Coveo Platform 7.0

Symantec Enterprise Vault Connector Guide

Notice

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1. Symantec Enterprise Vault Connector

The Symantec Enterprise Vault (SEV) connector allows to crawl most of the data contained within the different archives of a SEV system, most notably Windows files and Microsoft Exchange items.

The Coveo Platform provides a more efficient search than the SEV built-in search component and offers the possibility to search in live and archived data at the same time.

1.1 Features

The following details the features available in the SEV connector:

Archive targets

Supported:

- Windows File system

- Microsoft Exchange Server

Limited support:

- SharePoint: Available data limited to what SEV stores.

Not supported:

- Lotus Notes

Security

The Coveo Platform indexes SEV stored permissions. SEV stores permissions at the folder level only.

Incremental refresh

Allows incremental indexing to reduce index, SEV, and network resources.

Metadata

- Uri: Uses the same scheme as the Starting Addresses.

- PrintableUri: Original location of the file (kvsOriginalLocation).

- ClickableUri: Points SEV Web server to view Vault files (msg)kvsBrowserViewURL.

- ModifiedDate

- Author

- sysAuthor, kvsArhiveId, kvsSaveSetId, kvsCreatedDate, kvsFileExtension, kvsMIMEFormat, kvsModifiedDate, kvsOriginalLocation, kvsOriginalSize, kvsDefaultMSGFormat

1.2 Feature history

CES version	Date	Features
7.0.8691+	December 2016	Veritas Enterprise Vault version 12 support
7.0.6942+	August 2014	Symantec Enterprise Vault version 11 support
7.0.4855+	August 2012	Symantec Enterprise Vault version 10 support

2. Symantec Enterprise Vault Connector Deployment Overview

The following procedure outlines the steps needed to deploy the Symantec Enterprise Vault connector. The steps indicate the order in which you must perform key CES configurations. When needed, the step refers to a detailed procedure.

1. Validate that your environment meets the requirements (see "Symantec Enterprise Vault Connector Requirements" on page 4).

2. For a Symantec Enterprise Vault version 10 server, you must enable the indexing service (see "Enabling Symantec Enterprise Vault Services" on page 5).

3. Configure the user identity.

   The Coveo connector needs an account to connect to your Symantec Enterprise Vault environment. Create a CES user identity (see "Adding a User Identity" on page 9) that contains the credentials of a Symantec Enterprise Vault account that meets the following requirements:

   a. Read access to the archives to index (see Granting Permission to All Archives).

   b. Read access to the SQL Server database called `enterprisevaultdirectory`.

   c. Member of the Local Administrators Group on the Enterprise Vault server

   OR

   - Create a new user which is a copy of the Service Account user in Enterprise Vault. This user should already have access to the database and all mailboxes.

4. Configure and index the Symantec Enterprise Vault source.

   The Coveo connector needs to know details about the Symantec Enterprise Vault system to be able to index the desired content (see "Configuring and Indexing a Symantec Enterprise Vault Source" on page 11).

5. Optionally, if you encounter issues, consider adding and modifying default values of hidden source parameters (see "Modifying Hidden Symantec Enterprise Vault Source Parameters" on page 15).

3. Symantec Enterprise Vault Connector Requirements

Your environment must meet the following requirements to be able to use the Coveo connector for Symantec Enterprise Vault (SEV) systems:

- Coveo license that includes support for the SEV connector

- SEV versions:

  - Supported versions: 10, 11, 12

    Note: Only Enterprise Vault version 10+ runs on Windows Server 2012 (see Symantec document Enterprise Vault Compatibility List).

  - Deprecated support versions: 7, 8

- SEV directory, indexing, and storage services must be running (see "Enabling Symantec Enterprise Vault Services" on page 5).

- SEV Administration Console component installed on the Coveo Master server

  Notes:

  - Ensure your Coveo Master server meets the SEV Administration Console requirements.

  - The version of SEV Administration Console must be the same version as the SEV server.

