installing the software.

Important: Before starting the Process Engine installation, verify that you have completed the steps in the To configure your /etc/hosts file section in the *Plan and Prepare Your Environment for IBM FileNet P8*.

“Installing the Process Engine software silently (Windows)”

Complete the following procedures to silently install Process Engine.

“Encrypting passwords for Process Engine” on page 14

Several passwords are required to configure Process Engine components. To accommodate your security requirements, you can encrypt these passwords before you enter them into the configuration files.

Installing the Process Engine software silently (Windows):

Complete the following procedures to silently install Process Engine.

1. Open your completed Installation and Upgrade Worksheet file.

Tip: In the worksheet file, verify that the **Data** → **Filter** → **AutoFilter** command is enabled. To view only Process Engine values, filter by **PE Installer** in the **Installation or Configuration Program** column.

2. Log on to the Process Engine server as *fnsfw*, *pe_install_user_domain*, or *pe_install_user_local*.
3. Navigate to the Process Engine software package.
4. Edit the PE_silent_install.txt file to reflect the appropriate responses for your installation. All passwords in the response file must be encrypted. See “Encrypting passwords for Process Engine” on page 14 for information on use of the password encryption tool.

5. Save the edited response file to your temporary directory.
6. Navigate to the temporary directory on the local disk.
7. Open a command prompt and start the installation program:

```
P8PE-4.5.1-WIN.exe -silent -options PE_silent_install.txt
```
8. Check for any .log files that were generated when the installation program ran. The files could be in any of the following locations, depending on whether the installation was successful and, if not, where errors occurred. Correct any errors or failures indicated before proceeding to the next step.
 - C:\Program Files\IBM\FileNet\PE\PE451_setup.log
 - C:\Program Files\IBM\FileNet\PE
 - C:\FNSW\tmp_installer
 - C:\Program Files\IBM\FileNet\IS\mini_installer.log, Windows Event logs, and log files under \FNSW_LOC\logs
 - For 64-bit Windows, these paths will be C:\Program Files(x86)\..

Related concepts

 [Installation and upgrade worksheet](#)

For more information about the installation and upgrade worksheet, see the worksheet topics in *Plan and Prepare Your Environment for IBM FileNet P8*.

Encrypting passwords for Process Engine:

Several passwords are required to configure Process Engine components. To accommodate your security requirements, you can encrypt these passwords before you enter them into the configuration files.

Ensure that Java is installed and that the location to your Java runtime environment (JRE) is in your PATH environment variable.

1. Copy the following files from the \Tools directory on the installation media for Process Engine software to a local drive:
 - fnencryptutils - an executable .jar file
 - RunEncryptApp - a batch file
2. Run one of the following executable files to start the password application:

Option	Description
Windows	RunEncryptApp.bat

3. Enter the appropriate values for the user name and password.
4. Reenter the password to confirm it.
5. Click **Generate**.
6. An encrypted password will be generated and displayed in the encrypted password field.
7. Copy and paste this password into the appropriate configuration file.

Resetting administrative user passwords

Process Engine installation automatically sets the passwords for several internally required local users. For Oracle and SQL Server databases, if default users and passwords were configured, Process Engine installation also creates several database users.

The Process Engine installation program creates an encrypted version of the passwords for the *f_sw* and *f_maint* users. The encrypted version of the password

must match the database or operating system passwords for these users. If the passwords do not match, Process Engine will fail to connect to the database. If these users are created with default passwords, it is a best practice to reset the passwords for these users.

For the *fnsw* operating system user, on a Windows server, the password entered during Process Engine installation must match the operating system password. If these passwords do not match, Process Engine services on the Windows server will not start.

The following table lists the users, the level of system access each user has, and the tool used to change the password.

User Name	User Type	Description	How to modify
<i>f_sw</i>	<ul style="list-style-type: none"> Database (Oracle, SQL) OS user for DB2® 	Has privileges only for database objects created by Process Engine. Used as the Process Engine runtime user.	Execute Xdbconnect.
<i>f_maint</i>	<ul style="list-style-type: none"> Database (Oracle, SQL) OS user for DB2 	Has DBA privileges. Used for RDBMS maintenance.	Execute Xdbconnect.
<i>fnsw</i>	Operating System	Primary Process Engine user. Used to execute Process Engine software and services.	<p>The <i>fnsw</i> user is configured by the installation program to start the following Windows services:</p> <ul style="list-style-type: none"> IMS™ ControlService Process Engine Services Manager <p>If you change the password for the <i>fnsw</i> user, you must also use the Windows Services tool to update the password on the Log On tab for these services.</p> <p>Process Engine activity will cease if the <i>fnsw</i> user's password expires.</p>

“Setting the *f_maint* and *f_sw* passwords (Oracle and Microsoft SQL Server)”

For added security, Process Engine stores an encrypted version of the passwords for the *f_sw* and *f_maint* users, or their aliases, in a file called *rdbup.bin*. This is in addition to passwords for these users in the Oracle or Microsoft® SQL Server database. The encrypted password and the database user's passwords must match.

Setting the *f_maint* and *f_sw* passwords (Oracle and Microsoft SQL Server):

For added security, Process Engine stores an encrypted version of the passwords for the `f_sw` and `f_maint` users, or their aliases, in a file called `rdbup.bin`. This is in addition to passwords for these users in the Oracle or Microsoft SQL Server database. The encrypted password and the database user's passwords must match.

To verify that the passwords match between the encrypted file and the Oracle or SQL Server database, use the following procedure to start the `Xdbconnect` utility. `Xdbconnect` works only if the passwords in the encrypted file and the database match.

You must change the passwords for the `f_maint` and `f_sw` users. For Oracle and Microsoft SQL Server databases, both the encrypted file and the database passwords are updated.

On UNIX, several Process Engine utilities are configured with `setuid fnsu`. (or its alias), and will therefore run with that user's X Window settings, regardless of which user is currently logged on.

1. Log on as the `fnsu` user.
2. Start the Database Server Connect application by running the following command: `Xdbconnect -r`
3. Change the primary password for the users `f_sw` and `f_maint` to match the database password.
4. Exit the application.

Verifying the connection to the Process Engine database

Verify the ability to connect to the Process Engine database after installing the software.

Restart the software and initiate a connection to the Process Engine database. This connection will use the database runtime user name and password as defined when Process Engine was installed and configured. This will verify the ability to use that name and password to connect to the database.

