

Coveo Enterprise Search 6.5

Jive Clearspace/SBS Connector

The Jive Clearspace/SBS connector allows indexing the content of Jive Clearspace and Jive SBS servers, integrating that content to Coveo Enterprise Search (CES) and making it easily searchable by users.

Note: In this document, unless specified otherwise, *SBS* is used to refer to both Clearspace and SBS.

Supported Products

The Jive Clearspace/SBS connector supports the following Jive products:

- Clearspace 2.5
- SBS 3.0
- SBS 4.0
- SBS 4.5 (with CES versions 6.1.4019+ and 6.2.4010+)
- Jive 5 (with CES version 6.5.4568)

Features

The features of the Jive Clearspace/SBS connector are:

- **Content Indexing:** The following object types are retrieved from SBS and indexed by the connector:
 - Spaces (also known as *Communities*);
 - Projects (with related Tasks and Checkpoints);
 - User profiles;
 - Social Groups;
 - Private Messages;
 - Documents (private and public);
 - Discussions (private and public);
 - Blog Posts (for Spaces, Projects, Users, Social Groups and System Blogs);
 - Announcements;
 - Polls;
 - Comments (for Documents, Blog Posts, and Polls);
 - Attachments (for Documents, Blog Posts, and Discussions);
 - Tags and Categories (formerly known as *Tag Groups*).

- **Security:** Permissions in CES are the same as the ones available in SBS. Mapping of permissions does not require SBS to use LDAP as its user authentication manager; however, the user and group names defined in SBS require matching entries in Windows Active Directory.
- **Live indexing:** Allows the connector to periodically query SBS for the latest edits, keeping the index content up to date.

Requirements

The operations described in the following sections must be performed on the SBS server before it can be indexed by the connector.

How to Enable the Web Services

Content from the SBS repository is retrieved by the connector using native SBS Web services. By default, Web services are disabled in SBS and must be enabled in the SBS admin console.

1. In the SBS admin console, access **System > Settings > Web Services**, and then click **Enabled** for **Enable SOAP Web Services**.

The screenshot shows the 'Web Services' configuration page in the SBS admin console. The page has a navigation menu on the left with 'Web Services' selected. The main content area contains the following settings:

- Enable SOAP Web Services:** Enabled Disabled
- Enable REST Web Services:** Enabled Disabled
- User Access:**
 - Anybody (Including Anonymous Users)
 - All Registered Users
 - Only Specified User(s)
 - Text input field containing: SysAdmin
 - Text below: Entries must be separated by a comma.
 - Specific Group(s)
 - Text input field (empty)
 - Text below: Entries must be separated by a comma.
- Force SSL:** Yes No

At the bottom of the settings panel are two buttons: 'Save Settings' and 'Cancel'.

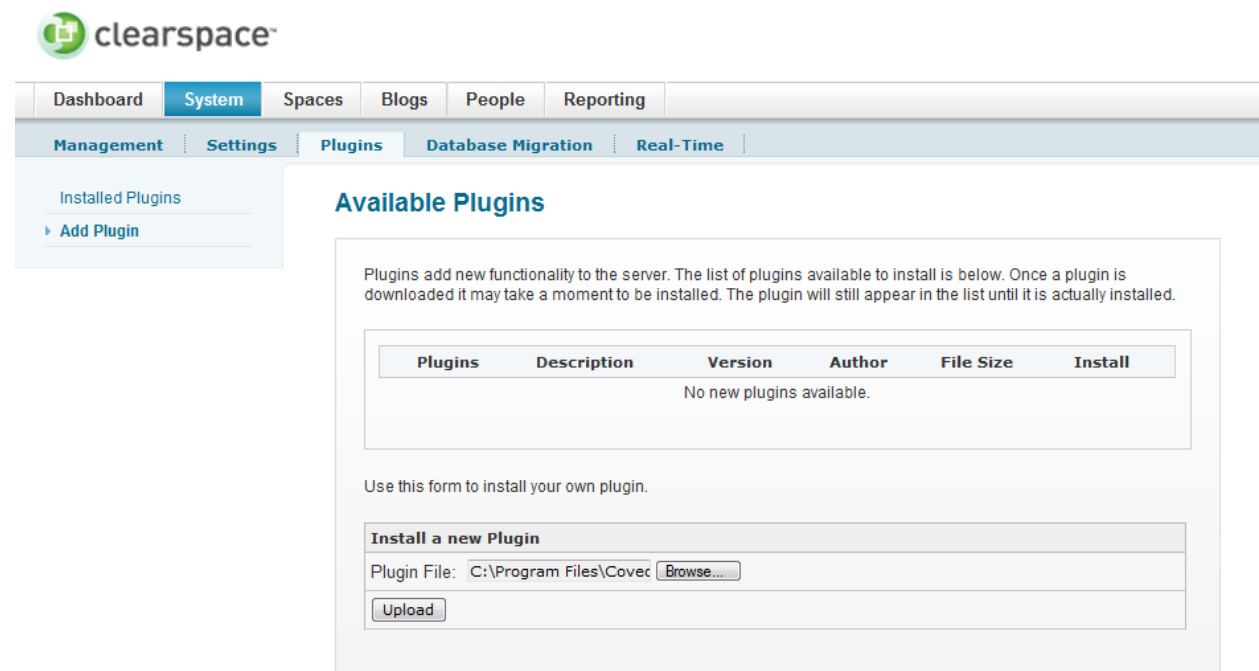
2. Under **User Access**, specify the SBS user that will be used by the connector (see section entitled How to Configure a User Identity).
3. Click **Save Settings**.