# 4. Enabling Symantec Enterprise Vault Services

The following services must be running on your Symantec Enterprise Vault (SEV) server to allow the Coveo connector for SEV to work:

- Enterprise Vault Directory Service (allows the connector to discover archives)

- Enterprise Vault Indexing Service (allows the connector to enumerate archive items)

- Enterprise Vault Storage Service (allows the connector to retrieve item content)

In SEV 9 and earlier, these services are enabled by default. In SEV 10, the Enterprise Vault Indexing Service is not running by default and must be configured and started.
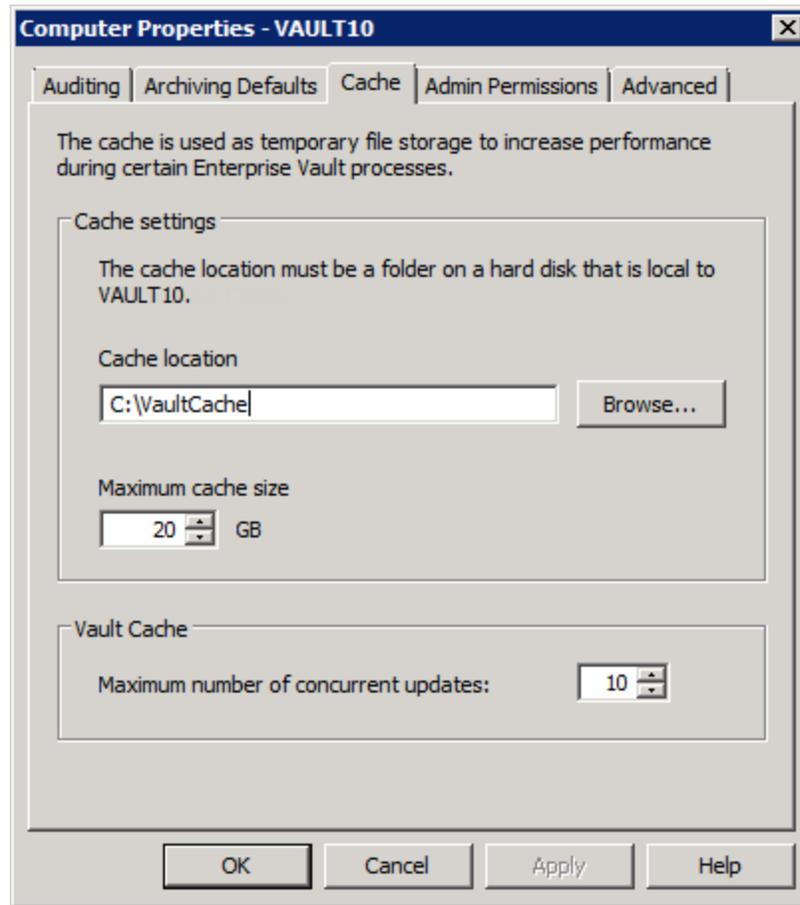
To enable the Enterprise Vault Indexing Service for SEV 10

1. Using an administrator account, connect to your Enterprise Vault 10 server.

2. In the **Enterprise Vault** console, in the panel on the left, under **Enterprise Vault Servers**, right-click your server, and then select **Properties**.
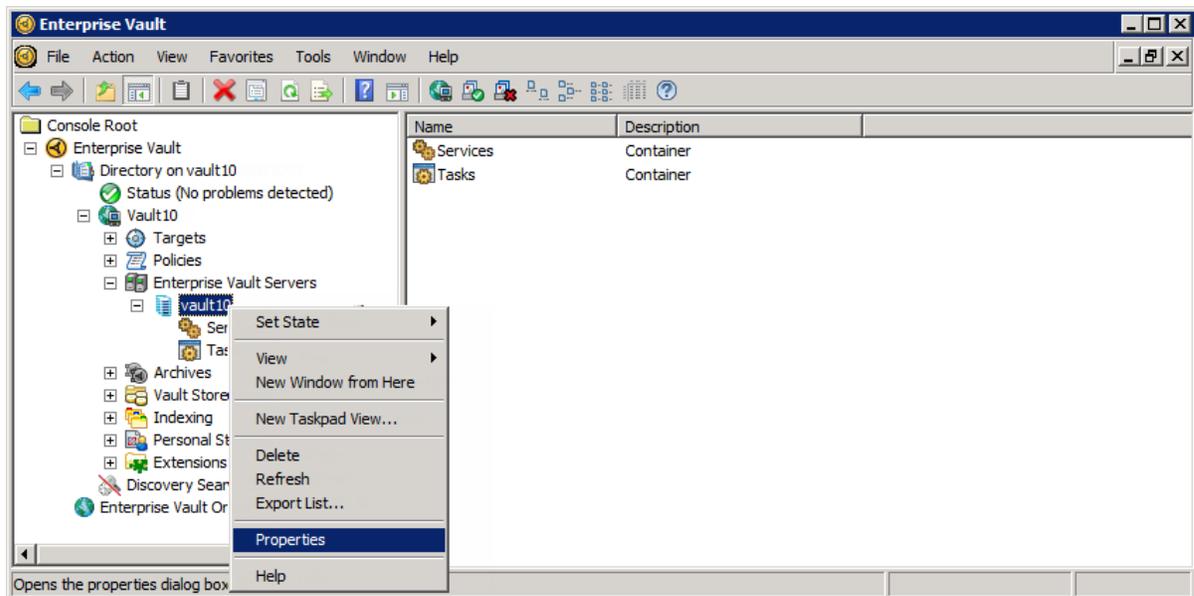

