End-to-end content deployment walkthrough

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End-to-end content deployment walkthrough

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Summary: This paper provides an overview of the content deployment feature in Microsoft® SharePoint® Server 2010 for the IT Pro audience, and it describes an end-to-end scenario for how to create and successfully perform a content deployment between two site collections.

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About content deployment

Content deployment is a feature of Microsoft® SharePoint® Server 2010 that you can use to copy content from a source site collection to a destination site collection either manually or on a predetermined schedule. This walkthrough introduces the general concepts of content deployment and offers the opportunity to use this feature. For more information about content deployment, see Content deployment overview.

Note:

You should be aware that content deployment is a one-way process: content is copied from a source site collection to a destination site collection. The content deployment feature does not support round-trip synchronization from source to destination and back again. Creating new content or changing existing content on the destination site collection can cause content deployment jobs to fail. Because of this, you should consider restricting permissions on the destination site collection so that users cannot make changes directly to content that is stored in that site collection.

Tip:

One limitation in creating content deployment paths is that the source and destination path must exist in different content databases. This is because all the GUIDs that are used to define sites, Web pages, lists, and items are transferred with the site when it is deployed. For this reason, you cannot deploy a site to the same content database as the source site.

Content deployment settings

This section describes the settings that affect content deployment. For step-by-step instructions about configuring content deployment settings, see Configure content deployment settings.