1. Open a command window and restart the Process Engine software by executing the following commands at a command prompt:

```
initfnsu -y stop
killfnsu -DAYs
initfnsu -y start
```

2. Initiate the connection to the database. At a command prompt, execute:

```
vwcomp -l
```

where `-l` lists the current configuration information for the Content Engine connection

If the connection is successful, you will see a message indicating that the Content Engine has not been configured yet. Because there are no security settings configured, the above command should return a message similar to The Process Engine's connection to the Content Engine has not been configured....

Unsuccessful connection to the database will return an exception.

If the connection is not successful, there could be a mismatch between the password entered for the `f_sw` user during Process Engine installation and the password created by execution of the SQL scripts (Oracle) or for the operating system runtime user (DB2).

To determine if a failure to connect to the database is due to a password mismatch, use the steps in:

- “Setting the f_maint and f_sw passwords (Oracle and Microsoft SQL Server)” on page 15

Completing Oracle post-installation steps

Complete additional steps after installing Process Engine with an Oracle database.

“Re-enabling Oracle password complexity verification”

If, as directed earlier, you disabled the Oracle Password Complexity Verification feature prior to installing Process Engine, you can now re-enable it.

Re-enabling Oracle password complexity verification:

If, as directed earlier, you disabled the Oracle Password Complexity Verification feature prior to installing Process Engine, you can now re-enable it.

Completing post-installation steps on Windows platforms

There are additional steps required to complete installation of Process Engine on all Windows platforms.

“Modifying the network configuration (Windows 2008)”

Create a touch file to force FileNet Image Services to use the IPv4 protocol.

“Modifying the integrity level for executables (Windows 2008)”

Modify the mandatory integrity level of the FileNet Image Services executables to **High**.

Modifying the network configuration (Windows 2008):

Create a touch file to force FileNet Image Services to use the IPv4 protocol.

Windows 2008 supports both IPv6 and IPv4 protocols. By default, the preferred protocol is IPv6. To use the IPv4 protocol, create an empty file in the \fnsw_loc\sd directory. If the file is present, the Process Engine software will override the Windows default and use the IPv4 protocol.

1. Navigate to the C:\FNSW_LOC\sd directory.
2. Using an editor such as Notepad, create an empty file and save it as a file named ipv4. Verify that there is no file extension on the file.

Modifying the integrity level for executables (Windows 2008):

Modify the mandatory integrity level of the FileNet Image Services executables to **High**.

Complete the following procedure:

1. Open a command prompt with Administrative privileges.
2. Change the current directory to *installLocation*\fnsw\bin.
3. Execute the following command:
`icacls *.exe /setintegritylevel H`

Installing the latest Content Engine client files on Process Engine servers

Installing the Content Engine Client files on all Process Engine enables communication between the Content Engine and the Process Engine. You can install these files interactively by using the installation wizard or silently by using the command line and a silent input file.

“Installing the latest Content Engine client files on Process Engine servers interactively”

The installation wizard provides an interactive way to install the Content Engine Client files. You can use the values from your worksheet to fill in the required value for each field on the wizard screens.

“Installing the latest Content Engine client files on Process Engine servers silently” on page 19

The command line method provides a way to silently install the Content Engine Client files. You can use the values in your installation worksheet to edit the silent input text file before you run the installation.

Related concepts



Installation and Upgrade Worksheet

For more information about Content Engine parameter values, see *Plan and Prepare Your Environment for IBM FileNet P8*.

Installing the latest Content Engine client files on Process Engine servers interactively

The installation wizard provides an interactive way to install the Content Engine Client files. You can use the values from your worksheet to fill in the required value for each field on the wizard screens.

Be sure that you have available the Installation and Upgrade Worksheet that was completed during your planning activities.

To install the Content Engine Client files:

1. Open your completed Installation and Upgrade Worksheet file.

Tip: In the worksheet file, verify that the **Data** → **Filter** → **AutoFilter** command is enabled. To view only Content Engine values, filter by **CE Client Installer** in the **Installation or Configuration Program** column.

2. To download the latest software updates, and to determine which of these updates might be required for use with other components and expansion products, contact your service representative.
3. On the machine where Process Engine is installed, log on as `fns`, with these permissions:
 - Read and write permission to a temporary directory, such as `temp` (Windows) or `tmp` (UNIX), on the machine where Process Engine is installed
 - Execute permission on the Content Engine Client install softwareThe default password for `fns` was `BPMtemp1pzwd`.
4. Verify that there is a current backup of Process Engine.
5. Copy the Content Engine Client installation software from the Content Engine installation software to the temporary directory. The version of the client installation software must match the version of Content Engine.
6. Expand the compressed Content Engine Client installation software file in the temporary directory.

7. Access the IBM FileNet Content Engine Client update software in the temporary directory.
8. Run the following command:

Operating System	Install Program
Windows	P8CE-CLIENT-4.5.1-WIN.EXE

9. Complete the installation program wizard by using the values from your worksheet.
10. When the installation completes, check the Content Engine Client log file for errors. The path to the log file depends on the type of operating system on the machine where you installed the Content Engine Client files:

Operating System	Path to Log File
Windows	C:\Program Files\IBM\FileNet\CEClient\ceclient_install_log_4_5_1.txt

Related concepts

 [Installation and upgrade worksheet](#)

For more information about the installation and upgrade worksheet, see the worksheet topics in *Plan and Prepare Your Environment for IBM FileNet P8*.

Installing the latest Content Engine client files on Process Engine servers silently

The command line method provides a way to silently install the Content Engine Client files. You can use the values in your installation worksheet to edit the silent input text file before you run the installation.

Be sure that you have available the Installation and Upgrade Worksheet that was completed during your planning activities.

To install the Content Engine Client files:

1. Open your completed Installation and Upgrade Worksheet file.

Tip: In the worksheet file, verify that the **Data** → **Filter** → **AutoFilter** command is enabled. To view only Content Engine values, filter by **CE Client Installer** in the **Installation or Configuration Program** column.

2. To download the latest software updates, and to determine which of these updates might be required for use with other components and expansion products, contact your service representative.
3. On the machine where Process Engine is installed, log on as fnswh, with these permissions:
 - Read and write permission to a temporary directory, such as *temp* (Windows) or *tmp* (UNIX), on the machine where Process Engine is installed
 - Execute permission on the Content Engine Client install software
 The default password for fnswh was BPMtemp1pzwd.
4. Verify that there is a current backup of Process Engine.
5. Copy the Content Engine Client installation software from the Content Engine installation software to the temporary directory. The version of the client installation software must match the version of Content Engine.
6. Expand the compressed Content Engine Client installation software file in the temporary directory.

