Sitecore Connect for Microsoft Dynamics 365 for Sales 3.0 Installation Guide

How to install and configure Sitecore Connect for Microsoft Dynamics 365 for Sales

January 14, 2020

Table of Contents

1. Install on a content management or standalone server

This chapter covers how to install Sitecore Connect for Microsoft Dynamics on your content management or standalone server.

1.1. Prerequisites

Before you install Sitecore Connect for Microsoft Dynamics, you must have the following:

- **Sitecore Experience Platform** - You must have Sitecore Experience Platform 9.2.
- **Sitecore Data Exchange Framework (DEF)** - You must have DEF 3.0.
- **Microsoft Dynamics** - You must have access to a Microsoft Dynamics instance. Both Microsoft Dynamics 365 and on-premise versions of Microsoft Dynamics are supported. You must also have a Microsoft Dynamics user account that, at a minimum, has rights to read data from Microsoft Dynamics. If you want Sitecore Connect to write data to Microsoft Dynamics, the account must also have rights to write data to Microsoft Dynamics.

> **NOTE**
> Sitecore Connect uses the Microsoft XRM tooling to connect to Microsoft Dynamics. A connection string that is compatible with this tooling is required. Your Microsoft Dynamics administrator can provide the proper connection string.

- **Network connectivity** - You must install Sitecore Connect on a Sitecore server that has network connectivity to your Microsoft Dynamics instance. This can require firewall configuration, based on your network setup.

1.2. Install Sitecore installation package

To install Sitecore Connect for Microsoft Dynamics 365 for Sales, download and install the following package from the Sitecore download page:

- Sitecore Connect for Microsoft Dynamics 365 for Sales 3.0

1.3. Modify the web.config file

Sitecore Connect uses the Microsoft XRM tooling to connect to Microsoft Dynamics. This tooling requires an addition to the Sitecore server's `web.config` file.

To modify the `web.config` file:

1. On your Sitecore server, find the `web.config` file.
2. In the `web.config` file, find the section: **configuration > runtime > assemblyBinding**.
3. Add the following to this section:

```
<dependentAssembly>
<assemblyIdentity name="Microsoft.Xrm.Sdk" publicKeyToken="31bf3856ad364e35"
culture="neutral" />
<bindingRedirect oldVersion="0.0.0.0-9.0.0.0" newVersion="9.0.0.0" />
</dependentAssembly>
<dependentAssembly>
<assemblyIdentity name="Microsoft.Crm.Sdk.Proxy" publicKeyToken="31bf3856ad364e35"
culture="neutral" />
<bindingRedirect oldVersion="0.0.0.0-9.0.0.0" newVersion="9.0.0.0" />
</dependentAssembly>
```

4. Save the `web.config` file.

1.4. Install the staging database

To synchronize the marketing list membership from Microsoft Dynamics as efficiently as possible, Sitecore uses the staging database. This database is used for temporary storage during the synchronization process.

To install the staging database:

1. Download the Staging Database for Sitecore Connect for Microsoft Dynamics 365 for Sales package, which contains the *Sitecore.DataExchange.Staging.dacpac* data-tier application package.
2. Deploy the dacpac to your SQL Server instance. This creates the staging database.
3. On your Sitecore server, add a connection string for the staging database. Name the connection string *Sitecore.DataExchange.Staging*.

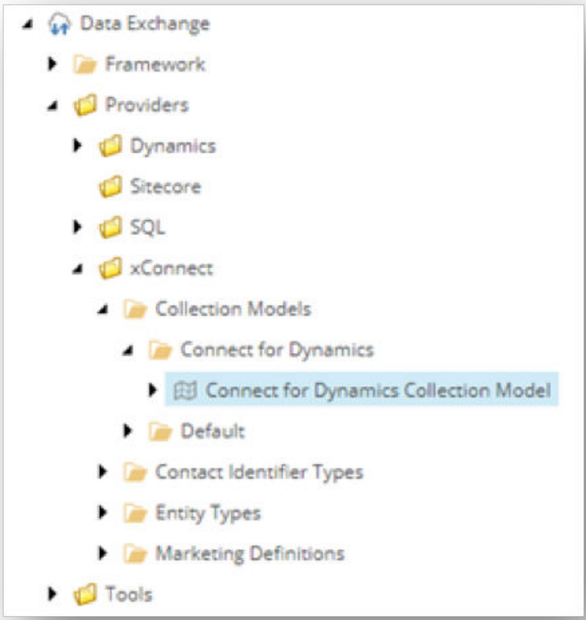
1.5. Deploy the xConnect collection model

Sitecore Connect adds new facets to associate information from Microsoft Dynamics with Sitecore contacts and interactions. You must deploy a collection model that defines these new facets to xConnect.