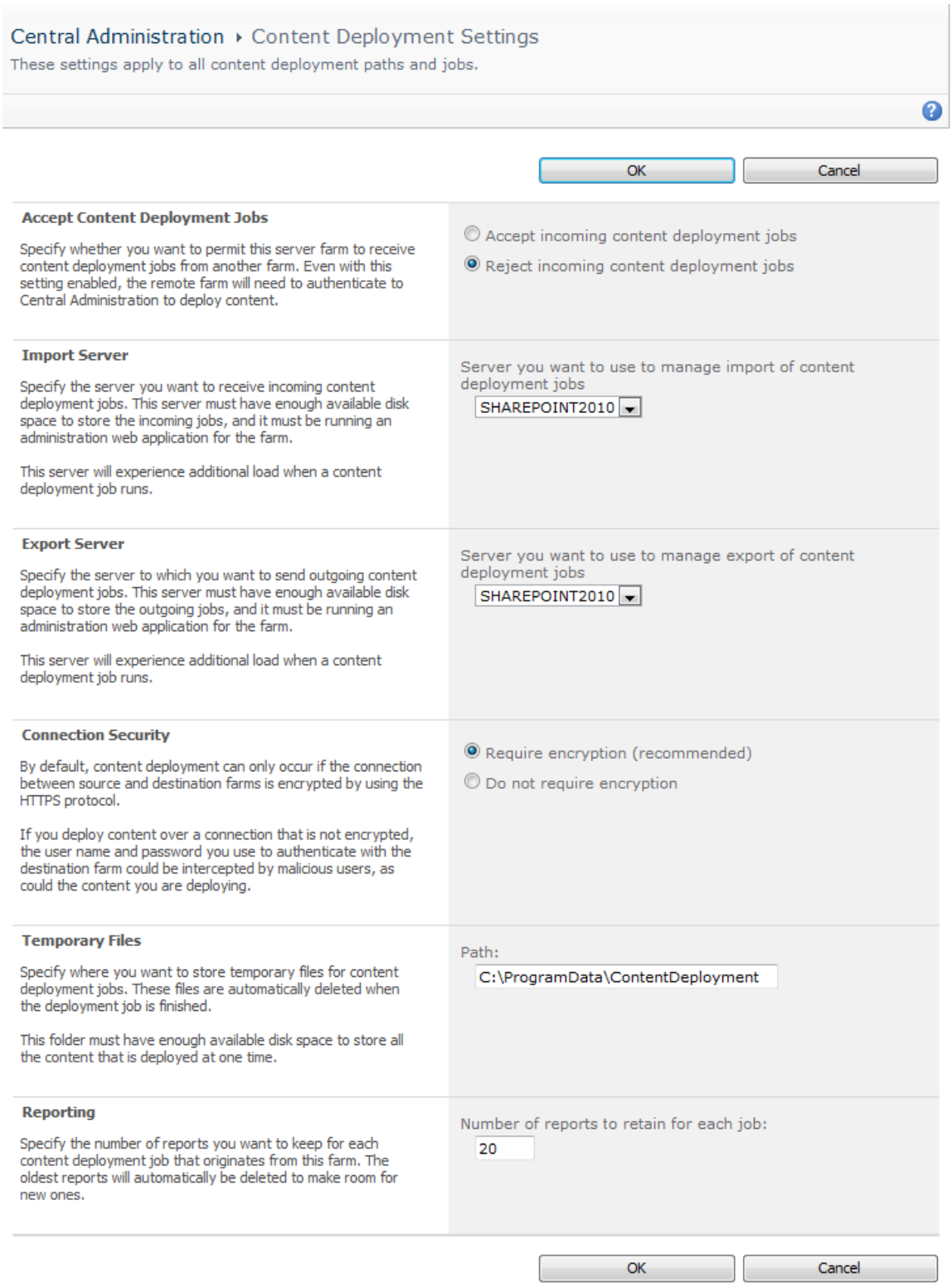

Figure 1: Content deployment settings

Accept Content Deployment Jobs

Indicates whether the server farm can receive content deployment jobs from another farm. Even with this setting enabled, the remote farm has to authenticate to Central Administration to deploy content.

Note:

You do not have to accept incoming content deployment jobs if the server is part of the authoring farm and contains only source site collections. Only servers in staging or production farms that contain destination site collections have to accept incoming deployment jobs.

Import Server

Specifies the server that is to receive incoming content deployment jobs. This server must have enough available disk space to store the files for incoming jobs, and it must be running an instance of the Central Administration Web site for the farm.

Export Server

Specifies the server that is to send outgoing content deployment jobs. This server must have enough available disk space to store the files for outgoing jobs, and it must be running an instance of the Central Administration Web site for the farm.

Connection Security

Specifies whether to require encryption. By default, content deployment can occur only if the connection between source and destination farms is encrypted by using the HTTPS protocol.

If you deploy content over a connection that is not encrypted, the user name and password that you use to authenticate with the destination farm and the content you are deploying could be intercepted by malicious users.

Note:

If you select HTTPS protocol, make sure that the URL of the destination Central Administration Web site begins with **https://** when you create a content deployment path, or you will be unable to connect to the destination Web site.

Temporary Files

Specifies the path to the location where temporary files for content deployment jobs are stored. These files are automatically deleted when the content deployment job is finished. By default, a temporary file path on the local system drive is provided. Depending on the amount of storage space on the server and the amount

of content to be deployed, you might want to consider using a storage location on another server. The account that is used to run the timer service must have read/write permissions to this location.

Reporting

Indicates the number of export and import logs to keep for each content deployment job that originates from this farm. The oldest reports are automatically deleted to make room for new ones.

Content deployment paths and jobs

There are two main components of content deployment. The first is a content deployment path, which is a relationship between a source site collection and a destination site collection. The second part is a content deployment job, which is associated with a path and is a collection of settings that are related to the schedule and scope that are followed in deploying that content. Content deployment paths and jobs are created and managed on the Manage Content Deployment Paths and Jobs page.

This section describes the settings for content deployment paths and jobs. For information about how to create and manage content deployment paths and jobs, see Manage content deployment paths and jobs.

