

# Coveo Enterprise Search 6.5

## SharePoint Connector

Coveo's SharePoint connector allows users to index the information stored on one or multiple SharePoint farms. The connector allows Coveo Enterprise Search (CES) to crawl and index a complete SharePoint farm or specific farm sections, such as Web applications, site collections, websites, lists, list items, or documents.

## Features

The SharePoint connector features are:

- **Content indexing**
  - Indexing all SharePoint content
    - Farms and Web applications;
    - Site collections and websites;
    - Portals, areas, and area listings;
    - Lists, list items, and list item attachments;
    - Document libraries, documents and document sets;
    - User profiles and personal websites;
    - Web parts (CES 6.5+).
  - **Automatic site collection discovery:** You can configure the CES SharePoint connector to index all site collections located on a SharePoint farm without having to list them manually;
  - **HTTP over SSL (HTTPS) support:** You can use the SharePoint connector to index a SharePoint site that uses HTTPS.
- **Security:** The SharePoint connector fully supports the SharePoint security model. The results returned when a user performs a query in the CES search interface are only those he has access to.
- **Live indexing:** Once live indexing is enabled on a CES SharePoint source, the SharePoint connector automatically refreshes the content modified since the last live indexing run. This way, the index is always kept up to date.

**Intranet** and **SharePoint** search interface features related to the SharePoint connector are (CES 6.5+):

- **Search results folding:** The search interfaces present folded results for the following SharePoint items:
  - Blog posts and their comments
  - Discussion board threads
  - Document sets and their items
- The **Document Sets** facet appears, listing all document sets included in the results when one or more document set items match the query.
- Search results referring to a document link in SharePoint are now identified with a special icon.

## Supported Versions

The SharePoint connector supports the following versions:

- **SharePoint 2003**
  - Windows SharePoint Services 2.0 (WSS 2)
  - Microsoft Office SharePoint Portal Server 2003 (SPS 2003)
- **SharePoint 2007**
  - Windows SharePoint Services 3.0 (WSS 3)
  - Microsoft Office SharePoint Server 2007 (MOSS 2007)
- **SharePoint 2010**
  - Microsoft SharePoint Foundation 2010 (WSS 4)
  - Microsoft SharePoint 2010 (SharePoint 2010)

## Requirements

### CES Administrative Account

The CES administrative account must have the proper rights to retrieve the information from the SharePoint farm. The following tables present the minimal required permission that the CES administrative account must have to perform the specified action. The procedures describing how to set specific permissions are available in the Appendix of this document.

#### ▶ SharePoint 2003 (WSS 2 and SPS 2003)

Action to perform	Minimal required permission
Content and security indexing	Web Site Administrator (see How to Add the SharePoint Web Site Administrator Permission)
Personal sites and user profiles indexing, live indexing and site collection discovery	Member of the SharePoint Administrator Group (see How to Add the CES Administrative Account to the SharePoint Administrator Group) OR Member of the SharePoint server local Administrator group (see How to Add the CES Administrative Account to the SharePoint Server Local Administrator Group)

#### ▶ SharePoint 2007 (WSS 3 and MOSS 2007)

Action to perform	Minimal required permission
Content and Security indexing, live indexing and site collection discovery	Full Read policy for all SharePoint farm Web applications (see How to Add the Full Read Policy to All Farm Web Applications)
Personal sites and user profiles indexing	Read permission for the source starting address' site collection (see How to Add the SharePoint Web Site Read Permission) AND Manage User Profiles Shared Service right (see How to Add the Manage User Profiles Shared Service Right (MOSS 2007 Only))

### **Automatic Permissions Setup**

When a SharePoint source, refresh, or rebuild is executed, the SharePoint connector has the ability to automatically set up the required permissions for the CES administrative account, as long as these requirements are met:

- The CES SharePoint Web services must be installed on the SharePoint farm (see How to Install the CES SharePoint Web Services);
- The CES administrative account must be a member of the SharePoint farm administrator's group (see How to Add the CES Administrative Account to the SharePoint Farm Administrator Group);
- The CES administrative account must have the **Read** permission for the starting address' site collection (see How to Add the SharePoint Web Site Read Permission).

### ▶ **SharePoint 2010 (WSS 4 and SharePoint 2010)**

Action to perform	Minimal required permission
Content and Security indexing, live indexing and site collection discovery	Full Read policy for all SharePoint farm Web applications (see How to Add the Full Read Policy to All Farm Web Applications)
Personal sites and user profiles indexing	Read permission for the source starting address' site collection (see How to Add the SharePoint Web Site Read Permission) AND User Profile Service Application Retrieve People Data for Search Crawlers right (see How to Add the User Profile Service Application Retrieve People Data for Search Crawlers Right)

### Automatic Permissions Setup

When a SharePoint source, refresh, or rebuild is executed, the SharePoint connector has the ability to automatically set up the required permissions for the CES administrative account, as long as these requirements are met:

- The CES SharePoint Web services must be installed on the SharePoint farm (see How to Install the CES SharePoint Web Services);
- The CES administrative account must be a member of the SharePoint farm administrator's group (see How to Add the CES Administrative Account to the SharePoint Farm Administrator Group);
- The CES administrative account must have the **Read** permission for the starting address' site collection (see How to Add the SharePoint Web Site Read Permission).

## CES SharePoint Web Services

The CES SharePoint Web Services is an optional package. Once installed on your SharePoint farm, the CES SharePoint connector has the ability to enhance the extraction and the indexing of the SharePoint content.

### Benefits

The following table presents the benefits that the CES SharePoint Web Services offer.

SharePoint version	Feature available when the CES Web services are installed
2003	Live Indexing support.
2003	Site collections discovery of the targeted Web applications.
2003	Enables the indexing of Area Listing HTML content.
2007 and 2010	Automatic CES administrative account configuration.
All	Full site collections discovery of the targeted SharePoint farms.

### Requirements

The user performing the installation of the CES SharePoint Web Services needs the permissions presented in the following table.

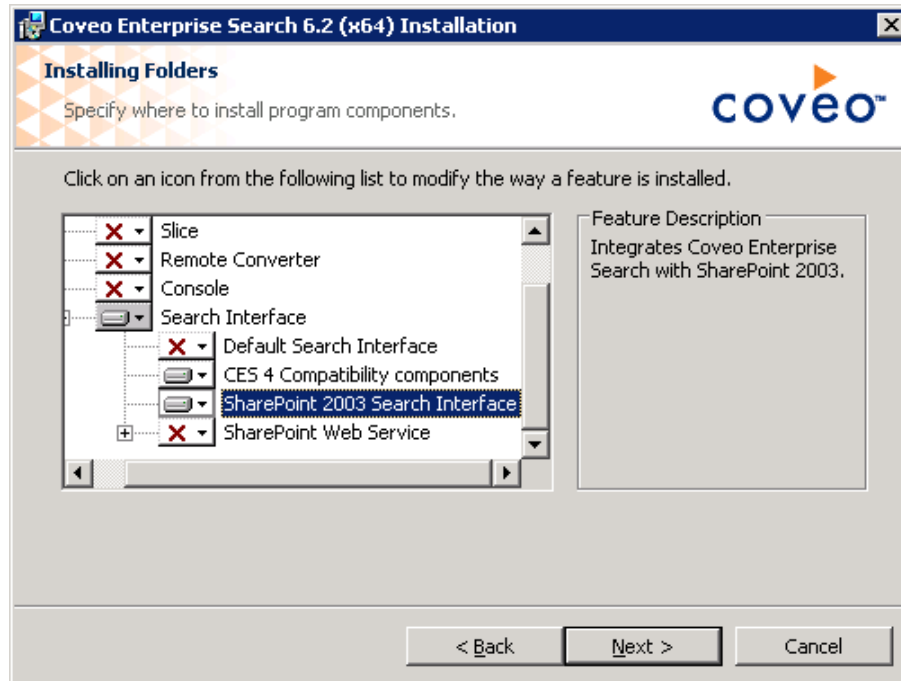
SharePoint version	Required permission
All versions	Member of the SharePoint server local Administrator group (see How to Add the CES Administrative Account to the SharePoint Server Local Administrator Group)
2003	Have the SQL Server System Administrator server role (see How to Add the System Administrators Server Role for SQL Server 2000)
	OR
	Have the Database Owner role for the SharePoint configuration database. (see How to Add the Database Owner Role for SQL Server 2000).

