

IBM FileNet Image Services
Version 4.1.2 or 4.2.0

*FileNet Image Services connector
for IBM Content Navigator*

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Note

Before using this information and the product it supports, read the information in “Notices” on page 21.

This edition applies to version 4.1.2 or 4.2.0 of FileNet Image Services connector for IBM Content Navigator (5724-R95) and to all subsequent releases and modifications until otherwise indicated in new editions.

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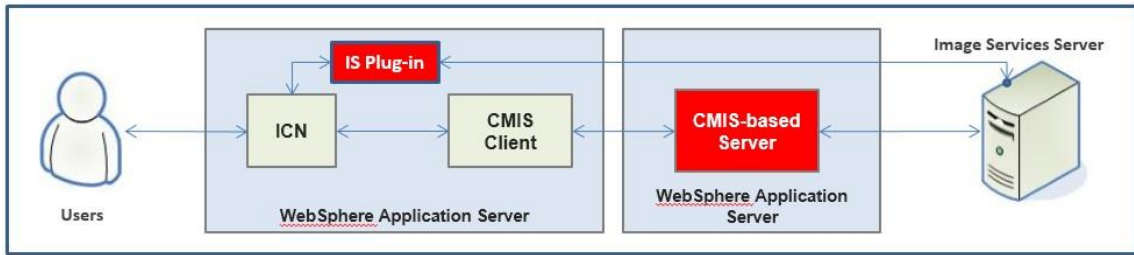
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FileNet Image Services Connector for IBM Content Navigator

Abstract

FileNet Image Services customers can use FileNet Image Services connector for IBM Content Navigator (ICN) with an IBM Content Navigator client to connect to an Image Services system. With the connector, you can perform document queries, retrievals and committals, as well as view multi-content (page) elements, COLD documents and use annotations.



Requirements

The required software for the FileNet Image Services connector for IBM Content Navigator are:

1. WebSphere (AIX and Windows Only)
2. Image Services 4.1.2 or 4.2.0
3. IBM Content Navigator
4. AIX, Windows, or Red Hat Enterprise Linux (RHEL)

Refer to Image Services Hardware and Software guide for information about the supported versions of these software.

Installation instructions for Image Services Connector for ICN (WAR File)

The instructions for deploying the FileNet Image Services connector for IBM Content Navigator on WebSphere are provided in this document.

To install and configure the connector, download the latest fix packs of FileNet Image Services 4.1.2 or 4.2.0 from IBM Fix Central. After you apply the fix pack, the WAR (**W**eb application **A**Rchive) file for WebSphere is located in the `/fnsw/cmisis` directory. The name of the WAR file is `Image_Services_connector_for_ICN.war`. The WAR file is deployed to the WebSphere Application Server (WAS) using the WAS Admin console.

Only one FileNet Image Services connector for IBM Connector Navigator can be deployed per WebSphere server instance. If you have multiple Image Services domains, one FileNet Image Services connector for IBM Content Navigator must be deployed for each domain.

The `/fnsw/cmisis` directory also contains a JAR file that is installed on the IBM Content Navigator server to deploy the FileNet Image Services Plugin and the RPC definitions that are used to communicate with FileNet Image Services. The JAR file is `ImageServicesPlugin.jar`.

The `/fnsw/cmisis` directory also contains `stamp.bat` (Windows) and `stamp.sh` (Unix) scripts that are used for stamping.