7. Make a backup copy of the CEClient_silent_install.txt input file in the temporary directory.
8. Open the silent input file in a text editor. Follow the instructions in the silent input file to edit the file to reflect the appropriate responses for your update. Use the values from your worksheet.
9. Navigate to the temporary directory path containing the Content Engine Client installation program, and run the following command, where:

path is the path that contains the installation program.

Operating System	Install Program
Windows	P8CE-CLIENT-4.5.1-WIN.EXE -f <i>path</i> \CEClient.Windows\ CEClient_silent_install.txt -i silent

10. When the installation completes, check the Content Engine Client log file for errors. The path to the log file depends on the type of operating system on the machine where you installed the Content Engine Client files:

Operating System	Path to Log File
Windows	C:\Program Files\IBM\FileNet\CEClient\ ceclient_install_log_4_5_1.txt

Related concepts

 Installation and upgrade worksheet

For more information about the installation and upgrade worksheet, see the worksheet topics in *Plan and Prepare Your Environment for IBM FileNet P8*.

Configuring Process Task Manager

Start the Process Task Manager and set initial configuration parameters on the Process Engine.

1. Open your completed Installation and Upgrade Worksheet file.

Tip: In the worksheet file, verify that the **Data** → **Filter** → **AutoFilter** command is enabled. To view only Process Engine values, filter by **Process Task Manager** in the **Installation or Configuration Program** column.

2. Log on to the Process Engine server as *fnsw*.
3. Start the Process Task Manager, as follows:

Option	Description
Windows	Select Start → Programs → IBM FileNet P8 Platform → Process Engine → Process Task Manager .

4. Right-click your Process Engine server in the left-hand pane and start the software if it is not already running.
5. Select the Process Engine in the feature pane and click the **Security** tab to configure the Security settings.

Provide the service username, entered as a short name, the Content Engine URI, Administrator Group, and Configuration Group identified on your installation worksheet. See the IBM FileNet P8 help topic *System Administration > Enterprise-wide Administration > Process Task Manager > Process Engine > Configure Process Engine > Security* for details on the user and groups.

6. Click the **General** tab and make sure all settings are correct. Click **Apply** if any changes had been made.
After all parameters have been entered, click **Apply** and restart the Process Service when prompted. If errors are returned, additional information is available in the following file. If no errors are returned, the file will not exist.

Option	Description
Windows	\fnsw_loc\logs\TM_daemon\ PEDirectoryServerConnectionDebug.txt

7. Right-click on the **Regions** folder, in the left-hand pane and select **New** to create a new region. See the IBM FileNet P8 help topic *System Administration > Isolated Regions > Concepts* for information on isolated regions.
8. Select the **General** subtab and fill in a region number. Use any number between 1 and 999 that has not already been used.
9. Indicate whether region recovery will be enabled for this region. If you will be using region recovery, identify the tablespaces or filegroups to be used by the region.
10. Click the **Security** subtab to set a region password.

Important: You will use this password later when you create a Process Engine Region in “Creating a Process Engine isolated region” on page 25.

11. After all parameters have been entered, click **OK**.
12. When prompted by Process Task Manager to start the software, click **OK**. Process Task Manager will start the software automatically by executing:
initfnsw -y restart
13. If the Process Engine server will be configured to run both IPv4 and IPv6 protocols, restart the Process Task Manager and complete the following sub-steps.

- a. Select the Process Engine node.
- a. On the Advanced page, add the vworbbroker.endPoint property:

```
vworbbroker.endPoint = iiop://1.2@pe_server_ipv6_address
:port#,pe_server_ipv4_address:port#
/hostname_in_ior=loadbalancer_virtual_name
```

Where:

- pe_server_ipv6_address is the IPv6 address of the Process Engine Server. The format entered in the string for an IPv6 address must have the IPv6 address enclosed in square brackets '[' ']' For example:
[2007::9:181:124:200]
- pe_server_ipv4_address is the address of the Process Engine server in IPv4 format.
- loadbalancer_virtual_name is the name of the load balancer, used by the clients with the Process Engine server.
- The address and port pairs are separated by a comma.

Verifying connection to the Process Engine database

To verify the connection to the Process Engine database, issue the **vwcomp** command.

Check the database connection from Process Engine by executing the following from a command prompt. This will also verify that security settings were saved to the database.

```
wvcemp -l
```

If the security settings were saved, the above command will return the information you entered in the Process Task Manager.

If there are no security settings configured, the above command should return a message similar to "....no object service is configured...."

Completing post-installation Process Engine configuration (Windows only)

You must enable Process Engine to use the largest available contiguous free memory area for shared memory allocations. Otherwise, at some point during normal execution, the system fails to allocate shared memory and ceases to function correctly.

To configure contiguous free memory for Process Engine:

1. Log on as the `fns` (or alias) user.
2. Restart the Process Engine software. At a Windows command prompt, enter:
`initfns -y restart`
3. Find the largest available shared memory block and create an executable file with a `.reg` file extension. That file will be run to update the registry to create a new `DWORD` value.
 - a. Create the file by entering the following at a Windows command prompt:
`set_shm_address -r shmaddress.reg` where:
 - `-r` indicates an input file
 - `shmaddress.reg` is the name of the file that contains registry information. This file must have the `.reg` file extension.
 - b. Verify the contents of the output file. The following are examples of the file content.

32-bit Windows

```
[HKEY_LOCAL_MACHINE\SOFTWARE\FileNET\IMS\CurrentVersion]
"StartShmAddress"=dword:12230000
```

64-bit Windows

```
[HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\FileNET\IMS\CurrentVersion]
"StartShmAddress"=dword:12230000
```

4. Run the executable file to update the registry by typing the following at a Windows command: `shmaddress.reg` `shmaddress.reg` is the file you just created.
5. Restart the Process Engine software. At a Windows command prompt, enter:
`initfns -y restart`
6. Verify the setting that you just applied for the shared memory address by entering the following command at a command prompt: `set_shm_address -v`

Installing Process Engine software updates

You can install software updates such as modified releases, fix packs, or interim fixes to Process Engine.

To install the Process Engine software updates:

1. Contact your service representative to obtain the latest Process Engine software updates, and to determine whether additional interim fixes are needed.
2. Open the readmes for the Process Engine software updates and perform the installation procedures in the readmes on the Process Engine.

