



Coveo Platform 7.0

Lithium Connector Guide

Notice

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1. Lithium Connector

CES 7.0.6767+ (June 2014)

Lithium is a social customer experience management software for the enterprise. The Coveo connector for Lithium communities allows you to crawl and bring Lithium content into the unified index, making it easily searchable by end-users.

1.1 Connector Features Summary

Features		Supported	Additional information
Lithium version		Latest cloud version	Following available Lithium releases
Searchable content types		✓	Community, categories, boards, and discussions (also known as threads and conversations) including topics (texts and products), replies (answers, comments, and reviews), and messages (replies) also known as posts.
Content update	Incremental refresh	✓	CES 7.0.9093+ (September 2017) Incremental refresh support. A full refresh or rebuild is required to take account of modified and deleted items.
	Full refresh	✓	
	Rebuild	✓	
Document-level security		✗	Permissions must be manually defined on the source [more]

1.2 Features

The features of the Lithium connector are:

Content indexing

The connector can retrieve and index exclusively the following Lithium content type shown hierarchically:

- Community
 - Categories
 - Boards
 - Discussions (aka threads, conversations)
 - Topics
 - Text
 - Products
 - Replies
 - Answers
 - Comments
 - Reviews
 - Messages (aka posts)
 - Replies
 - **CES 7.0.9093+ (September 2017)** Attachments (including videos and images)
 - **CES 7.0.9093+ (September 2017)** Users

Partial Incremental Refresh **CES 7.0.9093+ (September 2017)**

The connector supports incremental refresh allowing to maintain the source up-to-date with your Lithium community by indexing at regular short intervals new Lithium community items.

Note: Changed and deleted items require a source full refresh or rebuild to be taken into account.

Important: The Lithium connector cannot index Lithium permissions because the Lithium API does not allow user permission retrieval for each item. This means that any user having access to Coveo search results from a Lithium source can find any Lithium item indexed by the crawling account, regardless of whether they are allowed to access these items in Lithium.

Feature history

CES version	Monthly release	Features
7.0.9093+	September 2017	Incremental refresh support
7.0.6767+	June 2014	Connector introduction in general availability (GA).

2. Lithium Connector Deployment Overview

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

1. Validate that your environment meets the requirements:

- **CES 7.0.6767+ (June 2014)**
- Lithium connector included in your Coveo license
- A Lithium account having access to all the Lithium content that you wish to index

2. When you want to index secured Lithium content, in Lithium, select or create the crawling account.

The Coveo connector needs a Lithium account such as an administrator account with which it can fully crawl the Lithium content. Moreover, this account must have permission to make REST API read calls. This setting is available in your Lithium Community admin section, under **Users > Permissions > Make REST API calls with read access**.

3. In the Coveo Administration Tool:

a. When you want to index secured Lithium content, configure a user identity.

The Coveo connector needs to know the Lithium account that you previously selected or created. You must create a CES user identity to use this account.

b. Optionally, create a Lithium field set from the default XML field set file to be able to leverage Lithium metadata for example to create more useful facets.

Copy the content of the default XML Lithium field set file (C:\Program Files\Coveo Enterprise Search 7\Bin\Coveo.CES.CustomCrawlers.Lithium.FieldSet.xml), and then import it to create a Lithium field set.

c. Configure and index the Lithium source.

The Coveo connector needs to know details about the Lithium community to be able to index its content (see "[Configuring and Indexing a Lithium Source](#)" on page 6).

What's Next?

In the Interface Editor, create or modify a search interface to include facets based on Lithium fields to allow user to more easily drill-down in Lithium content.