Component Name	Filename	Description
CMIS-based server	Image_Services_connector_for_ICN.war	Allows users to perform document queries, retrievals and committals.
Image Services Plug-in	ImageServicesPlugin.jar	Allows users to view multi-content elements, COLD documents and use annotations. Also, provides RPC definitions used to communicate with FileNet Image Services.
Batch file	stamp.bat	Determines the version of ICN connector.
Shell script	stamp.sh	

Note: Here is an example of running the `stamp.bat` file to stamp the jar and war file to determine the version of ICN connector:

```
c:\fnsw\cmisis\>.\stamp.bat ImageServicesPlugin.jar
```

```
Implementation Version: 1.3.0-067
Build Date: 2015-07-30 07:02:18
Built By: lib
```

```
c:\fnsw\cmisis\>.\stamp.bat Image_Services_connector_for_ICN.war
```

```
Implementation Version: 1.3.0-067
Build Date: 2015-07-30 07:02:22
Built By: lib
```

Deployment Stage

1. Use your browser to log in using the WAS Admin Console.
2. Select **Applications > New Applications > New Enterprise Application**.
3. Select **Local file system**.
4. Click **Browse** to locate and select the WAR file.
5. After you select the WAR file, click **Next**.
6. Choose the **Fast Path** option and click **Next**.
The **Application name** field displays the list of WebSphere applications when you start and stop the software. Change the name of the application.
For example, change the application name from
`Image_Services_connector_for_ICN.war` to
`Image_Services_connector_for_ICN`.
7. Accept all the default values for the remaining fields and click **Next**.
8. Select **Image Services connector for IBM Content Navigator**, and click **Next** on the **Map modules to servers** screen.
9. Select **Image Services connector for IBM Content Navigator**, and click **Next** on the **Map virtual hosts** screen.
Important: On the **Map context roots for Web modules** screen, replace the `/` with `is-cmis-server` and then click **Next**.
10. Click **Finish** on the Summary screen.
The installation starts. When the installation is complete, "Application is-cmis- server installed successfully" status is displayed.
11. Click **Save** to save the changes directly to the master configuration.

Configuration Stage

During the deployment stage, a `repository.properties` file is installed on the server. You must edit the file before you start the FileNet Image Services connector for IBM Content Navigator. The location of the file varies, depending upon the hardware operating system and where on the server WebSphere was installed.

The following is an example of the pathname where the `repository.properties` file is located.

```
<WAS_INSTALL_HOME>/AppServer/profiles/AppSrv01/installedApps/cmisaix12Node01Cell/Image_Services_connector_for_ICN.ear/Image_Services_connector_for_ICN.war/WEB-INF/classes
```

1. Edit the `repository.properties` file and replace `domain:organization` to match the correct FileNet Image Services domain and organization name in your environment. Remove the “[” and “]” brackets.

For example, change to Image Services = **<your domain>:<your organization>**

The `repository.properties` file also contains detailed descriptions for all settings.

2. Save the changes.

Important:

Add the IP address, domain name, and four-part NCH name to the `/etc/hosts` file on the WebSphere server. An example of an entry in the `/etc/hosts` file is shown below:

```
###.<your domain>-<your organization>-nch-server
```

If your environment uses DNS to resolve host names, you do not need to complete this stage of the procedure if the DNS configuration contains the four-part NCH name.

Start Image Services connector for ICN on WebSphere

1. After the installation is complete, select **Applications > Application Types > WebSphere enterprise applications** from the WebSphere Admin Console.
2. Select the **Image Services connector for ICN** check box, and then click **Start**.
3. Type the URL in the Address Bar of the browser to view the FileNet Image Services connector for IBM Content Navigator home page, and to verify the server is up and running. For example:

http://CMIS_WAS:9080/is-cmis-server/

Uninstall instructions for Image Services connector for ICN This

is an optional step and only needs to be performed if the WAR file needs to be uninstalled.

1. Go to **Applications > Application Types > WebSphere enterprise applications**.
2. Select **Image Services connector for IBM Content Navigator** and then click **Stop**.
3. Click **Uninstall**.
4. Click **OK** to remove the Image Services connector for IBM Content Navigator application.
5. Click **Save** to save the changes to the master configuration.