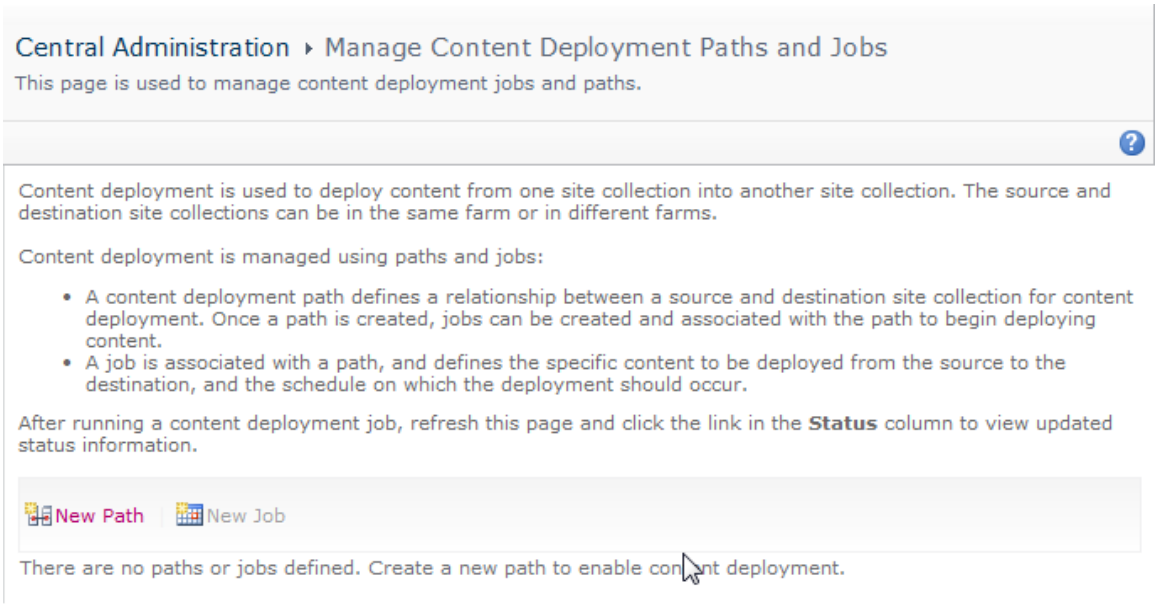

Figure 2: Manage Content Deployment Paths and Jobs page

Content deployment paths

Before you can define a content deployment path, you must first configure the destination server. Initially, SharePoint Server 2010 rejects requests to deploy content and returns the following error when you try to create a path.

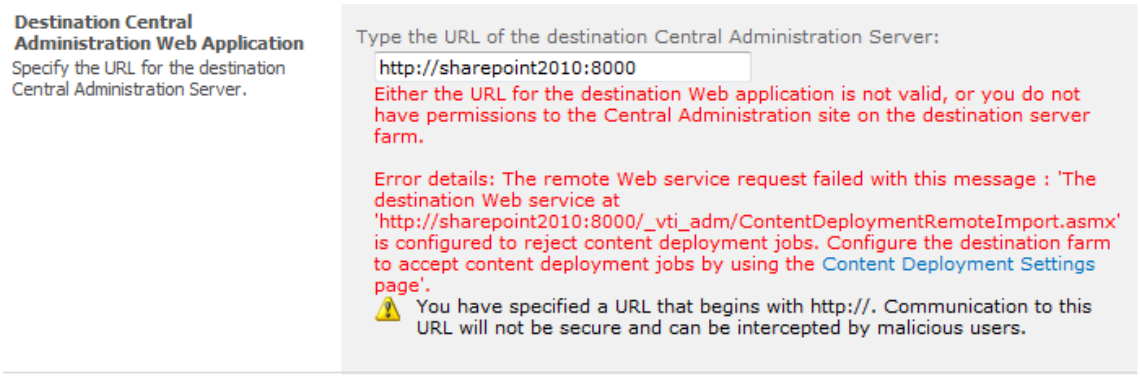

Figure 3: Error message that appears when incoming jobs are not enabled

After you have enabled the setting for receiving incoming requests, you can create a content deployment path. On the Manage Content Deployment Paths and Jobs page, click **New Path** to define a path.

Note:

The destination site collection must exist before you can deploy content to it, and it must be an empty site collection. You must not specify a template for the site collection. If a template is used to create the site collection, the content deployment job will fail.