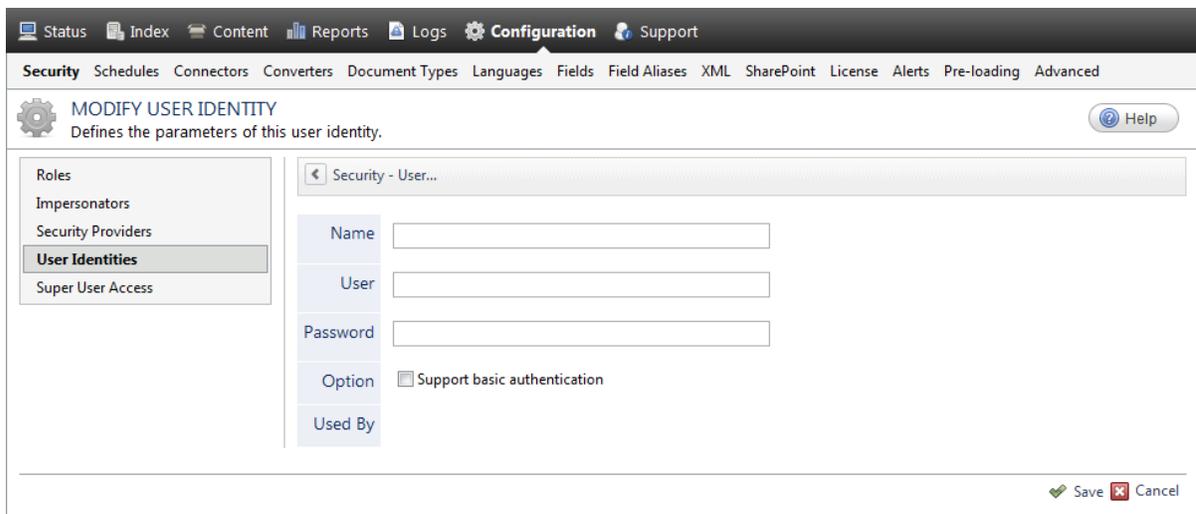
3. Adding a User Identity

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.

4. Configuring and Indexing a Lithium Source

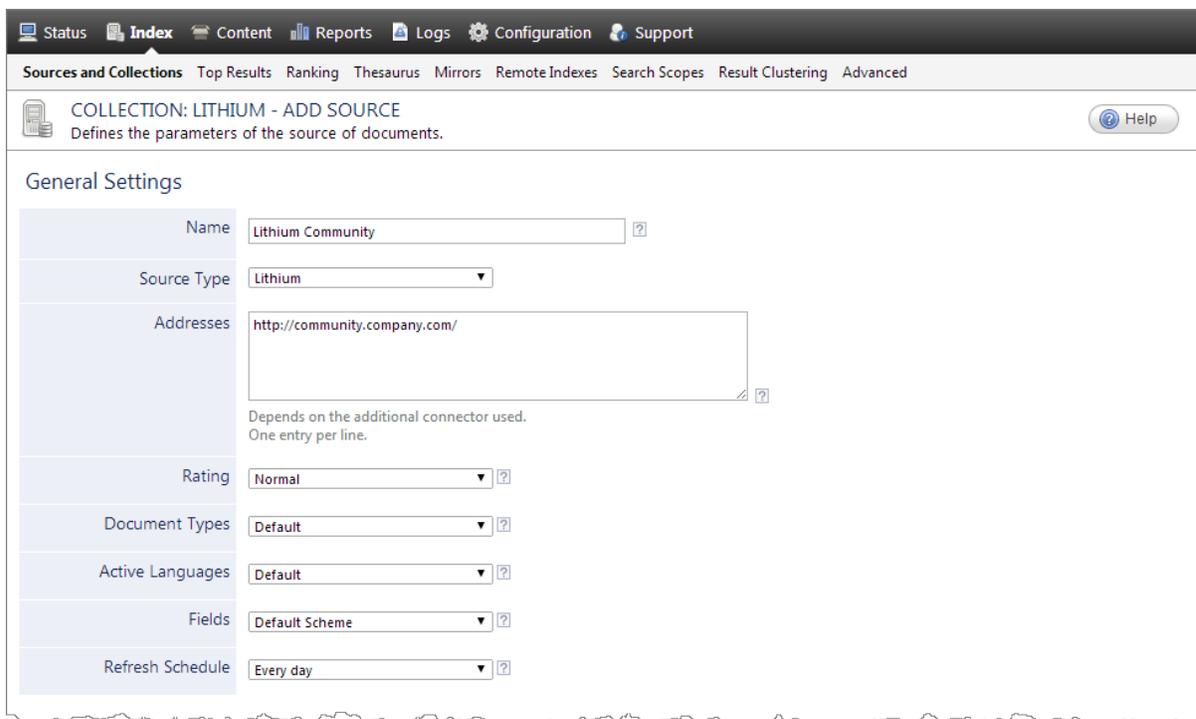
A source defines a set of configuration parameters for a specific Lithium community. When you want to index more than one Lithium community, configure one source for each community.