Installing and configuring Application Engine

Application Engine provides a client application called Workplace that you can use to access the information managed by Content Engine. After you install the server, you must also configure your application server to work with Application Engine, and deploy the application.

1. “Installing the latest Process Engine Client files on Application Engine servers”
The Process Engine Client software enables communication between the Application Engine and the Process Engine. Install the Process Engine Client files on all Application Engine servers.

Installing the latest Process Engine Client files on Application Engine servers

The Process Engine Client software enables communication between the Application Engine and the Process Engine. Install the Process Engine Client files on all Application Engine servers.

“Installing the latest Process Engine Client files interactively”

The installation wizard provides an interactive way to install the Process Engine Client files. You can use the values you collected on your worksheet to fill in the required value for each field on the wizard screens.

“Installing the latest Process Engine Client files silently” on page 24

You can install the Process Engine Client software on the Application Engine by using a silent input text file and running the installation program from the command line. Use the values in your installation worksheet to edit the silent input text file before you run the installation.

Installing the latest Process Engine Client files interactively

The installation wizard provides an interactive way to install the Process Engine Client files. You can use the values you collected on your worksheet to fill in the required value for each field on the wizard screens.

Be sure that you have available the Installation and Upgrade Worksheet that was completed during your planning activities.

To install the Process Engine Client files:

1. On the machine where Application Engine is to be deployed, log on as any user who has the following permissions:
 - Read and write permission to a temporary directory, such as temp (Windows) or tmp (UNIX), on the machine where Application Engine is installed.
 - Execute permission on the Process Engine Client install software.
2. Copy the Process Engine Client install software from the Process Engine installation software to the temporary directory. The version of the install software must match the version of Process Engine.
3. Expand the compressed Process Engine Client install software file within the temporary directory. The `jre.tar` file that is packaged with the Process Engine Client installer must be in the same directory as the Process Engine Client installer when the installer is run. The expanded install software contains the Process Engine Client install program specific to the operating system on the machine where Application Engine is deployed.
4. Start the installation program by running the following command:

Operating System	Install Program
Windows	P8PE-CLIENT-PE_version-WIN.EXE

5. Complete the installation screens by using the values from your worksheet.
6. If the Process Engine is configured to use the IPv6 network protocol, locate and edit the `taskman.properties` file and add the following lines to that file:


```
-Djava.net.preferIPv6Addresses=true
-Djava.net.preferIPv4Stack=false
```

Related concepts

 Installation and upgrade worksheet

For more information about the installation and upgrade worksheet, see the worksheet topics in *Plan and Prepare Your Environment for IBM FileNet P8*.

Installing the latest Process Engine Client files silently

You can install the Process Engine Client software on the Application Engine by using a silent input text file and running the installation program from the command line. Use the values in your installation worksheet to edit the silent input text file before you run the installation.

Be sure that you have available the Installation and Upgrade Worksheet that was completed during your planning activities.

To install the Process Engine Client files:

1. On the machine where Application Engine is to be deployed, log on as any user who has the following permissions:
 - Read and write permission to a temporary directory, such as `temp` (Windows) or `tmp` (UNIX), on the machine where Application Engine is installed.
 - Execute permission on the Process Engine Client install software.
2. Copy the Process Engine Client install software from the Process Engine installation software to the temporary directory. The version of the install software must match the version of Process Engine.
3. Expand the compressed Process Engine Client install software file within the temporary directory. The `jre.tar` file that is packaged with the Process Engine Client installer must be in the same directory as the Process Engine Client installer when the installer is run. The expanded install software contains the Process Engine Client install program specific to the operating system on the machine where Application Engine is deployed.
4. In the expanded installation software, open the file `PEClient_silent_install.txt` and change the `Variable_CheckboxAE` line to:


```
-V Variable_CheckboxAE="true"
```
5. Start the installation program by running the following command:

Operating System	Install Program
Windows	P8PE-CLIENT-PE_version-WIN.EXE -silent -options "PEClient_silent_install.txt"

6. If the Process Engine is configured to use the IPv6 network protocol, locate and edit the `taskman.properties` file and add the following lines to that file:


```
-Djava.net.preferIPv6Addresses=true
-Djava.net.preferIPv4Stack=false
```

Related concepts

 Installation and upgrade worksheet

For more information about the installation and upgrade worksheet, see the worksheet topics in *Plan and Prepare Your Environment for IBM FileNet P8*.

Configuration and startup tasks

After you install the IBM FileNet P8 components, there are some additional steps to configure the IBM FileNet P8 system. After you configure the IBM FileNet P8 components, familiarize yourself with IBM FileNet P8 system startup and shutdown procedures. See the **System Administration** → **Enterprise-wide Administration** → **Startup and Shutdown** help topic.

“Creating a Process Engine isolated region”

Process Engine clients communicate to isolated regions in the database and to the Process Engine server by using a connection point. Each connection point is associated with an isolated region. In this task you will create an isolated region.

“Creating a Process Engine Connection Point” on page 26

A connection point identifies a specific isolated region of the workflow database, and gives it a name that workflow-related applications use to access the region. Follow these procedures to create a connection point.

“Configuring the Process Engine connection point for Application Engine” on page 26

Before users can access Process Engine tasks and work items from Workplace, you must configure the connection point on the Application Engine.

“Setting up Content Engine and client transport SSL security” on page 27

Configuring SSL enables secure communications between the Content Engine and the directory service, as well as between Content Engine clients and the Content Engine server. In addition, setting up Content Engine SSL provides secure authentication for Process Engine.

“Performing additional configuration tasks” on page 28

Once you have completed the installation tasks, your core IBM FileNet P8 system is operational. You can do the recommended additional configuration tasks to prepare the system for general use.

Creating a Process Engine isolated region

Process Engine clients communicate to isolated regions in the database and to the Process Engine server by using a connection point. Each connection point is associated with an isolated region. In this task you will create an isolated region.

In “Configuring the Process Engine connection point for Application Engine” on page 26 you will define a connection point to this isolated region.

To create a Process Engine isolated region:

1. Start Enterprise Manager by double-clicking the FileNet Enterprise Manager SnapIn on the desktop, or by navigating to **Start > All Programs > FileNet P8 Platform > FileNet Enterprise Manager Administration Tool**. Log on as a GCD administrator.
2. Connect to the FileNet P8 domain that you created previously.
3. Right-click **PE Region ids > New PE Region ids**.
4. On the Specify a Site screen, click **Next** to select a site named *initial site* .