Installation instructions for ImageServicesPlugin.jar file

1. Copy the `ImageServicesPlugin.jar` file to a local directory on the IBM Content Navigator server.
2. Log in to the IBM Content Navigator admin desktop.
3. Select **Plug-ins > New Plug-in**.
4. Enter the full pathname of the `ImageServicesPlugin.jar` file in the JAR file path box and select **Load**. After the `ImageServicesPlugin.jar` file has been successfully loaded, the **Name** field displays `ImageServicesPlugin` and the version is also displayed.
5. After the `ImageServicesPlugin.jar` file has been loaded, select **Save**. In your browser, you must reload or refresh for the change to take effect.
Restriction: If an `ImageServicesPlugin.jar` file has already been installed and you are replacing the file with a new version, you must delete the existing plug-in before starting the installation.

IBM Content Navigator Configuration and Deployment Tool

When you use the IBM Content Navigator Configuration and Deployment Tool to configure IBM Content Navigator, use the panel that is named **Edit Profile Properties**, to select the web application that you want to deploy.

1. If you are installing IBM Content Navigator only to support a FileNet Image Services repository, select **No Repository** under the **IBM Content Navigator** section. Do not select any check box under the **IBM CMIS for ECM** section or in the **IBM FileNet Collaboration Services** section.
Tip: Ignore the following statement in the IBM Content Navigator Deployment Tool:
Using IBM Content Navigator to connect to IBM ECM repositories through IBM CMIS is not supported.
2. Select the **No Repository** check box and click **Finish**.
3. Follow the IBM Content Navigator Configuration and Deployment Tool documentation to complete the deployment tasks.

Information regarding IBM Content Navigator Configuration can be found on the IBM Content Navigator documentation website.

https://www.ibm.com/support/knowledgecenter/SSEUEX_3.0.3/KC_ditamaps/content_navigator.htm

IBM Content Navigator Web Client Configuration Procedure

Preparation Stage

1. Verify that the FileNet Image Services software starts without any errors.
2. If your environment uses DNS to resolve host names and if the DNS name contains the four-part NCH name, you do not need to complete this stage of the procedure.

Verify that the IP address, domain name, and four-part NCH name of the Image Services server is contained in the `/etc/hosts` file on the WebSphere server. Here is an example of an entry in the `/etc/hosts` file:

```
##.##.## <your domain>-<your organization>-nch-server
```

Configuration Stage

1. Log in to the IBM Content Navigator Server Admin desktop. The default port contained in the URL is 9080. However, the port used might be different. To verify the port to use, complete the following steps.
 - a. Log in to the WAS Admin Console using your web browser.
 - b. Select **Servers > Server Types > WebSphere application servers**.
 - c. Select your server from the list of application servers displayed.
 - d. Under Communications, select **Ports**.
2. Use the port assigned to WC `defaultHost` in the IBM Content Navigator Server Admin desktop URL.
An example of the IBM Content Navigator Server Admin desktop URL setting is:

<http://cm0317.ocl.cmlabs.mycompany.com:9080/navigator/?desktop=admin>

Configure Repository

1. Select **Repositories > New Repository > Content Management Interoperability Services (CMIS)**.
2. Enter the Display Name, ID, CMIS AtomPub binding service document URL, and the CMIS Repository ID.
Examples of the **CMIS AtomPub binding service document URL** setting are:
`http://CMIS_WAS:9080/is-cmis-server/atom`
`http://CMIS_WAS:9080/is-cmis-server/atom11`
The CMIS Repository ID must contain the Image Services domain name and organization name. This field must match the `repository.properties` file that was edited in the Image Services Connector for IBM Content Navigator.
3. After you enter the information, click **Connect**, and then log in to the FileNet Image Services server by using a valid Image Services user name and password.
If the login is successful, click **Save**. If the FileNet Image Services login is not successful, resolve the problem and click **Connect**.

Configuration Parameters Tab

FileNet Image Services does not support checking in versions of documents.

Select **No** for both the **Add as major version** and **Check in as a major versions** options and then click **Save**.