To configure and index a source with the Lithium 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 'COLLECTION: LITHIUM - ADD SOURCE' configuration page. The page has a navigation bar at the top with links for Status, Index, Content, Reports, Logs, Configuration, and Support. Below the navigation bar, there are tabs for Sources and Collections, Top Results, Ranking, Thesaurus, Mirrors, Remote Indexes, Search Scopes, Result Clustering, and Advanced. The main content area is titled 'COLLECTION: LITHIUM - ADD SOURCE' and includes a 'Help' button. The 'General Settings' section contains the following fields:

Name	<input type="text" value="Lithium Community"/>
Source Type	<input type="text" value="Lithium"/>
Addresses	<input type="text" value="http://community.company.com/"/>
Rating	<input type="text" value="Normal"/>
Document Types	<input type="text" value="Default"/>
Active Languages	<input type="text" value="Default"/>
Fields	<input type="text" value="Default Scheme"/>
Refresh Schedule	<input type="text" value="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: Lithium Community

Source Type

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

Addresses

Enter the URL of the Lithium community to index. Enter only one Lithium community address. Create other sources for other communities.

Examples: The Lithium community addresses can be:

- `http://companyname.lithium.com/`
- `https://community.companyname.com/`

Notes:

- You can also specify to crawl only a subset of a Lithium community by simply copying and pasting the address of a Lithium category, board, or thread. The URL is in the form:

```
http://community.company.com/[...]/lithiumobjectlabel/objectid
```

where the possible values for `lithiumobjectlabel` are given in the **Label** column in the following table.

Label	Lithium object
ct-p	Category
tkbc-p	Knowledge base category
bd-p	Forum
tkb-p	Knowledge base
con-p	Contest
idb-p	Idea board
qa-p	Q&A board
bg-p	Blog
gp-p	Group
m-p	CES 7.0.7599+ (April 2015) Forum thread
td-p	Forum thread
ta-p	Knowledge base article
cns-p	Contest submission
idi-p	Idea
qaq-p	Q&A Question
ba-p	Blog article
gpm-p	Group article

Example: On the Lenovo Lithium community the following address is for the CES2014 forum:

```
http://forums.lenovo.com/t5/Lenovo-CES-2014/bd-p/CES2014
```

- If you use a reverse proxy, your REST API might not reside at your community root URL. You

must therefore add the `RestApiUrl` hidden parameter to specify the URL address at which your REST API resides (see ["Modifying Hidden Lithium Source Parameters" on page 15](#)). Be aware, however, that Lithium does not recommend using a reverse proxy (see [Reverse proxy and Lithium communities](#) while logged in with a Lithium account).

Fields

If you created a custom Lithium field set, select it (see [Lithium Connector Deployment Overview](#)). Otherwise, leave the **Default Scheme**.

Refresh Schedule

Select the 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. Because the incremental refresh takes care of maintaining the source up-to-date, you can select a longer interval such as **Every Sunday**.

Notes:

- You must enable incremental refresh on your source to continuously maintain the index up-to-date with your source between full refreshes.
- **CES 7.0.8996– (June 2017)** The Lithium connector does not support incremental refresh. Consequently, the full refresh schedule is the only process that keeps your source up-to-date.

- 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:

Specific Connector Parameters & Options

Number of Refresh Threads	<input type="text" value="2"/> ?
Mapping File	<input type="text" value="Coveo.CES.CustomCrawlers.Lithium.Mappin"/> ?
Index attachments	<input type="checkbox"/> ?
Index users	<input type="checkbox"/> ?
Parameters	Add Parameter ?
Option	<input checked="" type="checkbox"/> Index subfolders ? <input type="checkbox"/> Index the document's metadata ? <input type="checkbox"/> Document's addresses are case-sensitive ? <input checked="" type="checkbox"/> Generate a cached HTML version of indexed documents ? <input type="checkbox"/> Open results with cached version ?