5. Enter the DNS name for the Process Engine server. This is the network name from the installation worksheet.
6. Enter the region ID.
7. Modify the communication port if needed. This communication port must match the password that was entered in the Process Task Manager for the communication port in “Configuring Process Task Manager” on page 20.
8. Click **Next**.
9. Enter the password for the isolated region. This password must match the password entered in the Process Task Manager for the isolated region in “Configuring Process Task Manager” on page 20.
10. Click **OK** on the Confirmation Window.
11. Click **Finish** to finish creating a new isolated region for Process Engine.

Creating a Process Engine Connection Point

A connection point identifies a specific isolated region of the workflow database, and gives it a name that workflow-related applications use to access the region. Follow these procedures to create a connection point.

To create a Process Engine connection point:

1. Start Enterprise Manager by double-clicking the FileNet Enterprise Manager SnapIn on the desktop, or by navigating to **Start > All Programs > FileNet P8 Platform > Enterprise Manager SnapIn**. Log in as a GCD administrator.
2. Connect to the FileNet P8 domain that you created previously.
3. Right-click **PE Connection Points** → **New PE Connection Points**.
4. Enter a Process Engine Connection Point name and click **Next**.
Process Engine Connection Point names must not contain whitespace characters.
5. Choose the region which is created in “Creating a Process Engine isolated region” on page 25, and click **Next**.
6. Click **Finish** to finish creating the Connection Point.
7. Click **OK**.

Configuring the Process Engine connection point for Application Engine

Before users can access Process Engine tasks and work items from Workplace, you must configure the connection point on the Application Engine.

Make sure that you have already created a Process Engine isolated region and a Process Engine connection point and that the Process Engine software is running.

To configure the connection point:

1. Sign in to Workplace as an Application Engine Administrator:
 - a. On any computer, open a browser and navigate to:
`http://ApplicationEngineServerName:port#/Workplace`
 - b. Sign in with the same account that you used to set the bootstrap preferences.
2. Click **Admin**.
3. Click **Site Preferences**.

4. Under **General Settings > Tasks**, select a **Process Engine Connection Point** from the list.
5. Click **Apply**.
6. Click **Exit**.

Important: Initializing the isolated region, as described in the next step, in an existing environment will destroy all data in the existing region.

7. (For new installations only) Initialize the isolated region.
 - a. Click **Admin**.
 - b. Click **Process Configuration Console**.

If your computer does not have the appropriate Java Runtime Environment (JRE) installed, you will be prompted to download the JRE at this point; follow the prompts to complete the download. During the installation process, click the **Browser** tab and enter the following settings:

 - Clear the **Internet Explorer** option.
 - If you will be using Netscape 6.0, select the **Netscape** option.
 - c. Right-click the icon or **name of the isolated region** you want to initialize, and select **Connect**.
 - d. Click **Action**.
 - e. Click **Initialize Isolated Region**.
 - f. Click **Yes** at the prompt asking if you want to continue.
 - g. Close the Process Configuration Console.
8. In Workplace, click **Tasks** to confirm that Application Engine is communicating with Process Engine.
9. Sign out of Workplace.

Setting up Content Engine and client transport SSL security

Configuring SSL enables secure communications between the Content Engine and the directory service, as well as between Content Engine clients and the Content Engine server. In addition, setting up Content Engine SSL provides secure authentication for Process Engine.

Important: IBM strongly recommends enabling SSL for the Content Engine and Process Engine web services. Authentication over these two web services is usually performed by providing username and password credentials. If these web services are not configured to run over an SSL connection, clear text passwords will be sent across the network. (However, this is not true when Kerberos-based authentication is used. In the IBM FileNet P8 4.5 release, Kerberos authentication is available only for the Content Engine web service.) The option not to use SSL over these two web services is provided primarily for development systems or other non-production systems where the security provided by SSL might not be required.

For access to the Content Engine through the EJB transport (IIOP or T3 protocol), an SSL connection is necessary to provide privacy for data sent across the network. However, user passwords would not be compromised if SSL were not used. While it is preferable to use SSL with the EJB transport (IIOP or T3 protocol), it is not a requirement.

- The Content Engine web service is used:
 - By all clients of the Content Engine version 4.5.1 .NET API
 - By all clients of the Content Engine version 4.5.1 COM Compatibility API (CCL)

- By the Enterprise Manager tool
- By the Content Engine version 3.5.2 to 4.5.1 Upgrade tool
- By the Process Engine, when making calls to the Content Engine to retrieve user and group information
- By the Component Manager, running on the Application Engine, which is an integral component for BPM Process Orchestration framework
- By customer and 3rd party tools written against the Content Engine version 3.5 web service API, including Altien Document Manager and the Sharepoint integration done by Vorsite.
- Certain Java applications (written against the Content Engine version 3.5 Java API or the Content Engine 4.5 Java API) might use the Content Engine web service transport, but typically they would use EJB transport (IIOP or T3 protocol).
- The Application Engine server uses only the EJB transport to communicate with the Content Engine in the 4.5.1 release.
- The Process Engine web service is used by customer and independent software vendor applications to write runtime applications (typically step processor applications) against the Process Engine. The Process Engine Java API does not make use of the Process Engine web service.

Performing additional configuration tasks

Once you have completed the installation tasks, your core IBM FileNet P8 system is operational. You can do the recommended additional configuration tasks to prepare the system for general use.

Except where noted, the topics in the following list are located in the IBM FileNet P8 help. The documentation URL varies depending on the documentation package you use.

Table 2. Documentation URLs

FileNet P8 Documentation package	URL
Online information center at www.ibm.com	http://publib.boulder.ibm.com/infocenter/p8docs/v4r5m1/index.jsp
Installed ecm_help documentation package	http://yourdocserver:port#/ecm_help/_start_here.htm

- Configure Content Federation Services for Image Services Guidelines. See the *IBM FileNet Content Federation Services for Image Services Planning and Configuration Guide*.
- Configure Application Engine to set the file types you want to open in a browser window rather than opening the Image Viewer. See **System Administration** → **Application Engine Administration** → **Key configuration files and logs** → **content_redir.properties file**.
- Set site preferences for the Workplace application. See **User Help** → **Actions, preferences, and tools** → **Site preferences**.
- Design searches and/or search templates for Workplace users. See **User Help** → **Actions, preferences, and tools** → **Search Designer** → **About Search Designer**.
- Design publishing templates for Workplace users. See **User Help** → **Actions, preferences, and tools** → **Tools** → **Publishing Designer** → **About Publishing Designer**.

