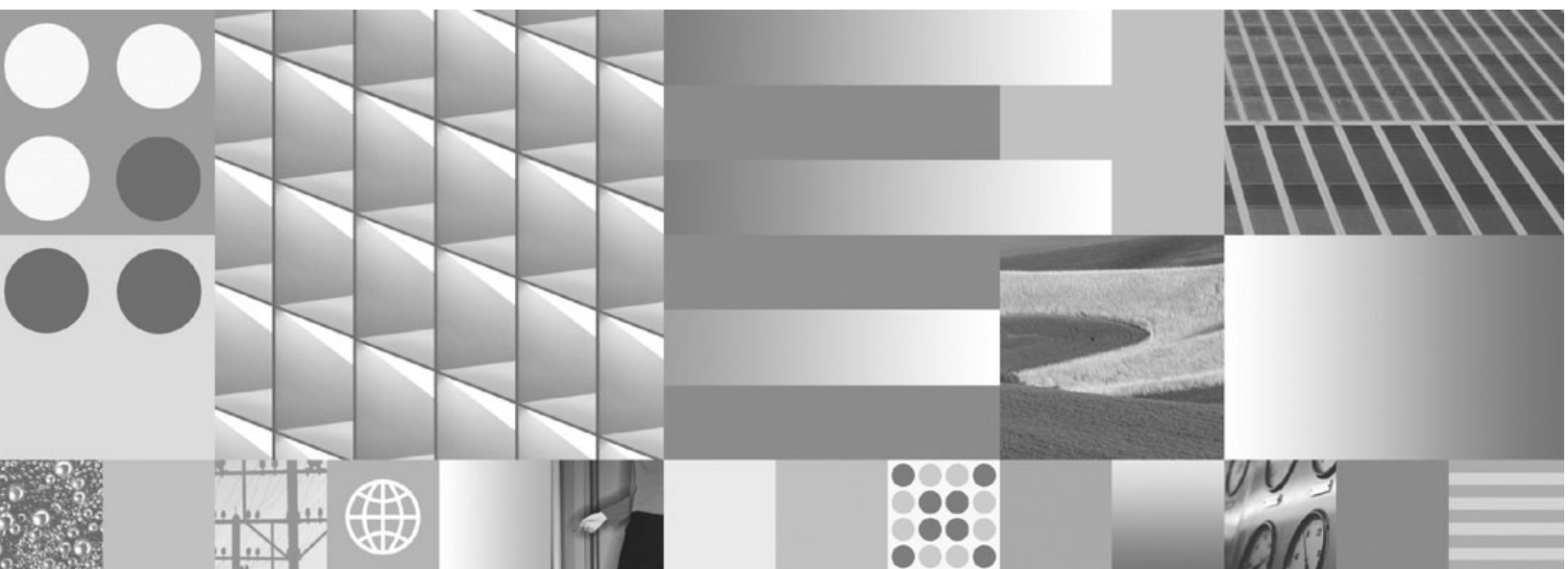


Installation and Upgrade Guide



Installation and Upgrade Guide

Note

Before using this information and the product it supports, read the information in “Notices” on page 63.

This edition applies to version 2.2.0.0 of IBM FileNet Connector for SharePoint Document Libraries (product number 5724-R96) and to all subsequent releases and modifications until otherwise indicated in new editions.

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Revision log

The following table identifies changes made to this document since the initial release of this document.

Date	Revision
06/08	Initial version of this guide.
10/08	<ul style="list-style-type: none">Updated “About this document” on page 8 with new IBM standard formatting.Updated and reworked “Database considerations” on page 20.Deleted unnecessary steps from “(Optional) Create a Microsoft SQL Server user profile database” on page 27.Added instructions to install DB2 or Oracle client in the following topic: “To add the required database and data store” on page 37.Updated “Set IIS Manager account properties” on page 39.

About this document

This guide provides instructions for installing and upgrading IBM FileNet SharePoint Connector for Document Libraries software to the current released version. Be aware that each release of a FileNet P8 component or expansion product can have multiple software updates available in the form of service packs, fix packs, and/or interim fixes, each with potentially different dependencies and installation requirements. Therefore, before you attempt to install or upgrade IBM FileNet SharePoint Connector for Document Libraries, or if you do not intend to upgrade all FileNet P8 components and expansion products to the most current released version, review the list of FileNet P8 Platform releases and their associated dependencies in the IBM FileNet Compatibility Matrix on the Information Management support page (www.ibm.com/software/data/support/). For details on how to find this information, see “[Access IBM FileNet documentation, compatibility matrices, and fix packs](#)” on page 15.

The ideal way to use this guide is as an online PDF installed within the help system. This guide contains links to the FileNet P8 Platform online help system, where you will find important additional information that can help you make decisions about your installation. To take advantage of these links while using this guide, first install the FileNet documentation for IBM FileNet SharePoint Connector for Document Libraries. See the *IBM FileNet P8 Platform Installation and Upgrade Guide* topic “Install FileNet P8 Platform documentation” and then the subtopic “Install expansion products and auxiliary documentation.”

Intended audience

This document is intended for software professionals who will install the FileNet P8 applications. Installation by an IBM FileNet Certified Professional (FCP) is recommended. For more information about the FCP program, contact your IBM service representative.

Typographical conventions

This document uses the conventions in the following table to distinguish elements of text.

Convention	Usage
UPPERCASE	Environment variables, status codes, utility names.
Bold	Program names and selected terms such as command parameters or environment variables that require emphasis.
Bold Gray	Clickable user-interface elements (such as buttons).
Bold Olive	Paths and file names.
<i>Italic</i>	User-supplied variables and new terms introduced in text, names of additional documents (such as <i>IBM FileNet® P8 Platform Installation and Upgrade Guide</i>).
<italic>	User-supplied variables that replace everything between and including the angle bracket delimiters (< and >).
Monospace	Code samples, examples, display text, and error messages.

NOTE Some path names in this document that are identical (except for the directory-separator character) on both UNIX® and Windows® platforms are specified in UNIX syntax only (that is, with forward-slash directory separators).

WARNING This document contains examples of text to be typed on a command line. Be sure to manually type the command, rather than copying and pasting it from this document. Otherwise, your command line may contain unrecognized characters and will not execute properly.

Acronyms

This document uses the following IBM FileNet product names and acronyms.

Product Name	Acronyms
Application Engine	AE
Content Engine	CE
Content Search Engine	CSE
Content Federation Services	CFS
Enterprise Manager	EM
Global Configuration Data	GCD
Image Services Resource Adapter	ISRA
Process Engine	PE
Rendition Engine	RE

About IBM FileNet documentation

By default, this document is distributed as part of the *IBM FileNet P8* help system, but it is also available as a downloadable document from the IBM support Web site. Newer versions of *IBM FileNet P8* documentation are sometimes re-released with other events, such as fix pack releases or documentation refreshes. To ensure that you have the latest revision of a document, compare the document part number of your document to the document part number of the document that is posted on the support Web site:

www.ibm.com/support/docview.wss?rs=3278&uid=swg27010422

For example, the last two digits of “GC31-5585-05” indicate that the specified document has been revised five times after the original publishing, which is designated by 00.

Copy Web documents into the help system and make them searchable

The IBM FileNet P8 help system is designed so that you can download updated copies of this document and copies of other IBM FileNet documents into the *IBM FileNet P8* help system and index them so that they can be retrieved by a search in the help system. However, to search the *IBM FileNet P8* help system, it must be installed as a Web site on a Web server that supports Java™ applications.

For more information, see:

- [“Gather reference documentation” on page 12](#)
- The *IBM FileNet P8 Installation and Upgrade Guide* topic “Install IBM FileNet P8 Platform documentation” about how to install IBM FileNet P8 Platform documentation and update the documentation search index.

Links to additional information

To help you locate additional information about a topic, this document includes links to:

- Other locations in this document
- External Web sites
- Topics in the FileNet P8 help system

Because this document is included in the default FileNet P8 help system, the links to the FileNet P8 help topics work only when you view this document from within the help system. If you view this document from outside of the help system, the links to FileNet P8 help topics do not work.

Gather reference documentation

Following are two tables with information about the IBM FileNet P8 documents that are available as part of the FileNet P8 release. To download these documents from the IBM FileNet support Web site, see [“Access IBM FileNet documentation, compatibility matrices, and fix packs” on page 15.](#)

Installation reference documents

Consider having one or more of the following documents (or help topics) nearby for reference purposes during the installation of IBM FileNet P8 Platform.