- a. Review if you need to change the default values for the following parameters:

Number of Refresh Threads

Determines the number of simultaneous downloads handled by the connector for this source. The default value is 2.

Mapping File

The path to the mapping file. Leave the default value to use the default mapping file that comes with the connector (`Coveo.CES.CustomCrawlers.Lithium.MappingFile.xml`). If you create a custom mapping file, enter the full path to your custom mapping file. Contact [Coveo Support](#) for assistance if you need to customize the mapping file.

- b. **CES 7.0.9093+ (September 2017)** Select the following checkboxes if you want to index the corresponding content.

- **Index attachments**

Select this option to index message attachments, such as images, videos, and PDF files.

Notes:

- For attachments to be indexed, the hidden parameter `ItemTypesToIndex` value must be empty or contain `attachment` as well (see [Modifying Hidden Lithium Source Parameters](#)).
- Selecting this option requires one more API call per message.
- **CES 7.0.8996– (June 2017)** For attachments to be indexed as well, you must add the `FetchMessageAttachments` hidden parameter (see [FetchMessageAttachments](#) and ["To modify hidden Lithium source parameters" on page 17](#)).

- **Index users**

Select this option to index data regarding users of a community.

(missing or bad snippet)

- For users to be indexed, the hidden parameter `ItemTypesToIndex` value must be empty or contain `user` as well (see [Modifying Hidden Lithium Source Parameters](#)).
- You can index users only when indexing an entire community. If you only index a community subset such as a category or a board, you cannot index users (see [Note: Crawling a community subset](#)).
- Indexing users of a large Lithium community can have a significant impact on the indexing process performance.
- **CES 7.0.8996– (June 2017)** For users to be indexed as well, you must add the `FetchUsers` hidden parameter (see [FetchUsers](#) and ["To modify hidden Lithium source parameters" on page 17](#)).

- c. In the **Parameters** section, click **Add Parameter** to be able to change the default value of hidden parameters (see ["Modifying Hidden Lithium Source Parameters" on page 15](#)).

Note: When you want to index the content of a Lithium community that is secured using form authentication, add the following hidden parameters (see ["Modifying Hidden Lithium Source Parameters" on page 15](#)).

Hidden parameter	Value
<code>AuthenticationFormId</code>	if not the default (<code>form</code>)
<code>LoginPageUrl</code>	The login page URL
<code>LoginFieldName</code>	if not the default (<code>login</code>)
<code>PasswordFieldName</code>	if not the default (<code>password</code>)
<code>UseFormAuthenticationToFetchAttachments</code>	<code>true</code>

- 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.

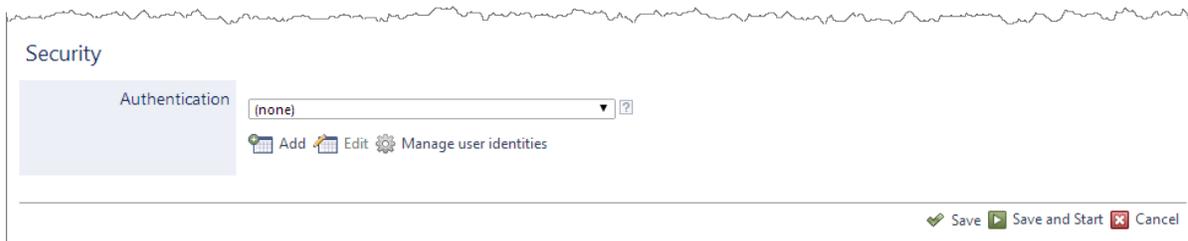
Generate a cached HTML version of indexed documents

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 Lithium content, select the user identity that you created for the Lithium community to index.

Note: The user identity you select must be a native Lithium user. An SSO user cannot be used to retrieve secured Lithium content.