System Properties Tab

The **System Properties** tab contains settings for both Documents and Folders. Since FileNet Image Services does not support document versions, not all the system properties that are available apply. From the selected properties list, remove settings that do not apply. Adding **F_ENTRYDATE**, **MIME type**, and **Filename** is suggested.

Make the configuration changes and click **Save**.

Browse Tab

1. Specify the properties that are displayed for documents and folders in the content list when users are browsing. The entries that should be selected are **F_DOCNUMBER**, **F_ENTRYDATE**, **F_ARCHIVEDATE**, **F_DELETEDATE**, **F_DOCFORMAT**, and **F_RETENTIONDATE**. You can also specify the order in which the properties are displayed.
2. After you select the properties and order, click **Save**.

Search Tab

1. Specify which options are selected by default when users create a search.
Match - Select **Match all of the search criteria**.
Default Search Type - Select **Documents**.

Searchable Properties

1. The Searchable Properties configuration contains settings for both Documents and Folders. Since FileNet Image Services does not support document versions, not all the searchable properties that are available apply. From the selected properties list, remove settings that do not apply. Adding **F_ENTRYDATE**, **F_ARCHIVEDATE**, **F_DELETEDATE**, **F_DOCFORMAT**, **F_DOCNUMBER**, and **Name** are suggested.
2. Make the configuration changes and click **Save**.

Search Operators

No changes are necessary.

Search Results

Specify the properties that are displayed for documents in the search results. You can hide any properties that you do not want to appear in the results. The properties that FileNet Image Services uses for **Show in Details View** and **Show in Magazine View** are **Name**, **Filename**, **Creation Date**, **Class**, and **MIME Type**. After you complete all the changes in Configure Repository, click **Save**.

Configure Viewer Maps

You must create a New Viewer Map and configure the map so that Daeja ViewONE Professional is used for viewing documents from Image Services IBM Content Navigator Desktop. If you do not configure the viewer map, multiple page documents, annotations, and COLD documents are not viewable.

1. Select **Viewer Maps > New Viewer Map**.
2. Enter the **Name**, **ID**, and **Description**. For example, **ImageServicesViewmap**.
3. In the **Repository Type** box, select the first entry and then hold down the **Shift** key to select all items.
4. Click **Delete** to remove the default viewer maps.
5. Click **New Mapping**.
6. Select **Content Management Interoperability Services (CMIS)** for the Repository Type.
7. Select **Daeja ViewONE Professional** for Viewer.
8. Enter **application/octet-stream** in the **New MIME Types** box and then click **Add**.
9. Select the first entry in the **Available MIME Types** box.
10. Press **Control-A** to select all mime types then select the right arrow to move the selections to the Selected Mime Types window.
11. Click **OK** in the bottom right hand corner of the screen.
12. Click **Save** to save the new Viewer Map.

Configure Desktops

A desktop determines what the user can see and do when they log in to the web client. After you create a desktop, you can send the desktop URL to users so they can access the desktop.

Select **Desktops > New Desktop**.

- General Tab
 1. Enter the **Name**, **ID**, and **Description**.
 2. **Authentication** – Select the repository from the drop-down menu.
 3. **Desktop Configuration** – Select the viewer map that was created in the previous section. Accept all the default values.
- Repositories Tab

Verify that the repository that you selected in the **General Tab** appears in the Selected Repositories panel.
- Layout Tab
 1. **Desktop Features** – No changes are necessary. Accept all the default values.
 2. **Additional Desktop Components** – Select **Show** for all options.
Restriction: Displaying thumbnails for documents can slow the performance of the IBM Content Navigator web client.
- Appearance Tab

No changes are necessary. Accept all the default values.
- Menus Tab

No changes are necessary. Accept all the default values.
- Workflows Tab

No changes are necessary. Accept all the default values.
- Mobile Tab

No changes are necessary. Accept all the default values.