Document or help topic name...	Refer to this document...
<i>Plan and Prepare Your Environment for IBM FileNet P8</i>	To confirm the target environment is ready for a FileNet P8 installation or upgrade.
<i>IBM FileNet P8 Platform Installation and Upgrade Guide</i>	For instructions for installing and upgrading documentation, Content Engine, Process Engine, Application Engine/XT.
<i>IBM FileNet Workplace XT Installation and Upgrade Guide</i>	For information about how to install and upgrade Workplace XT in a FileNet P8 environment.
<i>IBM FileNet P8 Hardware and Software Requirements</i>	To confirm that the target environment has at least the minimum supported levels of software from independent software providers.
<i>IBM FileNet P8 Compatibility Matrix</i>	To confirm that the version of FileNet P8 to be installed is compatible with at least the minimum supported levels of other FileNet products that are or will be used with FileNet P8.
<i>IBM FileNet P8 Release Notes</i>	To familiarize yourself with the new features and known issues associated with the FileNet P8 release.
<i>IBM FileNet P8 Non-English Support Guide</i>	For information about how FileNet P8 supports non-English environments.
<i>IBM FileNet P8 High Availability Technical Notice</i>	For information about how to set up FileNet P8 using clusters, farms and other high-availability software and hardware.
<i>IBM FileNet P8 Performance Tuning Guide</i>	For critical tuning information required to make deployments of all sizes and levels of complexity work efficiently before going into production. Attention This guide provides many specific recommendations for making performance-related choices that are either difficult or impossible to change once the system goes into production.
<i>IBM FileNet P8 Troubleshooting Guide</i>	For troubleshooting tips associated with a FileNet P8 Installation.

Document or help topic name...	Refer to this document...
<i>IBM FileNet P8 help topic:</i> Administration > Enterprise-wide Administration > FileNet P8 Security > Users and Groups	For a complete list of the user and group roles, accounts, and responsibilities required to install, configure, and maintain a FileNet P8 system.
<i>IBM FileNet P8 help topic:</i> Administration > Enterprise-wide Administration > Shutdown and Startup	For information about how to shut down and start up FileNet P8 and any expansion products.

Other available documentation

Review the list of remaining FileNet P8 documents that you can download from the FileNet support Web site.

Document name	Refer to this document...
<i>IBM FileNet P8 System Overview</i>	For a technical summary of the FileNet P8 architecture, including a overview of features and capabilities.
<i>IBM FileNet P8 Disaster Recovery Technical Notice</i>	For information about potential options and solutions involved in a FileNet P8 disaster recovery plan.
<i>IBM FileNet P8 Process Task Manager Advanced Usage Technical Notice</i>	For information about properties found under the Advanced tab in Process Task Manager.
<i>IBM FileNet P8 Version Tools Technical Notice</i>	For information about the set of versions tools that are installed with FileNet P8 Platform and that identify the levels of Application Engine, Content Engine, and Process Engine in a FileNet P8 environment.
<i>IBM FileNet P8 Security Help Extract</i>	For security-related information from the FileNet P8 help system in PDF format.
<i>IBM FileNet P8 Rendition Engine Installation and Upgrade document</i>	For information about how to install and upgrade Rendition Engine in a FileNet P8 environment.
<i>IBM FileNet P8 eForms Installation and Upgrade Guide</i>	For information about how to install and upgrade eForms in a FileNet P8 environment.
<i>IBM FileNet Connector for SharePoint Web Parts Installation and Upgrade Guide</i>	For information about how to install and upgrade IBM FileNet Connectors for SharePoint Web Parts in a FileNet P8 environment.
<i>IBM FileNet Connector for SharePoint Document Libraries Installation and Upgrade Guide</i>	For information about how to install and upgrade IBM FileNet Connectors for SharePoint Document Libraries in a FileNet P8 environment.

Document name	Refer to this document...
<i>IBM FileNet P8 Portlets for WebSphere Installation and Upgrade Guide</i>	For information about how to install and upgrade FileNet P8 Portlets for WebSphere in a FileNet P8 environment.
<i>IBM FileNet Process Analyzer Installation and Upgrade Guide</i>	For information about how to install and upgrade Process Analyzer in a FileNet P8 environment.
<i>IBM FileNet Process Simulator Installation and Upgrade Guide</i>	For information about how to install and upgrade Process Simulator in a FileNet P8 environment.
<i>IBM FileNet Records Manager Installation and Upgrade Guide</i>	For information about how to install and upgrade Records Manager in a FileNet P8 environment.
<i>IBM FileNet Business Activity Monitor Installation and Configuration Guide</i>	For information about how to install and configure Business Activity Monitor in a FileNet P8 environment.
<i>IBM FileNet Content Federation Services Installation and Upgrade Guide</i>	For information about how to install and upgrade Content Federation Services in a FileNet P8 environment.
<i>IBM FileNet Content Federation Services for Image Services Planning and Configuration Guide</i>	For information about how to configure Image Services for document federation.
<i>IBM FileNet Content Federation Services for Content Manager OnDemand Planning and Configuration Guide</i>	For information about how to configure Content Manager for OnDemand for document federation.
<i>IBM FileNet Content Management Widgets Installation Guide</i>	For information about how to install Content Management Widgets in a FileNet P8 environment.

Autonomy K2 software documentation for configuring the FileNet P8 Content Search Engine

Autonomy (formerly Verity) K2 software, which underlies the optional CSE component, installs with a large body of documentation that is not included in the general FileNet P8 documentation.

For details on how to access this documentation, see the "Configure Content Engine for Content-Based Retrieval" topic in the *IBM FileNet P8 Platform Installation and Upgrade Guide*.

Access IBM FileNet documentation, compatibility matrices, and fix packs

To access documentation, compatibility matrices, and fix packs for IBM FileNet products:

1. Navigate to the Product Documentation for FileNet P8 Platform support page.
(<http://www-1.ibm.com/support/docview.wss?rs=3247&uid=swg27010422>).
2. Select a PDF or a Doc Link, whichever is appropriate.

Customer support

For information about contacting customer support:

1. Navigate to the FileNet Product Family support page:
(<http://www-01.ibm.com/software/data/content-management/filenet-product-family/support.html>).
2. Click **IBM FileNet Support Communications**, or search for a particular support topic under "Enter search terms".

Feedback

Your feedback helps us to provide quality information. Send your comments about this publication or any other IBM FileNet documentation by e-mail to comments@us.ibm.com. Be sure to include the name of the product, the version number of the product, and the name and part number of the book (if applicable). If you are commenting on specific text, include the location of the text (for example, a chapter and section title, a table number, a page number, or a help topic title).

Installation planning and procedures

This installation section contains the following major topics:

- [“Installation planning considerations” on page 17](#)
- [“Services and installation types” on page 23](#)
- [“Installation tasks” on page 25](#)
- [“Post-installation Manual Deployment Tasks” on page 41](#)

Plan the installation

Before you begin to install the IBM FileNet Connector for SharePoint Document Libraries software and documentation, you must plan and prepare your environment. The topics in this section provide guidelines and other relevant information to help you plan for the installation.

Installation planning considerations

This section lists details that will help you prepare your environment for the installation of IBM FileNet Connector for SharePoint Document Libraries. Review this information thoroughly before you start the installation.

Important installation information

- Installation of the IBM FileNet Connector for SharePoint Document Libraries Administration Services on the IBM FileNet P8 Content Engine server is not supported.
- You must install the IBM FileNet Connector for SharePoint Document Libraries Connector on each SharePoint server you wish to support with the Connector.
- All paths listed in this guide are default locations. If you installed to a location other than the default, remember to substitute the alternate install path appropriately.
- Directory naming must be ASCII characters only. Non-ASCII naming is not supported.

Gather required documentation

NOTE To download this and other IBM FileNet product documentation from the IBM web site, see [“Access IBM FileNet Documentation, Compatibility Matrices, and Fix Packs” on page 9](#).

- *IBM FileNet P8 Hardware and Software Requirements*. This document provides details for all IBM FileNet P8 system components, as well as the minimum supported levels of third-party software components. The information throughout the *IBM FileNet Connector for SharePoint Document Libraries Installation and Upgrade Guide* assumes you have met all applicable requirements listed in that document.
- *IBM FileNet P8 Release Notes*. This document provides details on new features, known issues, and resolved problems.
- *IBM FileNet P8 Platform High Availability Technical Notice*. This document provides details on how to set up your IBM FileNet P8 system using clusters, farms, and other high-availability software and hardware.
- *IBM FileNet P8 Platform Troubleshooting Guide*. This document provides troubleshooting information on all aspects of the product.

Software requirements

The following are minimum general requirements for installing and configuring IBM FileNet Connector for SharePoint Document Libraries:

- IBM FileNet P8 Platform installation, including:
 - Content Engine.
 - Content Search Engine (Autonomy K2) - if you require Content-Based Retrieval (CBR).
 - Microsoft .NET Framework runtime.
 - Web Service Enhancements for Microsoft .NET runtime.
 - IBM FileNet P8 documentation server.
- Microsoft Office SharePoint Server or Microsoft Windows SharePoint Services.
- (Optional) Microsoft SQL Server.