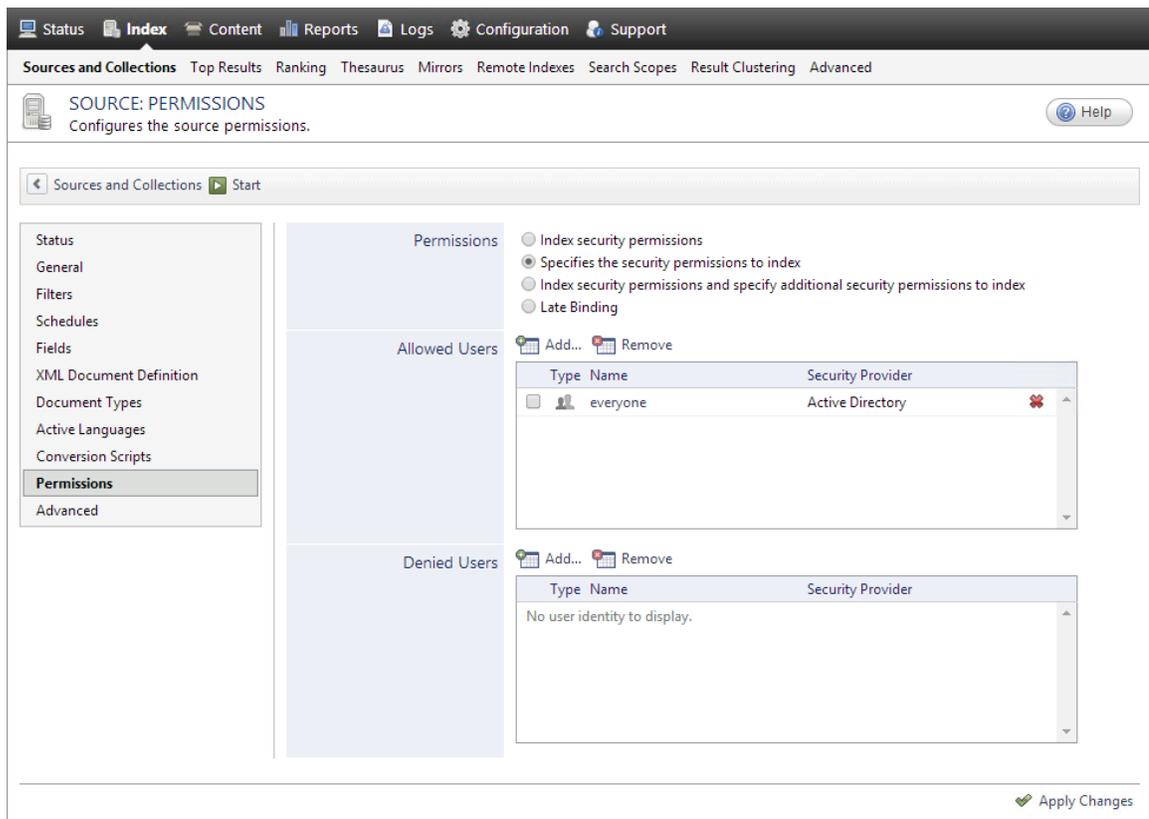
OR

- When you index a public Lithium community, select **(none)**.
 - b. Click **Save** to save the source configuration.
8. Because the Lithium connector does not support indexing Lithium item permissions, you must rather set the permissions globally on the source:

Note: You get the following error message in the CES Console when you try to index the permissions for a Lithium community source.

```
Error with ID 'LITHIUM_INVALID_CONFIGURATION': Permissions indexing is not provided by the Lithium connector
```

- a. In the navigation panel on the left, select **Permissions**.
- b. In the **Permissions** page:



- i. Select the **Specifies the security permissions to index** option.
- ii. Optionally, in the **Allowed Users** list, add or remove users or groups to precisely specify who has access to the content from this source. By default, the Active Directory **everyone** group specifies that any AD user can see all the content from this source.