NOTE
For more information on how to deploy a custom collection model to xConnect, see the xConnect developer documentation.

To deploy the xConnect collection model:

1. In Sitecore, open the Content Editor.
2. Navigate to the *Connect for Sitecore Collection Model* (`sitecore/system/Settings/Data Exchange/Providers/xConnect/Collection Models/Connect for Dynamics/Connect for Dynamics Collection Model`).



3. On the ribbon, click **Convert Model to JSON**.

4. Your browser downloads a JSON file. Save this file to your local machine.
5. Deploy the JSON file to your xConnect server.
6. Deploy the JSON file to your xConnect indexing server. You have to copy the JSON file to two folders:
   - `\App_Data\Models\`
   - `\App_Data\jobs\continuous\IndexWorker\App_Data \Models\`

2. Install on a content delivery server

The connector includes extra features that you can use on your content delivery (CD) server, such as personalization rules or Forms integration. In order to use these features, you must install Sitecore Connect for Microsoft Dynamics 365 for Sales (MDS) on your CD server.

> **NOTE**
> You only need to install the connector on your CD server if you want to use the extra features.

2.1. Prerequisites

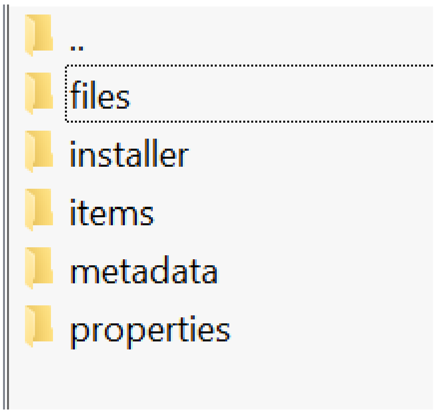
Before you install MDS on your CD server, you must have the following installed:

- Sitecore Experience Platform 9.2
- Data Exchange Framework 3.0.

2.2. Installation

The CD server does not have an interface to install Sitecore packages, so you must install the necessary files manually. To do so:

1. Download the Sitecore Connect for Microsoft Dynamics 365 for Sales 3.0 package.
2. In the package file, open the `package.zip` file. The files in the `package.zip` file are in the following structure:



3. Extract the files in the `files` folder into the website root folder of your CD server.

NOTE

When you extract the files you must preserve the folder structure from the `files` folder. For example, the `files` folder in the zip contains a subfolder named `bin`, and the files in this folder must go in the `<website>\bin` folder on your CD server.

4. Restart the CD server.

3. Upgrade a content manager or standalone server

This section describes how to upgrade from Sitecore Connect for Microsoft Dynamics 2.1 to 3.0.

3.1. Prerequisites

Before you upgrade Sitecore Connect for Microsoft Dynamics 365 for Sales to version 3.0, you must have the following:

- Sitecore Experience Platform 9.2
- Sitecore Connect for Microsoft Dynamics 365 for Sales 2.1 (installed)
- Data Exchange Framework 3.0

> **NOTE**
> If you have an earlier version of Data Exchange Framework installed, you must update it to 3.0 before proceeding.

3.2. Install Sitecore update packages

To prepare for the update, download the following from the Sitecore download page:

- Update Package for Sitecore Connect for Microsoft Dynamics 365 for Sales 3.0, which contains the `Sitecore Connect for Microsoft Dynamics 365 for Sales 3.0.0 rev. 01395 (update package).update` file
- Update Package for Staging Database for Sitecore Connect for Microsoft Dynamics 365 for Sales, which contains the `Upgrade Sitecore DataExchange Staging Database.sql` script file