3. In the **Computer Properties** dialog box:

   a. Select the **Cache** tab.

   b. In the **Cache settings** section, in the **Cache location** box, browse or enter the path for the cache and then

click **OK**.

4. Back in the **Enterprise Vault**, in the panel on the left, under your server, click **Services**.

5. In the panel on the right, right-click **Enterprise Vault Indexing Service**, select **Start**, and then ensure that its **Status** turns to **Running**.
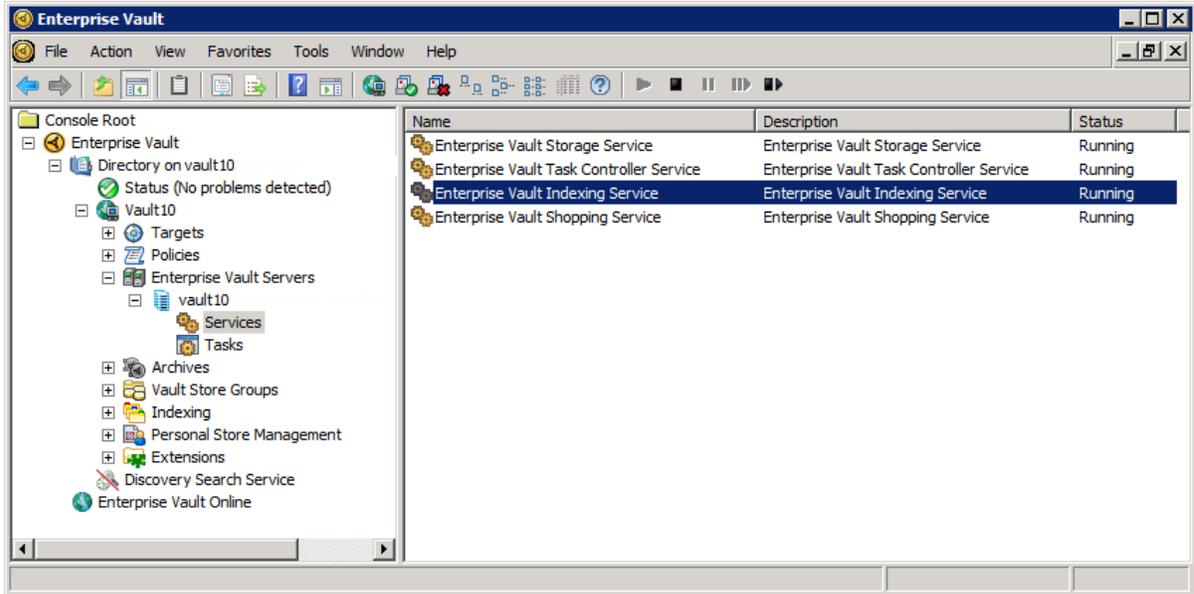
Note: If the **Enterprise Vault Storage Service** is not running, start it as well.

5. Impersonating a Symantec Enterprise Vault User

Impersonation is performed when a user connects to Symantec Enterprise Vault (SEV) using a different identity than the one used to run CES.

> **Note:** The Windows firewall and possibly other firewalls can sometimes cause severe performance issues with the SEV connector. Calls that should return in less than a second may take more than the default connector timeout value of 30 seconds and prevent getting any documents. You must configure or turn off the firewall to avoid these issues.

