



Coveo Platform 7.0

EMC Documentum Connector Guide

Notice

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1. EMC Documentum Connector

The Documentum connector allows Coveo administrators to bring the content of EMC Documentum repository into the unified index so that it becomes searchable by end-users.

The features of the Documentum connector are:

Content indexing

The connector can retrieve and index exclusively all EMC Documentum repository content.

Fully supported security model

The connector supports the EMC Documentum security model by indexing EMC Documentum item permissions so that in Coveo search interfaces, a user searching EMC Documentum content only sees the content to which he has access in EMC Documentum.

Incremental refresh

Periodically queries EMC Documentum Content Server for the latest repository edits, keeping the index content up-to-date.

Feature history

CES version	Monthly release	Features
7.0.5031	March 2013	Supports multi-value fields

What's Next?

Review the steps to deploy the Documentum connector (see ["EMC Documentum Connector Deployment Overview" on page 2](#)).

2. EMC Documentum Connector Deployment Overview

The following procedure outlines the steps needed to deploy the EMC Documentum connector. The steps indicate the order in which you must perform configuration tasks on both EMC Documentum and Coveo servers.

1. Validate that your environment meets the requirements (see ["EMC Documentum Connector Requirements" on page 3](#)).

2. On Documentum Administrator, create a user with read permissions to all Documentum repositories content and security permissions to be used as a crawling account.

3. On the Coveo server:

- a. Create a user identity.

The Coveo connector needs an account to crawl your EMC Documentum content. For this purpose, select an existing EMC Documentum account or create a new one that has read access to all the content that you want to index (see ["Adding a User Identity" on page 4](#)).

- b. Create a security provider.

When you want to index permissions, you must configure a security provider (see ["Configuring an EMC Documentum Security Provider" on page 6](#)).

- c. Configure and index the Documentum source.

The Coveo connector needs to know details about your EMC Documentum instance to be able to index its content (see ["Configuring and Indexing an EMC Documentum Source" on page 8](#)).

- d. If you encounter issues, verify if modifying the default value of hidden source parameters can help resolve the problems (see ["Modifying Hidden EMC Documentum Source Parameters" on page 12](#)).

3. EMC Documentum Connector Requirements

Your environment needs to meet the following requirements to be able to use the Coveo connector for end-user desktop and laptop computers:

- Coveo license for the Documentum Connector

Your Coveo license must include support for the Documentum connector to be able to use this connector.

- EMC Documentum Content Server version:

- Supported versions: 7
- Deprecated support versions: 5.3 to 6.7

- The equivalent version of EMC Documentum Foundation Classes must be installed on the server hosting CES.

Note: Ensure your Coveo Master server meets the EMC Documentum Foundation Classes requirements.

Example: If you use EMC Documentum Content Server 6.7, you must install EMC Documentum Foundation Classes 6.7.

- (For Documentum 6.5 to 7) Java Runtime Environment 7 (JRE) 32-bit.

Note: Ensure that the path to JRE 7 is in the environment variable named Path. If not, add the path (see ["Troubleshooting EMC Documentum Connector Issues" on page 17](#)).

Example: When you use Documentum 7.0, the JRE 7 path should like the following:

```
C:\Program Files (x86)\Java\jre7\bin\client
```

What's Next?

Create and configure a Documentum connector source (see ["Configuring and Indexing an EMC Documentum Source" on page 8](#)).

4. Adding a User Identity

A user identity is a set of credentials for a given repository or system that you enter once in CES and can then associate with one or more sources or security providers.

A user identity typically holds the credentials of an account that has read access to all the repository items that you want to index. It is a best practice to create an account to be used exclusively by the Coveo processes and for which the password does not change. If the password of this account changes in the repository, you must also change it in the CES user identity.

To add a user identity

1. On the Coveo server, access the Administration Tool.
2. In the Administration Tool, select **Configuration > Security**.
3. In the navigation panel on the left, click **User Identities**.
4. In the **User Identities** page, click **Add**.
5. In the **Modify User Identity** page:

- a. In the **Name** box, enter a name of your choice to describe the account that you selected or created in the repository to allow CES to access the repository.