Additional software installation

The following software is installed automatically by the setup program, in the locations noted, as part of IBM FileNet Connector for SharePoint Document Libraries.

- UFI engine (administrator connector services).
- Content Engine .NET API - <install_path>\Content Engine .NET API 4.0.0.

Non-English environment installation

NOTE For details on the supported levels of third-party software components and version requirements for non-English installations, refer to the *IBM FileNet P8 Hardware and Software Requirements* guide. To download this document from the IBM support page, see [“Access IBM FileNet Documentation, Compatibility Matrices, and Fix Packs” on page 10.](#)

Microsoft SharePoint US English or localized version is required.

When using a localized version of Microsoft SharePoint, no additional Microsoft SharePoint Language Pack is required.

Operating system requirements

To enable IBM FileNet Connector for SharePoint Document Libraries to support Windows in non-English environments, install IBM FileNet Connector for SharePoint Document Libraries on a localized version of Windows where available.

If the localized version of Microsoft Windows is not available, use the English language version with the regional settings for the appropriate language. Follow the Microsoft Windows instructions for changing the regional settings in the Control Panel.

Install Content Engine Client Connectivity on any localized Microsoft Windows-supported server and client with the relevant Windows regional setting.

NOTES

- When using the Microsoft SharePoint English Product, the corresponding Microsoft SharePoint Language Pack must be installed. This is also applicable to Microsoft SharePoint Service Packs.
- When creating a Microsoft SharePoint site, the SharePoint site administrator needs to take into account the end-user's preferred locale settings, such as Date format. The date format displayed on a client browser is dependent on the SharePoint site settings on the Microsoft SharePoint server, and does not depend on the operating system regional settings of the client or the operating system regional settings of the SharePoint server.

Connector administration services

The UFI data store requires UNICODE support.

Database	Required Configuration
SQL	Before installing SQL 2000, set the locale of the operating system to the required language. During installation, the Microsoft SQL server installer program detects the Windows locale, and sets the Microsoft SQL server collation setting accordingly. In SQL 2005, create a database selecting the UNICODE collation setting, i.e., Japanese_Unicode_CI_AS_KS
DB2	UTF8
Oracle	AL32UTF8

Content engine requirements

The Content Engine language pack is a single executable that contains the localized default document classes, properties and choice value lists for a single display language. Once the language packs for the Content Engine are installed, IBM FileNet Connector for SharePoint Document Libraries integration with the Content Engine will enable the display of all default document classes, properties and choice value lists.

For instructions on installing and deploying a Content Engine language pack, see *Installing FileNet P8 Platform in a Non-English Environment Technical Notice*. To download this document from the IBM support page, see ["Access IBM FileNet Documentation, Compatibility Matrices, and Fix Packs" on page 10](#).

Available languages

NOTE IBM FileNet Connector for SharePoint Document Libraries is not localized.

IBM FileNet Connector for SharePoint Document Libraries installs the following languages for the User Administration web part component. This enables the localized user interface for the User Administration web part component only.

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

Database considerations

IBM FileNet Connector for SharePoint Document Libraries requires one data store database and can use an optional, additional credential store database. The databases for IBM FileNet Connector for SharePoint Document Libraries can be local or remote from the SharePoint server on which you install the IBM connector services software.

Data store database requirements

The IBM FileNet Connector for SharePoint Document Libraries software requires a database for the data store which has the following requirements:

- The data store database can be SQL Server, DB2 or Oracle.

NOTE If DB2 or Oracle is used, the database client must be installed on the Connector Administration Services server.

- The data store database must have its own unique database instance from Content Engine and SharePoint, but it can share a database engine.

User authentication and database requirements

IBM FileNet Connector for SharePoint Document Libraries supports two methods of user authentication:

- Windows Integrated Authentication - This method must be installed and configured in your environment before you run the IBM FileNet Connector for SharePoint Document Libraries setup program. Refer to *IBM FileNet P8 Hardware and Software Requirements* for information on Single Sign-on (SSO) and Kerberos.
- IBM FileNet Credential Store - For this method of authentication, you must use a Microsoft SQL Server database to hold user profile information, taking into account the following database requirements:

NOTE For this method of authentication, Application Engine / Workplace, or Workplace XT must be installed with application-managed authentication to integrate with IBM FileNet Connector for SharePoint Document Libraries.

- A user profile database is required. A Microsoft SQL Server database user with Database Creator privileges is required to successfully run the IBM FileNet Connector for SharePoint Document Libraries setup program. The setup program will prompt you to choose whether to have the user profile database created during installation or use a database that was manually created earlier by the database user. This user is needed only for install. You can remove this user after the install if you wish.

NOTE If you want to create the user profile database manually, you must create it before running the IBM FileNet Connector for Document Libraries setup program as the information is required during the installation process.

- An application pool security account is required. This user account will write to the IBM FileNet Connector for SharePoint Document Libraries user profile database. This user can either be the NT AUTHORITY\NETWORK SERVICE user or another user under which the ASP.NET service will run. Take adequate caution, as this user has access to user profile information. The application pool security account must have Full Access rights (aspnet_Profile_FullAccess) to the user profile database you create for IBM FileNet Connector for SharePoint Document Libraries. These privileges ensure that this user can properly administer the database using the User Administration web part (for example, to add and delete user profiles). See your Microsoft SQL Server documentation for details on how to set database user privileges.
- An encryption key is required. The IBM FileNet Connector for SharePoint Document Libraries setup program will prompt the user to enter an encryption key during installation. The key can be any string and is used to encrypt the stored user names and passwords in the user profile database. The key itself is stored in the web.config file and it would be best practice to encrypt the key (using the appropriate Microsoft encryption tool).

Security requirements

- To configure IBM FileNet Connector for SharePoint Document Libraries, you will need the following user accounts.

Account	Description
Local administrator on SharePoint server	Used to install IBM FileNet Connector for SharePoint Document Libraries on the SharePoint server.
SharePoint site administrator	Specified as the account under which the IBM FileNet Connector for SharePoint Document Libraries connector service will run. This must be an Active Directory LDAP user account which has full rights to the SharePoint site, including the ability to add, modify and delete content. Also used to configure the SharePoint processing settings in the UFI Configuration Manager.
SQL Server database administrator	Used to create the database and data store for IBM FileNet Connector for SharePoint Document Libraries. This user must have DB Creator privileges.
Content Engine object store connection processing user	Used to configure the SharePoint processing settings in the Content Engine.

Services and installation types

IBM FileNet Connector for SharePoint Document Libraries installation consists of two separate installation pieces: Connector Services and Connector Administration Services.

Connector services

Connector Services must be installed on each SharePoint server you want to support. As part of the Connector Services installation, the following components are laid down by the setup program:

- CE .NET API
- IBM FileNet User Administration Web Part (FnSpAdmin.wsp)
- Link Redirector (FnSpRedirector.wsp)
- FileNet Remote Connector Web Service

NOTE The setup program creates a web site that is automatically configured to use the default application pool account. You can change this account after the installation is complete.

Connector administration services

Connector Administration Services can be collocated with the Connector Services on the SharePoint server, or can be installed remotely. As part of the Connector Administration Services installation, the following components are laid down by the setup program:

- Collector
- Task Route
- IBM FileNet P8 Connector Service
- Configuration Manager (UFI Engine)
- CE .NET API

Collocation

The Connector Administration Services and Collector Services can be collocated on the SharePoint server. The following must be installed:

- Microsoft .NET Framework runtime.
- Web Service Enhancements for Microsoft .NET runtime.

Remote administration services installation requirements

To install the Connector Administration Services remotely from the Connector Services, the following must be installed:

- Microsoft .NET Framework runtime.
- Web Service Enhancements for Microsoft .NET runtime.

NOTE You must ensure communication between the two server ports is not blocked by a firewall.

CAUTION Installations of IBM FileNet Connector for SharePoint Document Libraries with more than one Connector Administration Service are not supported.