SharePoint version	Required permission
2007	<p>Member of the SharePoint farm administrator's group. (see How to Add the CES Administrative Account to the SharePoint Farm Administrator Group)</p> <p>AND</p> <p>Have the SQL Server System Administrator server role (see How to Add the System Administrators Server Role for SQL Server 2005/2008)</p> <p>OR</p> <p>Have the Database Owner role for the SharePoint configuration database and for all SharePoint content databases, including the Central Administration content database. (see How to Add the Database Owner Role for SQL Server 2005/2008).</p>
2010	<p>Have the SQL Server <b>System Administrator</b> server role (see How to Add the System Administrators Server Role for SQL Server 2005/2008)</p> <p>OR</p> <p>Have the <b>Database Owner</b> role for the SharePoint configuration database and for all SharePoint content databases, including the Central Administration content database. (see How to Add the Database Owner Role for SQL Server 2005/2008).</p>

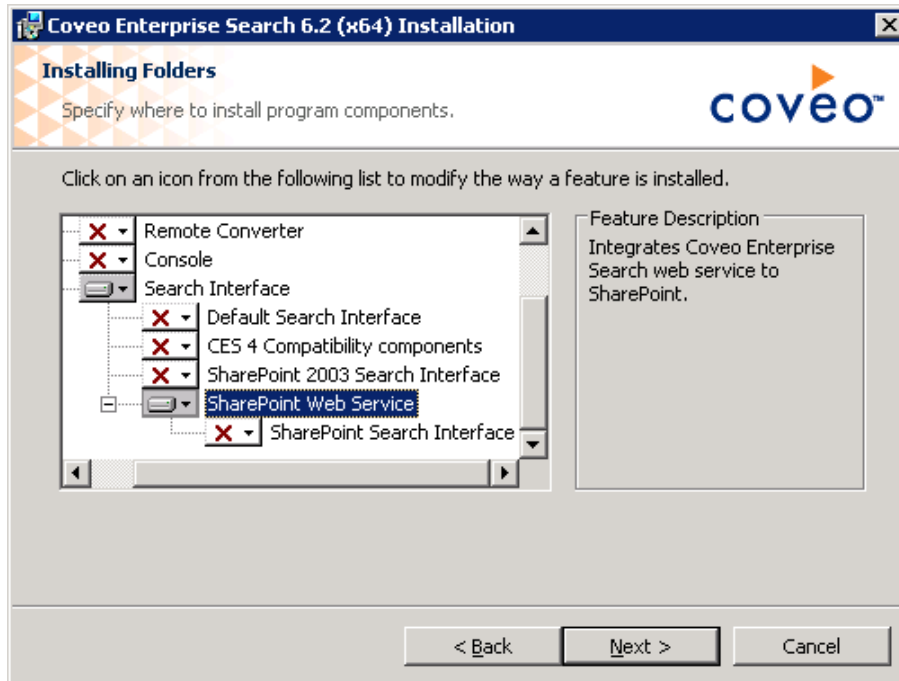
### How to Install the CES SharePoint Web Services

Perform the following procedure to install the CES SharePoint Web Services on a SharePoint farm. You must install the CES SharePoint Web Services on all the Web front-end servers of your SharePoint farm.

1. Launch the CES installation kit on the SharePoint server.
2. In the **Select Setup Type** page, select **Custom**.
3. For SharePoint 2003:
  - a. Unselect all features except for **CES 4 Compatibility components** and **SharePoint 2003 Search Interface**.



- b. Click **Next**.
  - c. In the **Search interface server** field, enter the name of the CES server.  
You can enter any server name when you do not have a search server or you do not want to use a CES search server in the SharePoint search interface.
  - d. In the **Integrate to the pages in the SharePoint 2003 database** field, select whether to add the **Coveo Search Bar** to all the SharePoint pages stored in the SharePoint database. It is possible to disable this functionality if you only want to install the CES SharePoint Web Services.
  - e. Click **Next**.
  - f. Click **Install**.
  - g. Click **Finish**.
4. For SharePoint 2007 and SharePoint 2010:
    - a. Unselect all features except for **SharePoint Web Service**.



- b. Click **Next**.
- c. Click **Install**.
- d. Click **Finish**.

## Configuration

### How to Configure a User Identity Based on an Administrative Account

Once the CES administrative account has been set up, when the administrative account is different than the CES service log on account, you need to configure a CES user identity.

1. In the CES Administration Tool, access the **Administrators** 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 the CES administrative account.
5. If the SharePoint farm is accessible through HTTP over SSL (HTTPS), select the **Use client certificate** checkbox and select a certificate from the list.

Security - User...

**Name**

**User**

**Password**

**Options**  Support basic authentication

**Client certificate**  Use client certificate

**Store**

**Certificate**

**Used By**

6. Click **Save**.

## How to Create a SharePoint Source

A SharePoint source can index SharePoint 2003 content, SharePoint 2007 content, SharePoint 2010 or all three.

1. In the 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. Fill all required information using the following table:

Field	Description	Example
Name	Any descriptive name.	SharePoint Sites
Source Type	The connector used by this source.	SharePoint
Addresses	List of starting points for the connector, one address per line.	To index the content of a SharePoint site and its subsites, enter the SharePoint site URL. For example: http://farm/ http://farm:8080/sites/Support/default.aspx https://farm/ To index the content of a SharePoint list, enter the SharePoint list URL. For example: http://farm/Document Library/ http://farm:8080/sites/Support/Lists/Contacts/AllItems.aspx
Rating	Specifies whether documents from the source should receive a higher or lower ranking than average.	Normal
Document Types	Indicates which document type set is used to index the source.	Default

Field	Description	Example
Fields	Indicates which field set is used to index the source.	Default Scheme
SharePoint	Indicates which SharePoint reference set is used to index the source.	Default For more information on how to configure the way SharePoint documents are indexed, refer to <a href="#">What Are SharePoint Reference Sets</a> .
Refresh Schedule	Indicates which refresh schedule is used to update the source content.	Every day (everyday at 12 A.M).
Index personal sites	Indexes all the personal sites of the SharePoint farm. Note that this option is selected by default.	
Index user profiles	Indexes all the user profiles of the SharePoint farm. Note that this option is selected by default.	
Index subsites	Indexes subsites recursively, starting with the main addresses and proceeding to deeper levels until every document has been indexed. Note that this option is selected by default.	If <a href="http://intranet/pages/">http://intranet/pages/</a> is the main website and <b>Index subsites</b> is selected, the <a href="http://intranet/pages/news/">http://intranet/pages/news/</a> and <a href="http://intranet/pages/news/2007/">http://intranet/pages/news/2007/</a> websites are also indexed.
Index the document's metadata	Indexes metadata (e.g. modification date and author of documents). Note that this option is selected by default	
Generate a cached HTML version of indexed documents	Produces a <i>Quick View</i> of documents. Note that this option is selected by default.	
Generate a cached mobile HTML version of indexed documents	Produces a <i>Quick View</i> for the mobile devices of documents. Note that this option is selected by default.	
Open results with cached version	Displays the <i>Quick View</i> instead of the actual document when a title is clicked in the result list. The purpose of this option is to prevent accidental document modification. Note that <b>Generate a cached HTML version of indexed documents</b> must be selected in order for <b>Open results with cached version</b> to be available; it is not selected by default.	