Note: This name appears only in the Coveo Administration Tool, in the **Authentication** or **User Identity** drop-down lists, when you respectively define a source or a security provider.

- b. In the **User** box, enter the username for the account that you selected or created to crawl the repository content that you want to index.
- c. In the **Password** box, enter the password for the account.
- d. In the **Options** section, the **Support basic authentication** check box is deprecated and not applicable for

most types of repositories. You should select it only when you need to allow CES to send the username and password as unencrypted text.

- e. Click **Save**.

Important: When you use Firefox to access the Administration Tool and it proposes to remember the password for the user identity that you just created, select to never remember the password for this site to prevent issues with automatic filling of username and password fields within the Coveo Administration Tool.

5. Configuring an EMC Documentum Security Provider

When you choose to index permissions associated with EMC Documentum items, the Coveo connector needs a security provider. When permissions are indexed, in Coveo search results, a user searching for EMC Documentum Server content only sees the content to which he has access in EMC Documentum.

Note: You can get familiar with how Coveo components deal with permissions on documents both at indexing and query time.

To configure a Documentum security provider

1. On the Coveo server, access the Administration Tool.
2. Select **Configuration > Security**.
3. In the navigation panel on the left, click **Security Providers**.
4. In the **Security Providers** page, click **Add** to create a new security provider.
5. In the **Modify Security Provider** page:

The screenshot displays the 'MODIFY SECURITY PROVIDER' configuration interface. The top navigation bar includes 'Status', 'Index', 'Content', 'Reports', 'Logs', 'Configuration', and 'Support'. Below this, a secondary navigation bar lists 'Security', 'Schedules', 'Connectors', 'Converters', 'Document Types', 'Languages', 'Fields', 'Field Aliases', 'XML', 'SharePoint', 'License', 'Alerts', 'Pre-loading', and 'Advanced'. The main title is 'MODIFY SECURITY PROVIDER' with a subtitle 'Defines the parameters of the security provider.' and a 'Help' button.

On the left, a sidebar menu shows 'Roles', 'Impersonators', 'Security Providers' (selected), 'User Identities', and 'Super User Access'. The main content area is titled 'Security - Security...' and contains the following configuration fields:

- Name:** Documentum7 Security Provider
- Security Provider Type:** Documentum (x86)
- Description:** Documentum Security Provider
- DLL Path:** Win32\Coveo.CES.CustomCrawlers.Documentum.dll
- UserIdentity:** Documentum7 Crawling Account (with 'Add', 'Edit', and 'Manage user identities' options)
- Active Directory Security Provider:** Active Directory (with 'Add', 'Edit', and 'Manage security providers' options)
- Parameters:** Add Parameter ?
- Allow Complex Identities:** ?
- Used By:** (empty field)

An 'Apply Changes' button is located at the bottom right of the configuration area.

- a. Configure the following required parameters:

Name

Choose a significant name to identify the security provider.

Example: Documentum7 Security Provider

Security Provider Type

Select **Documentum (x86)**.

User Identity

Select the Documentum user identity that you created previously.

Active Directory Security Provider

When the user names in your Documentum instance match the usernames in your Active Directory (AD) and you want to allow AD users to see Documentum items in search results, in the drop-down list, select **Active Directory** to allow this Documentum security provider to map Documentum permissions to AD users.

Note: If your Documentum and AD usernames do not match, contact [Coveo Support](#) for assistance with other methods to map users or use the [ForceADDomain](#) hidden parameter.

- b. (Optional) Click **Add Parameter** and then use the following hidden parameter when you want to match your Documentum usernames to their Windows usernames:

ForceADDomain **CES 7.0.5031+ (March 2013)**

Enter a value to overwrite the domain value when CES expands users to Windows users. The default value is `null`.

Example: When the `ForceADDomain` parameter value is `MyCompany` and you expand the Documentum user `John`, the security provider will expand this user to the AD user `MyCompany\John`.

- c. Leave the **Allow Complex Identities** cleared as it does not apply to this type of security provider.
- d. Click **Apply Changes**.