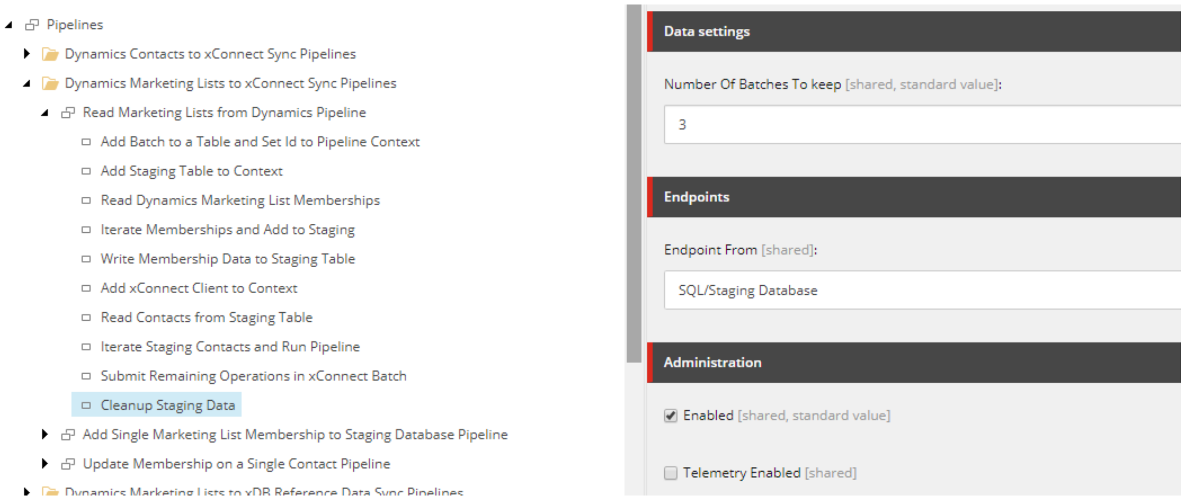
To update the installation:

1. Install the Sitecore Connect for Microsoft Dynamics 365 for Sales update package.
2. Modify the `web.config` file according to the instructions in the Modify the web.config file section.
3. Execute the `Upgrade Sitecore DataExchange Staging Database.sql` script against the existing staging database.
4. Deploy the xConnect collection model.

3.3. Upgrade the existing tenants

You can upgrade the tenants you have created with previous versions of the connector. To upgrade a tenant:

1. In the content editor, navigate to the `{tenant-to-upgrade}/Pipelines/Dynamics Marketing Lists to xConnect Sync Pipelines/Read Marketing Lists from Dynamics Pipeline/` folder.
2. From the **Insert** menu, use the `/sitecore/templates/Data Exchange/Providers/SQL/Pipeline Steps/Cleanup Staging Data` template to create a new item. Name it *Cleanup Staging Data*.
3. In the *Cleanup Staging Data* item, in the **Endpoint From** field, select the staging database endpoint. For example:



4. Save the item.

4. Upgrade a content delivery server

Before you upgrade Sitecore Connect for Microsoft Dynamics 365 for Sales on your content delivery (CD) server to version 3.0, you must have:

- Sitecore Experience Platform 9.2
- Data Exchange Framework 3.0.

4.1. Installation

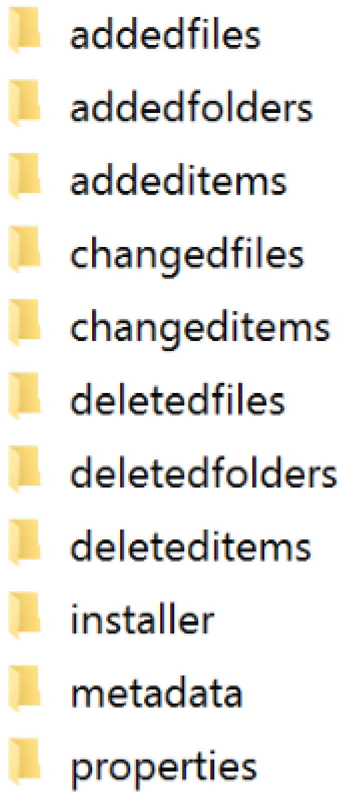
The CD server does not have an interface to install Sitecore update packages, so you must update the files manually.

> **NOTE**
> For all of the following file operations you must preserve the folder structure from the zip file folders. For example, if the `changedfiles` folder in the zip contains a `bin` subfolder, the files from this folder must go in the `<website>\bin` folder on your CD server.

To perform the upgrade:

1. Download the Sitecore Connect for Microsoft Dynamics 365 for Sales CD Server 3.0 update package.

2. In the update package file, open the `package.zip` file. The files in the `package.zip` file are in the following structure:



> **NOTE**
> The actual update package may not contain all of the folders shown in the image.