Installation tasks

To install IBM FileNet Connector for SharePoint Document Libraries, you must complete the following tasks:

- [Task 1: "Install IBM FileNet Connector for SharePoint Document Libraries documentation" on page 26](#)
- [Task 2: "\(Optional\) Create a Microsoft SQL Server user profile database" on page 27](#)
- [Task 3: "Install IBM FileNet Connector for SharePoint Document Libraries" on page 28](#)
- [Task 4: "Specify Application Pool security account \(FileNet credential store authentication only\)" on page 34](#)
- [Task 5: "\(Optional\) Install the Connector Administration Services on a remote server" on page 35](#)
- [Task 6: "Create Connector Administration Services database and data store" on page 37](#)
- [Task 7: "Set IIS Manager account properties" on page 39](#)
- [Task 8: "Add Content Engine object store mapping keys to the web.config files" on page 40](#)

Task 1: Install IBM FileNet Connector for SharePoint Document Libraries documentation

NOTE Before you install IBM FileNet Connector for SharePoint Document Libraries, ensure that the latest version of the IBM FileNet P8 Platform documentation is installed on your IBM FileNet P8 documentation server. See *IBM FileNet P8 Platform Installation and Upgrade Guide* for instructions. To download this guide from the IBM support page, see [“Access IBM FileNet Documentation, Compatibility Matrices, and Fix Packs” on page 9](#).

IBM FileNet Connector for SharePoint Document Libraries is an expansion product on IBM FileNet P8 Platform; therefore you must add the associated IBM FileNet Connector for SharePoint Document Libraries documentation to an existing installation of the IBM FileNet P8 Platform documentation. This action makes IBM FileNet Connector for SharePoint Document Libraries help available to your users.

For details and instructions on installing expansion product documentation, see the latest version of the *IBM FileNet P8 Platform Installation and Upgrade Guide*. Pay special attention to the “Install expansion product documentation” subtopic in the “Install IBM FileNet P8 documentation (<your application server>)” task.

Task 2: (Optional) Create a Microsoft SQL Server user profile database

NOTE If IBM FileNet Connector for SharePoint Web Parts is already installed on the server, installed for FileNet Credential Store authentication, then the existing user profile database will be used and you don't need to create this database. Continue to [Task 3 Install IBM FileNet Connector for SharePoint Document Libraries](#).

This task describes how to manually create the Microsoft SQL Server database that will be used to map Microsoft SharePoint users to IBM FileNet P8 user credentials for the connector services. This task is optional and only needs to be completed if you do not want the IBM FileNet Connector for SharePoint Document Libraries setup program to create the database for you. For details, see ["User authentication and database requirements" on page 21](#).

To manually create the required Microsoft SQL Server User Profile Database

1. Log on to the SharePoint machine using an account that has local administrator privileges.
2. Open a command line and change directory to:
`C:\Windows\Microsoft.NET\Framework\v2.0.50727`
3. Enter the following at the command line. This command creates the database and necessary table structure for the user profile database. The entry is case sensitive:
`aspnet_regsql.exe -S <hostname> -U sa -P <sa_password> -d FileNetProfile -A p`
4. Verify the database has been created.

Task 3: Install IBM FileNet Connector for SharePoint Document Libraries

The procedures in this task describe how to install the IBM FileNet Connector for SharePoint Document Libraries software interactively or silently on the SharePoint server.

Before you begin the procedures in this task, ensure all prerequisites are completed. For details, see [“Installation planning considerations” on page 17](#).

NOTE The setup program will check your system for (and silently install, if necessary) a current version of the Content Engine .NET API.

To silently install IBM FileNet Connector for SharePoint Document Libraries

To run a silent install, you must create a response file that contains the options to pass to the setup program. A sample response file is included with the IBM FileNet Connector for SharePoint Document Libraries setup program.

1. Log on to the SharePoint machine using an account that has local administrator privileges.
2. From the IBM FileNet Connector for SharePoint Document Libraries software package, open the silent_installer.properties file in a text editor and enter the appropriate responses by following the directions in the file.
3. Open a command line and run the following command from the appropriate directory:
`IBMFileNet_DocLibConnector_2.2.exe -i silent -f silent_installer.properties`
4. Launch a web browser, access the SharePoint site to which you just installed the connector and set the Document Library to allow management of content types as follows:
 - a. Under **Documents**, click **Shared Documents**.
 - b. Click **Settings** and select **Document Library Settings**.
 - c. Under General Settings, click **Advanced Settings**.
 - d. Under Allow management of content types, select **Yes**.

To interactively Install IBM FileNet Connector for SharePoint Document Libraries

1. Log on to the SharePoint machine using an account that has local administrator privileges.
2. Launch IBMFileNet_DocLibConnector_2.2.exe.
3. Complete the IBM FileNet Connector for SharePoint Document Libraries setup wizard screens as follows:

In this screen...	Perform this action...
Introduction	Read the introductory instructions about how to navigate through the setup program screens.

In this screen...	Perform this action...
Software License Agreement	<p>Review the software license agreement and click the option to accept it to proceed with the installation.</p> <p>Click Print to print a hardcopy of the agreement.</p>
Choose Install Folder	<p>Specify a directory path in which to install the software, as follows:</p> <ul style="list-style-type: none"> To accept the default installation path, click Next. To re-populate the field with the default install folder path, click Restore Default Folder. To navigate to a different installation path, click Choose and complete the Select a Folder dialog box. <p>NOTE Underlying UFI engine software and Content Engine .NET API software are automatically installed to a hard-coded directory in your install path. For details, see “Additional software installation” on page 18.</p>
Install Options	<p>Select which IBM FileNet Connector for Document Libraries components to install. You may install the Connector Administration Services on a remote server or on the SharePoint server.</p> <p>For details on installation types, see “Services and installation types” on page 23.</p> <ul style="list-style-type: none"> Connector Services Connector Administration Services - Deselect this option to install the services on a remote server. <p>For instructions on installing the Connector Administration Services on a remote server, see “(Optional) Install the Connector Administration Services on a remote server” on page 35.</p>
Choose User Authentication Method	<p>Choose how SharePoint users will be authenticated when accessing IBM FileNet P8 information.</p> <ul style="list-style-type: none"> Choose IBM FileNet Credential Store to map SharePoint users to IBM FileNet P8 user credentials using a Microsoft SQL Server user profile database. Choose Integrated Windows Authentication to enable this method of authentication. <p>NOTE This method of authentication requires that IBM FileNet P8 Platform be configured for Single Sign-on. Refer to <i>IBM FileNet P8 Hardware and Software Requirements</i> for information on Single Sign-on (SSO) and Kerberos support.</p>

In this screen...	Perform this action...
Database Selection (IBM FileNet Credential Store Authentication)	<p>This screen will appear only if you chose IBM FileNet Credential Store as the authentication method.</p> <p>Choose whether you would like to use a pre-existing, manually created database as the user profile database or have the setup program create the user profile database for you.</p>
User Profile Database Information (IBM FileNet Credential Store Authentication)	<p>This screen will appear only if you chose IBM FileNet Credential Store as the authentication method.</p> <p>The database information entered here will be used to map SharePoint users to IBM FileNet P8 user credentials</p> <p>If you chose to specify an existing database on the previous screen, enter the database information as outlined below.</p> <p>If you chose to have the setup program create the database for you on the previous screen, the following information will be pre-populated with default values. Edit the fields as necessary.</p> <p>Database information:</p> <ul style="list-style-type: none"> • Database Instance • Database Name • Database Port
Database User Information (IBM FileNet Credential Store Authentication)	<p>This screen will appear only if you chose IBM FileNet Credential Store as the authentication method and you chose to have the setup program create the user profile database for you.</p> <p>Enter the following information about the database user who has privileges to create the user profile database:</p> <ul style="list-style-type: none"> • Database User - This user must have Database Creator privileges to the SQL Server engine. SQL authentication, not Windows authentication, is used. • Database Password.
User Credential Encryption Key (IBM FileNet Credential Store Authentication)	<p>This screen will appear only if you chose IBM FileNet Credential Store as the authentication method.</p> <p>Encryption Key - Type in a key (any string) to be used to encrypt the stored user names and passwords in the user profile database. The key itself is stored in theweb.config file. As a best practice, encrypt this key (using the appropriate Microsoft encryption tool).</p>

In this screen...	Perform this action...
Choose Deployment Method	<p>Select one of the following methods of deploying the SharePoint Document Libraries:</p> <ul style="list-style-type: none"> Auto-deploy to a single SharePoint web application - Choose this option to have the setup program deploy the IBM FileNet Connector for SharePoint Document Libraries solutions to a single web application which you will select on the next screen. Auto-deploy to all SharePoint web applications - Choose this option to have the setup program deploy the IBM FileNet Connector for SharePoint Document Libraries solutions to all installed web applications.
Choose web.config File Path	<p>This screen will appear only if you chose <i>Auto-deploy to a single web application</i> on the previous screen.</p> <p>Enter the path to the SharePoint web.config file for the web application to which you want to install. Multiple web.config files can exist on a single machine, one for each SharePoint web application (each having its own unique port).</p> <p>To re-populate the field with the default file path, click Restore Default File.</p> <p>To navigate to a different file path, click Choose and complete the Please Choose a File dialog box.</p> <p>NOTE The setup program will proceed only if you enter a valid web.config file path.</p>
Choose Virtual Directories Folder Path	<p>This screen will appear only if you chose <i>Auto-deploy to all SharePoint web applications</i> on the previous screen.</p> <p>Enter the full path to the SharePoint Virtual Directories folder. The IBM FileNet Connector for SharePoint Document Libraries solutions will be deployed to all web applications stored in this directory.</p> <p>To re-populate the field with the default file path, click Restore Default Folder.</p> <p>To navigate to a different file path, click Choose and complete the Please Choose a File dialog box.</p> <p>NOTE The setup program will proceed only if you enter a valid Virtual Directories folder path.</p>