- iii. Optionally, in the **Denied Users** list, add users or groups to specify who has not access to the content from this source.
 - iv. Click **Apply Changes**.
9. On the toolbar, click **Start/Rebuild** to start indexing your source.
 10. 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 some hidden source parameters to try resolving other issues (see "[Modifying Hidden Lithium Source Parameters](#)" on page 15).

- **CES 7.0.9093+ (September 2017)** Set an incremental refresh schedule for your source.

5. Modifying Hidden Lithium 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 Lithium 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 Lithium sources. The parameter type (integer, string...) appears between parentheses following the parameter name.

RestApiUrl (CES 7.0.9434+ (September 2018))

If you use a reverse proxy, your REST API might not reside at your community root URL. You must therefore add the `RestApiUrl` hidden parameter to specify the URL address at which your REST API resides.

Note: Lithium does not recommend using a reverse proxy (see [Reverse proxy and Lithium communities](#) while logged in with a Lithium account).

BasicAuthenticationUsername (String)

BasicAuthenticationPassword (String)

The user name and password to use when the Lithium community is secured with basic (`http`) authentication.

FetchMessageTags (Boolean)

Indicates whether to fetch the tags associated with the messages. The default is `true`.

FetchMessageAttachments (Boolean) (CES 7.0.8996– (June 2017))

Indicates whether to fetch the attachments associated with the messages. The default is `true`.

Note: Setting this parameter to `true` requires one more API call per message.

FetchUsers (Boolean) (CES 7.0.8996– (June 2017))

Indicates whether to fetch users. The default is `false`.

Notes:

- You can index users only when indexing an entire community. If you only index a community subset such as a category or a board, you cannot index users
- On a large Lithium community, indexing the users may take a significant amount of time.

ApiVersion (String) (CES 7.0.8996– (June 2017))

The version of the Lithium REST API to use: `vX`, `vC`, or `v1`. The default is `v1`.

LoginPageUrl (String)

The login page URL to use when the community uses form authentication. You can get this URL by attempting to access the Lithium community while you are not yet logged in.

Example: `https://community.lithium.com/t5/user/userloginpage`

LoginFieldName (String)

The name of the form authentication login field. The default is `login`. Inspect the login page to find the `<input... name="login" ...>` tag for the user name field and copy the value of its `name` attribute to put in this parameter.

PasswordFieldName (String)

The name of the form authentication password field. The default is `password`. Inspect the login page to find the `<input... name="password" ...>` tag for the password field and copy the value of its `name` attribute to put in this parameter.

AuthenticationFormId (String)

The form authentication ID to use. The default is `form`. Inspect the login page to find the `<form ... id="form" name="form">` tag and copy the value of its `id` attribute to put in this parameter.

AdditionalFormParameters (String)

When needed, a list of additional form authentication parameters formatted as follows:

```
'param1=value1;param2=value2'
```

UseFormAuthenticationToFetchAttachments (Boolean)

Whether to use form authentication to fetch attachments. The default is `false`.

IndexMessageHasEmbeddedImage (Boolean) **CES 7.09093+ (September 2017)**

Whether to set a metadata value indicating that the message has at least one embedded image. The default is `false`.

Note: Setting this parameter to `true` requires one more API call per message.

IndexMessageHasEmbeddedVideo (Boolean) **CES 7.0.9093+ (September 2017)**

Whether to set a metadata value indicating that the message has at least one embedded video. The default is `false`.

Note: Setting this parameter to `true` requires one more API call per message.

ItemTypesToIndex (String) **CES 7.0.9093+ (September 2017)**

The item types to index. The default is empty, which indexes all item types (see "[Searchable content types](#)" on page 1).

You can select specific items types to index by entering the desired types separated by semicolons.

Example: `community;category;board;thread;message;attachment;user`

NumberOfRetries (Integer) **CES 7.0.9093+ (September 2017)**

The number of retries allowed when a web request fails. The default is 3.

PageSize (Integer) CES 7.0.9093+ (September 2017)

The number of items returned for an API call. The default is 50, the upper limit is 100.

Note: Since this parameter can reduce performance or increase the number of API calls significantly, you should only modify this parameter when advised to do so by the (missing or bad snippet) team.