To connect to SEV using impersonation

1. On the Coveo Master server, promote the user being impersonated to Administrator.

2. In the firewall settings (including Windows Firewall if it is used), enable the `[CES_Path]\Bin\Coveo.CNL.HostProcess.exe` process.

6. 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.

7. Configuring and Indexing a Symantec Enterprise Vault Source

A source defines a set of configuration parameters for a Symantec Enterprise Vault (SEV) system.

To configure and index a SEV source

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**.

   The **Add Source** page that appears is organized in three sections.

5. In the **General Settings** section of the **Add Source** page:

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

Name

A descriptive name of your choice for the connector source.

> **Example:** `Symantec Enterprise Vault`

Source Type

The connector used by this source. In this case, select **Symantec Enterprise Vault**.

> **Note:** If you do not see **SaleSymantec Enterprise VaultsForce** in the **Source Type** list, ensure that your current environment meets the requirements (see "Symantec Enterprise Vault Connector Requirements" on page 4).

Addresses

The list of SEV starting points to crawl, one entry per line. Specify addresses in the form `Server>site>store>archive` where > is the path separator.

> **Examples:** To index a whole store: `serverName>siteName>storeName`
> To index only an archive in a store: `serverName>siteName>storeName>archiveName`

Refresh Schedule

Time interval at which the source 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.

> **Note:** You can create new or modify existing source refresh schedules.

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 ranking associated with all items in this source relative to the rating of other sources.

> **Example:** Because this source contains archived content, you may want to select **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 active language sets, ensure to select the most appropriate for this source.

Fields

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

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

a. Configure the following required parameters:

SQL Server Host Name

Name of the machine hosting the SQL server and database containing the security information for the SEV on which the user is connected.

Connection String

Connection string to the SQL database (for `System.Data.SqlClient: db name, db server` connection security parameters, etc.).

Examples:

- Standard security:

  ```
  Data Source=myServerAddress;Initial Catalog=myDataBase;User
  Id=myUsername;Password=myPassword;
  ```

- Standard security alternative syntax that produces the same result:

  ```
  Server=myServerAddress;Database=myDataBase;User
  ID=myUsername;Password=myPassword;Trusted_Connection=False;
  ```

- Trusted connection:

  ```
  Data Source=myServerAddress;Initial Catalog=myDataBase;Integrated
  Security=SSPI;
  ```

- Trusted connection alternative syntax that produces the same result:

  ```
  Serve=myServerAddress;Database=myDataBase;Trusted_Connection=True;
  ```

Use the `serverName\instanceName` form for `Data Source` to use a specific SQL Server instance.

Note: The multiple SQL Server instances feature is available only from SQL Server version 2000+.

Number of Refresh Threads

Determines the number of threads that are querying SEV for data. The default and recommended value is `1`. More threads speed up the crawling process, but increase the server load.

Database Name

The name of your SEV administration database. The default value is `EnterpriseVaultDirectory`.

Index EV Securities for Mailbox Archives

For archives of mailbox type, select this option to combine the permissions found in the SEV database with the permissions found on the mailbox in Active Directory. The default value is `False`.

b. In the **Option** section, the state of check boxes generally does not need to be changed:

Index Subfolders

Check to index all subfolders below the specified starting addresses. This option is 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.

Document's addresses are case-sensitive

Leave the check box cleared. This parameter needs to be checked only in rare cases for case sensitive systems in which distinct documents may have the same file name but with different casing.

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 and saves them in the unified index. In the search interfaces, users can then more rapidly review the content by clicking the Quick View link to open the HTML version of the item 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. When this option is selected, you must also select the **Generate a cached HTML version of indexed documents** check box.