- Configure security for publishing. See **User Help** → **Actions, preferences, and tools** → **Tools** → **Publishing Designer** → **Security** → **Specify publication document security**.
- Configure automatic workflow launch. See **System Administration** → **Content Engine Administration** → **Events and subscriptions** → **Concepts: workflow subscriptions**.
- Create and configure the object stores that will contain business objects, folders, documents, workflow definitions, searches, and other objects. See **System Administration** → **Content Engine Administration** → **Object stores** → **How to...** → **Create object store**.
- Define document classes and folders and set security for each class. See **System Administration** → **Content Engine Administration** → **Classes** → **Concepts**.
- Review and, if necessary, edit the security of the network shared folders containing any file stores created for the object store. See **System Administration** → **Content Engine Administration** → **Content storage** → **File storage areas** .
- Configure Process Engine for automatic startup. See **System Administration** → **Enterprise-wide Administration** → **Process Task Manager** → **Process Engine** → **Process Service** → **Start and stop Process Service** → **Configure the Process Service for automatic startup (Windows)**.
- Configure e-mail notification. See **System Administration** → **Process Engine Administration** → **Workflow administration tasks** → **Coordinating workflow design** → **Email notification**.
- Set Process Engine runtime options. See **User Help** → **Integrating workflow** → **Process Configuration Console** → **VWServices** → **View or modify VWService properties** → **Set runtime options**.
- Set the default date/time mask for the Process Service. See **Process Engine** → **Process Task Manager** → **Process Service** → **Configuring Process Service** → **General properties**.
- Create content cache area. See **System Administration** → **Content Engine Administration** → **Content storage** → **Content cache areas** → **How to...** → **Create content cache**.
- Create additional authentication realms. See **System Administration** → **Enterprise-wide Administration** → **FileNet P8 Security** → **How to** → **Configure for multiple realms**.
- Define additional isolated regions. See **User Help** → **Integrating workflow** → **Process Configuration Console** → **Isolated regions**.
- For each isolated region:
 - Define workflows. See **User Help** → **Integrating workflow** → **Process Designer**.
 - Configure event logging options. See **User Help** → **Integrating workflow** → **Process Configuration Console** → **Isolated regions** → **View or modify isolated region properties** → **Configure event logging options**.
 - Configure step processors. See **User Help** → **Integrating workflow** → **Process Configuration Console** → **Isolated regions** → **View or modify isolated region properties** → **Configure custom step processors**.
 - Define and configure work queues. See **User Help** → **Integrating workflow** → **Process Configuration Console** → **Queues** → **Configuring work queues**.
 - Define and configure component queues. See **User Help** → **Integrating workflow** → **Process Configuration Console** → **Queues** → **Configuring component queues**.

- Define and configure workflow rosters. See **User Help** → **Integrating workflow** → **Process Configuration Console** → **Queues** → **Rosters**.

Related information

 Product documentation for IBM FileNet P8 Platform

Download the IBM FileNet P8 Non-English Support Guide, as well as PDF's of the rest of the IBM FileNet P8 Platform documentation.

Optional installation tasks

You can install the additional or optional IBM FileNet P8 components in any order.

“Enabling the Process Engine Component Integrator”

By using the Component Integrator functionality included in the IBM FileNet P8 Platform, a step in a workflow can access properties of documents, folders, and other objects in an object store. Using this functionality requires configuration on both Application Engine and Process Engine servers.

“Installing and configuring IBM System Dashboard for Enterprise Content Management” on page 32

Content Engine, Application Engine, and Process Engine install, by default, the necessary software required for the System Manager performance component. To use System Manager, enable associated components and install IBM System Dashboard for Enterprise Content Management to perform related configuration procedures to enable System Manager.

Enabling the Process Engine Component Integrator

By using the Component Integrator functionality included in the IBM FileNet P8 Platform, a step in a workflow can access properties of documents, folders, and other objects in an object store. Using this functionality requires configuration on both Application Engine and Process Engine servers.

As a post-installation task, you must define workflows that incorporate Content Engine operations in order to use the out-of-the-box Component Integrator functionality. For further details on defining such workflows, see the IBM FileNet P8 help topic **Steps** → **Component Steps** → **General Properties** → **Using Content Engine (CE) operations in a workflow**.

After the software is installed, users can extend the out-of-the-box Component Integrator functionality so that a workflow step can interact with an external entity such as a Java object or Java Messaging Service (JMS) messaging system. For further information, see the IBM FileNet P8 help topic **Developing Process Applications** → **Developing Work Performers / Component Integrator Operations**.

To specify the user name and password for the Java adaptor (on an Application Engine server):

1. Sign in to Workplace.

If you defined the Process Engine Configuration Group on the Security tab of Process Task Manager (when completing “Configuring Process Task Manager” on page 20), you must sign in as a member of either that group or the Process Engine Administrators Group, which was also defined on the Security tab, in order to complete the following steps.

2. In Workplace, click **Admin** and then click **Process Configuration Console**.

If your computer does not have the appropriate Java Runtime Environment (JRE) installed, you will be prompted to download the JRE at this point; follow

the prompts to complete the download. During the installation process, click the **Browser** tab and clear the Internet Explorer option.

For further information about the JRE download, click **Help** in Process Configuration Console, click **Process Reference** on the help page toolbar, and see the IBM FileNet P8 help topic **Concepts → Java Runtime Environment (JRE)**.

3. Select the Isolated Region icon that corresponds to the isolated region that you initialized. For more information, see “Creating a Process Engine isolated region” on page 25.
4. Right-click the **CE_Operations** component queue and select **Properties** .
5. On the Adaptor tab of the displayed dialog box, enter a user name and password that will be used for identification and permissions for both Process Engine and potentially any external systems that will be accessed. By default, the user name and password are set to *Administrator and <no password>*, respectively. If you choose to use another user name and password, they must already exist in the directory service.

For additional information about the fields on the Adaptor tab, click the **Help** button. To use the out-of-the-box functionality, it is necessary to modify only the user name and password fields.

6. Click **OK** and commit the changes.

“Configuring and starting the Component Manager (on an Application Engine server)”

Configure the Component Manager and start it on an Application Engine.