Field	Description	Example
SharePoint Site Discovery	Specifies which SharePoint site collections to index.	<p><b>Index only starting addresses:</b> Indexes only the sites (and subsites) whose addresses are entered in the <b>Addresses</b> field.</p> <p><b>Index the starting addresses and all sites listed in the Portal Site Directory:</b> Indexes the sites (and subsites) whose addresses are entered in the <b>Addresses</b> field as well as all sites, related to these addresses, listed in the portal site directories.</p> <p><b>Index the Web application of the starting addresses:</b> Indexes all site collections of the Web applications (virtual directories) related to the starting addresses. For SharePoint 2003, note that the CES SharePoint Web Services must be installed on the SharePoint farm, otherwise, the connector is unable to locate the site collections of the Web applications (virtual directories).</p> <p><b>Index all the Web applications having the same host name:</b> Indexes all site collections of all Web applications (virtual directories) related to the starting addresses, as long as the Web application has the same host as its related starting address. Note that CES SharePoint Web Services must be installed on the SharePoint farm; otherwise, the connector is unable to locate all Web applications (virtual directories).</p>
Authentication	Specifies the crawling account to use.	To use the CES service log on account, select <b>(none)</b> . To use a specific administrative account, select it from the list or click <b>Add</b> . For more information concerning the administrative accounts, refer to How to Configure a User Identity Based on an Administrative Account.

4. Click **Save and Start**.
5. You can also configure more crawling options from the **SharePoint – Advanced** page (select **Advanced** in the left panel), by filling the applicable information with the help of the following table:

Field	Description	Example
Index hidden lists and their items	Specifies whether hidden lists should be indexed or not. SharePoint uses hidden (or internal) lists to store non content information, such as Web part galleries, workflows state, etc. These lists and their list items are not indexed by default.	
Index redundant issue list items	Specifies whether redundant issues should be indexed or not. When an issue is updated in a SharePoint issue list, SharePoint creates a new issue item, leaving the old one unchanged. These redundant old issues are not indexed by default.	
Index survey responses	Specifies whether survey responses should be indexed or not. When someone responds to a SharePoint survey, this response is stored as a list item into the survey list. These responses are not indexed by default.	
Index documents uploaded with WebDAV	Specifies whether orphan documents should be indexed or not. Using the WebDAV functionality, it is possible to store documents that do not belong to any SharePoint document libraries. These documents are indexed by default.	
Disable cookies	Specifies whether the connector should use the cookies sent by the crawled site. The cookies are enabled by default.	

Field	Description	Example
Expand sites and lists before applying filters	Specifies whether the connector should retrieve the SharePoint websites and list children before applying the source filters. This option is required to index a specific part of a SharePoint website or list. Note that enabling this option slows down the connector as it retrieves all children of all websites and lists from SharePoint and rejects filtered document just before indexing them. This option is disabled by default	If <code>http://intranet/</code> is the main website, <code>http://intranet/pages/*</code> is the only source include filter and <b>Expand sites and lists before applying filters</b> is selected, <code>http://intranet/pages/</code> and <code>http://intranet/pages/news/</code> websites are indexed. If <b>Expand sites and lists before applying filters</b> is not selected, nothing will be indexed as <code>http://intranet/</code> will be filtered out.
Use the author extracted from the document instead of the SharePoint author	<p>Sometimes, a document SharePoint stored in a SharePoint document library has two different authors, the author of the document stored in the document properties and the author stored in the SharePoint database, which represents the person who has modified or added the document into SharePoint. In such case, CES uses the SharePoint author instead of the document author. Use this option to modify this behavior.</p> <p>A side effect of selecting this option is that the CES SharePoint search interface cannot link the search result author to the SharePoint user, as the document author may not be a SharePoint user.</p>	
Enable Microsoft Office integration	Specifies whether MS Office documents should be opened with MS Office directly using SharePoint ActiveX when the search result is clicked. If this option is not selected, the document is opened normally.	

Field	Description	Example
Web Parts Content Indexing (CES 6.5+)	<p>You can select among four options to determine how the connector indexes the content of web parts:</p> <p><b>WARNING:</b> Selecting to index dynamically generated content such as web parts may expose secured information as the crawler may see and index content that not all users have access to.</p>	<p><b>Don't index the web parts content:</b> Ignores the content of the web part pages including the content of the web parts.</p> <p><b>Index the content of all web parts:</b> Indexes the content of all web parts in all the web part pages. This option is not supported for SharePoint 2003.</p> <p><b>Indexes the full web part page content, including menus:</b> Indexes the complete web part pages as a web crawler would do. Because the full page is indexed, including menus, controls, etc, this option can cause index pollution.</p> <p><b>Index the content of the web parts of these types only:</b> (Default) Only indexes the content of web parts which assembly types are listed in the text box appearing when the option is selected. The <code>Microsoft.SharePoint.WebPartPages.ContentEditorWebPart</code> type appears by default in the text box. This option is not supported for SharePoint 2003. <b>Note:</b> To find the assembly types of the webparts that you want to index see <a href="#">How to Find the Assembly Type of a Web Part</a>.</p>
Server Name Alias	<p>Specifies a server name that overrides the one from which documents are downloaded in the index. This is useful to have query results point to another server as the one used for indexing.</p>	
Priority	<p>Specifies the download process priority.</p>	
Disable advanced text layout analysis for PDF documents	<p>For better content indexing, CES can analyze PDF documents to identify text columns and restore appropriate content ordering. This process can be disabled to save CPU resources while indexing.</p>	

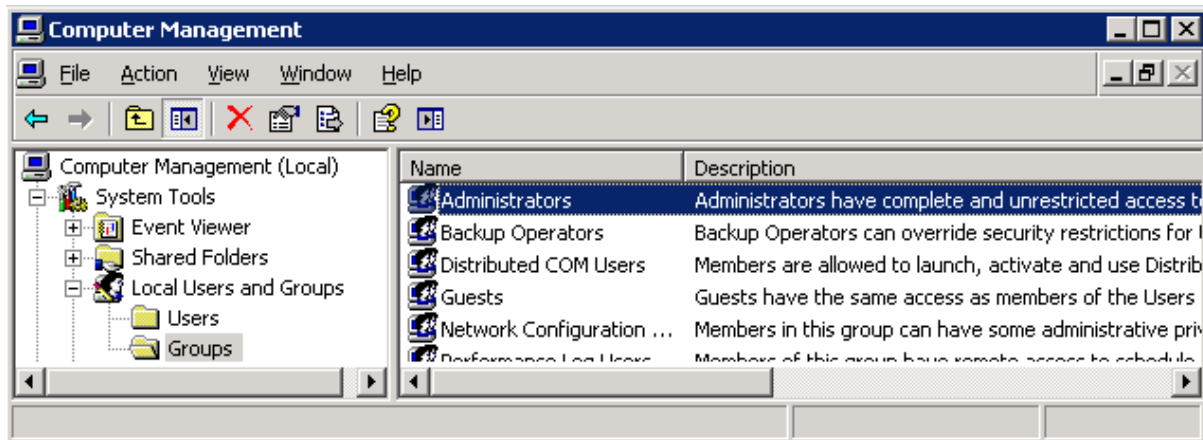
Field	Description	Example
Disable advanced duplicate document filtering	Disables the filtering of duplicate documents in order to save CPU resources and speed up indexing. The purpose of this advanced filtering is to display only one copy of each document in the result list. Note that the filtering of duplicate documents is enabled by default.	
Disable sorting of address parameters	This parameter is not applicable to this connector.	
Conversion Timeout	Determines the number of minutes after which the converter proceeds to another document even if the conversion is not complete (the document for which the conversion has not been finished is considered corrupted). By default, the conversion timeout is of 10 minutes; however it is suggested to increase it to 30 minutes or even 60 minutes, when converting large audio video files.	

## Appendix

### Microsoft Windows Server 2003/2008 Procedures

#### ▶ How to Add the CES Administrative Account to the SharePoint Server Local Administrator Group

1. Access the **Computer Management** console (Windows **Start** menu > **All Programs** > **Administrative Tools**).
2. Expand **System Tools** > **Local Users and Groups**, and then click **Groups**.