After you make the desktop configurations changes, click **Save** and **Close**.

The IBM Content Navigator repository is configured. Use a FileNet Image Services login and password, and use a browser to log in to the IBM Content Navigator desktop to begin searching for documents. For example, the URL might appear similar to the following where MyDomain is the Desktop Name that you created.

<http://cm0317.ocl.cm.labs.mycompany.com:9080/navigator/?desktop=MyDomain>

Important: After logging in to IBM Content Navigator server, the language and locale settings can be changed for the user. After clicking **Save**, the user must log off and back in again for changes to take effect. Refer to the IBM Content Navigator documentation for instructions on changing locale.

New: A new feature has been added to the Image Services plug-in, the 'Download All' menu action. It helps download all the pages of a multi-page document. For details on configuring the Download All menu action, refer to the following technote:

<https://www.ibm.com/support/pages/node/6260143>

Refer to the *IBM Content Navigator documentation* for any information pertaining to queries, updates, or other actions.

Release Notes

Limitations

- Committing multiple-content (page) elements is not supported by the Image Services connector for IBM Content Navigator. Multiple-content elements can be displayed.
- The modification of security access rights is done in the object (document or folder) properties page through these three properties - `ReadUsr/Grp`, `WriteUsr/Grp`, and `AppendExecUsr/Grp`.

The group names must be entered manually, therefore, users must know the exact user or group security name before creating or updating the access rights.

For the special access right ANYONE, either (**ANYONE**), this is the default behavior for document creation and update operations.

The user's FileNet Image Services primary group name is assigned for folder creation and update operations when the security property is left blank.

The FileNet Image services NONE access right is not supported.

Updating the security attributes for annotations is not supported by using the Image Services plugin. Use IDM Desktop or ISRA to update annotation security.

Diagnostic Tips

Information is provided on how to change the debug logging level if it is required and includes a list of items to verify if the FileNet Image Services connector for IBM Content Navigator is not working correctly.

- Verify that the IBM FileNet Image Services server IP address has been added to the `/etc/hosts` file on the WebSphere server for both the CMIS-based server and the IBM Content Navigator server.
- Verify that the IBM FileNet Image Services software started successfully.
- Verify the FileNet Image Services `domain:organization` information is set correctly in the `repository.properties` file and the CMIS Repository ID (part of the IBM Content Navigator Repository configuration).
- Verify that FileNet Image Services connector for IBM Content Navigator is deployed and starts successfully before you connect and create a new IBM Content Navigator repository.
- Verify that the AtomPub binding service document URL is configured correctly when you create a new IBM Content Navigator repository. The URL format is:

http://<CMIS_hostname>:<port>/is-cmis-server/atom or
http://<CMIS_hostname>:<port>/is-cmis-server/atom11

For example: <http://myserver.usca.ibm.com:9080/is-cmis-server/atom11>

- Verify that the correct IBM Content Navigator URL is entered in order to invoke the FileNet Image Services connector for IBM Content Navigator:

http://<ICN_hostname>:<port>/navigator/?desktop=<desktop_name>

For example:

<http://cmlv1017.ocl.cm.labs.mycompany.com:9080/navigator/?desktop=MyDomain>

Refer to IBM Content Navigator configuration information documented in the IBM

Knowledge Center.

- o In addition to the regular `SystemOut.log` and `SystemErr.log` files generated by WebSphere, logs (`log4j.log*`) can be found in the path similar to:

```
<WAS_INSTALL_HOME>\AppServer\profiles\AppSrv01
```

The default location of the `log4j.properties`, the `log4j` configuration file is:

```
<WAS_INSTALL_HOME>/AppServer/profiles/AppSrv01/installedApps/c  
misaix12Node01Cell/Image_Services_connector_for_ICN.ear/Image_  
Services_connector_for_ICN-1.1.0.war/WEB-INF/classes
```