What's Next?

Configure and index a Documentum source (see "[Configuring and Indexing an EMC Documentum Source](#)" on [page 8](#)).

6. Configuring and Indexing an EMC Documentum Source

A source defines a set of configuration parameters for a specific EMC Documentum repository. When you want to index more than one EMC Documentum repository, configure one source for each repository.

To configure and index a source with the Documentum connector

1. On the Coveo server, access the Administration Tool.
2. Select **Index > Sources and Collections**.
3. In the **Collections** section:
 - a. Select an existing collection in which you want to add the new source.
 - OR
 - b. Click **Add** to create a new collection.
4. In the **Sources** section, click **Add**.
5. In the **General Settings** section of the **Add Source** page:

The screenshot shows the 'Add Source' configuration page in the Coveo Administration Tool. The page title is 'COLLECTION: DOCUMENTUM - ADD SOURCE' with the subtitle 'Defines the parameters of the source of documents.' The 'General Settings' section includes the following fields:

- Name:** Documentum7
- Source Type:** Documentum
- Addresses:** http://MyDocumentumServer:8080/MyRepository. Below this field are examples: 'Example: svr-documentum' and 'Example: svr-documentum/documentum_repo', with the instruction 'One entry per line.'
- Rating:** Normal
- Document Types:** Default
- Active Languages:** Default
- Fields:** Default Scheme
- Refresh Schedule:** Every day

- a. Enter the appropriate value for the following required parameters:

Name

Enter a descriptive name of your choice for the connector source.

Example: Documentum7

Source Type

The connector used by this source. In this case, select **Documentum**.

Addresses

Depending on the EMC Documentum server repository(ies) or the part of a repository you want to index:

Note: By default, subfolders are indexed. To index only the main folder, clear the **Index subfolders** option (see "[Index Subfolders](#)" on page 11).

- To index all the repositories known to the docBroker, enter `svr-documentum`, which is host of the docbroker, as written in the `dmcl.ini` file of the Documentum installation.
- To only index the `documentum_repo` repository: `svr-documentum/documentum_repo`.
- **CES 7.0.4887+ (November 2012)** To only index specific part of a repository, you can use custom DQL queries that respect the following format:

DQL:<docbaseName>: Where <my conditions>

Examples:

- DQL:DEVCOMPANYXYZ:Where O."object_name" = 'mydocument.txt'
- DQL:DEVCOMPANYWYZ:Where FOLDER('/CabinetA/FolderA', DESCEND)

Fields

If you created a custom EMC Documentum field set, select it. Otherwise, leave the **Default Scheme**.

Note: **CES 7.0.5031+ (March 2013)** Support for multi-value fields, which are separated with a ; character.

Refresh Schedule

Time interval at which the index is automatically refreshed to keep the index content up-to-date. By default, the **Every day** option instructs CES to refresh the source everyday at 12 AM.

- b. Review the value for the following parameters that often do not need to be modified:

Rating

Change this value only when you want to globally change the rating associated with all items in this source relative to the rating to other sources.

Example: If this source was for a legacy Lithium community, you may want to set this parameter to **Low**, so that in the search interface, results from this source appear later in the list compared to those from other sources.

Document Types

If you defined custom document type sets, ensure to select the most appropriate for this source.

Active Languages

If you defined custom language sets, ensure to select the most appropriate for this source.

6. In the **Specific Connector Parameters & Options** section of the **Add Source** page:

The screenshot shows a configuration interface titled "Specific Connector Parameters & Options". It contains several sections:

- Webtop folder name:** A text input field containing "webtop".
- Webtop host machine name:** A text input field containing "MyDocumentumServer".
- Webtop host port number:** A text input field containing "1489".
- Index All Versions:** A checkbox that is currently unchecked.
- Parameters:** A section with an "Add Parameter" button.
- Option:** A section with several checkboxes:
 - Index subfolders
 - Index the document's metadata
 - Document's addresses are case-sensitive
 - Generate a cached HTML version of indexed documents
 - Open results with cached version

- a. Enter the appropriate value for the following required parameters:

Webtop folder name

Enter the name of the EMC Documentum Webtop installation folder. Webtop is the web-based application through which CES accesses EMC Documentum content.