3. Add the folders in the `addedfolder` folder into the website root folder of your CD server.
4. Add the files in the `addedfiles` folder into the website root folder of your CD server.
5. Delete the folders in the `deletedfolder` folder from the website root folder of your CD server.
6. Delete the files in the `deletedfiles` folder from the website root folder of your CD server.
7. Add the files in the `changedfiles` folder into the website root folder of your CD server, overwriting the existing files.
8. Restart the CD server.

5. Configuration

This chapter covers basic configuration options for Sitecore Connect for Microsoft Dynamics.

5.1. Add a connection string for Microsoft Dynamics

Sitecore Connect connects to a Microsoft Dynamics instance using a connection string.

To add a connection string for Microsoft Dynamics:

- Add the connection string to the `ConnectionStrings.config` file on your Sitecore server. For example, the following is a connection string for a Microsoft Dynamics 365 instance:

```
<add name="mycrm" connectionString="url=https://####.api.crm.dynamics.com/XRMServices/2011/
Organization.svc; user
id=####@####.onmicrosoft.com;password=####;organization=####;authentication type=2" />
```

> **NOTE**
> Sitecore Connect uses the connection strings in Microsoft XRM tooling to connect to Microsoft Dynamics. You must use a connection string that is compatible with this tooling. Your Microsoft Dynamics administrator can provide the correct connection string .

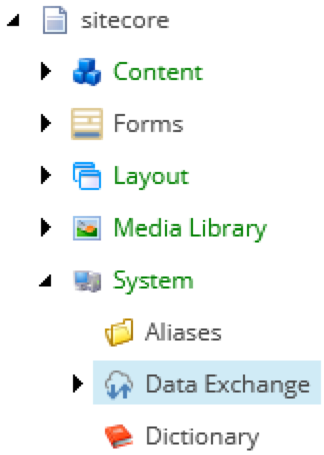
5.2. Create a tenant

A tenant is the basic unit of configuration in Sitecore Connect. All of the settings that determine how data between Microsoft Dynamics and Sitecore is synchronized are contained in the tenant.

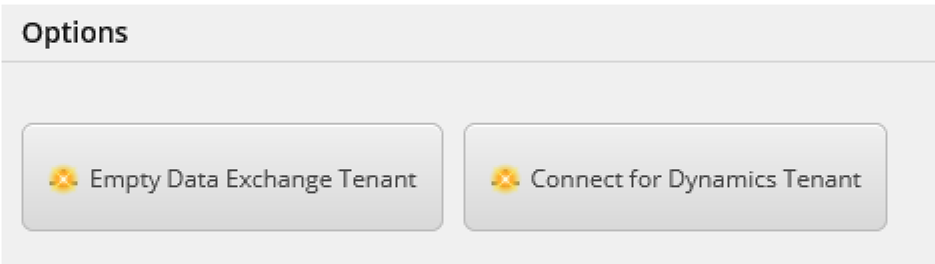
> **NOTE**
> Usually, a tenant represents a specific Microsoft Dynamics instance. You can configure multiple tenants if you have multiple Microsoft Dynamics instances you want to connect. It is also possible to configure a single tenant to connect to multiple Microsoft Dynamics instances. However, that configuration is not covered in this guide.

To create a tenant:

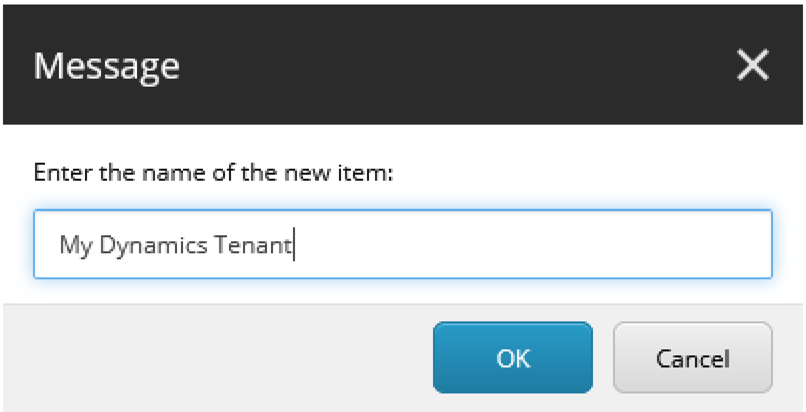
1. In the Content Editor, navigate to `sitecore/system/Data Exchange`.