“Specifying connection between Process Engine and Component Manager (on a Process Engine server)” on page 32

Configure the connection between the Process Engine and the Component Manager using Process Task Manager on the Process Engine.

Configuring and starting the Component Manager (on an Application Engine server)

Configure the Component Manager and start it on an Application Engine.

1. Start Process Task Manager on the Application Engine server by running one of the following command files from the *AE_install_path/FileNet/AE/Router* directory, depending on your operating system:.

Option	Description
Windows	routercmd.bat

If the Registry Port assigned to Component Manager conflicts with the port number required by another application or service running on the Application Engine server, Process Task Manager will not start up as expected and the necessary *vtaskman.xml.sample* will not be automatically created. If this happens, make a copy of the sample *vtaskman.xml.sample* file located on the Process Engine or Application Engine.

- On Process Engine, the file is located in the */fnsw/bin* directory.
- On Application Engine, the file is located in:
 -
 - Drive:\Program Files\FileNet\AE\Router on Windows

Open *vtaskman.xml.sample* with a text editor, change the port element value to an available port number, and save the file to *vtaskman.xml* in the same directory.

2. In Process Task Manager, select the server name in the left pane.

3. Find the Registry Port for the server in the right pane and verify that it is correct.
4. Select **Component Managers** in the left pane .
5. Enter the Content URI , service username, and service password Content URI to authenticate to the Content Engine server. The Content URI defaults and you can use the default or change the value.
6. Right-click and select **New** to select a connection point from the drop down list.
7. Enter or modify the component properties as appropriate. For details, see the **System Administration** → **Enterprise-wide Administration** → **Process Task Manager** → **Component Manager** → **Configure Component Manager** → **General properties**. In an environment configured for single sign-on (SSO), do not use the SSO server name in the URL, even if Process Task Manager displays it by default.
8. Click **Start** on the toolbar.

Related concepts

 [IBM FileNet P8 ports](#)

For details on how to resolve port number conflicts, see *Plan and Prepare Your Environment for IBM FileNet P8*.

Specifying connection between Process Engine and Component Manager (on a Process Engine server)

Configure the connection between the Process Engine and the Component Manager using Process Task Manager on the Process Engine.

Configuring this connection is not recommended in a high availability configuration.

1. On the Process Engine server, start Process Task Manager as follows, depending on your operating system:

Option	Description
Windows	Select Start > Programs > IBM FileNet P8 Platform > Process Engine > Process Task Manager .

2. Select Process Engine in the left pane (also referred to as the feature pane).
3. In the **Component Manager connection** section, select the **Server Connections** tab.
4. In the **Host** field, enter the host name of the Application Engine server where Component Manager is running.
5. In the **Event Port** field, enter the port that the Component Manager listens to for incoming events. The default is 32773. The port number you enter must match the number you entered when you configured the Component Manager previously.

Installing and configuring IBM System Dashboard for Enterprise Content Management

Content Engine, Application Engine, and Process Engine install, by default, the necessary software required for the System Manager performance component. To use System Manager, enable associated components and install IBM System Dashboard for Enterprise Content Management to perform related configuration procedures to enable System Manager.

Installing Dashboard is not necessary if you currently have IBM FileNet System Monitor installed.

See the following IBM FileNet P8 help topic **FileNet P8 Documentation** → **System Administration** → **Enterprise-wide Administration** → **System Manager** for instructions on how to enable the associated System Manager components.

See the documentation provided with IBM System Dashboard for Enterprise Content Management for instructions on how to use Dashboard.

Removing software

Removing IBM FileNet P8 software can involve deleting one or more core components, expansion products, and the FileNet P8 documentation.

For instructions on removing the Rendition Engine software, see the IBM FileNet P8 guide *FileNet P8 Documentation > FileNet P8 System Installation > Rendition Engine Installation and Upgrade*.

“Removing the IBM FileNet P8 documentation”

Removing the documentation for the FileNet P8 Platform and its expansion products involves a number of application server configuration possibilities. Use these examples only for reference. Your specific installation directories and application names might vary.

“Removing Process Engine (Windows)” on page 36

Removal of the Process Engine for Windows platforms requires that you remove the software components in a specific order.

Removing the IBM FileNet P8 documentation

Removing the documentation for the FileNet P8 Platform and its expansion products involves a number of application server configuration possibilities. Use these examples only for reference. Your specific installation directories and application names might vary.

In some Windows installations where NTFS is used for the file system (Not FAT or FAT32), there is a known issue with deleting files (and folders) that are longer than 256 characters. For example, if you use a default WebSphere installation location, you might encounter an error where the FileNet P8 Platform documentation files cannot be properly deleted due to the number of characters in the file/folder names. See the Microsoft Knowledge Base article <http://support.microsoft.com/?kbid=320081> for additional information about deleting files (and folders) in this environment.

“Removing the FileNet P8 documentation from a WebSphere Application Server”

To remove the FileNet P8 documentation, delete the entire FileNet P8 documentation folder (for example, `ecm_help.war`) structure from the installation location.

Removing the FileNet P8 documentation from a WebSphere Application Server

To remove the FileNet P8 documentation, delete the entire FileNet P8 documentation folder (for example, `ecm_help.war`) structure from the installation location.

1. Log on to the WebSphere FileNet P8 documentation server.

Option	Description
Windows	Log on with a user account that has local Administrative (or Account Operators and Server Operators) rights.

2. Verify that the WebSphere server is running.

3. From the WebSphere administrative console (for example, <http://localhost:9060/ibm/console>), *Uninstall* the FileNet P8 documentation site (for example, `ecm_help.war`).
4. Delete the entire FileNet P8 documentation folder (for example, `ecm_help.war`) structure from the installation location.
5. Delete any temp folder(s) or log files for the FileNet P8 documentation.

Important: Do not remove any other FileNet P8 application (for example, Workplace) files that are installed on the web application server.

Removing Process Engine (Windows)

Removal of the Process Engine for Windows platforms requires that you remove the software components in a specific order.

Important: You must remove the software in the order listed. If you remove FileNet Image Services before you remove Process Engine, the Process Engine software will be left in a state that will not allow removal with this procedure.

To remove the Process Engine software:

1. Stop all of the following components that are running. For procedures and further details, see the IBM FileNet P8 help topic **System Administration** → **Enterprise-wide Administration** → **Shutdown and Startup**.