Example: When Webtop is accessed using the following URL: `http://svr-documentum:8080/webtop/`, the Webtop folder name is `webtop`.

Webtop host machine name

Enter the name of the machine on which the EMC Documentum Webtop installation folder is located.

Example: When your Webtop URL is `http://svr-documentum:8080/webtop/`, the Webtop host machine name is `svr-documentum`.

Webtop host port number

Enter the number of the port used by the Webtop application. The default port number is 1489.

Example: When `webtop` URL is `http://svr-documentum:8080/webtop/`, the `Webtop` host port number is 8080.

- b. Review if you need to change the default value for the following parameter:

Index All Versions

Indicates whether to index all versions of a document found on the Documentum server or just the most recent one.

- c. In the **Parameters** section, click **Add Parameter** to be able to change the default value of hidden parameters (see "[Modifying Hidden EMC Documentum Source Parameters](#)" on page 12).
- d. In the **Option** section, review the default value of the following check boxes:

Index Subfolders

Check to index all subfolders below the specified Lithium server address. Selected by default.

Index the document's metadata

When selected, CES indexes all the document metadata, even metadata that are not associated with a field. The orphan metadata are added to the body of the document so that they can be searched using free text queries.

When cleared (default), only the values of system and custom fields that have the **Free Text Queries** attribute selected will be searchable without using a field query.

Example: A document has two metadata:

- `LastEditedBy` containing the value `Hector Smith`
- `Department` containing the value `RH`

In CES, the custom field `CorpDepartment` is bound to the metadata `Department` and its **Free Text Queries** attribute is selected.

When the **Index the document's metadata** option is cleared, searching for `RH` returns the document because a field is indexing this value. Searching for `hector` does not return the document because no field is indexing this value.

When the **Index the document's metadata** option is selected, searching for `hector` also returns the document because CES indexed orphan metadata.

Generate a cached HTML version of indexed documents

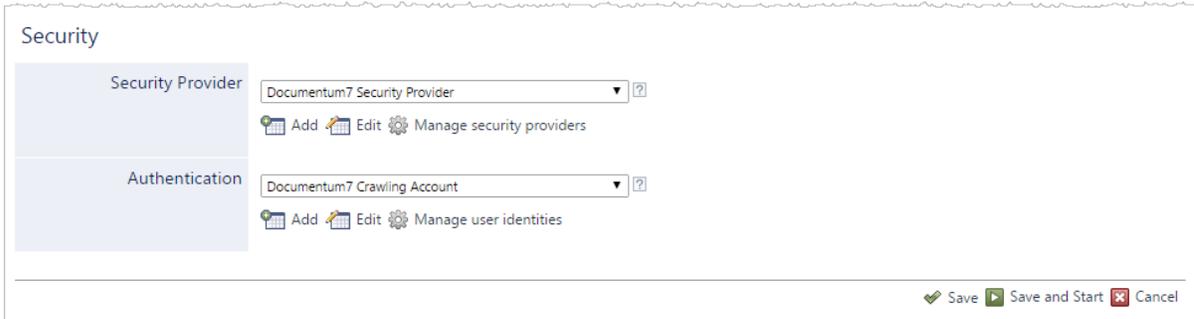
When you select this check box (recommended), at indexing time, CES creates HTML versions of indexed documents. In the search interfaces, users can then more rapidly review the content by clicking the Quick View link rather than opening the original document with the original application. Consider clearing this check box only if you do not want to use Quick View links or to save resources when building the source.

Open results with cached version

Leave this check box cleared (recommended) so that in the search interfaces, the main search result

link opens the original document with the original application. Consider selecting this check box only when you do not want users to be able to open the original document but only see the HTML version of the document as a Quick View. In this case, you must also select **Generate a cached HTML version of indexed documents**.

7. In the **Security** section of the **Add Source** page:



a. In the **Authentication** drop-down list:

- When you want to index secured EMC Documentum content, select the user identity that you created for this source ([EMC Documentum Connector Deployment Overview](#)).