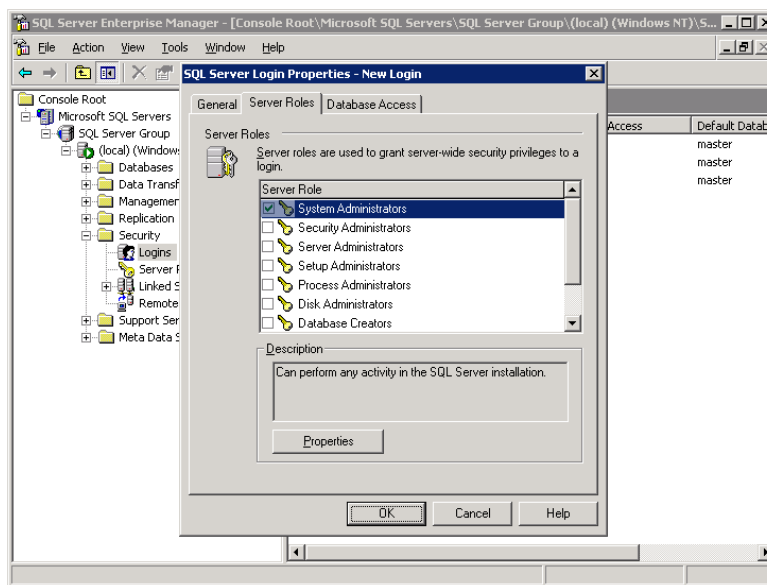


3. Right-click **Administrators**, and then click **Add to Group**.
4. Click **Add**.
5. In the **Select Users, Computers, or Groups** dialog box, enter the CES administrative account, and then click **OK**.
6. Click **OK** to close the **Administrators Properties** sheet.

## Microsoft SQL Server 2000 Procedures

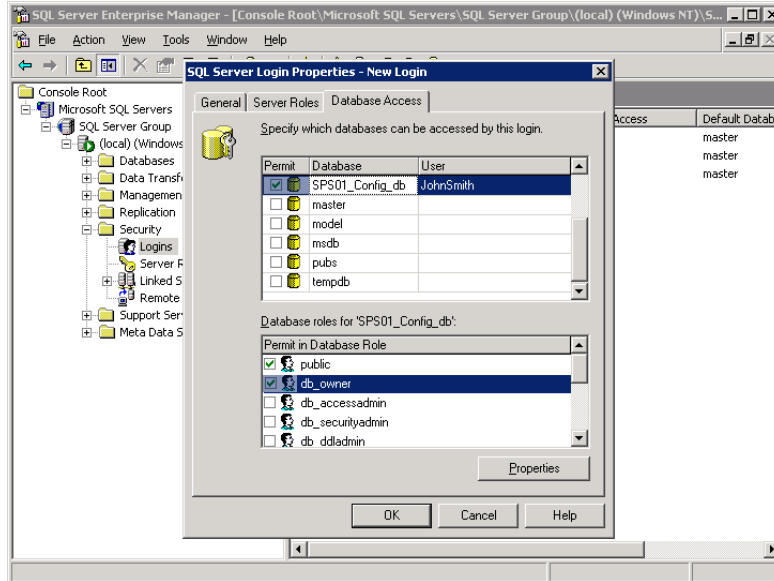
### ▶ How to Add the System Administrators Server Role

1. Access **Enterprise Manager** (Windows **Start** menu > **All Programs** > **Microsoft SQL Server**).
2. Expand a server group node, and then expand a server node.
3. Expand the **Security** node.
4. Click the **Logins** node.
5. If the login for the CES administrative account already exists, double-click it. If not, right-click the **Logins** node, click **New Login**, and then type the CES administrative account user name and domain name.
6. Under the **Server Roles** tab, select **System Administrators**, and then click **OK**.



### ▶ How to Add the Database Owner Role

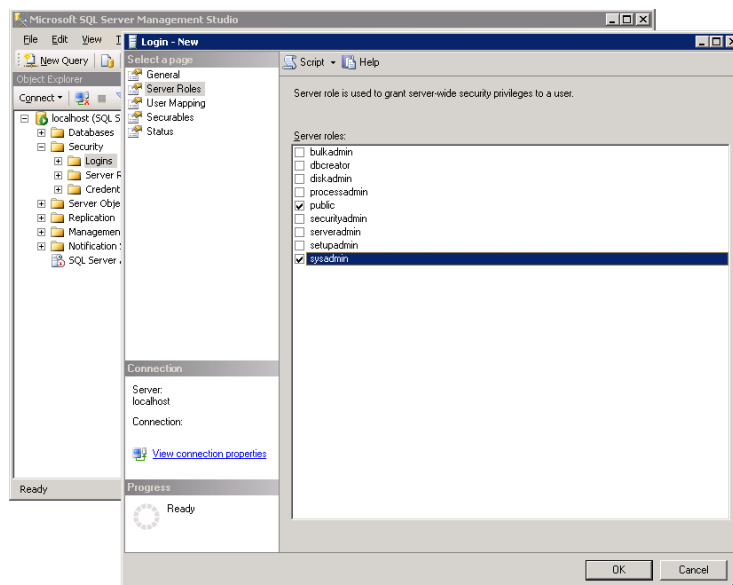
1. Access **Enterprise Manager** (Windows **Start** menu > **All Programs** > **Microsoft SQL Server**).
2. Expand a server group node, and then expand a server node.
3. Expand the **Security** node.
4. Click the **Logins** node.
5. If the login for the CES administrative account already exists, double-click it. If not, right-click the **Logins** node, click **New Login**, and then type the CES administrative account user name and domain name.
6. Under the **Database Access** tab, select a database and select the **Permit** check box.
7. Select the **db\_owner** database role, and then click **OK**.



## Microsoft SQL Server 2005/2008 Procedures

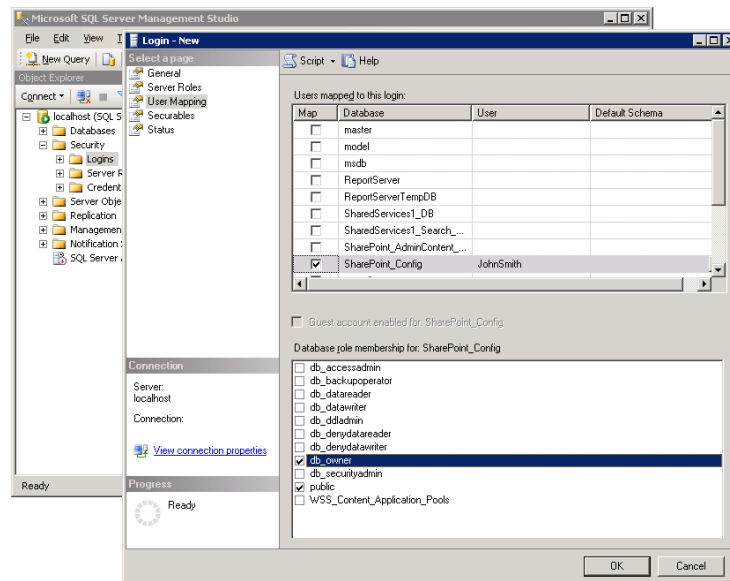
### ▶ How to Add the System Administrators Server Role

1. Access **SQL Server Management Studio** (Windows **Start** menu > **All Programs** > **Microsoft SQL Server 2005** or **Microsoft SQL Server 2008**).
2. Expand the server node.
3. Expand the **Security** node.
4. Click the **Logins** node.
5. If the login for the CES administrative account already exists, double-click it. If not, right-click the **Logins** node, click **New Login**, and then type the CES administrative account user name and domain name.
6. Click **Server Roles**.
7. Select the **sysadmin** server role, and then click **OK**.



