

This page describes how to resolve the most common errors that you may encounter when using [staging](#).

## Failed staging task synchronization

Problems typically occur when the [synchronization](#) of staging tasks fails. To check your system for failed staging tasks and identify the type of error:

1. Open the **Staging** application on the source server.
2. Look for staging tasks that have the **Failed** status in the **Result** column.
3. Click **Failed** to view the error message details in the *Synchronization log* dialog.

### HTTP status 404: Not Found error

Error: *"Synchronization client error: Exception occurred: The request failed with HTTP status 404: Not Found."*

Not found errors occur in the following cases:

- If the staging service URL is set incorrectly for a target server.
- When attempting to stage page attachments or media library files that are too large.

#### Solution

1. Open the **Staging** application on the source server where the problem occurs.
2. On the **Servers** tab, edit all registered target servers.
3. Check that the **Server service URL** of each server is correct, including the domain and virtual directory (if necessary).
4. If you are using staging to transfer very large files, see [Staging large files](#).

### Parent node does not exist

Error: *"SyncServer.ServerError: Exception occurred: [SyncManager.UpdateDocument]: Parent node does not exist, please synchronize parent node first."*

Occurs when attempting to synchronize a page whose parent or other ancestor page does not exist on the target server. Can also occur if the parent or ancestor page was created manually on the target server outside of the staging process (i.e. when the GUIDs of the pages do not match on both servers).

#### Solution

Synchronize all ancestor pages of the required page first. If your servers have inconsistent page GUIDs, you may need to delete the ancestor pages on the target server and synchronize the entire section from the source. You can use the **Synchronize current subtree** action on the **Pages** tab of the **Staging** application (see [Synchronizing the content](#)).

If possible, always avoid manual creating of pages on the target server for sections where you plan to deploy pages via staging. The correct approach is to transfer all pages via the staging service.

### Incorrect staging service password

Errors:

*"Synchronization client error: Exception occurred: Microsoft.Web.Services3.Security.SecurityFault: The security token could not be authenticated or authorized. ... The computed password digest doesn't match that of the incoming username token."*

Occurs when the server password on the source instance does not match the password configured for the staging service settings on the target server.

*"Synchronization client error: Exception occurred: System.Web.Services.Protocols.SoapException: Server was unable to process request. ---> System.Exception: Missing X509 certificate token, please check authentication type "*

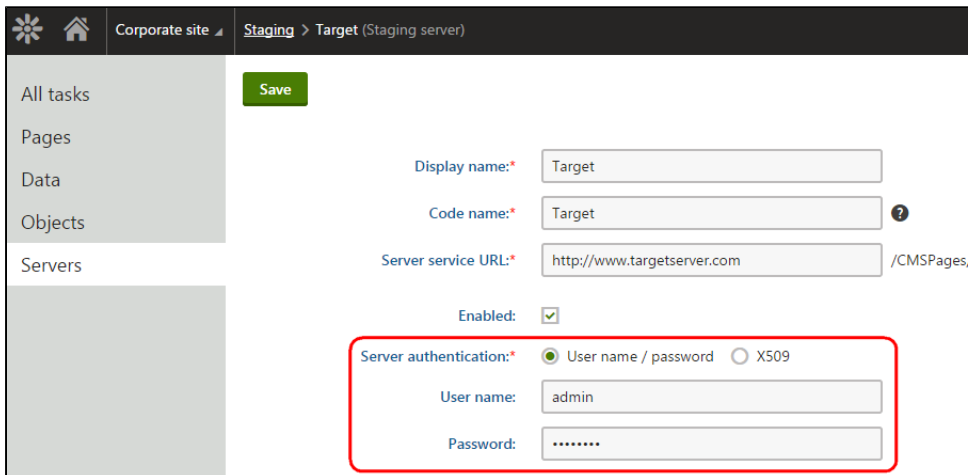
Occurs if the server on the source instance is configured for user name and password authentication, but the target server uses X.509 authentication.

**"Synchronization client error: Exception occurred: [X509ClientOutputFilter.SecureMessage]: Unable to obtain server security token ID."**

Occurs if the server on the source instance is configured for X.509 authentication and the target server does not have valid X.509 configuration.