The content of the `log4j.properties` file is:

```
log4j.rootCategory=INFO, R, O  
  
# Stdout  
  
log4j.appender.O=org.apache.log4j.ConsoleAppender  
  
# File  
  
log4j.appender.R=org.apache.log4j.RollingFileAppender  
  
log4j.appender.R.File=log4j.log  
  
# Control the maximum log file size  
  
log4j.appender.R.MaxFileSize=100KB  
  
# Archive log files (one backup file here)  
  
log4j.appender.R.MaxBackupIndex=10  
  
log4j.appender.R.layout=org.apache.log4j.PatternLayout  
  
log4j.appender.O.layout=org.apache.log4j.PatternLayout  
  
log4j.appender.R.layout.ConversionPattern=%d{ISO8601} %-5p  
[%t] %c: %m%n  
  
log4j.appender.O.layout.ConversionPattern=%d{ISO8601} %-5p  
[%t] %c: %m%n  
  
log4j.logger.org.example.cmis=INFO  
  
log4j.logger.org.apache.chemistry.opencmis=INFO
```

To change the level of logging, modify the first line.

```
log4j.rootCategory=WARN, R, O
```

The logging level is set to the default level of `INFO`. It can be changed to any of the other defined values:

WARN - Generates errors and warning messages only.

INFO - Generates the smallest and most important diagnostic messages. This is typically the first setting to use when looking into a problem.

DEBUG - Next higher level of diagnostics. Only turn on `DEBUG` at the request of Engineering, since `DEBUG` generates a substantial amount of data, which can impact performance.

TRACE - Highest level of diagnostic. Only turn on TRACE at the request of IBM, since it generates a substantial amount of data, which can impact performance.

There are two other settings, **ERROR** and **FATAL**. These settings are typically not used because they exclude warning messages, which IBM always wants to analyze. To change the level of logging, modify the first line.

```
log4j.rootCategory=WARN, R, O
```

The following line defines the log file:

```
log4j.appender.R.File=log4j.log
```

If no path is specified, the file is created in the default location, as indicated for WebSphere is:

```
<WAS_INSTALL_HOME>\AppServer\profiles\AppSrv01
```

The following line defines the maximum size of each log file:

```
log4j.appender.R.MaxFileSize=100KB
```

The following line defines the total number of log files:

```
log4j.appender.R.MaxBackupIndex=10
```

As each log file reaches its maximum size, it is renamed to `log4j.log.1`. The other existing log files are also renamed accordingly, that is, `log4j.log.1` becomes `log4j.log.2`, and so on. If the number of log files specified by the line above has already been reached, the oldest one is deleted.

These two parameters create a limit on the amount of disk space consumed by logging. These numbers can be adjusted as needed. Specifically, if you want to capture more logging history in order to debug a problem, increase the total number of log files, and verify there is enough disk space. Do not make the maximum file size larger, since this increases the difficulty of handling each file.

If the `log4j.properties` file is modified, the FileNet Image Services connector for IBM Content Navigator must be restarted for the changes to occur.

- In this section, information is provided to enable IBM Content Navigator debug level logging. This should only be done at the request of IBM or your support representative.

Log in to **IBM Content Navigator admin desktop > Settings > Logging**.

Change the Application-level logging from the default 'Warning' level to 'Debug' level. If the `ImageServicesPlugin` is suspected to be the cause of the problem, specify "`com.ibm.filenet.is.plugin`" package name in the **Java class-level logging > Specific classes** field.

To further narrow down the problem or reduce the size of the debug log, follow these additional steps:

If you know the problem comes from specific client machines, you can specify the IP addresses in the **Debug logging for > Client host machines (IP addresses)** field.

If you know the problem comes from specific users, you can specify the user names in the **Debug logging for > Users** field.

The values of the IP addresses and the users that you provide must match the ones displayed in the log file.

Save the changes and restart the IBM Content Navigator for the changes to take effect.