▶ **How to Add the Database Owner Role**

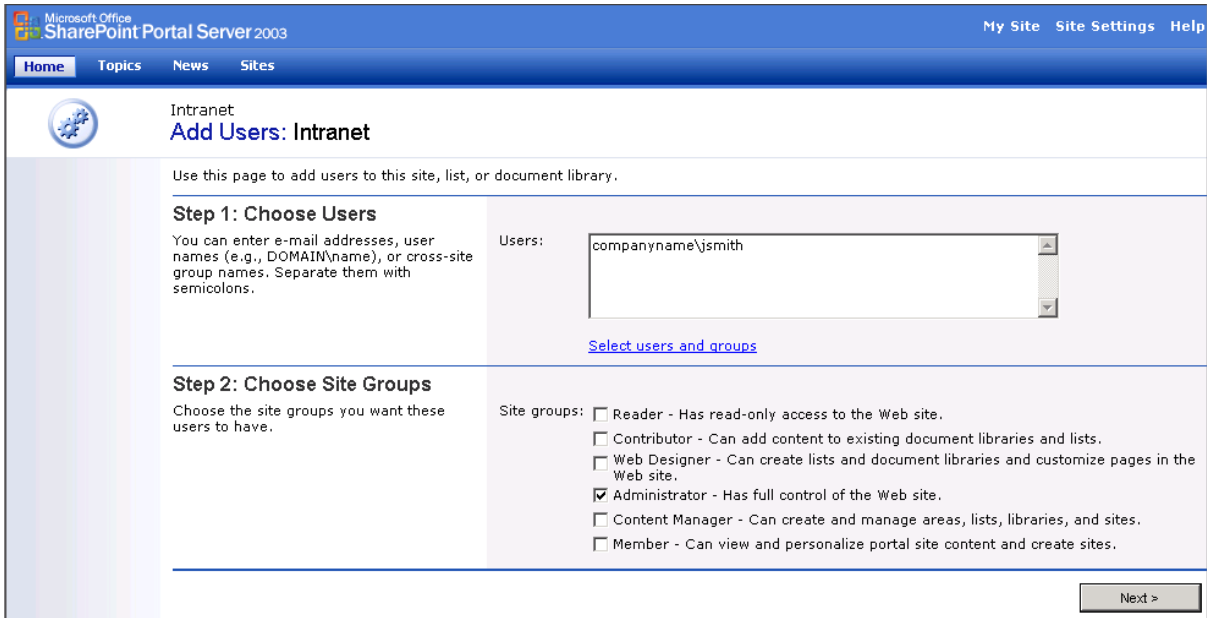
1. Access **SQL Server Management Studio** (Windows **Start** menu > **All Programs** > **Microsoft SQL Server 2005** or **Microsoft SQL Server 2008**).
2. Expand the server node.
3. Expand the **Security** node.
4. Click the **Logins** node.
5. If the login for the CES administrative account already exists, double-click it. If not, right-click the **Logins** node, click **New Login**, and then type the CES administrative account user name and domain name.
6. Click **User Mapping**.
7. Select a database and check the **Map** check box.
8. Select the **db\_owner** database role, and then click **OK**.



## Microsoft SharePoint 2003 Procedures

▶ **How to Add the SharePoint Web Site Administrator Permission**

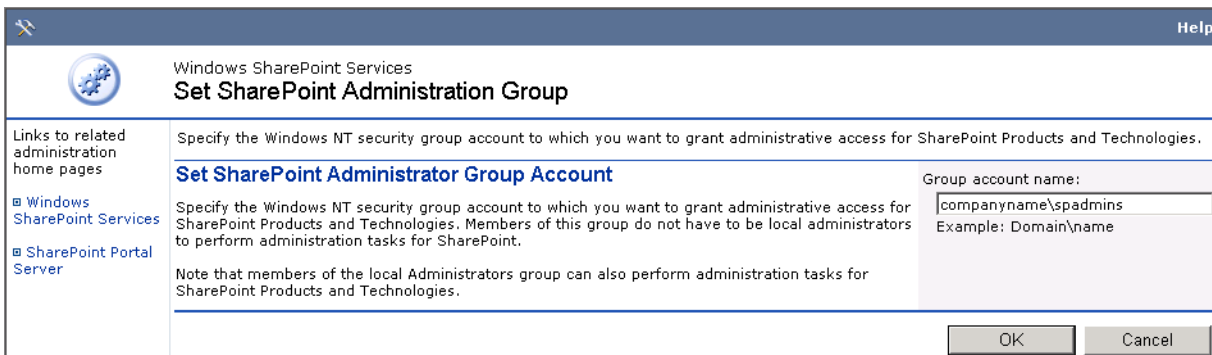
1. Access the SharePoint website of the CES source starting address.
2. Click **Site Settings**.
3. Click **Manage Users** in the **General Settings** section.
4. Click **Add Users**.
5. In **Step 1: Choose Users**, in the **Users** text box, add the CES administrative account.
6. In **Step 2: Choose Site Groups**, for **Site groups**, select **Administrator**.



7. Click **Next**.
8. Click **Finish**.

▶ **How to Add the CES Administrative Account to the SharePoint Administrator Group**

1. Access SharePoint Central Administration (Windows **Start** menu > **All Programs** > **Administrative Tools**).
2. Click **Set SharePoint administration group** in the **Security Configuration** section.
3. Take note of the SharePoint administrator domain group that is displayed in the text box.



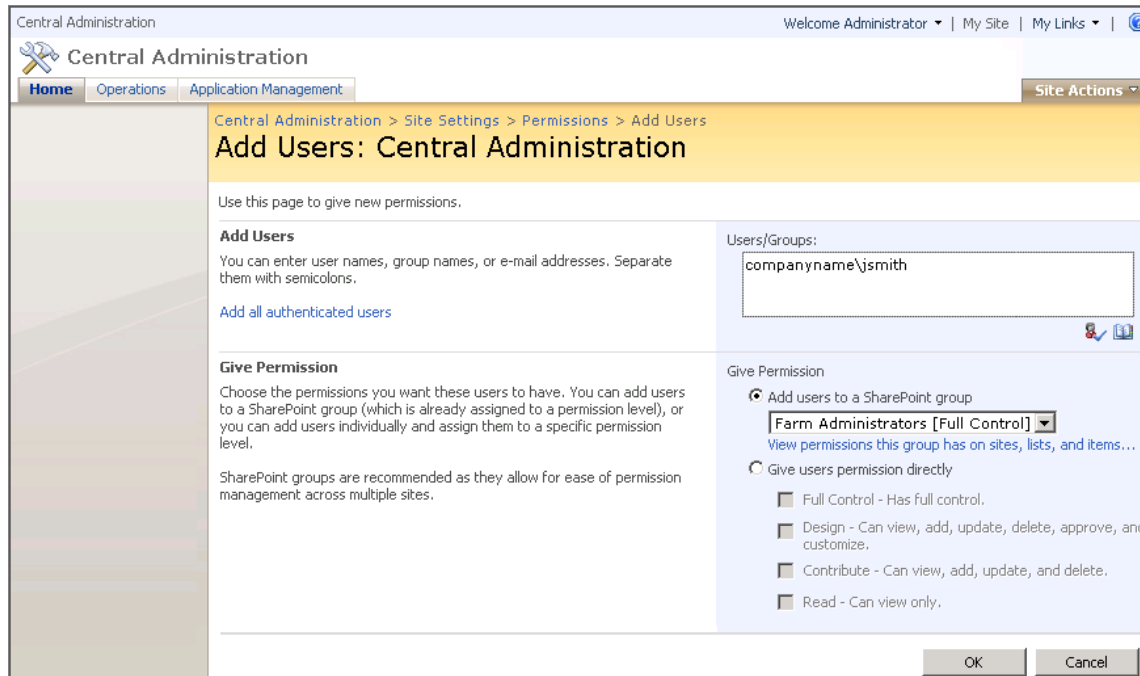
4. Ask your domain administrator to add the CES administrative account to the specified SharePoint administrator domain group.