In this screen...	Perform this action...
Choose aspnet_regsql.exe location	<p>This screen will appear only if the aspnet_regsql.exe file is not detected in the following default location:</p> <p>C:\WINDOWS\Microsoft.NET\Framework\<version>\aspnet_regsql.exe</p> <p>Enter the full path of the aspnet_regsql.exe file. This file is the Microsoft SQL Server file used to create the user profile database. The setup program prompts for the file location only if it cannot detect it otherwise.</p> <p>To re-populate the field with the default file path, click Restore Default File.</p> <p>To navigate to a different file path, click Choose and complete the Please Choose a File dialog box.</p> <p>NOTE The setup program will proceed only if a valid aspnet_regsql.exe is detected.</p>
Web Site Port	<p>The setup program will create an IIS web site to run the FileNet Remote Connector Web Service. Enter the port under which the web service will run.</p>
Pre-Installation Summary	<p>Review the pre-installation information summary and click Install.</p> <p>CAUTION Once the installation process begins, the operation cannot be cancelled.</p>
Install Complete	<p>Review the installation summary.</p> <p>If there were errors during installation, a message will display on the summary screen. For details, see the installation log located in the following default location:</p> <p>C:\Program Files\IBM\FileNetConnectorForSharePointDocumentLibraries\IBM_FileNet_Connector_for_SharePoint_Document_Libraries_InstallLog_2.2.0.0.txt</p> <p>Click Done to exit the setup program.</p>

4. Launch a web browser, access the SharePoint site to which you just installed the connector and set the Document Library to allow management of content types as follows;

NOTE You must perform this procedure on all sites to which you have deployed IBM FileNet Connector for SharePoint Document Libraries solutions.

- a. Under **Documents**, click **Shared Documents**.
- b. Click **Settings** and select **Document Library Settings**.
- c. Under General Settings, click **Advanced Settings**.
- d. Under Allow management of content types, select **Yes**.

Task 4: Specify Application Pool security account (FileNet credential store authentication only)

In this task you will specify the account that is writing to the IBM FileNet Connector for SharePoint Web Parts user profile database.

To specify the Application Pool Security Account

This user must be the same user that is configured to execute within the Application Pool of the SharePoint web applications to be processed. Take adequate caution, as this user has access to user profile information.

The application pool security account must have Full Access rights (aspnet_Profile_FullAccess) to the user profile database you create for IBM FileNet Connector for SharePoint Document Libraries.

For more detail on the Application Pool security account, see [“User authentication and database requirements” on page 21](#).

See your Microsoft SQL Server documentation for details on how to set database user privileges.

1. Determine the Application Pool that is configured for use with the SharePoint web application.
 - a. On the SharePoint server, access the Internet Information Services (IIS) Manager from the Administrative Tools.
 - b. Expand the server node and then the Web Sites node.
 - c. Right-click the SharePoint web site to which the SharePoint Web Parts were deployed and select **Properties**.
 - d. Click the **Home Directory** tab and record the entry for the Application_pool field. This is the Application Pool that is configured for use with the SharePoint Web Application.
 - e. Close the properties window.
2. Determine the account that is running the application pool.
 - a. Expand the Application Pools node.
 - b. Right-click on the Application Pool that you recorded in step 1 above and select **Properties**.
 - c. Click the **Identity** tab and record the entry in the User name field. This is the account that must be used to write to the user profile database.
3. Specify the Application Pool Security Account. Log on to Microsoft SQL Server and add the user name from step 2 above to the following nodes:
 - Security\Logins node.
 - <database_profile>\Security\Users node. This is the same database name you entered during installation on the User Profile Database Information screen.

Task 5: (Optional) Install the Connector Administration Services on a remote server

Use the procedures in this task to install the Connector Administration Services for IBM FileNet Connector for SharePoint Document Libraries on a remote server. Perform this procedure only if you haven't installed the Connector Administration Service as part of your installation of IBM FileNet Connector for SharePoint Document Libraries on the Microsoft SharePoint server.

To silently install the Connector Administration Services on a remote server

To run a silent installation, you must create a response file that contains the options to pass to the setup program. A sample response file is included with the IBM FileNet Connector for SharePoint Document Libraries setup program.

1. Log on to the SharePoint machine using an account that has local administrator privileges.
2. From the IBM FileNet Connector for SharePoint Document Libraries software package, open the `silent_installer.properties` file in a text editor and enter the appropriate responses by following the directions in the file.
3. Open a command line and run the following command from the appropriate directory:
`IBMFileNet_DocLibConnector_2.2.exe -i silent -f silent_installer.properties`
4. Verify that communication is occurring between the two servers. Ensure a firewall is not preventing port-to-port server communication between this remote server and the Connector Services on the SharePoint server.

To interactively install the Connector Administration Service on a remote server

1. Log on to the remote machine using an account that has local administrator privileges.
2. Launch `IBMFileNet_DocLibConnector_2.2.exe`.
3. Complete the IBM FileNet Connector for SharePoint Document Libraries setup wizard screens as follows:

In this screen...	Perform this action...
Introduction	Read the introductory instructions about how to navigate through the setup program screens.
Software License Agreement	Review the software license agreement and click the option to accept it to proceed with the installation. Click Print to print a hardcopy of the agreement.

In this screen...	Perform this action...
Choose Install Folder	<p>Specify a directory path in which to install the software, as follows:</p> <ul style="list-style-type: none"> To accept the default installation path, click Next. To re-populate the field with the default install folder path, click Restore Default Folder. To navigate to a different installation path, click Choose and complete the Select a Folder dialog box. <p>NOTE Underlying UFI engine software and Content Engine .NET API software are automatically installed to a hard-coded directory in your install path. For details, see “Additional software installation” on page 18.</p>
Install Options	Ensure Connector Administration Services is selected.
Pre-installation Summary	<p>Review the pre-installation information summary and click Install.</p> <p>CAUTION Once the installation process begins, the operation cannot be cancelled.</p>
Install Complete	<p>Review the installation summary.</p> <p>If there were errors during installation, a message will display on the summary screen. For details, see the installation log located in the following default location:</p> <p>C:\Program Files\IBM\FileNetConnectorForSharePointDocumentLibraries\IBM_Fi leNet_Connector_for_SharePoint_Document_Libraries_InstallLog_2. 2.0.0.txt</p> <p>Click Done to exit the setup program.</p>

- Verify that communication is occurring between the two servers. Ensure a firewall is not preventing port-to-port server communication between this remote server and the Connector Services on the SharePoint server.

Task 6: Create Connector Administration Services database and data store

This task covers configuration of the UFI Configuration Manager that you use to create the data store for the database required to run IBM FileNet Connector for SharePoint Document Libraries. At the end of the procedure, you will be directed to the associated administrative help for follow-on instructions.

To add the required database and data store

1. Add a new database for IBM FileNet Connector for SharePoint Document Libraries.

DB2

- Create a new Standard DB2 database for the data store. Set a value of at least 8 k for the Default Buffer Pool and Table Space setting.
- Create a new user who is a DB2 administrator to communicate with the data store.

Oracle

- Create a new user to communicate with the data store. Grant the user read, write and table creation privileges.

SQL

- Create a new database for the data store.
- Create a new user to communicate with the data store. Grant the userdb_datareader and db_datawriter privileges to the data store database.

2. Run the appropriate database script located at *<install_directory>*\Program Files\IBM\UFI\Database Scripts against the database you just created.

DB2

db_ufi_400_db2.sql

Oracle

db_ufi_400_ora.sql

SQL

db_ufi_400_sql.sql

3. (Optional) Install DB2 or Oracle client. If either DB2 or Oracle is used as the database provider for the data store, install the respective client application on the Administration Services server. However, if the optional Administrative Services server was not implemented, install on the SharePoint server.

Oracle

Choose the Administrator option during client install.

DB2

Install Administration client.

4. Launch UFI Configuration Manager and create a new data store.
 - a. Click the Create New Data Store icon.
 - b. Enter a name for the new data store.
 - c. Select the *Make this my active data store* option.
 - d. Enter the database connectivity details and click **Retrieve Databases**.
 - e. Select the database you just created from the Database drop-down menu.
 - f. Click the Save icon.