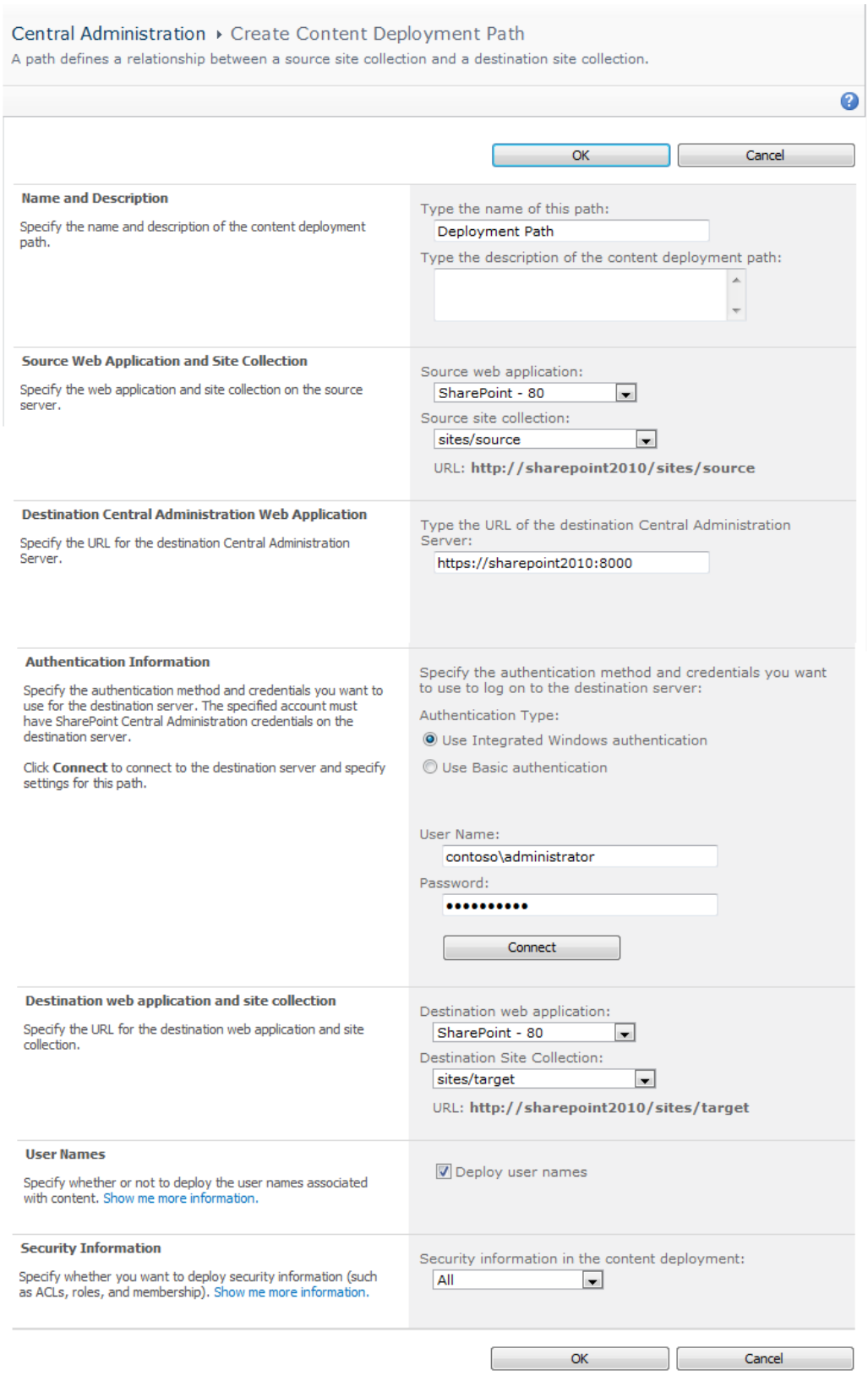

Figure 4: Create a content deployment path

Name and Description

Specifies the name and description of the content deployment path.

Source Web Application and Site Collection

Specifies the Web application and site collection on the source server. A source site collection is a required field for a content deployment path.

Destination Central Administration Web Application

Specifies the URL for the destination Central Administration Web site. The destination Central Administration Web site URL is a required field for a content deployment path.

Authentication Information

Specifies the authentication method and credentials to use for the destination server. The specified account must be a member of the SharePoint Farm Administrators group on the destination server. To proceed, you must click **Connect** to connect to the destination server and specify settings for this content deployment path.

Note:

If the credentials you entered are valid, the message, "Connection succeeded," appears, and a list of eligible destination Web applications is displayed in the **Destination Web Application and site collection** section.

Destination Web application and site collection

Specifies the URL for the destination Web application and site collection.

Note:

You can create the destination site collection by using the **Select template later** option when you create an empty site in the Central Administration Web site. Or, you can create the destination site collection by using the PowerShell cmdlet to create an empty site without specifying a template. For information about using the **New-SPSite** PowerShell cmdlet to create an empty site collection, see New-SPSite.

User Names

Indicates whether to deploy the user names that are associated with content.

Security Information

Specifies the option for the security information to be deployed (such as ACLs, roles, and membership).

Content deployment jobs

A job is associated with a path, and it defines the specific content that is to be deployed from the source to the destination and the schedule on which the deployment should occur. After you have created the content deployment path, you can specify jobs to run on that path.