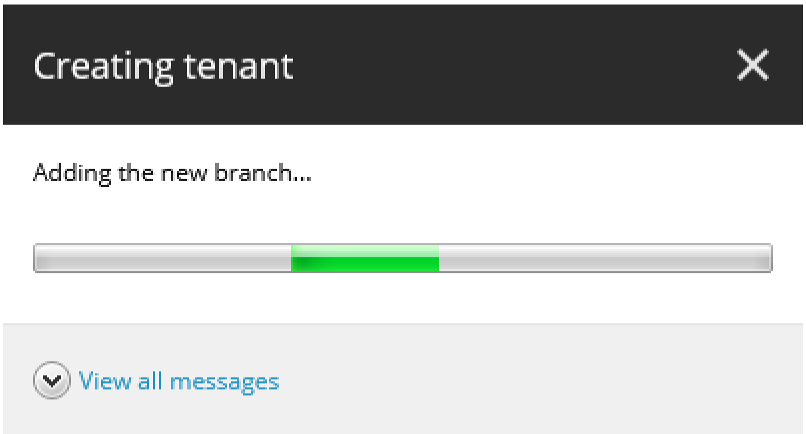
2. On the **Options** tab, click **Connect for Dynamics Tenant** to add a new item.



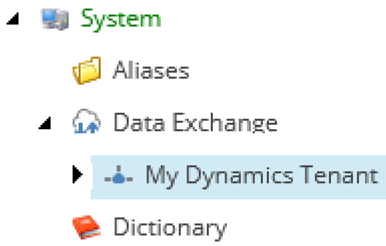
3. Enter a name for the tenant and click **OK**.



Creating the tenant takes some time. As it is created, a progress box appears.



When the tenant is created, it appears under `sitecore/System/Data Exchange`.



5.3. Configure endpoints

You use an endpoint to identify a data source to read from, or a data target to write to. Connect for Microsoft Dynamics 365 for Sales uses endpoints to represent Sitecore and a Microsoft Dynamics instance.

To set up a connection between Sitecore and Microsoft Dynamics you must configure the following endpoints:

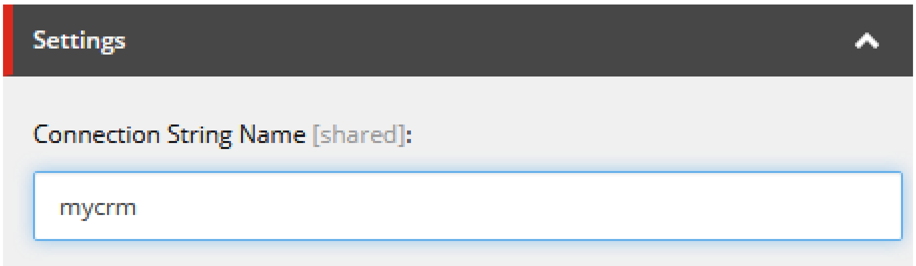
- Dynamics Organization endpoint
- xConnect Client endpoint
- xDB Reference Data Client endpoint
- Staging Database endpoint

5.3.1. Configure the Dynamics Organization endpoint

To configure a Dynamics Organization endpoint:

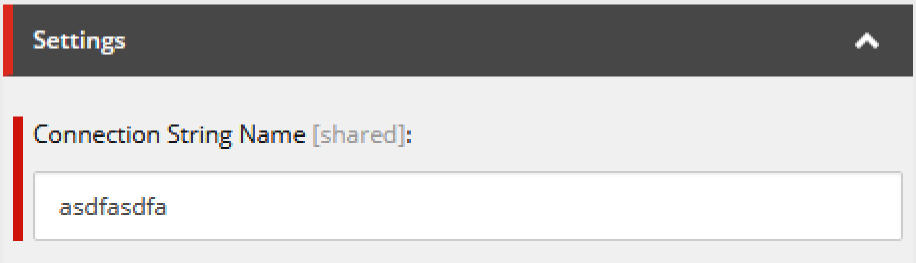
1. In the Content Editor, select your tenant, for example, *My Dynamics Tenant*.
2. Navigate to `Endpoints/Providers/Dynamics/Dynamics Organization Endpoint`.