OR

- When you want to index public content, select **(none)**.

b. Click **Save** to save the source configuration.

8. On the toolbar, click **Start/Rebuild** to start indexing your source.

9. Validate that the source building process is executed without errors:

- In the navigation panel on the left, click **Status**, and then validate that the indexing proceeds without errors.

OR

- Open the CES Console to monitor the source building activities.

What's Next?

Consider modifying advanced source parameters (see "[Modifying Hidden EMC Documentum Source Parameters](#)" on page 12).

6.1 Modifying Hidden EMC Documentum Source Parameters

The **Add Source** and **Source: ... General** pages of the Administration Tool present the parameters with which you can configure the connector for most EMC Documentum setups. More advanced and more rarely used parameters are hidden. You can choose to make one or more of these parameters appear in the **Add Source** and **Source: ... General** pages of the Administration Tool so that you can change their default value. Consider changing values of hidden parameters when you encounter issues.

The following list describes the advanced hidden parameters available with EMC Documentum sources. The parameter type (integer, string...) appears between parentheses following the parameter name.

DocuApiTimeoutInSeconds (Integer)

The timeout value (in seconds) allowed for CES to connect with the Documentum API. By default, there is no timeout value. Set it to 60s when debugging.

DocuIndexAllDocumentLocations (Boolean)

Whether to create one CES document per document location. The default value is `true`. Set the value to `false` when you do not want to index a document more than once even if the document is located in more than one location.

IncrementalRefreshDeletedDocuments (Boolean)

Indicates whether to look for deleted documents during an incremental refresh. The default is `true`. Set the value to `false` when you want to keep deleted documents in your index.

Use the following procedure only when you want to modify one or more of the above hidden source parameters.

To modify hidden EMC Documentum source parameters

1. Refer to ["Adding an Explicit Connector Parameter" on page 13](#) to add one or more EMC Documentum hidden source parameters.
2. For a new EMC Documentum source, access the **Add Source** page of the Administration Tool to modify the value of the newly added advanced parameter:
 - a. Select **Index > Sources and Collections**.
 - b. Under **Collections**, select the collection in which you want to add the source.
 - c. Under **Sources**, click **Add**.
 - d. In the **Add Source** page, edit the newly added advanced parameter value.
3. For an existing EMC Documentum source, access the **Source: ... General** page of the Administration Tool to modify the value of the newly added advanced parameter:
 - a. Select **Index > Sources and Collections**.
 - b. Under **Collections**, select the collection containing the source you want to modify.
 - c. Under **Sources**, click the existing EMC Documentum source in which you want to modify the newly added advanced parameter.
 - d. In the **Source: ... General** page, edit the newly added advanced parameter value.
4. Rebuild your EMC Documentum source to apply the changes to the parameters.

6.2 Adding an Explicit Connector Parameter

Connector parameters applying to all sources indexed using this connector are called explicit parameters.

When you create or configure a source, the Coveo Enterprise Search (CES) 7.0 Administration Tool presents parameters with which you can configure the connector for most setups. For many connectors, more advanced and more rarely used parameters also exist but are hidden by default. CES then uses the default value associated with each of these hidden parameters.

You can however choose to make one or more of these parameters appear in the **Add Source** and **Source: ... General** pages of the Administration Tool so that you can change their default value.

To add an explicit connector parameter

1. On the Coveo server, access the Administration Tool.
2. Select **Configuration > Connectors**.
3. In the list on the **Connectors** page, select the connector for which you want to show advanced hidden parameters.
4. In the **Parameters** section of the selected connector page, click **Add Parameter** for each hidden parameter that you want to modify.

Note: The **Add Parameter** button is present only when hidden parameters are available for the selected connector.

5. In the **Modify the parameters of the connector** page:

- a. In the **Type** list, select the parameter type as specified in the parameter description.
- b. In the **Name** box, type the parameter name exactly as it appears in the parameter description. Parameter

names are case sensitive.

- c. In the **Default Value** box, enter the default value specified in the parameter description.