How to Upload the Plugin

SBS has a plugin framework which can be used to call the Jive APIs. The connector uses such a plugin to expose a custom Web service used to retrieve complementary information from SBS. You need to upload the Coveo plugin in the SBS server.

Important: If you are installing the plugin on a Jive server that was updated from Clearspace to SBS, you first need to update the plugin database (refer to Appendix B: Updating a Plugin Database Schema).

1. In the SBS admin console, access **System > Plugins**, and then click **Add Plugin**.
2. Click **Browse**, and then browse to the location of the provided plugin file (<Drive_Letter>:\Program Files\Coveo Enterprise Search 6\Bin\).
3. Select the file (Coveo.CES.CustomCrawlers.Plugin.<Platform>.jar) corresponding to the Jive platform (Clearspace 2.5, SBS 3.0, SBS 4.0, and SBS 4.5).
4. Click **Upload**.



5. Stop and restart the SBS service.

How to Configure Authentication with Jive Web Services Using .NET

Note: This section only applies to Clearspace 2.5 and SBS 3.0.

In order for .NET proxy classes to be able to authenticate with SBS web services, some modifications must be made to the SBS server. The following instructions were taken from this [discussion](#) on the Jive Developers Forum and were successfully tested with both Clearspace 2.5 and SBS 3.0.

1. Stop the SBS service.
2. Locate the main Clearspace/SBS library file on the Jive server.
It should be located in %SBSInstallationPath%\WEB-INF\lib\. Depending on your platform, the library file will be named `clearspace-2.5.X.jar` or `jive-sbs-public-3.0.X.jar`.
3. Make a backup copy of this library file so you can revert any changes made at any time.
4. From the library, extract the `spring-wsContext.xml` file, and open it using a text editor.
5. Locate the following entry and remove **NoSecurity** from its value:

```
<entry key="action" value="UsernameToken Timestamp NoSecurity" />
```

6. Add the modified `spring-wsContext.xml` back to the library file, overwriting the existing one.
7. Update the `wss4j.jar` file (again located under `WEB-INF\lib`) to its latest version.
Note: Follow this [link](#) for more information on this Apache library. The latest version is available for download [here](#).
8. Restart the SBS service.