**Microsoft SharePoint 2007 Procedures**

▶ **How to Add the CES Administrative Account to the SharePoint Farm Administrator Group**

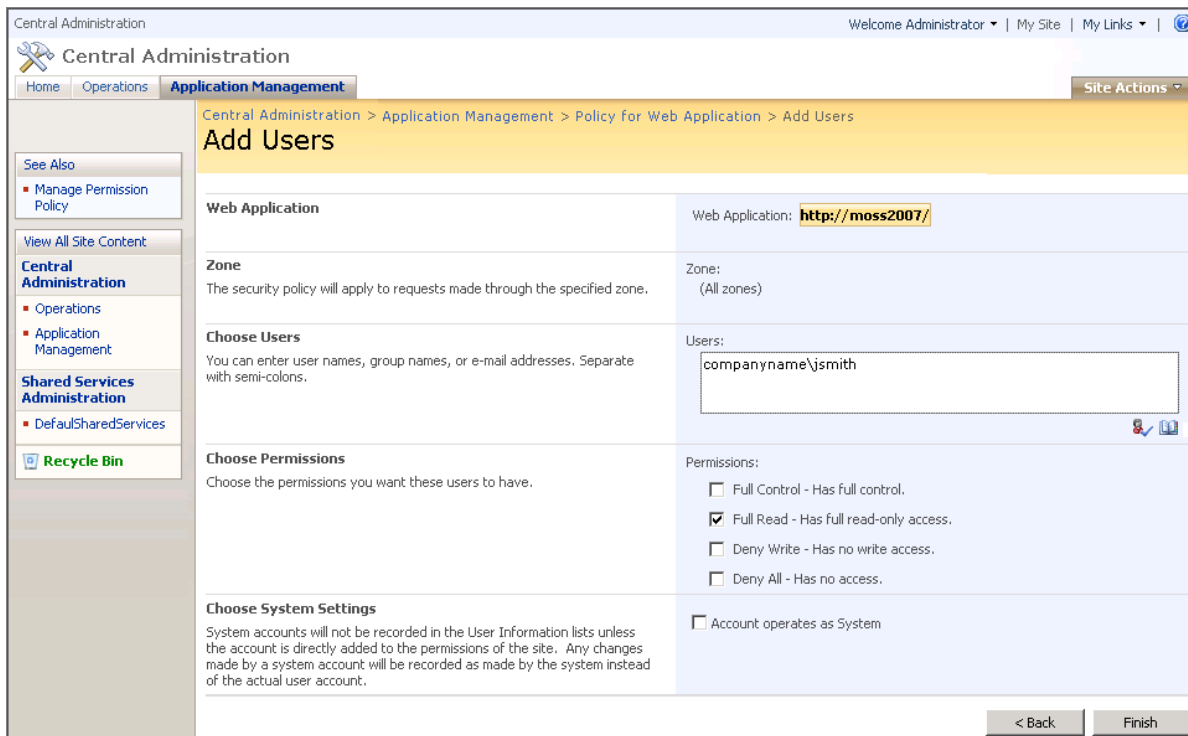
1. Access **SharePoint 3.0 Central Administration** (Windows **Start** menu > **All Programs** > **Microsoft Office Server**).
2. Click **Operations**.
3. Click **Update farm administrator's group**.

4. Click **New**.
5. In the **Users/Groups** text box, add the CES administrative account.
6. Under **Give Permissions**, select **Add users to a SharePoint group**, select **Farm Administrators [Full Control]**, and then click **OK**.



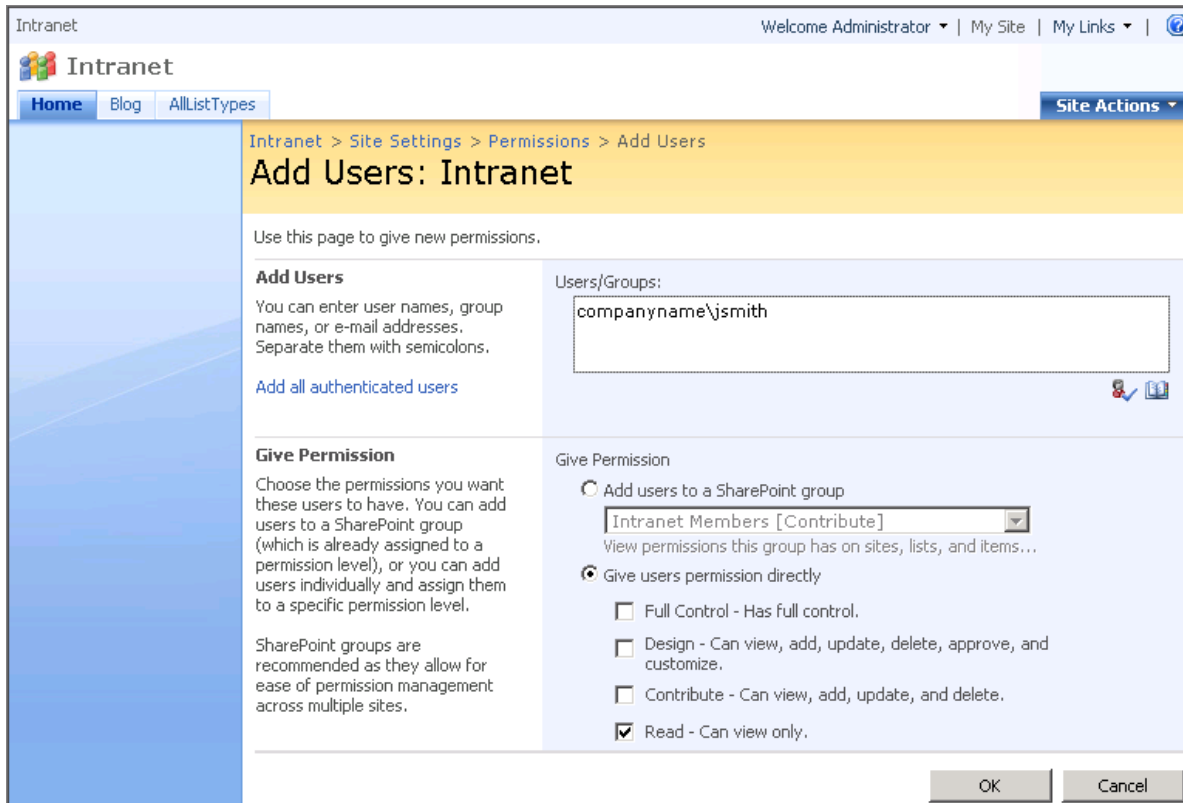
▶ **How to Add the Full Read Policy to All Farm Web Applications**

1. Access **SharePoint 3.0 Central Administration** (Windows **Start** menu > **All Programs** > **Microsoft Office Server**).
2. Click **Application Management**.
3. Click **Policy for Web application**.
4. For every Web application to crawl:
  - a. Click **Add Users**.
  - b. Select **(All Zones)**, and then click **Next**.
  - c. In the **Users** text box, add the CES administrative account.
  - d. Under **Permissions**, select the **Full Read** checkbox, and then click **Finish**.