3. In the **Connection String Name** field, enter the name of the connection string you added in Add a connection string.

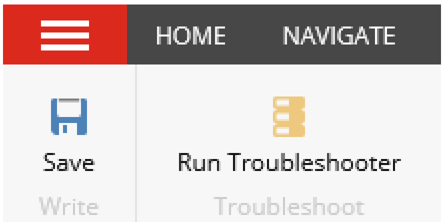


NOTE

If you enter a connection string that is not defined on your Sitecore server, a validation error is displayed.



4. Save the item and then, on the ribbon, click **Run Troubleshooter**.

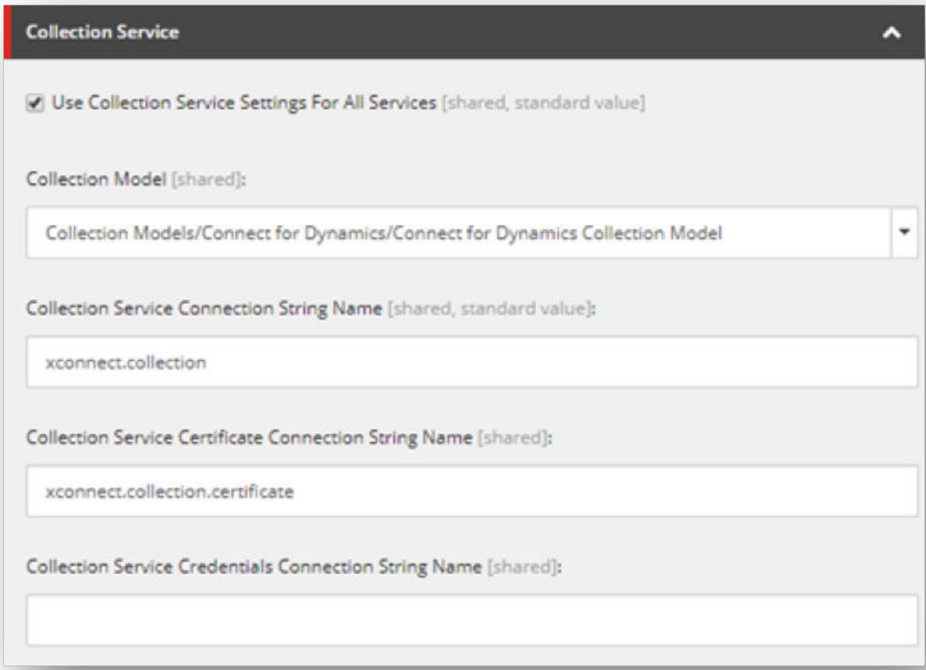


5. A message indicates if a connection could be established to your Dynamics instance. Click **OK** to close the message.

5.3.2. Configure the xConnect Client endpoint

To configure an xConnect Client endpoint:

1. In the Content Editor , select your tenant.
2. Navigate to `Endpoints/Providers/xConnect/xConnect Client Endpoint`.
3. In the **Collection Service** section, enter values for the following fields:
   - Collection Service Connection String Name
   - Collection Service Certificate Connection String Name
   - Collection Service Credentials Connection String Name

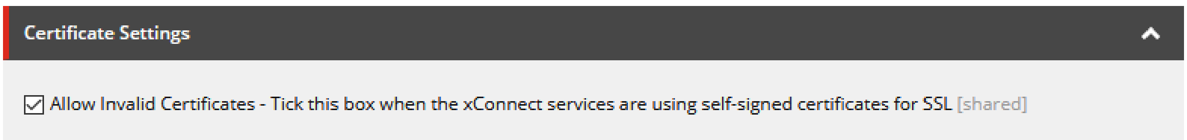


NOTE
You can find all of these values as connection string names in the `ConnectionStrings.config` file on your Sitecore server.

The following table describes the fields in the **Collection Service** section:

Field name	When required	Description
Collection Service Connection String Name	Always required	• Connection string that identifies the xConnect collection service • By default the value is *xconnect.collection*
Collection Service Certificate Connection String Name	Required if SSL is enabled on the xConnect server.	• Connection string that identifies the certificate to use when establishing a secure connection to the xConnect server. • By default the value is *xconnect.collection.certificate*.
Collection Service Credentials Connection String Name	Required if authentication is enabled on the xConnect server.	• Connection string that specifies the credentials to use to connect to an xConnect server with authentication enabled. • Authentication is not enabled on the xConnect server by default. • For more information on supported formats for this connection string, see the Data Exchange Framework developer documentation.