Important: Do not set the value that you want to use for a specific source. The value that you enter here will be used for all sources defined using this connector so it must be set to the recommended default value. You will be able to change the value for each source later, in the **Add Source** and **Source: ... General** pages of the Administration Tool.

- d. In the **Label** box, enter the label that you want to see for this parameter.

Example: To easily link the label to the hidden parameter, you can simply use the parameter name, and if applicable, insert spaces between concatenated words. For the **BatchSize** hidden parameter, enter `Batch Size` for the label.

Note: To create multilingual labels and quick help messages, use the following syntax: `<@ln>text</@>`, where *ln* is replaced by the language initials—the languages of the Administration Tool are English (en) and French (fr).

Example: `<@fr>Chemin d'accès du fichier de configuration</@><@en>Configuration File Path</@>` is a label which is displayed differently in the French and English versions of the Administration Tool.

Tip: The language of the Administration Tool can be modified by pressing the following key combination: `Ctrl+Alt+Page Up`.

- e. Optionally, in **Quick Help**, enter the help text that you want to see for this parameter when clicking the question mark button  that will appear beside the parameter value.

Tip: Copy and paste key elements of the parameter description.

- f. When **Predefined values** is selected in the **Type** parameter, in the **Value** box that appears, enter the parameter values that you want to see available in the drop-down parameter that will appear in the Administration Tool interface. Enter one value per line. The entered values must exactly match the values listed in the hidden parameter description.
- g. Select the **Optional parameter** check box when you want to identify this parameter as an optional parameter. When cleared, CES does not allow you to save changes when the parameter is empty. This parameter does not appear for **Boolean** and **Predefined values** parameter types.
- h. Select the **Sensitive information** check box for password or other sensitive parameter so that, in the Administration Tool pages where the parameter appears, the typed characters appear as dots to mask them. This parameter appears only for the **String** type.

Example: When you select the **Sensitive information** check box for a parameter, the characters typed appear as follows in the text box:



- i. Select the **Validate as an email address** check box when you want CES to validate that the text string that

a user enters in this parameter respects the format of a valid email address. This parameter appears only for the **String** type.

- j. In the **Maximum length** box, enter the maximum number of characters for the string. This parameter appears only for the **String** type. When you enter 0, the length of the string is not limited.
 - k. Click **Save**.
6. Back in the **Connector** page, click **Apply Changes**.

The hidden parameter now appears in the **Add Source** and **Source: ... General** pages of the Administration Tool for the selected source. You can change the parameter value from these pages. Refer to the documentation for each connector for details.

Note: When you want to modify a hidden source parameter, you must first delete it, and then redefine it with the modified values.

7. Troubleshooting EMC Documentum Connector Issues

Load JVM DLL Failed on LoadLibrary

The pop-up window containing this error message is only available when running Coveo Enterprise Search 7 x [version] as a standalone application:

1. Right-click **Command Prompt**, and then select **Run as administrator**.
2. Run CES 7 x[version] as a standalone application using a command line like the following: `"C:\Program Files\Coveo Enterprise Search 7\Bin\CESService7.exe" -standalone -port 52800`.

Possible causes

- You did not have Java Runtime Environment 7 (JRE 7) 32-bit installed on the machine hosting EMC Documentum.
- The path to JRE 7 32-bit is not in the environment variable named **Path**.

Possible solution

1. Stop the CES service.
2. Access the **System Properties** window:
 - a. Right-click the Windows **Start** button, and then select **Control Panel**.
 - b. In the **Control Panel** window, click **System and Security**.
 - c. In the **System and Security** window, click **System**.
 - d. In the **System** window, in the navigation bar on the left, click **Advanced system settings**.
3. In the **System Properties** window, click **Environment Variables...**
4. In the **Environment Variables** window, under **System variables**, select the **Path** variable, and then click **Edit...**
5. Ensure that **Variable value** box contains the path to the right JRE version.

Example: When you use Documentum 7.0, the path should like the following:

```
C:\Program Files (x86)\Java\jre7\bin\client
```

6. Click **OK**.
7. Restart the CES service.