For further details on how to use the UFI Configuration Manager, see IBM FileNet P8 Help topic [Expansion Products > IBM FileNet Connector for SharePoint > IBM FileNet Connector for SharePoint Document Libraries](#).

Task 7: Set IIS Manager account properties

This task outlines the steps required to set the account security for FnSpWebServices in the Internet Information Services (IIS) Manager.

To set IIS Manager account properties

1. Access the FnSpWebServices properties.
2. Select the **Home Directory** tab.
3. In the Application_pool drop-down menu, select the Application Pool that is configured for use with the SharePoint web application. This is the same Application Pool you made note of in step 1 of [“Specify Application Pool security account \(FileNet credential store authentication only\)” on page 34](#).

Task 8: Add Content Engine object store mapping keys to the web.config files

This task outlines the steps required to add the IBM FileNet Content Engine mappings to the appropriate web.config files.

CAUTION Any edits to the web.config files must be saved in UTF-8 format. For example, make the edits using Notepad and use save-as UTF-8.

To add Content Engine mappings to the web.config files

This key entry provides the path for the Redirector to find the document content streams. There must at least be one of these keys present. More keys can be added by adding additional entries and then numbering them sequentially (CEMapping2, CEMapping3). For each web application to which you have deployed IBM FileNet Connector for SharePoint Document Libraries, add the following key entry to the web.config file.

CAUTION Back up your web.config files before you make edits.

1. Access the appropriate web.config and open it in a UTF-8-compatible text editor.
2. Add the following key to the <FileNetConfig> section in the web.config file:

```
<add key="CEMapping1" value="objectstore=Object_Store_Name;url=CE_Webservice_URL" />
```

Object_Store_Name = the name of the target object store.

CE_URL_Webservice = the URL of the P8 CE web service.

For example:

```
<add key="CEMapping1" value="objectstore=APObjectStore5;url=http://APP8CEServ:7001/wsi/FNCEWS40MTOM/" />
```

The *objectstore* parameter value from the example *APObjectStore5* is the name of the target object store to which the document went during the migration. The *CE_Webservice_URL* is the url of the Content Engine where the corresponding objectstore is hosted.

3. Save the web.config file as UTF-8.

Post-installation Manual Deployment Tasks

Once you have installed and configured IBM FileNet Connector for SharePoint Document Libraries, you can perform the following tasks to manually deploy the components to new SharePoint web applications you add, post-installation.

- [Task 1: “Deploy the IBM FileNet User Administration Web Part” on page 42](#)
- [Task 2: “Update the web.config file” on page 43](#)
- [Task 3: “Deploy the IBM FileNet Redirector” on page 47](#)
- [Task 4: “Add Content Engine Object Store Mapping Keys to the web.config Files” on page 48](#)

Task 1: Deploy the IBM FileNet User Administration Web Part

Use the following procedure to manually deploy the IBM FileNet Connector for SharePoint Document Libraries components to a single web application.

NOTE The default location of the deployment package on the SharePoint server is **C:\Program Files\IBM\FileNetConnectorForSharePointDocumentLibraries\FnSPAdmin.wsp**

CAUTION Performing these procedures will only be successful if you have already run the IBM FileNet Connector for SharePoint Document Libraries 2.2 installer on the SharePoint machine.

NOTE All paths in this section are stated as the default locations.

For more information regarding the parameters in the web.config file, see the IBM FileNet P8 help topic [Expansion Products > IBM FileNet Connector for SharePoint Document Libraries > Fine-tune performance settings](#)

To manually deploy the IBM FileNet Connector for SharePoint Document Libraries components

1. Deploy the IBM FileNet Administration Web Part to the new SharePoint web application. Execute the following STSADM command:

```
"Program_Files_Directory/Common Files/Microsoft Shared/web server extensions/12/  
bin/STSADM.exe" -o deploysolution -name FnSPAdmin.wsp -immediate -url http://  
localhost:PORT
```

For example, "C:\Program files/Common Files/Microsoft Shared/web server extensions/
12/bin/STSADM.exe" -o deploysolution -name FnSPAdmin.wsp -immediate -url http://
SDE233:80

2. Run all spooled commands by executing the following STSADM command:

```
"Program_Files_Directory/Common Files/Microsoft Shared/web server extensions/12/  
bin/STSADM.exe" -o execadmsvcjobs
```

Task 2: Update the web.config file

Use the following procedure to manually update the web application with the appropriate entries.

CAUTION

- Any edits to the **web.config** files must be saved in UTF-8 format. For example, make the edits using Notepad and use save-as UTF-8.
- Back up your **web.config** files before you make edits.

(IBM FileNet Credential Store Authentication) To update the web.config file

1. Add the following entry before the `<system.web>` element in the SharePoint **web.config** file. Replace the `Database_Name`, `Database_Instance` and `Database_Port` variables with the appropriate entries.

```
<connectionStrings>
  <add name="Database_Name" connectionString="Data
Source=Database_Instance,Database_Port;Initial Catalog=FileNetProfile;Integrated
Security=True" providerName="System.Data.SqlClient" />
</connectionStrings>
```

For example:

```
<connectionStrings>
  <add name="FileNetProfileDB" connectionString="Data Source=localhost,1433;Initial
Catalog=FileNetProfile;Integrated Security=True"
providerName="System.Data.SqlClient" />
</connectionStrings>
```

2. Add the following entry to **web.config** in the system.web section just ahead of the `<authorization>` element:

```
<profile enabled="true" defaultProvider="FileNetProfileProvider">
  <providers>
    <add name="FileNetProfileProvider" type="System.Web.Profile.SqlProfileProvider,
System.Web, Version=2.0.3600.0, Culture=neutral, PublicKeyToken=b03f5f7f11d50a3a"
connectionStringName="FileNetProfileDB" applicationName="FileNet"/>
  </providers>
  <properties>
    <add name="FileNetUserName" type="String"/>
    <add name="FileNetPassword" type="String"/>
  </properties>
</profile>
```

3. Add the following entry to the <configuration>/<system.web>/<compilation>/<assemblies> section of the SharePoint **web.config** file:

```
<add assembly="FileNet.Api, Version=CE_.NET_API_version_number, Culture=neutral,
PublicKeyToken=63FC2FB3FDEEF4F1" />

<add assembly="Microsoft.Web.Services3, Version=3.0.0.0, Culture=neutral,
PublicKeyToken=31BF3856AD364E35" />
```

For example:

```
<add assembly="FileNet.Api, Version=4.0.0.0,
Culture=neutral,PublicKeyToken=63FC2FB3FDEEF4F1" />

<add assembly="Microsoft.Web.Services3, Version=3.0.0.0, Culture=neutral,
PublicKeyToken=31BF3856AD364E35" />
```

4. Change the value of enableSessionState= attribute from false to true on the <configuration>/<system.web>/<pages> element.

For example:

```
<pages enableSessionState="true" enableViewState="true" enableViewStateMac="true"
validateRequest="false"
pageParserFilterType="Microsoft.SharePoint.ApplicationRuntime.SPPageParserFilter,
Microsoft.SharePoint, Version=12.0.0.0, Culture=neutral,
PublicKeyToken=71e9bce11e9429c" asyncTimeout="7">
```

5. Add the following entry to the <configSections> section, ahead of the <sectionGroup name="SharePoint"> element:

```
<section name="FileNetConfig" type="System.Configuration.NameValueSectionHandler,
System, Version=1.0.3300.0, Culture=neutral, PublicKeyToken=b77a5c561934e089" />
```

6. Add the following entry after the <configSections> section, ahead of the <SharePoint> section. Replace the *Encryption_Key* variable with an Encryption Key - Enter the key that was used to encrypt the stored user names and passwords in the user profile database. As a best practice, encrypt this key (using the appropriate Microsoft encryption tool).

```
<FileNetConfig>
  <add key="ProfileKey" value="Encryption_Key" />
</FileNetConfig>
```

For example:

```
<FileNetConfig>
  <add key="ProfileKey" value="1234567" />
</FileNetConfig>
```

7. Add the following entry to the <system.web>/<security policy> section.

```
<trustLevel name="FileNetCustom" policyFile="C:\Program Files\Common
Files\Microsoft Shared\Web Server Extensions\12\config\filenetcustom.config" />
```

NOTE The filenetcustom.config policy file was created when you ran the IBM FileNet Connector for SharePoint Document Libraries setup program.