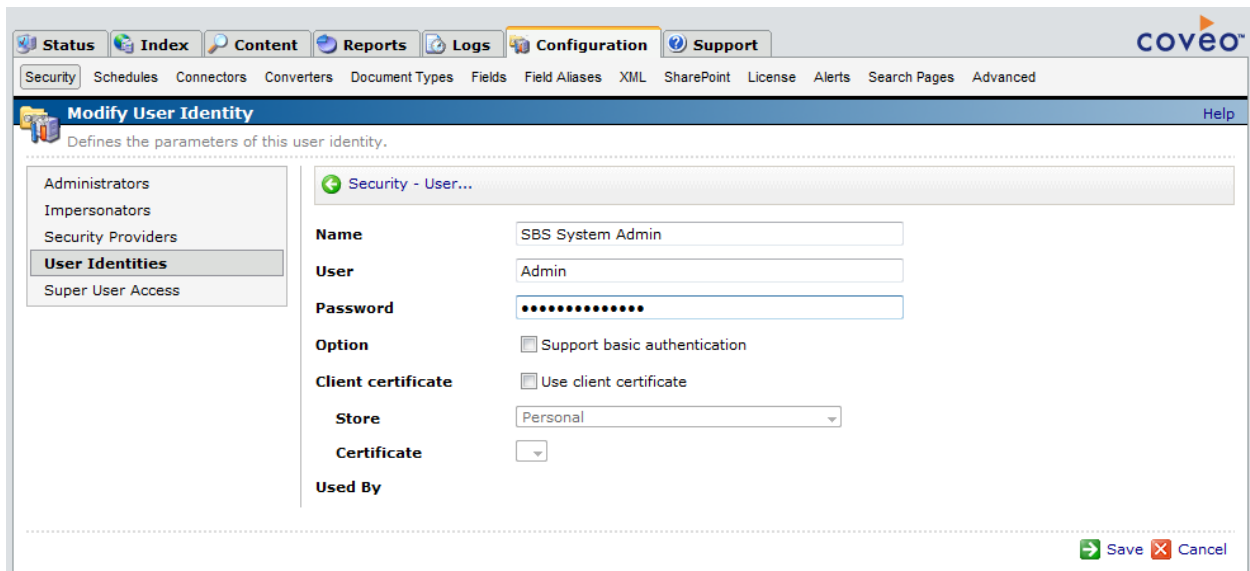
Configuration

You need to perform the operations described in the following sections to configure the SBS connector.

How to Configure a User Identity

The connector requires a SBS account to authenticate itself with the SBS server Web services. In order for the connector to index all available objects, this account must have read access granted for the entire SBS repository; therefore, it is recommended, but not mandatory, that this account be the one of a SBS System Administrator.

1. In the CES Administration Tool, access the **Security** page (**Configuration > Security**).
2. In the left navigation pane, click **User Identities**. The **User Identities** page is displayed.
3. Click **Add**. The **Modify User Identity** page is displayed.
4. In the **Name**, **User** and **Password** fields, enter the credentials of a SBS account that has read access granted for the entire SBS repository.
5. Click **Save**.



How to Configure the Security Provider

A security provider is required to resolve mappings between users and groups from SBS and Windows Active Directory. The security provider is required even if your SBS server is using LDAP to perform user authentication.

1. In the CES Administration Tool, access the **Security** page (**Configuration > Security**).
2. In the left navigation pane, click **Security Providers**. The **Security Providers** page is displayed.
3. Click **Add** to create a new security provider.
4. Enter the following information in the appropriate fields:

Field	Description
Name	SBS Security Provider (or any significant name)
DLL Path	<Drive_Letter>:\Program Files\Coveo Enterprise Search 6\Bin\Coveo.CES.CustomCrawlersSecurityProvider.dll
User Identity	Select the identity previously created.