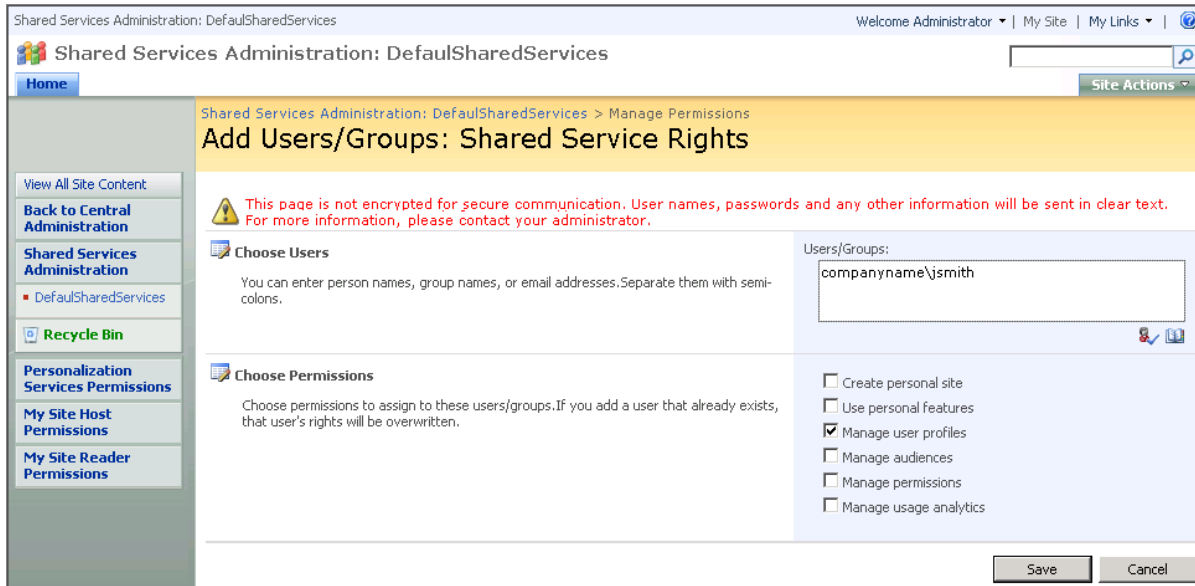
▶ **How to Add the SharePoint Web Site Read Permission**

1. Access the SharePoint site collection of the CES source starting address.
2. Click **Site Actions**, and then select **Site Settings**.
3. Click **Advanced Permissions** in the **Users and Permissions** column.
4. Click **New**.
5. In the **Add Users: Intranet** page:
  - a. In the **Users/Groups** text box, add the CES administrative account.
  - b. Under **Give Permission**, select **Give users permission directly**, and then select the **Read - can view only** checkbox.
  - c. Click **OK**.



▶ **How to Add the Manage User Profiles Shared Service Right (MOSS 2007 Only)**

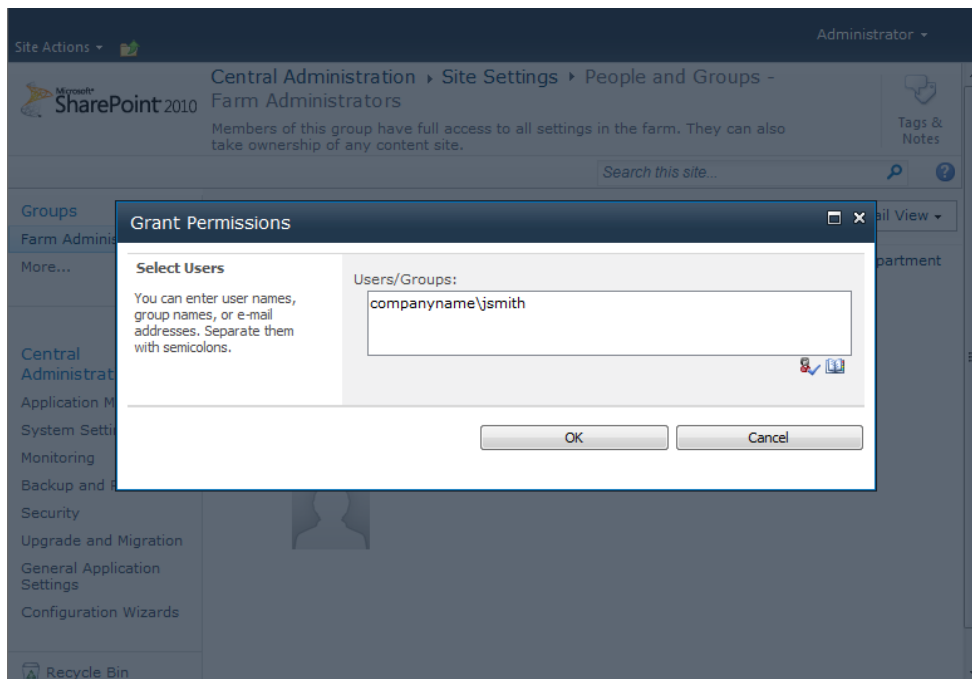
1. Access **SharePoint 3.0 Central Administration** (Windows **Start** menu > **All Programs** > **Microsoft Office Server**).
2. Click **Shared Services Administration**.
3. Click the shared service link hosting the user profiles and personal sites data.
4. Click **Personalization service permissions**.
5. Click **Add Users/Groups**.
6. In the **Add Users/Groups: Shared Service Rights** page:
  - a. In the **Users/Groups** text box, add the CES administrative account
  - b. Select the **Manage user profiles** checkbox.
  - c. Click **Save**.



## Microsoft SharePoint 2010 Procedures

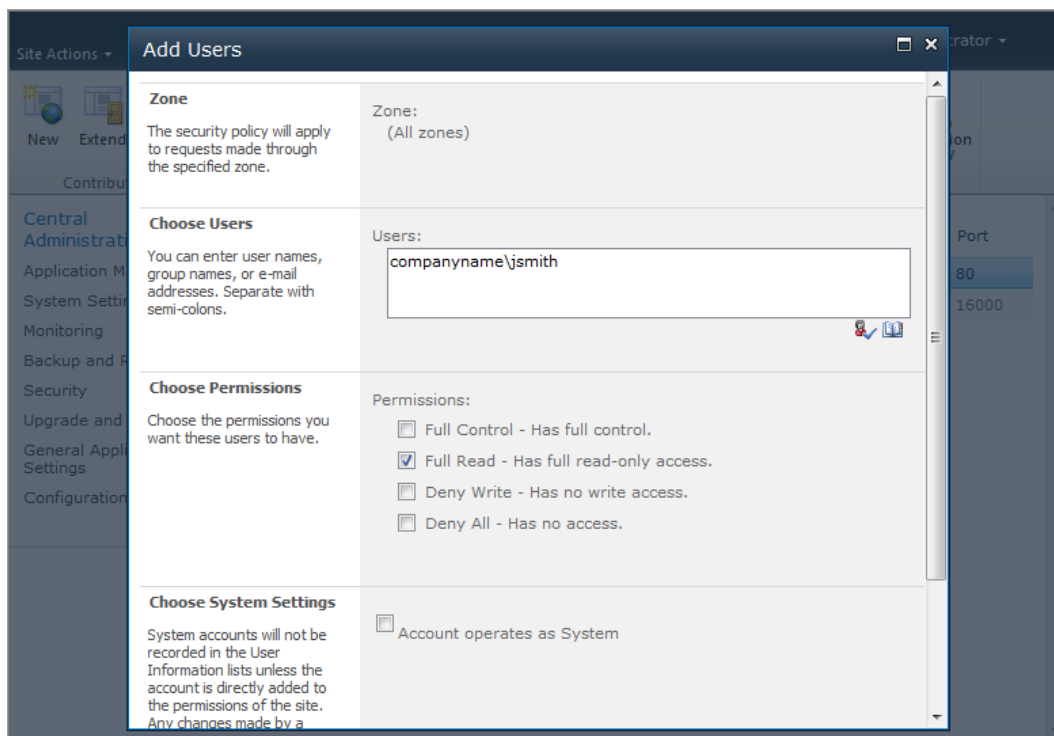
### ▶ How to Add the CES Administrative Account to the SharePoint Farm Administrator Group

1. Access **SharePoint 2010 Central Administration** (Windows **Start** menu > **All Programs** > **Microsoft SharePoint 2010 Products**).
2. Click **Security**.
3. Click **Manage the farm administrators group**.
4. Click **New**.
5. Add the CES administrative account, and then click **OK**.