## Solution

1. On the source instance, open the **Staging** application and edit your target server on the **Servers** tab.



Corporate site | Staging > Target (Staging server)

Save

Display name\*: Target

Code name\*: Target ?

Server service URL\*: http://www.targetserver.com /CMSPages

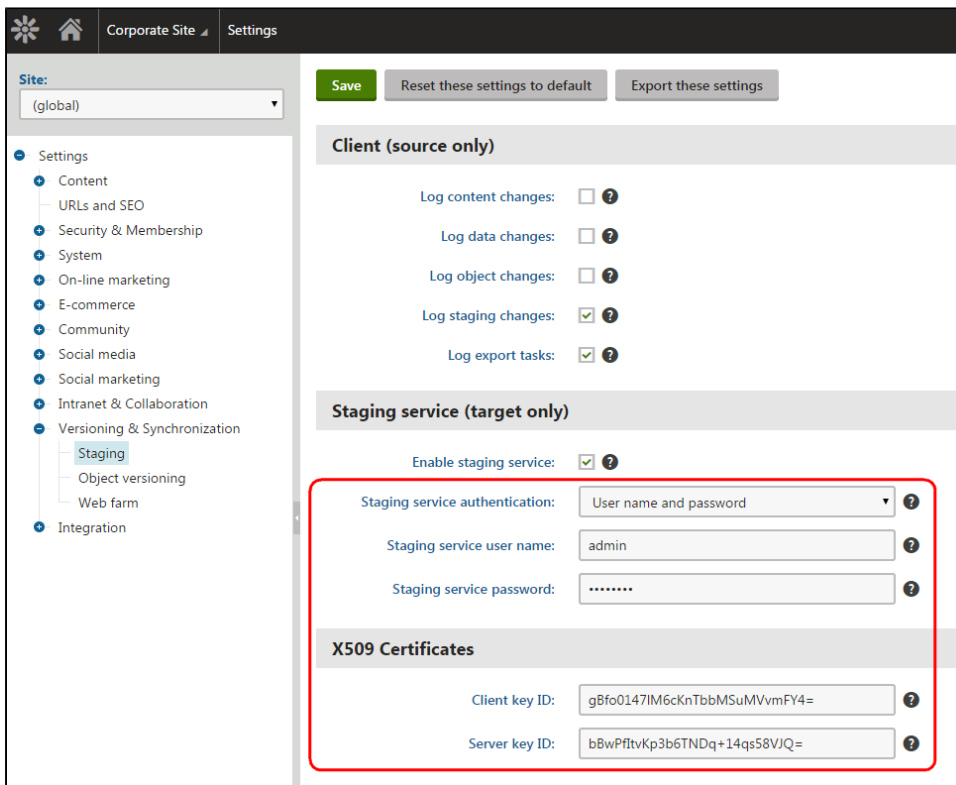
Enabled: ☒

Server authentication\*: ☒ User name / password ☐ X509

User name: admin

Password: .....

2. On the target instance, open the **Settings** application and select the **Versioning & Synchronization** -> **Staging** category.



Corporate Site | Settings

Site: (global)

Save Reset these settings to default Export these settings

Settings

- Content
  - URLs and SEO
- Security & Membership
- System
- On-line marketing
- E-commerce
- Community
- Social media
- Social marketing
- Intranet & Collaboration
- Versioning & Synchronization
  - Staging
  - Object versioning
  - Web farm
- Integration

Client (source only)

Log content changes: ☐ ?

Log data changes: ☐ ?

Log object changes: ☐ ?

Log staging changes: ☒ ?

Log export tasks: ☒ ?

Staging service (target only)

Enable staging service: ☒ ?

Staging service authentication: User name and password ?

Staging service user name: admin ?

Staging service password: ..... ?

X509 Certificates

Client key ID: gBfo0147IM6cKnTbbMSuMVvmFY4= ?

Server key ID: bBwPfItvKp3b6TNDq+14qs58VJQ= ?

3. Verify that the target server on the source instance and the Staging service settings on the target instance have matching authentication settings, including:
  - The authentication type (User name / password or X.509)
  - The **User name** and **Password** (for User name / password authentication)
  - The **Client key ID** and **Server key ID** (for X.509 authentication)

## Invalid service URI

Error: **"Synchronization client error: Exception occurred: Invalid URI: The format of the URI could not be determined."**

URI format errors occur if the protocol (for example `http://`) is missing in the staging service URL of your target server.