Field	Description																								
Parameters	<p>This is where custom configuration parameters are specified for the security provider. All parameters must be entered as a single string in the following format:</p> <p>ParameterName1="ParameterValue1";ParameterName2="ParameterValue2"; etc.</p> <p>Required parameters are as follow:</p> <table border="1"> <thead> <tr> <th>Name</th> <th>Description</th> <th>Example</th> </tr> </thead> <tbody> <tr> <td>AssemblyPath</td> <td>Path to the security provider executable.</td> <td><Drive_Letter>:\Program Files\Coveo Enterprise Search 6\Bin\Coveo.CES.CustomCrawlers.Clearspace.dll</td> </tr> <tr> <td>ServerBaseAddress</td> <td>Base address of the SBS server.</td> <td>http://SBSWebSite:8080/Jive</td> </tr> <tr> <td>UserCacheFilePath</td> <td>To improve performances on large SBS repositories, SBS users are saved to a local cache on the CES server. This is the folder where the user cache file will be saved.</td> <td>C:\temp</td> </tr> <tr> <td>UserCacheLifeSpan*</td> <td>This parameter defines for how long the user cache stays valid before it has to be refreshed.</td> <td>Any value in minutes. Default is 1440 (24 hours).</td> </tr> <tr> <td>LDAPSearchRoot*</td> <td>LDAP root address under which the security provider will attempt to find SBS users</td> <td>LDAP://OU=SBS,DC=CORP,DC=DOMAIN,DC=COM</td> </tr> <tr> <td>LDAPUsername*</td> <td>Username to use to authenticate with LDAP.</td> <td>-</td> </tr> <tr> <td>LDAPPassword*</td> <td>Password to use to authenticate with LDAP.</td> <td>-</td> </tr> </tbody> </table> <p>* These parameters are optional. LDAP credentials are only required if the Windows Identity under which CES is running is not from the same domain as the SBS users.</p>	Name	Description	Example	AssemblyPath	Path to the security provider executable.	<Drive_Letter>:\Program Files\Coveo Enterprise Search 6\Bin\Coveo.CES.CustomCrawlers.Clearspace.dll	ServerBaseAddress	Base address of the SBS server.	http://SBSWebSite:8080/Jive	UserCacheFilePath	To improve performances on large SBS repositories, SBS users are saved to a local cache on the CES server. This is the folder where the user cache file will be saved.	C:\temp	UserCacheLifeSpan*	This parameter defines for how long the user cache stays valid before it has to be refreshed.	Any value in minutes. Default is 1440 (24 hours).	LDAPSearchRoot*	LDAP root address under which the security provider will attempt to find SBS users	LDAP://OU=SBS,DC=CORP,DC=DOMAIN,DC=COM	LDAPUsername*	Username to use to authenticate with LDAP.	-	LDAPPassword*	Password to use to authenticate with LDAP.	-
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LDAPPassword*	Password to use to authenticate with LDAP.	-																							
Options	Select the following checkboxes: Support access list , Support expand group and Support expand user .																								

How to Configure a SBS Source

Since a SBS source defines a set of configuration parameters for a specific server, you need to define one source for each SBS server you wish to index.

1. In the CES Administration Tool, access the **Sources and Collections** page (**Index > Sources and Collections**).
2. In the **Sources** section, click **Add**. The **Add Source** page is displayed.
3. Enter the appropriate configuration values:

Field	Description	Example
Name	Any descriptive name.	Corporate SBS
Source Type	The connector used by this source.	Clearspace/SBS
Starting addresses	Root address of the SBS Community where indexing will take place.	All communities: http://SBSSite:8080/ Community A: http://SBSSite:8080/ CommunityA Community C: http://SBSSite:8080/CommunityA/CommunityB/CommunityC
Number of Refresh Threads	Determines the number of simultaneous downloads handled by the connector.	Default value is 2.
Index Communities content	Whether or not SBS Communities and any item they contain should be indexed.	Default value is True.
Index Projects content	Whether or not SBS Projects and any item they contain should be indexed.	Default value is True.
Index Social Groups content	Whether or not SBS Social Groups and any item they contain should be indexed.	Default value is True.
Index System Blogs content	Whether or not SBS System Blogs and any item they contain should be indexed.	Default value is True.
Index subfolders	Whether or not the community specified in the starting address should be indexed recursively or not.	Default value is True.
Authentication	Identity used by the source.	Select the previously created user identity.

4. Click **Save**.
5. Click **General** from the left sidebar menu, and then modify the **Title Selection Sequence** so that **Use the filename** is the first option from the list.

6. Click **Permissions** from the left sidebar menu, select **Use a Security Provider** from the **Permissions** options, and then choose your security provider from the dropdown menu. If you want to manually specify the permissions that will be set on documents from the source, you must select the **Specify the security permissions to index** option, and then enter allowed and denied users and groups for the source.
7. Click **Apply Changes**.
8. When you are ready to start indexing the SBS source, click **Start**.

How to Configure Hidden Source Parameters

You can overwrite the default value of hidden SBS source parameters. Under normal circumstances, the values of these parameters should not have to be modified.

1. From the CES Administration Tool, open the source page (**Index > Sources and Collections**).

2. Click **General** from the left sidebar menu.
3. For each parameter, click **Add Parameter**, and then enter the parameter name and the desired value, as specified in the following table.

Important: If you choose to modify some of these parameter values, you should closely monitor the behavior of the connector afterward since using inappropriate values on some of these can cause the connector to stop working or to become unstable.