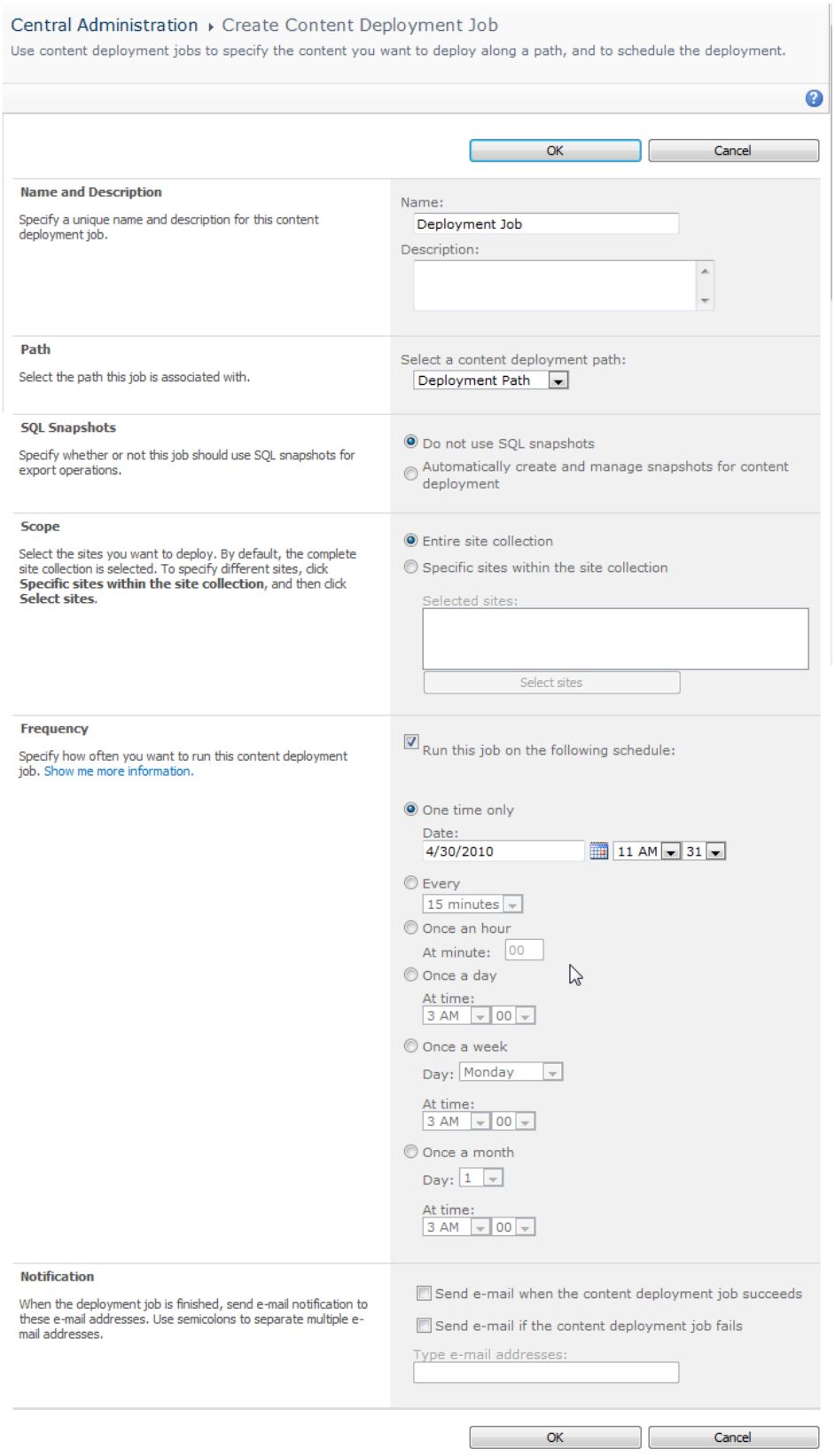

Figure 5: Create a content deployment job

Name and Description

Specifies a unique name and description for the content deployment job. The job name is a required field for a content deployment job.

Path

Specifies the path that the job is associated with. The content deployment path is a required field for a content deployment job.

SQL Snapshots

Indicates whether to use database snapshots for the content deployment job. This option is available only if Microsoft SQL Server® 2008 Enterprise edition is installed.

Scope

Specifies the sites that are to be deployed. By default, the complete site collection is selected. To specify different sites, click **Specific sites within the site collection**, and then click **Select sites**. You must select at least one site.