8. Add the following entry above the <webparts> section:

```
<trust level="FileNetCustom" originUrl="" />
```

- For Microsoft Office SharePoint Server (MOSS) installations, add the following entry to the end of the <appSettings> section:

```
<add key="FileNetAuthenticationMode" value="CredentialStore" />
```

For Windows SharePoint Services (WSS) Installations, add the following entry after the <configuration> element.

```
<appSettings>
  <add key="FileNetAuthenticationMode" value="CredentialStore" />
</appSettings>
```

(Integrated Windows Authentication) To update the web.config file

- Add the following entry to the <configuration>/<system.web>/<compilation>/<assemblies> section of the SharePoint **web.config** file:

```
<add assembly="FileNet.Api, Version=CE_.NET_API_version_number, Culture=neutral,
PublicKeyToken=63FC2FB3FDEEF4F1" />
```

```
<add assembly="Microsoft.Web.Services3, Version=3.0.0.0, Culture=neutral,
PublicKeyToken=31BF3856AD364E35" />
```

For example:

```
<add assembly="FileNet.Api, Version=4.0.0.0,
Culture=neutral,PublicKeyToken=63FC2FB3FDEEF4F1" />
```

```
<add assembly="Microsoft.Web.Services3, Version=3.0.0.0, Culture=neutral,
PublicKeyToken=31BF3856AD364E35" />
```

- Change the value of enableSessionState= attribute from false to true on the <configuration>/<system.web>/<pages> element.

For example:

```
<pages enableSessionState="true" enableViewState="true" enableViewStateMac="true"
validateRequest="false"
pageParserFilterType="Microsoft.SharePoint.ApplicationRuntime.SPPageParserFilter,
Microsoft.SharePoint, Version=12.0.0.0, Culture=neutral,
PublicKeyToken=71e9bce11e9429c" asyncTimeout="7">
```

- Add the following entry to the <configSections> section, ahead of the <sectionGroup name="SharePoint"> section:

```
<section name="FileNetConfig" type="System.Configuration.NameValueSectionHandler,
System, Version=1.0.3300.0, Culture=neutral, PublicKeyToken=b77a5c561934e089" />
```

- Add the following entry to the <system.web>/<security policy> section:

```
<trustLevel name="FileNetCustom" policyFile="C:\Program Files\Common
Files\Microsoft Shared\Web Server Extensions\12\config\filenetcustom.config" />
```

NOTE The filenetcustom.config policy file was created when you ran the IBM FileNet Connector for SharePoint Document Libraries setup program.

- Add the following entry above the <webparts> section:

```
<trust level="FileNetCustom" originUrl="" />
```

6. Add the following entries to the <authorization> section:

```
<authorization>
  <allow users="*" />
  <deny users="?" />
</authorization>
```

7. For MOSS installations, add the following entry to the end of the <appsettings> section:

```
<add key="FileNetAuthenticationMode" value="Kerberos" />
```

For WSS Installations, add the following entry after the <configuration> element:

```
<appSettings>
  <add key="FileNetAuthenticationMode" value="Kerberos" />
</appSettings>
```

8. Ensure the following two entries are in the <system.web> section:

```
<authentication mode="Windows" />
<identity impersonate="true" />
```

Task 3: Deploy the IBM FileNet Redirector

This task outlines the steps required to deploy the IBM FileNet Redirector to a single web application.

NOTE The default location of the deployment package on the SharePoint server is **C:\Program Files\IBM\FileNetConnectorForSharePointDocumentLibraries\FnSPRedirector.wsp**

To manually deploy the IBM FileNet Redirector

1. Deploy the IBM FileNet Redirector to the new SharePoint web application by executing the following STSADM command:

```
"Program_Files_Directory/Common Files/Microsoft Shared/web server extensions/12/  
bin/STSADM.exe" -o deploysolution -name FnSPRedirector.wsp -immediate -url http://  
localhost:PORT
```

2. Run all spooled commands by executing the following STSADM command:

```
"Program_Files_Directory/Common Files/Microsoft Shared/web server extensions/12/  
bin/STSADM.exe" -o execadmsvcjobs
```

Task 4: Add Content Engine Object Store Mapping Keys to the web.config Files

This task outlines the steps required to add the IBM FileNet Content Engine mappings to the appropriate **web.config** files.

CAUTION Any edits to the **web.config** files must be saved in UTF-8 format. For example, make the edits using Notepad and use save-as UTF-8.

To add Content Engine mappings to the web.config files

This key entry provides the path for the Redirector to find the document content streams. There must at least be one of these keys present. More keys can be added by adding additional entries and then numbering them sequentially (CEMapping2, CEMapping3). For each web application to which you have deployed IBM FileNet Connector for SharePoint Document Libraries, add the following key entry to the **web.config** file.

CAUTION Back up your **web.config** files before you make edits.

1. Access the appropriate **web.config** and open it in a UTF-8-compatible text editor.
2. Add the following key to the <FileNetConfig> section in the **web.config** file:

```
<add key="CEMapping1" value="objectstore=Object_Store_Name;  
url=CE_Webservice_URL" />
```

where:

object_Store_Name is the name of the target object store.

CE_URL_Webservice is the URL of the P8 CE web service.

For example:

```
<add key="CEMapping1" value="objectstore=APObjectStore5;url=http://APP8CEServ:7001/  
wsi/FNCEWS40MTOM/" />
```

The *objectstore* parameter value from the example *APObjectStore5* is the name of the target object store to which the document went during the migration. The *CE_Webservice_URL* is the URL of the Content Engine where the corresponding object store is hosted.

3. Save the **web.config** file as UTF-8.

Upgrade Planning and Procedures

This upgrade section contains the following major topics:

- [“Upgrade Overview” on page 50](#)
- [“Upgrade Tasks” on page 51](#)

Upgrade Overview

This section lists details that will help you prepare your environment for the upgrade of IBM FileNet Connector for SharePoint Document Libraries. In many cases, the items you see listed will be links to more detailed information, which will help you plan a system upgrade. Review this information thoroughly before you start the upgrade.

NOTES

- The upgrades described in this guide assume that you will retain your basic platform configuration from the previous release.
- Upgrades from version 2.1 must be run on the SharePoint servers where version 2.1 is installed.

Upgrade Planning Considerations

This section lists details that will help you prepare your environment for the upgrade of IBM FileNet Connector for SharePoint Document Libraries software. Review this section thoroughly before you set up IBM FileNet P8 integration components or required third-party software.

Gather Required Documentation

For a list of required documentation, see [“Gather required documentation” on page 17](#).

Authentication and Database Requirements

Your original installation of IBM FileNet Connector for SharePoint Document Libraries used a Microsoft SQL Server user profile database for authentication.

This upgrade of IBM FileNet Connector for SharePoint Document Libraries supports Windows Integrated Authentication as an alternate method of authentication. To use this method of authentication with this upgrade, you must install and configure Windows Integrated Authentication before running the setup program.

NOTE If you choose Windows Integrated Authentication, you will want to delete the Microsoft SQL user profile database and the Application Pool Security Account information. For details on how the Application Pool Security Account was created, see [“Specify Application Pool security account \(FileNet credential store authentication only\)” on page 34](#).

Upgrade Tasks

This section describes how to upgrade IBM FileNet Connector for SharePoint Document Libraries.

This section contains the following major topics:

- [Task 1: "Upgrade IBM FileNet Connector for SharePoint Document Libraries Documentation" on page 52](#)
- [Task 2: "Upgrade IBM FileNet Connector for SharePoint Document Libraries" on page 53](#)
- [Task 3: "Set IIS Manager Account Properties" on page 55](#)
- [Task 4: "Migrate Data and Configure Task Routes" on page 56](#)

Task 1: Upgrade IBM FileNet Connector for SharePoint Document Libraries Documentation

IBM FileNet Connector for SharePoint Document Libraries is an expansion product for IBM FileNet P8 Platform; therefore you must add the associated documentation to an existing installation of the IBM FileNet P8 Platform Help. This action makes IBM FileNet Connector for SharePoint Document Libraries help available to your users.

For details and instructions on installing expansion product documentation, see the latest IBM FileNet P8 version of the *IBM FileNet P8 Platform Installation and Upgrade Guide*. Pay special attention to the “Install Expansion Product Documentation” subtopic in the “Install IBM FileNet P8 Documentation (<your application server>)” task.

CAUTION You can install only the 2.2 version of IBM FileNet Connector for SharePoint Document Libraries documentation on an existing IBM FileNet P8 Platform 4.x documentation server.

Task 2: Upgrade IBM FileNet Connector for SharePoint Document Libraries

To run a silent install, you must create a response file that contains the options to pass to the setup program. A sample response file is included with the IBM FileNet Connector for SharePoint Document Libraries setup program.