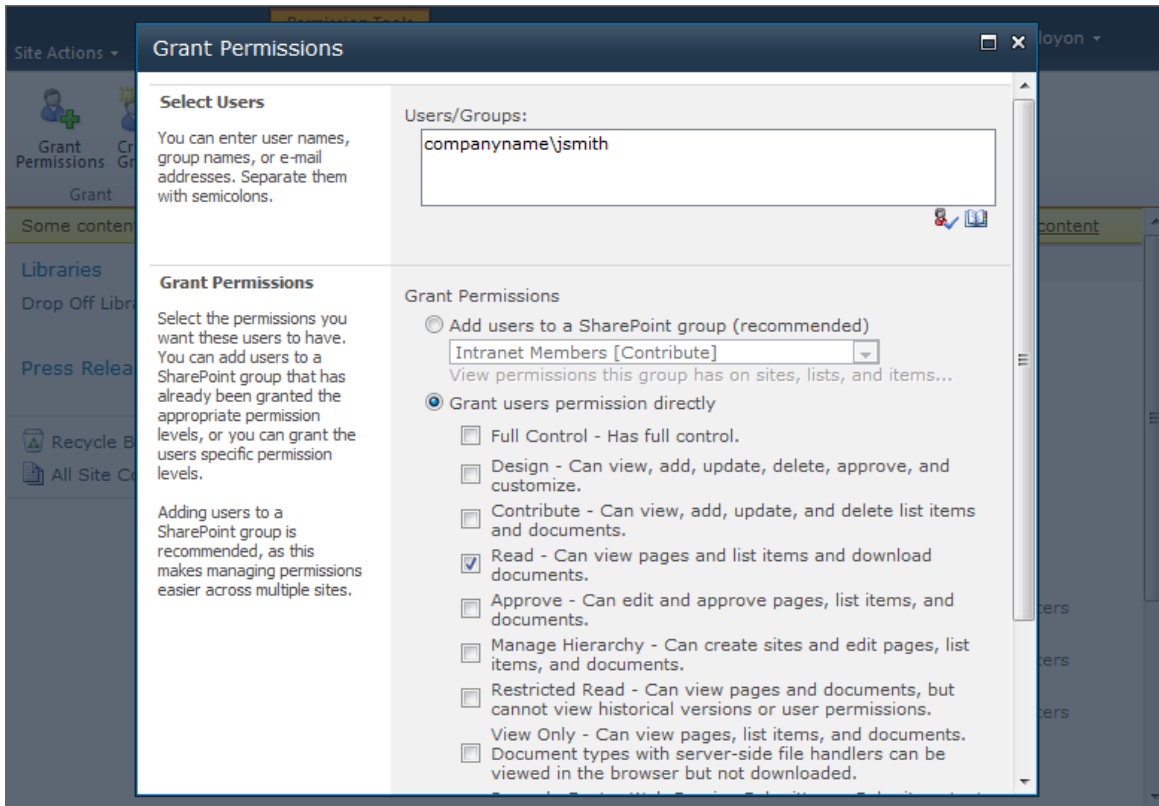
### ▶ How to Add the Full Read Policy to All Farm Web Applications

1. Access **SharePoint 2010 Central Administration** (Windows **Start** menu > **All Programs** > **Microsoft SharePoint 2010 Products**).
2. Click **Application Management**.
3. Click **Manage web applications**.
4. For every Web application to crawl:
  - a. Highlight the desired Web application by clicking on its name.
  - b. Click the **User Policy** ribbon button.
  - c. Click **Add Users**.
  - d. Select **(All zones)**, and then click **Next**.
  - e. In the **Users** text box, add the CES administrative account
  - f. Under **Permissions**, select the **Full Read** checkbox, and then click **Finish**.



#### ▶ How to Add the SharePoint Web Site Read Permission

1. Access the SharePoint site collection of the CES source starting address.
2. Click **Site Actions** and select **Site Permissions**.
3. Click the **Grant Permissions** ribbon button.
4. In the **Grant Permission** dialog box:
  - a. In the **Users/Groups** text box, add the CES administrative account.
  - b. Select **Grant users permission directly**, and then select the **Read - Can view pages and list items and download documents** checkbox.
  - c. Click **OK**.

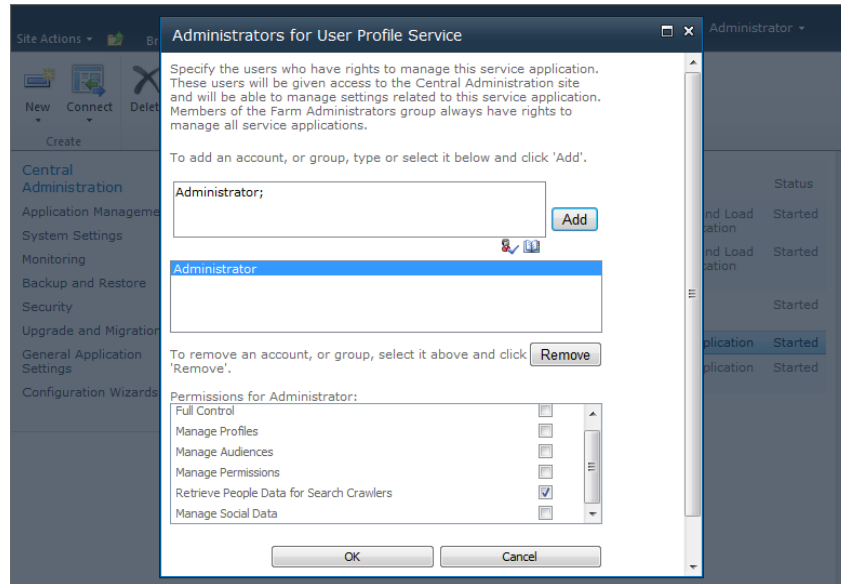


▶ **How to Add the User Profile Service Application Retrieve People Data for Search Crawlers Right**

1. Access **SharePoint 2010 Central Administration** (Windows **Start** menu > **All Programs** > **Microsoft SharePoint 2010 Products**).
2. Click **Application Management**.
3. Click **Manage service applications**.
4. Highlight the **User Profile Service Application** application (do not click on its name, just highlight it).

**Note:** If the **User Profile Service Application** application is not present in the service applications list, the **User Profile Service Application** application may not be installed on your SharePoint farm.

5. Click the **Administrators** ribbon button.
6. Add the CES administrative account, and then click **Add**.



7. In the **Permission for Administrators** list box, select the CES administrative account.
8. Select the **Retrieve People Data for Search Crawlers** checkbox.
9. Click **OK**.

#### ▶ How to Find the Assembly Type of a Web Part

You may need to find the assembly type of web parts that you want to index when you select the **Index the content of the web parts of these types only** option (see How to Create a SharePoint Source). Use the following procedure to identify the name to enter in the text box associated with the option.

1. Using a SharePoint administrator account, select the site collection containing the web part that you want to index.
2. In the **Site Actions** menu, select **Site Settings**.
3. In the **Site Settings** page, under **Galleries**, click **Web Parts**.
4. In the list of web parts that appears, click the Edit icon for the web part that you want to index. The web part file can either have a `.dwp` or a `.webpart` extension (for example, click the Edit icon for the `MSContent Editor.dwp` file corresponding to the default web part assembly type).
5. Click **View XML**.
6. In the XML, copy the text between the `<TypeName>` and `</TypeName>` tags (Microsoft.SharePoint.WebPartPages.ContentEditorWebPart in the following example).

```
<?xml version="1.0" encoding="utf-8" ?>
<WebPart xmlns="http://schemas.microsoft.com/WebPart/v2">
  <Assembly>Microsoft.SharePoint, Version=12.0.0.0, Culture=neutral,
  PublicKeyToken=71e9bce111e9429c</Assembly>
  <TypeName>Microsoft.SharePoint.WebPartPages.ContentEditorWebPart</TypeName>
  <Title>Content Editor Web Part</Title>
  <Description>Use for formatted text, tables, and images.</Description>
  <PartImageLarge>/_layouts/images/mscontl.gif</PartImageLarge>
</WebPart>
```