4. If your xConnect server is using a self-signed certificate for SSL, select the **Allow Invalid Certificates** check box and save the item.

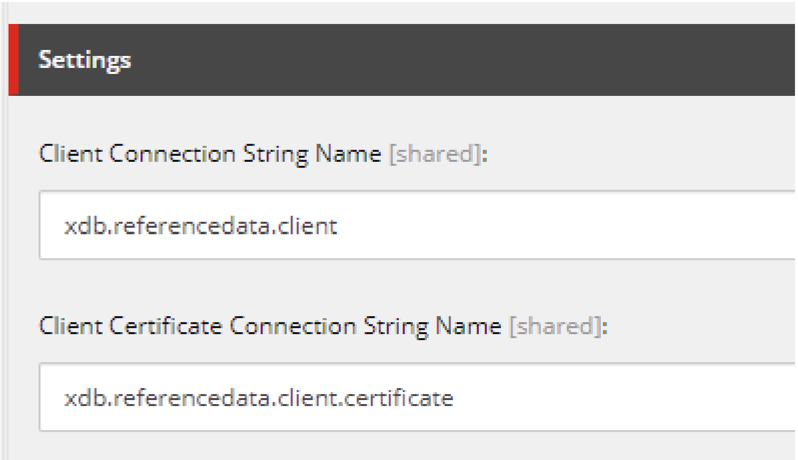


5. On the ribbon, click **Run Troubleshooter**. A message indicates if a connection can be established to your xConnect server. Click **OK** to close the message.

5.3.3. Configure the xDB Reference Data Client endpoint

To configure a xDB Reference Data Client endpoint:

1. In the Content Editor, select your tenant.
2. Navigate to `Endpoints/Providers/xConnect/xDB Reference Data Client Endpoint`.
3. In the **Settings** section, enter values for the following fields:
   - Client Connection String
   - Client Certificate Connection String Name



> **NOTE**
> You can find all these values as connection string names in the `connectionstrings.config` file on your Sitecore server.

The following table describes the fields in the **Settings** section:

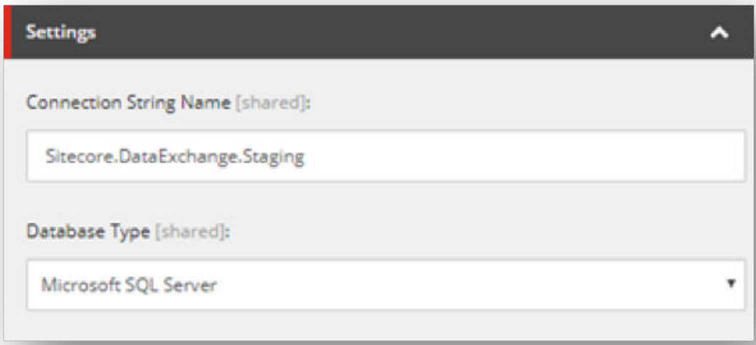
Field name	When required	Description
Client Connection String Name	Always	Identifies the xDB Reference Data Client settings. By default, the value is blank.
Client Certificate Connection String Name	If SSL is enabled on the xConnect server	Identifies the certificate to use for a secure connection to the xDB Reference Data server. By default, the value is blank.

4. If your xDB Reference Data Client server uses a self-signed certificate for SSL, select the **Allow Invalid Certificates** check box.
5. Save the item.
6. On the ribbon, select **Run Troubleshooter**. A message indicates if a connection to your xDB Reference Data Client server could be established. Click **OK** to close the message.

5.3.4. Configure the Staging Database endpoint

To configure a Staging Database endpoint:

1. In the Content Editor, select your tenant.
2. Navigate to `Endpoints/Providers/SQL/Staging Database`.
3. In the **Settings** section, ensure the **Connection String Name** field matches the connection string for the staging database you added to the Sitecore server.



4. On the ribbon, click **Run Troubleshooter**. A message indicates if a connection can be established to your staging database. Click **OK** to close the message.