Note:

This option creates a scoped content deployment job, and it is assumed that all content in the site hierarchy above the specified scope has already been deployed to the destination. If you select this option for a content deployment job, you must also create a job that deploys the content above the specified level in the hierarchy.

Frequency

Specifies how often the content deployment job runs.

Notification

Indicates whether an e-mail notification is sent to the specified e-mail addresses when the deployment job is finished. Use semicolons to separate multiple e-mail addresses.

Check deployment of specific content

On the General Application Settings page, click **Check deployment of specific content** to check the status of a particular URL.

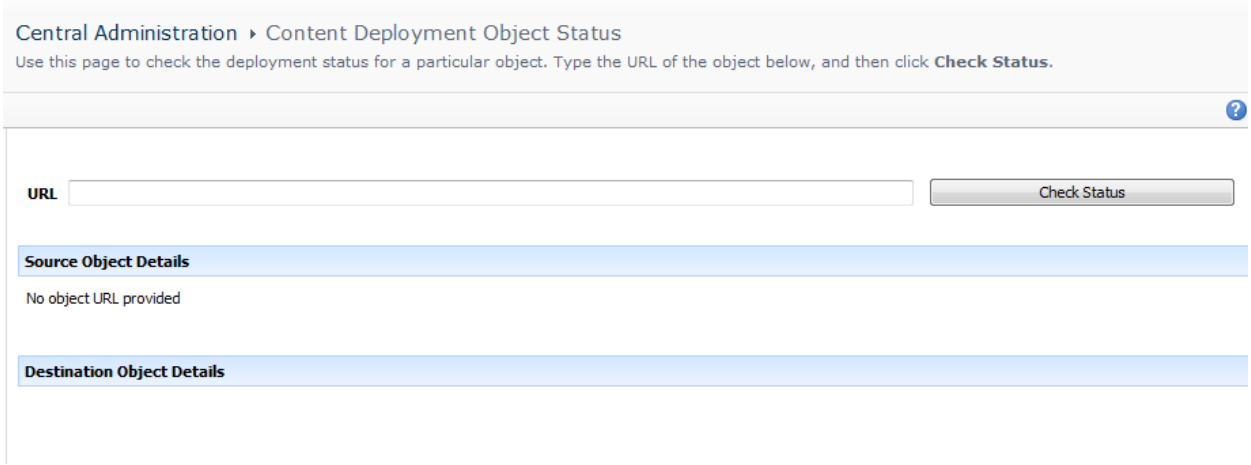

Figure 6: Content deployment object status

Walkthrough: content deployment

In this walkthrough, you will create a site to deploy content, create a content deployment path and job, and then run the job to deploy the content. After confirming that the content has been deployed to the target site, you will update the source site with new content and run the job again to see the results on the target site.

The general steps you will follow in this walkthrough are as follows:

1. Create a source site.
2. Create a new Web application.
3. Create a destination site collection.
4. Enable incoming content deployment jobs.
5. Create a content deployment path.
6. Create a content deployment job.
7. Deploy the source site.
8. Update the source site.
9. Deploy changes.
10. Check the destination site for changes.

Step 1: Create a source site collection

First you will need a site to serve as the source for the content deployment job.

1. On the SharePoint Central Administration Web site, in the **Application Management** section, click **Create site collections**.
2. On the Create Site Collection page, enter the following values, and then click **OK**:

Setting	Value

Title	Deploy Source
Web Site Address	http://<*servername*>/sites/source where <*servername*> is the name of your server.
Template Selection	Click the **Publishing** tab, then choose **Publishing Portal**.
Primary Site Collection Administrator	Type the domain and user name of the administrator account to be used for this site collection, for example, Contoso\administrator.

Step 2: Create a new Web application

Because you cannot deploy to the same content database where the source site exists, you must first either create a new Web application to hold the destination site or create a new content database in the current web application. For this walkthrough, you will create a new Web application.

1. On the Central Administration Web site, in the **Application Management** section, click **Manage web applications**.
2. On the Web Applications Management page, click **New**.
3. In the **IIS Web Site** section, in the **Port** box, type **8888**.
4. In the **Application Pool** section, in the **Application pool name** box, type **Destination Site**.
5. Accept all other default values, and click **OK**. The Application Created window appears.
6. In the Application Created window, click **OK**.

Step 3: Create a destination site collection

The next step is to create an empty site collection to hold the deployed site.