Component	Server
Process Simulator	Process Simulator
Process Analyzer	Process Analyzer
Component Manager	Application Engine
Application Engine	Application Engine
Content Engine	Content Engine
Process Service	Process Engine
Process Task Manager	Process Engine or Application Engine

2. Navigate to **Control Panel** → **Add/Remove Programs**.
3. Click **Remove** for the Process Engine application.
4. Click **Next** at the Welcome screen for Process Engine uninstallation.
5. Click **Next** to stop FileNet BPM software components.
6. Click **Uninstall** to confirm you want to remove Process Engine for Windows 4.5.0 installation.
7. Indicate whether you want to reboot now or later.
8. Click **Finish** after you've read the summary information.
9. Click **Remove** for the FileNet Image Services 4.1.2 software.
10. Enter Yes to confirm you want to remove the FileNet Image Services software.
11. Press Enter to continue with the removal.
12. Close the Add/Remove snap-in.
13. Close the Control Panel.

Appendix. Troubleshooting installation and upgrade

This section provides troubleshooting solutions for problems you might encounter when installing or upgrading IBM FileNet P8 software.

“Cannot save Process Task Manager security settings”

Saving the initial Process Task Manager security settings could fail because the software or database is not running, the connection with Content Engine failed, or user credential information is not correct.

Cannot save Process Task Manager security settings

Saving the initial Process Task Manager security settings could fail because the software or database is not running, the connection with Content Engine failed, or user credential information is not correct.

To save Process Task Manager security settings, the following conditions must be true:

- Process Engine software and the database must be running.
- Process Engine must be able to connect to the Content Engine by using the URI configured in Process Task Manager.
- All user names, groups, and passwords must match the names that are configured in the Content Engine LDAP configuration.

After all connections are made and security information is verified, the configuration is written to the Process Engine database. If the security settings cannot be saved, start by checking the following log files.

Operating system	Log file location
Windows	\fnsw_loc\logs\TM_daemon\ PEDirectoryServerConnectionDebug.txt

After you review the log files, the following procedures provide information to assist with identifying the source of the problem.

“Verifying the Content Engine server is available to Process Engine on the network” on page 38

To save Process Engine security settings from Process Task Manager, the server where Content Engine is installed must be available to Process Engine on the network.

“Verifying that the Process Engine can connect to a FileNet Engine Web page on Content Engine” on page 38

Verify that Process Engine can connect to the FileNet Engine Web page on Content Engine. Failures could indicate an incorrect server name or problems with the designated port.

“Verifying that Process Engine can connect to Content Engine by using the Content Engine URI” on page 39

Verify that Process Engine can connect to the Content Engine by using the Content Engine URI. Failures could indicate problems connecting to the Content Engine or problems with security settings.

Verifying the Content Engine server is available to Process Engine on the network

To save Process Engine security settings from Process Task Manager, the server where Content Engine is installed must be available to Process Engine on the network.

To ping the server and verify that the Process Engine server can connect to the Content Engine server on the network:

1. Open a Web browser on the Process Engine server.
2. Ping the server by running the following command: `ping ceserver`

You should see responses that are similar to these:

```
Pinging ceserver [1.2.3.4]
Reply from 1.2.3.4: bytes =32 time < 1ms TTL=127
Reply from 1.2.3.4: bytes =32 time < 1ms TTL=127
Reply from 1.2.3.4: bytes =32 time < 1ms TTL=127
Reply from 1.2.3.4: bytes =32 time < 1ms TTL=127
```

The format varies, but the messages indicate there was a reply from the server and the IP address of this server is 1.2.3.4. If the ping returns a message indicating the host could not be found, verify that the server is running, the server name is correct, there is no DNS or firewall issue, and try again.

Verifying that the Process Engine can connect to a FileNet Engine Web page on Content Engine

Verify that Process Engine can connect to the FileNet Engine Web page on Content Engine. Failures could indicate an incorrect server name or problems with the designated port.

To verify that the Process Engine server can access the FileNet Engine Web page on the Content Engine and verify that the software version on the Content Engine matches the version of Content Engine Client software installed on the Process Engine:

1. Open a Web browser on the Process Engine server.
2. Browse to the FileNet Engine Web page and enter: `http://ceserver:port/FileNet/Engine`

ceserver

The host name of the machine where Content Engine is deployed.

port

The HTTP port that is used by the application server where Content Engine is deployed.

The following table describes an example address for your application server.

Application server type	Web page address
IBM WebSphere Application Server	<code>http://myserver:9080/FileNet/Engine</code>

3. Verify the value in the **Startup Message** key. The Content Engine build and version (for example, dap451.100), must match the build and version in the `version.txt` file in the TAR or ZIP file of the Content Engine Client installation software on Process Engine.

If you are able to retrieve the FileNet Engine information, the Content Engine server is available and configured correctly.

If you are able to retrieve the information but the Content Engine and Content Engine Client software versions are not the same, you must install the correct version of the Content Engine Client software.

If you are not able to retrieve the information, verify that the server can be reached by pinging the Content Engine server (*ceserver*).

If you can ping the server with the *ceserver* name, the problem could be with the port number that you are trying to use. Or the server that you can ping is not a Content Engine server, even though it responds on the network.

Verifying that Process Engine can connect to Content Engine by using the Content Engine URI

Verify that Process Engine can connect to the Content Engine by using the Content Engine URI. Failures could indicate problems connecting to the Content Engine or problems with security settings.

To verify that the Process Engine server can connect to the Content Engine by using the Content Engine URI and the security information specified in Process Task Manager:

1. Open a Web browser on the Process Engine server. Enter the Content Engine URI that is configured in Process Task Manager. In these examples, the protocol is HTTP and the attachment protocol is MTOM. The attachment protocol can also be specified as FNCEWS40DIME.

Application server type	Web page address
IBM WebSphere Application Server	<code>http://CEServer:9080/wsi/FNCEWS40MTOM/</code>

2. If you can connect to the Content Engine by using the URI, try to save the security settings by clicking **Apply**. If an error is returned, you verified the ability to connect to Content Engine, so security information might not be correct, including the user name, password, or group names. Check the following log files for specific information related to problems with the security settings.

Operating system	Log file location
UNIX	<code>/fnsw/local/logs/TM_daemon/ PEDirectoryServerConnectionDebug.txt</code>
Windows	<code>\fnsw_loc\logs\TM_daemon\ PEDirectoryServerConnectionDebug.txt</code>

The service user name must be a member of the group that is specified in the Process Engine Administrator Group (*pe_admin_group*). The user name must be entered as a short name. Duplicate short names are not supported.

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