5.4. Run pipeline batches

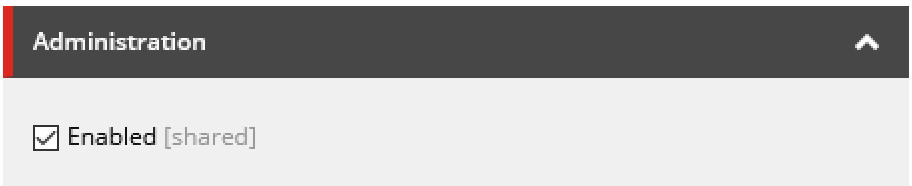
You execute the data synchronization by running the tenant pipeline batches. By default, the pipeline batches are not scheduled to run. For more information on how to run pipeline batches, please refer to the developer documentation for the Sitecore Data Exchange Framework.

5.5. Enable the tenant

By default, the tenant is disabled. This is to ensure that no synchronization process is run until an administrator makes a conscious decision to enable the tenant.

To enable the tenant:

1. In the Content Editor, select your tenant.
2. On the **Content** tab, in the **Administration** section, select the **Enabled** check box.



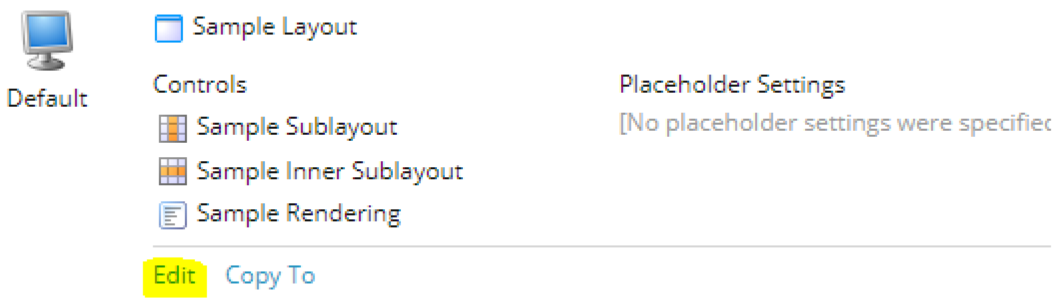
3. Save the item.

5.6. Add personalization

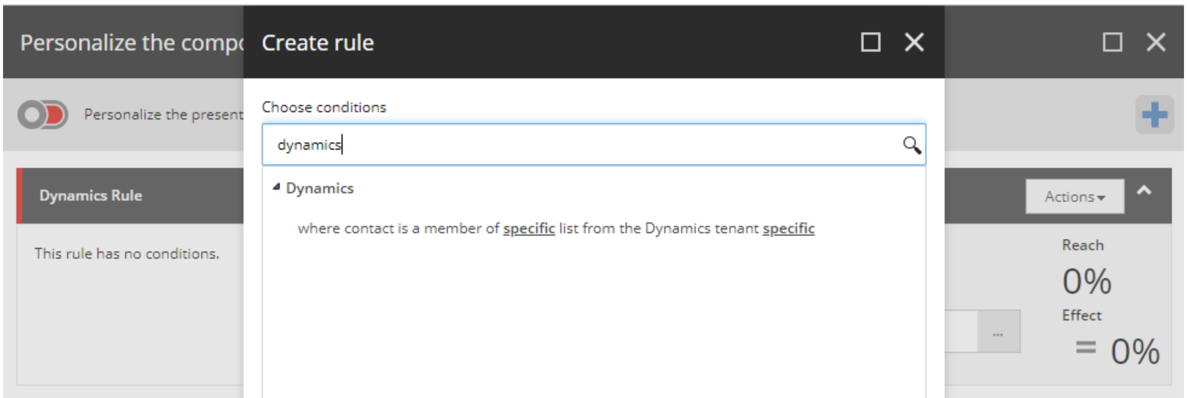
If you have installed Sitecore Connect for Microsoft Dynamics 365 for Sales on a content delivery server, you can add personalization to your site.

For example:

1. In the Sitecore Content Editor, navigate to the item to which you want to add personalization, for example **/sitecore/content/home**.
2. In the top menu, click **Presentation**, then click **Details**.
3. On the **Default** device, click **Edit**.



4. In the left hand menu, click the **Controls** tab.
5. Select the rendering you want to personalize and click **Personalize**.
6. Add a new *Rule*. In the search field, enter *dynamics* to narrow the results.



7. In the *Dynamics* rule, select the *list* and the *tenant* you want for the personalization.
8. Publish the item, and test that the personalization works as expected.