To silently upgrade IBM FileNet Connector for SharePoint Document Libraries

1. Log on to the SharePoint machine using an account that has local administrator privileges.
2. From the IBM FileNet Connector for SharePoint Document Libraries software package, open the **silent_installer.properties** file in a text editor and enter the appropriate responses by following the directions in the file.
3. Open a command line and run the following command from the appropriate directory:

```
IBMFileNet_DocLibConnector_2.2.exe -i silent -f silent_installer.properties
```

To interactively upgrade IBM FileNet Connector for SharePoint Document Libraries

1. Log on to the SharePoint machine using an account that has local administrator privileges.
2. Launch **IBMFileNet_DocLibConnector_2.2.exe**.
3. Complete the IBM FileNet Connector for SharePoint Document Libraries setup wizard screens as follows:

In this screen...	Perform this action...
Introduction	Read the introductory instructions about how to navigate through the setup program screens.
Software License Agreement	<p>Review the software license agreement and click the option to accept it to proceed with the installation.</p> <p>Click Print to print a hardcopy of the agreement.</p>
Choose User Authentication Method	<p>Specify a directory path in which to install the software, as follows:</p> <ul style="list-style-type: none"> • To accept the default installation path, click Next. • To navigate to a different installation path, click Choose and complete the Select a Folder dialog box. <p>NOTE Underlying UFI engine software and Content Engine .NET API software are automatically installed to a hard-coded directory in your install path. For details, see “Additional software installation” on page 18.</p>

In this screen...	Perform this action...
Pre-Installation Summary	<p>Review the pre-installation information summary and click Install.</p> <p>CAUTION Once the installation process begins, the operation cannot be cancelled.</p> <p>NOTE During installation, if prompted with a warning regarding overwriting existing files, select Yes to All and allow the installer to continue.</p>
Install Complete	<p>Review the installation summary.</p> <p>If there were errors during installation, a dialog will appear that indicates errors during install. For details, see the installation log located in the following location:</p> <p>C:\Program Files\IBM\FileNetConnectorForSharePointDocumentLibraries\IBM_FileNet_Connector_for_SharePoint_Document_Libraries_InstallLog.log</p> <p>Click Done to exit the setup program.</p>

Task 3: Set IIS Manager Account Properties

Use the procedure in this topic to set the account security for FnSpWebServices in the Internet Information Services (IIS) Manager.

To set IIS Manager account properties

1. Access the FnSpWebServices properties.
2. Select the **Home Directory** tab.
3. In the Application Pool drop-down menu, select an application pool that is configured to run as the user profile database account.

Task 4: Migrate Data and Configure Task Routes

Use the procedure in this topic to migrate the existing data store content and configure the associated task routes.

To migrate the existing data store content and configure associated task routes

1. Run the required database script against the existing data store to create the necessary tables. From the IBM UFI application root install directory, execute **C:\Program Files\IBM\IBM UFI\UtilityConnectorMigration.sql** on the database.

NOTE An acceptable response on a successful execution is “0 rows updated.”

2. Run the following migration tool from the IBM UFI application root install directory: **C:\Program Files\IBM\IBM UFI\401to402.exe**.
3. Configure a connection to a data store for use in IBM FileNet Connector for SharePoint Document Libraries 2.2. For details, see IBM FileNet P8 help topic [Expansion Products > IBM FileNet Connector for SharePoint Document Libraries > Configure a connector from start to finish > Create a connection](#)
4. For each existing Collection Source within your Collectors, enter the Web Service URL as follows:

http://<server>:<port>

For example:

http://spserver:2278

Remove Software

This section includes:

- [“Uninstall IBM FileNet Connector for SharePoint Document Libraries” on page 58](#)
- [“To interactively uninstall IBM FileNet Connector for SharePoint Document Libraries” on page 58](#)
- [“To silently uninstall IBM FileNet Connector for SharePoint Document Libraries” on page 60](#)

Uninstall IBM FileNet Connector for SharePoint Document Libraries

This task describes how to uninstall the IBM FileNet Connector for SharePoint Document Libraries software interactively or silently.

NOTES

- The uninstall program does not remove the associated <UFI> directories, because they contain software that can be shared with other IBM FileNet integration products. You can remove these directories manually if you are sure no other products are installed that require them (for example, IBM FileNet Email Manager or Records Crawler).
- You must uninstall IBM FileNet Connector for SharePoint Document Libraries in the same manner that it was installed. If the software was installed silently, then you must uninstall silently. If the software was installed interactively, then you must uninstall interactively.

Interactively Uninstall IBM FileNet Connector for SharePoint Document Libraries

The procedure in this topic describes how to interactively uninstall the software using the Add or Remove Programs Control Panel.

To interactively uninstall IBM FileNet Connector for SharePoint Document Libraries

1. Stop the UFI Task Routing Engine service. When this service stops, it also automatically stops the following services:
 - FileNet SharePoint Connector Service
 - UFI FileNet P8 Content Engine 4.0 Connector
 - UFI Retention Service

CAUTION Ensure the four services are stopped before proceeding with the uninstall.

2. From the Windows Control Panel, select Add or Remove Programs.
3. Select **IBM FileNet Connector for SharePoint Document Libraries**.

NOTE The IBM FileNet Connector for SharePoint Document Libraries setup program adds the following components during installation, all of which will be removed when you uninstall:

- Connector GAC Install.
 - FileNet UFI.
 - IBM FileNet Connector for SharePoint Document Libraries.
4. Click **Change/Remove**. The Introduction screen of the Uninstall IBM FileNet Connector for SharePoint Document Libraries program opens.
 5. Click **Uninstall** to proceed with the uninstall operation.

6. Click **Done** once the uninstall completes.
7. From Microsoft SQL Server, remove the user profile database and then remove the NT AUTHORITY\NETWORK SERVICE user that you specified on installation from the following nodes:
 - Security\Logins node
 - <database_profile>\Security\Users node
8. Delete the Microsoft SQL Server database that was created during installation of the IBM FileNet Connector for SharePoint Document Libraries. For details, see [“Create Connector Administration Services database and data store” on page 37](#).
9. Delete the FnSpWebServices web site as follows, depending on the IIS version:

For IIS 6.0

- a. Open Internet Information Services (IIS) Manager.
- b. Expand the **Server** node.
- c. Expand the **Web Sites** node.
- d. Select FnSpWebServices web site and select **Delete** from the **Action** menu.

For IIS 7.0

- a. Open Internet Information Services (IIS) Manager.
- b. Expand the **Server** node.
- c. Expand the **Web Sites** node.
- d. Select FnSpWebServices web site and select **Disconnect** from the **File** menu.
- e. Delete the Web Site folder as follows:
 - i. Navigate to **C:\inetpub\wwwroot\FnSPWebServices**.
 - ii. Delete **FnSPWebServices** folder and contents.

Silently Uninstall IBM FileNet Connector for SharePoint Document Libraries

The procedure in this topic describes how to silently uninstall the software.

To silently uninstall IBM FileNet Connector for SharePoint Document Libraries

1. Stop the UFI Task Routing Engine service. When this service stops, it also automatically stops the following services:
 - FileNet SharePoint Connector Service
 - UFI FileNet P8 Content Engine 4.0 Connector
 - UFI Retention Service

CAUTION Ensure the services are stopped before proceeding with the uninstall.

2. Log on to the SharePoint machine using an account that has local administrator privileges.
3. Open a command prompt and navigate to the **Uninstall IBM FileNet Connector for SharePoint Document Libraries** subdirectory in the installation location (the default location is **C:\Program Files\IBM\FileNetConnectorForSharePointDocumentLibraries\Uninstall IBM FileNet Connector for SharePoint Document Libraries**).
4. Execute the following command:

```
"Uninstall IBM FileNet Connector for SharePoint Document Libraries.exe" -i silent
```

The IBM FileNet Connector for SharePoint Document Libraries will silently uninstall.

5. From Microsoft SQL Server, remove the user profile database and then remove the NT AUTHORITY\NETWORK SERVICE user that you specified on installation from the following nodes:
 - Security\Logins node
 - <database_profile>\Security\Users node
6. Delete the Microsoft SQL Server database that was created during installation of the IBM FileNet Connector for SharePoint Document Libraries. For details, see ["Create Connector Administration Services database and data store" on page 37](#).
7. Delete the FnSpWebServices web site as follows, depending on the IIS version:
For IIS 6.0
 - a. Open Internet Information Services (IIS) Manager.
 - b. Expand the **Server** node.
 - c. Expand the **Web Sites** node.
 - d. Select FnSpWebServices web site and select **Delete** from the **Action** menu.

For IIS 7.0

- a. Open Internet Information Services (IIS) Manager.
- b. Expand the **Server** node.
- c. Expand the **Web Sites** node.
- d. Select FnSpWebServices web site and select **Disconnect** from the **File** menu.
- e. Delete the Web Site folder as follows:
 - i. Navigate to **C:\inetpub\wwwroot\FnSPWebServices**.
 - ii. Delete **FnSPWebServices** folder and contents.

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