### Solution

1. Open the **Staging** application on the source server where the problem occurs.
2. On the **Servers** tab, edit all registered target servers.
3. Make sure the **Server service URL** of each server includes the correct protocol. For example: `http://www.targetserver.com`

## SOAP header security not understood

Error: **"Synchronization client error: Exception occurred: System.Web.Services.Protocols.SoapHeaderException: SOAP header Security was not understood."**

Can occur in certain environments. This is a general error related to .NET and WSE.

### Solution

Add the following to the `<system.web>` section in the `web.config` file on the target server:

```
<webServices>
  <soapExtensionImporterTypes>
    <add type="Microsoft.Web.Services3.Description.WseExtensionImporter,
Microsoft.Web.Services3, Version=3.0.0.0, Culture=neutral,
PublicKeyToken=31bf3856ad364e35" />
  </soapExtensionImporterTypes>
  <soapServerProtocolFactory type="Microsoft.Web.Services3.WseProtocolFactory,
Microsoft.Web.Services3, Version=3.0.0.0, Culture=neutral,
PublicKeyToken=31bf3856ad364e35" />
  <protocols>
    <add name="HttpSoap" />
    <remove name="HttpPost" />
    <remove name="HttpGet" />
  </protocols>
</webServices>
```

## Timeout expired

Error: **"The timeout period elapsed prior to completion of the operation or the server is not responding."**

Timeouts may occur when synchronizing a very large number of staging tasks within a single operation. The default timeout interval is 180 seconds.

### Solution

Either synchronize the tasks in smaller batches or increase the timeout interval. To increase the interval, add the **CMSStagingServiceTimeout** key to the `configuration/appSettings` section of the **web.config file on the source server** and set the value:

```
<add key="CMSStagingServiceTimeout" value="300" />
```

## HTTP status 413: Request Entity Too Large

Error: **"Synchronization client error: Exception occurred: The request failed with HTTP status 413: Request Entity Too Large."**

Can occur when synchronizing pages over HTTPS.

#### Solution

[Increase the `uploadReadAheadSize` attribute to raise the maximum number of bytes a Web server will read into a buffer and pass to an ISAPI extension.](#)

Note that it is not recommended to set the value to the maximum (2147483647) due to security reasons. Instead, determine the smallest value that the server should be allowed to read into a buffer and use that instead. The default value is 49152 bytes.

For example, the following `appcmd.exe` command changes the `uploadReadAheadSize` value to 245760 bytes.

```
appcmd.exe set config "Default Web Site" -section:system.webServer/serverRuntime  
/uploadReadAheadSize:"2147483647" /commit:apphost
```

## Incorrect relationships between objects after staging

**Problem:** Bindings (relationships) between objects disappear after synchronizing changes from a different staging instance.

Such problems can occur because staging includes all child objects and bindings when synchronizing most objects.

For example: A [role](#) is not assigned to any users in the development environment, but to 100 users on the target production server. If you synchronize the role object through staging, the users are removed from the role on the target server.

**Solution:** Ensure that all staging servers have mirrored and consistent content and objects, or [customize staging of child and binding objects](#) to match your requirements.

**Problem:** Custom fields that store ID values (for example object selectors) point to different objects or are empty after staging.

Content staging cannot ensure that objects and pages have the same ID values after being transferred to a different environment. However, the synchronization process preserves [GUID](#) values.

**Solution:** Use fields with the *Unique identifier (GUID)* data type if you need to safely identify pages or objects across multiple staging environments.

**Problem:** Objects are assigned to the wrong site after synchronization on instances with multiple sites.

**Solution:** Make sure that the service URLs set for target servers on your source instance contain the domain names of the correct sites. Each site's servers must use the domain name of the matching site on the target instance.

## Synchronization fails when using SSL

You may encounter problems when synchronizing staging tasks over a secured protocol (SSL). By default, the staging service only accepts certificates issued by a trusted certification authority.

To configure the system to accept all certificates, including self-signed, add the **CMSStagingAcceptAllCertificates** key to the *configuration/appSettings* section of your *web.config* file:

```
<add key="CMSStagingAcceptAllCertificates" value="true" />
```