When the problem is identified, you are advised to restore the logging settings to the default values.

- When the `IDMdesktopIndexes` property is set to `true` in `repository.properties` file, the following FileNet Image Services doctaba system indexes are displayed in the IDM Desktop style.

<u>IDMdesktopIndexes=true</u>	<u>IDMdesktopIndexes=false</u>
F_ARCHIVEDATE	Document Archive Date
F_DOCNUMBER	Document Number
F_DOCFORMAT	Document Format Name with MIME Type
F_DELETEDATE	Document Delete Date
F_ENTRYDATE	Creation Date
F_PAGE	Number of Pages
F_RETENTDISP	Retention Disposition
F_RETENTBASE	Retention Base
F_RETENTOFFSET	Retention Offset Months

Known Issues

- Do not use multiple Internet Explorer browser windows or tabs for IBM Content Navigator at the same time. Opening multiple sessions can result in unpredictable behavior.
- The Browser binding protocol is not supported. IBM Content Navigator 2.0.3 supports AtomPub Binding 1.0 and 1.1. The Atom Publishing Protocol (APP) is based on HTTP and is used for publications and posting on Web resources.
- The "Creation Date" column displays in the Browse view in lieu of "F_ENTRYDATE" even though the "IDMdesktopIndexes" property is set to "true" in the `repository.properties` file. In other locations (such as System Properties view), this property is correctly displayed as F_ENTRYDATE.
- Since Image Services documents cannot be modified, the `lastModificationDate` property displays the same value contained in the `createDate` property.
- Foreign background COLD templates are not supported. Foreign background COLD templates are COLD templates that have been imported to an Image Services server for another server that has a different SSN number.
- After any additions or updates to the FileNet Image Services document classes or indexes are made, these changes will not be reflected on IBM Content Navigator immediately. The document class meta-data is stored in three places.
 1. FileNet Image Services.
 2. FileNet Image Services connector for IBM Content Navigator in the form of the `typeManager` object.
 3. IBM Content Navigator.

There are two approaches to refresh document class meta-data on the IBM Content Navigator server. This needs to be performed when document classes and/or indices

have been added or modified on the FileNet Image Services server, for the changes to also occur on the IBM Content Navigator server.

1. The active approach is to have the System Administrator recycle the FileNet Image Services connector for IBM Content Navigator to refresh the typeManager. The IBM Content Navigator users must logoff and back on again because IBM Content Navigator caches the typeManager document class meta-data object.
 2. The passive approach is to depend on the DictionaryRefreshThreshold setting in the `repository.properties` file. The FileNet Image Services connector for IBM Content Navigator periodically checks for changes to the Image Services document class meta-data and then updates the FileNet Image Services connector's typeManager object. The IBM Content Navigator users must logoff and back on again because IBM Content Navigator caches the typeManager document class meta-data object.
- Document AllowableActions restrictions:
 1. IBM Content Navigator always enables 'Remove from Folder'.
 2. Both 'Add Document' and 'New Folder' buttons are grayed out in IBM Content Navigator for 'closed' folder. IDM Desktop does not allow 'Add Document' but allows a new folder to be created in a 'closed' folder
 - When performing IBM Content Navigator document queries, the search results are not displayed in a sorted order if the results exceed one page. If the search results are less than a full page, the results can be displayed in a sorted order if **Use locale-specific sorting** is set to **Disable** in the IBM Content Navigator Settings configuration.
 - The System Administrator must clean up JVM files that are created for terminal name. If the number of CMISLock.[n] files exceeds the limit of 99 files, problems with the FileNet Image Services connector for IBM Content Navigator software can occur.

Two new endpoint names have been designed for the FileNet Image Services connector for IBM Content Navigator (as an Image Services client) communicating to FileNet Image Services.