7. In the **Security** section of the **Add Source** page:
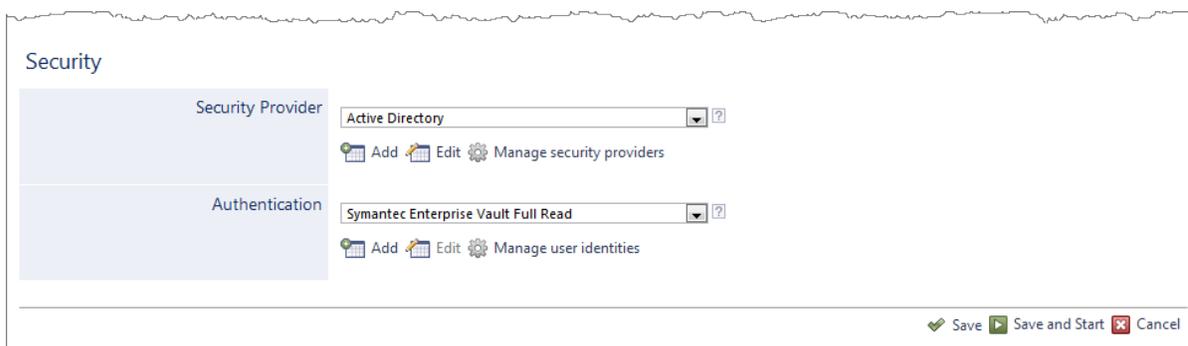
a. In the **Active Directory Security Provider** drop-down list, select **Active Directory** or a custom Active Directory security provider that you created for a specific domain.

b. In the **Authentication** drop-down list, select the Symantec Enterprise Vault user identity that you created.

c. Click **Save and Start** to save the source configuration and start indexing this source.

8. 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?

Set an incremental refresh schedule for your source.

7.1 Modifying Hidden Symantec Enterprise Vault 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 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 only when you encounter time out error messages or performance issues.

The available advanced hidden parameters for Symantec Enterprise Vault (SEV) sources are presented in the following list with the parameter type (integer, string…) appearing between parentheses following the parameter name.

IgnoreArchiveSecurities (Boolean)

Set this option to `True` to ignore the security parameters found on the archive and only use the item permissions. The default value is `False`.

LowerBoundDate (String)

This parameter defines the lowest modification date of items that will be indexed. Modifying this parameter requires a source refresh.

> **Example:** When you need to index a SEV that contains a large amount of data over several years, crawling the whole content may take days or even weeks. You can use the `LowerBoundDate` and `UpperBoundDate` parameters to create sources for specific periods and start indexing the sources for the most recent periods first.

UpperBoundDate (String)

This parameter defines the highest modification date of items that will be indexed. Modifying this parameter requires a source refresh.

LDAPSearchRoot (String)

Specifies to the connector where to start looking in Active Directory. When this parameter is not specified, the connector looks at the root of Active Directory, which can be extremely large. By specifying a value, you can refine the search.

> **Example:** To search only within the organizational unit (OU) *companynameOU* within the domain *corp.companyname.com*, enter:
> `LDAP://OU=companynameOU, DC=corp, DC=companyname, DC=com`

LDAPFilters (String)

Filter applied to the search of Active Directory in order to find mailboxes. Allows adding properties to the results the connector is looking for. The default filter is: `(&(mail=*)(objectclass=user)(objectclass=person))`.

This AND operation is performed on a few properties to find the maximum number of mailboxes without receiving any unwanted ones. If this filter is not specific enough, you can complete the filter by adding a value to the AND operation on the filter.

> **Example:** When you enter the value `cn=JohnSmith` in the parameter, the resulting filter is: `(&(mail=*)(objectclass=user)(objectclass=person)(cn=JohnSmith))`

EnforceADSecurities (Boolean)

When set to `True`, all archived mailboxes that do not have Active Directory (AD) permissions are rejected and not crawled. When set to `False`, a warning appears in the log about the lack of permissions. The default value is `False`.

MaxNumberOfRetries (Integer)

The number of attempts to make when performing an action on SEV. The default value is `3`.

RetryDelay (Integer)

The amount of time to wait between SEV action retry attempts, in seconds. The default value is `30`.

TimeOut (Integer)

The amount of time given to perform a request to Active Directory, in seconds. For file downloads, it is the amount of time with no progress before aborting the operation. The default value is `30`.

BatchSize (Integer)

The number of documents IDs to pre-fetch per request before downloading them. The default value is `100`.

Use the following procedure only when you want to modify the above hidden source parameters.

To modify hidden source parameters

1. Refer to "Adding an Explicit Connector Parameter" on page 17 to add an hidden source parameter.

2. For a new 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 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 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, and then click **Apply Changes**.

7.2 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.