Note:

You can create the destination site collection by using the **Select template later** option when you create an empty site in the Central Administration Web site. Or, you can create the destination site collection by using the PowerShell cmdlet to create an empty site without specifying a template. For information about using the **New-SPSite** PowerShell cmdlet to create an empty site collection, see New SPSite.

1. On the Central Administration Web site, in the **Application Management** section, click **Create site collections**.
2. On the Create Site Collection page, in the **Web Application** section, on the **Web Application** menu click **Change Web Application**, and then click **Destination Site**.
3. On the Create Site Collection page, enter the following values, and then click **OK**:

Setting	Value
Title	Deploy Target
Web Site Address	http://<*servername*>/sites/target where <*servername*> is the name of your server.
Template Selection	Click the **Custom** tab, then click **Select template later**.
Primary Site Collection Administrator	Type the domain and user name of the administrator account to be used for this site collection, for example, Contoso\administrator.

Step 4: Enable incoming content deployment jobs

By default all incoming deployment jobs are rejected by the destination server. Before you can create a content deployment path, you must enable incoming jobs on the destination server. In this walkthrough, the source and destination servers are the same.

1. On the Central Administration Web site, click **General Application Settings**.
2. On the General Application Settings page, in the **Content Deployment** section, click **Configure content deployment**.
3. On the Content Deployment Settings page, select **Accept incoming content deployment jobs**.
4. Click **OK**.

Step 5: Create content deployment path

The next step is to create the content deployment path which will enable you to select the source site collection and the destination site collection.

1. On the Central Administration Web site, in the **General Application Settings** section, click **Configure content deployment paths and jobs**.
2. On the Manage Content Deployment Paths and Jobs page, click **New Path**.
3. On the Create Content Deployment Path page, enter the following values:

Setting	Value
Name and Description	Deployment Path
Source Web Application and Site Collection	Web App: Select the Web application that is used to create the source site collection in Step 1: Create a source site collection, for example, SharePoint – 80. Site Collection: sites/source
Destination Central Administration Web Application	Type the URL for the Central Administration Web site on the destination server, for example, http://sharepoint2010:8000.
Authentication Information	Type the domain and user name for the Central Administration Web site administrator for the destination server, for example, Contoso\administrator.

4. Click **Connect**.
5. Continue filling out the form with the following values:

Setting	Value
Destination Web Application and site collection	Web App: Select the Web application that is used to create the destination site collection in Step 3: Create a destination site collection, for example, Destination Site. Site Collection: sites/target

6. Accept the default settings for everything else, and then click **OK**.

Step 6: Create a content deployment job

Now that you have created a content deployment path along which to deploy content, you can create a job to do the actual deployment. The job will contain the schedule along with other settings.

1. On the Manage Content Deployment Paths and Jobs page, click **New Job**.
2. On the Create Content Deployment Job page, use the following values:

Setting	Value
Name and Description	Deployment Job
Path	Deployment Path

3. Click **OK**.

Step 7: Deploy the source site

Next, you will deploy the source site so that the source and destination sites will be in sync.

1. On the Manage Content Deployment Paths and Jobs page, on the **Deployment Job** menu, click **Run Now**.

Tip:

You can always test the job from the job menu on the Manage Content Deployment Paths and Jobs page. However, a test that is completed does not guarantee the success of an actual content deployment job. A test only performs a check of basic items, such as paths, to make sure that they are valid.

2. Refresh the page until the job **Status** is **Completed**.
3. Browse to http://<*servername*>/sites/target, where <*servername*> is the name of your server, to view the destination site. Notice that the title of the site is the same as the source site, and even though you initially applied the empty site template, there is now content in the site.

Step 8: Update the source site

To see the update capabilities of content deployment, you must make a change to the source site.

1. Browse to http://<*servername*>/sites/source, where <*servername*> is the name of your server.
2. Add a new page, create a list, and create a new site.

Step 9: Deploy changes

Now you will revisit the Manage Content Deployment Paths and Jobs page to redeploy the new changes.

1. On the Central Administration Web site, in the **General Application Settings** section, click **Configure content deployment paths and jobs**.
2. On the Manage Content Deployment Paths and Jobs page, on the **Deployment Job** menu, click **Run Now**.
3. Refresh the page until the job **Status** is **Completed**.

Step 10: Check the destination site for changes

Now browse http://<servername>/sites/target, where <servername> is the name of your server, to view the changes that have been added to the site.