Connector: C<LLLLLLLL>.<JJ>.<NNNN>@<ip-address>

Plugin: P<LLLLLLLL>.<JJ>.<NNNN>@<ip-address>

Where:

C = CMIS

P = Plugin

LLLLLLLL = logon sequence counter (1 – 9,999,999 users)

JJ = JVM# (1 – 99 JVMs)

NNNN = Instance number per user (1 – 9,999 instances)

ip-address = C - IP Address of the machine where the connector is deployed.

ip-address = P - IP Address of the machine where ICN is deployed.

When the FileNet Image Services connector for IBM Content Navigator is deployed on an Application Server, a folder named "CMISLock" is created at the profile level and a file named "CMISLock.[n]" inside the folder is created to represent the unique JVM#.

For a WebSphere deployment, the lock path is:

```
"<WAS_Install_HOME>\AppServer\CMISLock\CMISLock.[n]"
```

The counter [n] where $1 \leq n \leq 99$ increments subsequently with each new deployment of the FileNet Image Services connector for IBM Content Navigator.

CMISLock[n] files are designed to be removed when the JVM is properly shut down and restarted. However, a situation like re-deploying the FileNet Image Services connector for IBM Content Navigator without a proper restart of the Application Server, can cause CMISLock counter to increase because the previous CMISLock files might still be in-use (locked). This eventually would allow the CMISLock counter to continue to grow and reach the limit (99) much sooner than expected.

It is recommended that the Application Server administrator periodically checks the log4j.log. If a higher CMISLock.[n] counter (as below) is detected from the log, stop the Application Server, clean up the CMISLock folder, and start the Application Server.

Restriction The logging level in the `log4j.properties` file must be set to DEBUG for the CMISLock entries to appear in the log4j.log file.

log4j.log sample:

```
2014-08-15 11:05:06,198 DEBUG [WebContainer : 2]
FN_IS_UniqueIdGenerator: CMISLock candidate file name =
/usr/IBM/WebSphere/AppServer/CMISLock/CMISLock.01
```

```
2014-08-15 11:05:06,199 DEBUG [WebContainer : 2]
FN_IS_UniqueIdGenerator: CMISLock candidate file name =
/usr/IBM/WebSphere/AppServer/CMISLock/CMISLock.02
```

```
2014-08-15 11:05:06,199 DEBUG [WebContainer : 2]
FN_IS_UniqueIdGenerator: CMISLock candidate file name =
/usr/IBM/WebSphere/AppServer/CMISLock/CMISLock.03
```

- The Image Services IBM Content Navigator Plugin requires separate concurrent logons. If the Plugin is installed, the Image Services System Administrator might need to increase Maximum Concurrent Logons per User in the Image Services Security Administration application.
- Textual annotations that were originally created by using IDM Desktop might wrap when the annotations are viewed by Daeja ViewONE because ViewONE uses a different font and a different line wrapping strategy. In order to see the complete text, right click the text box and either decrease the font size or increase the text box size, and then save the changes.
- Annotations can appear as a different sequence number when using Daeja ViewONE. The StickyNote annotation has an associated sequence number when viewed by Daeja and this number can be re-sequenced when displayed by Daeja ViewONE. For example, two StickyNote annotations that were originally created by IDM Desktop might have sequence numbers of 2 and 4. When the numbers are viewed by Daeja ViewONE, they might become 1 and 2.
- The default IBM Content Navigator tooltip displays "Created By", which is not applicable for FileNet Image Services. An interim fix to resolve the issue, is to manually add a setting "Created On: <createdate>" in IBM Content Navigator Admin → Daeja ViewONE → Professional → Default customized annotation tooltip. Save the changes.

- When you open a document, if you notice that the display goes to the web browser display and does NOT show any annotation button controls on the left side, it is likely that you do not have the required web browser JRE plug-ins installed. Refer to the Hardware and software requirements for IBM Content Navigator 2.0.3 > IBM Content Navigator Web Client > Web Browser Plug-ins to determine which JRE to deploy, and install it before attempting to open the document again.

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