Field	Description	Example
ServiceTimeout	The time the connector waits for a Web service request to complete.	Any value in seconds. Default is 120 seconds.
ServiceBatchSize	The number of items to retrieve in a single call to the SBS web services.	Default value is 25.
UserCacheLifeSpan	To improve indexing performances of large SBS repositories, SBS users are saved to a local cache on the CES server. This parameter defines for how long this cache stays valid before it has to be refreshed.	Any value in minutes. Default is 1440 (24 hours).
ItemTypesToIgnore	List of SBS item types to ignore while indexing.	Possible values are: Announcement Blog Discussion Document Poll ProjectCheckPoint ProjectTask PrivateMessage
DownloadUserProfilePictures	When set to true, the connector downloads the images associated with each user profile and adds them as thumbnails to the CES documents.	

Appendix A: Troubleshooting

The following sections describe general issues you may encounter while using the SBS Connector and attempts to provide the best course of action to resolve them.

Group Permissions

- ▶ **Changes to some group permissions within SBS are not effective in CES, even after security cache was updated**

Permissions in SBS are flexible, they support users and groups, use inheritance to propagate through sub communities, and they support a hierarchy of precedence so an explicit permission will always override an inherited one, whether it is denied or allowed.

Since permissions in CES only support denied and allowed entries, a denied entry will always override an allowed entry for a user or a group, with no regard to whether the allowed permission was inherited or explicitly set. For that reason, when group permissions are used in SBS, in some cases these groups will have to be expanded and permissions will have to be set on group members to make sure CES permissions mirror those from SBS. Consider the following situation:

Group A contains three members: member 1, member 2 and member 3.

For a given SBS community, Group A is denied the View Documents permission through an inherited permission but member 1 is explicitly allowed the View Document permission. If you look at the final permissions in CES, you'll see that member 1 is effectively allowed on any document from that community and that member 2 and member 3 are denied. There will be no denied permission set on Group A since doing so would deny all members from the group, including member 1.

Therefore, expanding groups and setting permissions on group members rather than on the groups themselves will not be effective in CES until a refresh operation is performed.

Live Indexing

- ▶ **Live indexing is not detecting modifications made to SBS permissions**

Modifications made to permissions in SBS do not impact the last modification date of objects affected by the permission modification. Since live indexing is using this last modification date to retrieve objects to update, the permission modification will go unseen. A source refresh should be scheduled weekly or more often if permissions are often modified, in order to keep the index securities synchronized with SBS permissions.

- ▶ **Live indexing is not detecting new users added to the SBS server**

The SBS connector keeps a local cache of all active SBS users for faster access and to improve indexing performances. New SBS users will only be detected by live indexing and added to CES when this local cache of users expires and has to be refreshed. By default, the user cache is refreshed every 24 hours but can be refreshed more often by adding the `UserCacheLifeSpan` parameter to your source and setting its value (in minutes) accordingly. Note that this parameter is also available on the Security Provider and its value should always match the value set on its associated source. If a Security Provider is used by more than one source, make sure the

UserCacheLifeSpan parameter on the Security Provider matches the lowest value of this parameter among all its associated sources.

▶ **Live indexing is not retrieving items that were deleted more than two weeks ago**

The connector needs to keep track of items that were deleted from SBS in order for live indexing to keep the index up to date. Every time a live indexing run completes, items that were deleted more than two weeks ago will be removed from the deleted history. If live indexing was disabled on a source for a period greater than this and you have more than one source performing live indexing on the same SBS server, you should perform a source refresh on the source where live indexing was disabled to make sure your index is fully up to date.

Secure Addresses

▶ **When clicking on search results within a CES search page, you are taken to a secure Jive connection (e.g.: <https://JiveSite:8443/docs/DOC-1001>) even though the starting address specified on the source is not (e.g.: <http://JiveSite:8080>)**

If the web server hosting SBS is configured so that SSL is enabled for SBS, you should always use the secure starting address.

Error During Refresh or Rebuild

▶ **When refreshing or rebuilding a SBS source, the following error is displayed and the operation is aborted:**

```
Jive Error: Client found response content type of 'text/html;charset=ISO-8859-1', but expected 'text/xml'. The request failed with the error message:--<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN"><html><head><title>System Error</title> <style> body { font-family : arial, helvetica, sans-serif; font-size: 81.25%;} td, th, p, div, span, li, a { font-size : 1em; } h1 { font-size : 1.72em; } code { font-family : courier new, monospace;font-size : .8em;}} </style></head><body><div id="jive-header" class="jive-clearfix"> <h1>System Error</h1></div><p>We're sorry but a serious error has occurred in the system.</body></html>--
```

This is the typical error message returned by SBS when an internal error occurs on the SBS server. While there's not much that can be done to prevent these errors from occurring, we recommend restarting the SBS service if the errors occur frequently.