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

To modify hidden Lithium source parameters

1. Refer to ["Adding an Explicit Connector Parameter" on page 17](#) to add one or more Lithium hidden source parameters.
2. For a new Lithium 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 Lithium 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 Lithium 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 Lithium source to apply the changes to the parameters.

5.1 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.

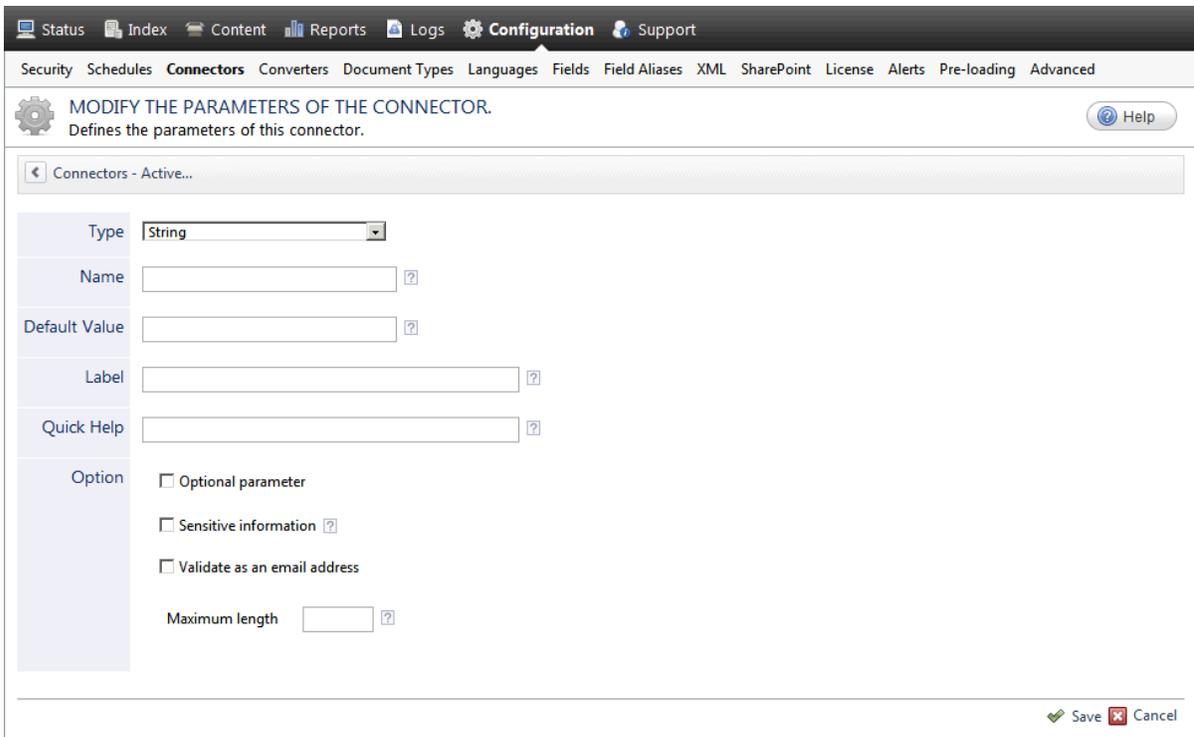
You can however choose to make one or more of these parameters appear in the **Add Source** and **Source: ... General** pages of the Administration Tool so that you can change their default value.

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:



The screenshot shows the 'MODIFY THE PARAMETERS OF THE CONNECTOR' page. The breadcrumb trail is 'Connectors - Active...'. The form includes the following fields and options:

- Type:** A dropdown menu currently set to 'String'.
- Name:** A text input field with a help icon.
- Default Value:** A text input field with a help icon.
- Label:** A text input field with a help icon.
- Quick Help:** A text input field with a help icon.
- Option:** A section containing three checkboxes:
 - Optional parameter
 - Sensitive information [?](#)
 - Validate as an email address
- Maximum length:** A text input field with a help icon.

At the bottom right, there are 'Save' and 'Cancel' buttons.

- 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.