▶ **When refreshing or rebuilding a SBS source, the following error is displayed and the operation is aborted:**

Jive Error: PermGen space.

A PermGen related error means the SBS server was temporarily out of memory. If this error occurs repeatedly, make sure your SBS JVM settings follow the [recommendation](#) from Jive and, if required, increase the PermGen Heap space to at least 512 MB as instructed [here](#).

Appendix B: Updating a Plugin Database Schema

The plugin used by the SBS connector creates a custom table on the SBS server database where it keeps track of deleted items. This table is automatically created the first time the plugin is uploaded to the SBS server (following a server restart).

The definition of this table has been modified to support the SBS 4.0 platform. If your SBS server was updated from Clearspace 2.5 to SBS 4.0 and a connector plugin for the Clearspace 2.5 platform was previously installed on that server, you may need to update the database. If this is the case, perform the steps before you install the plugin for the SBS 4.0 platform.

1. Log on to the SBS server database.
2. Drop the coveoDeletedItems table.
3. Open the JiveVersion table and delete the coveoDeletedItems entry.
4. Upload the latest SBS plugin to the server (see How to Upload the Plugin).
Upon restart, the new updated table named CESLiveIndexing will be available.

Appendix C: CA SiteMinder® as Single Sign On for Jive Clearspace/SBS

If the Jive Clearspace/SBS server you are attempting to index is configured to use SiteMinder to perform user authentication, you'll need to perform the following additional configuring steps for the connector to successfully communicate with Clearspace/SBS web services:

1. Identify the complete URL to the SiteMinder form login page, also known as the *Forms Credential Collector* (FCC).
Ex.: `https://www.acme.com/siteminderagent/forms/login.fcc`
2. Identify the POST action of the SiteMinder FCC, which is the text string that is submitted when a login attempt is made. This text string is simply a concatenation of the id-value pair of some of the fields from the FCC.

Field Id	Field Value	Example
USER	User name used to authenticate with SiteMinder.	jdow
PASSWORD	Password used to authenticate with SiteMinder.	qwerty
SMAUTHREASON	The code associated with a login failure.	Always use '0' (zero)
TARGET	The URL of the page performing the authentication. To find this value, inspect the source code of the FCC. Note: This URL must be escaped.	<code>https%3A%2F%2Fwww.acme.com%2authenticate.aspx</code>

Ex.:`USER=jdow&PASSWORD=qwerty&SMAUTHREASON=0&TARGET=https%3A%2F%2Fwww.acme.com%2authenticate.aspx`

3. In the CES Administration Tool, access the **Connectors** page (**Configuration > Connectors**).
4. In the left navigation pane, click **Additional Connectors**. The **Additional Connectors** page is displayed.
5. Click **Clearspace/SBS**. The **Modify Additional Connector** page is displayed.
6. Click **Add Parameter**. The **Modify the parameters of the additional connector** page is displayed.
7. For each parameter, enter the parameter information, as specified in the following table.

Name	Default Value	Label	Option
SiteMinderFormLoginAction	The complete URL to the SiteMinder FCC	SiteMinder Form Login Action	Optional parameter
SiteMinderFormLoginPage	The POST action of the SiteMinder FCC	SiteMinder Form Login Page	Optional parameter

The screenshot shows the 'Configuration' tab in the Coveo interface. A sub-tab 'Connectors' is active, leading to the 'Modify the parameters of the additional connector' dialog. The dialog has a sidebar on the left with the following options: File Connector, Web Connector, MAPI Connector, SharePoint Connector, Novell Servers, and **Additional Connector**. The main area contains a 'Modify Additional...' button and a form with the following fields:

- Type:** String (dropdown menu)
- Name:** SiteMinderFormLoginPage (text input)
- Default Value:** https://www.acme.com/siteminder (text input)
- Label:** SiteMinder Form Login Page (text input)
- Quick Help:** (empty text input)
- Option:**
 - Optional parameter
 - Sensitive information
 - Validate as an email address
 - Maximum length: (empty text input)

At the bottom right of the dialog are 'Save' and 'Cancel' buttons.

8. Click **Save**.