

Sitecore Connect for Microsoft Dynamics 365 for Sales 2.1 Installation Guide

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

January 14, 2020

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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 9.1 (or greater).
- **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 packages

Sitecore Connect for Microsoft Dynamics consists of a number of Sitecore installation packages.

NOTE

Sitecore does not provide a single installation package because providing separate packages means that we can update individual components more easily.

To install the Sitecore installation packages:

1. Download the following installation packages:
 - Data Exchange Framework 2.1
 - Microsoft Dynamics 365 for Sales Provider for Data Exchange Framework 2.1 (contains the Dynamics Provider for DEF package)

- Sitecore Provider for Data Exchange Framework 2.1
 - SQL Provider for Data Exchange Framework 2.1
 - xConnect Provider for Data Exchange Framework 2.1
 - Sitecore Connect for Microsoft Dynamics 365 for Sales 2.1 (contains the Connect for Microsoft Dynamics package)
2. Install Data Exchange Framework 2.1.
 3. Install SQL Provider for Data Exchange Framework 2.1.
 4. Install Sitecore Provider for Data Exchange Framework 2.1.
 5. Install xConnect Provider for Data Exchange Framework 2.1.
 6. Install Dynamics Provider for Data Exchange Framework 2.1.
 7. Install Connect for Microsoft Dynamics 2.1.

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="0.0.0.0-8.0.0.0" newVersion="8.0.0.0" />
</dependentAssembly>
<dependentAssembly>
  <assemblyIdentity name="Microsoft.Crm.Sdk.Proxy" publicKeyToken="31bf3856ad364e35"
    culture="neutral" />
  <bindingRedirect oldVersion="0.0.0.0-8.0.0.0" newVersion="8.0.0.0" />
</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.

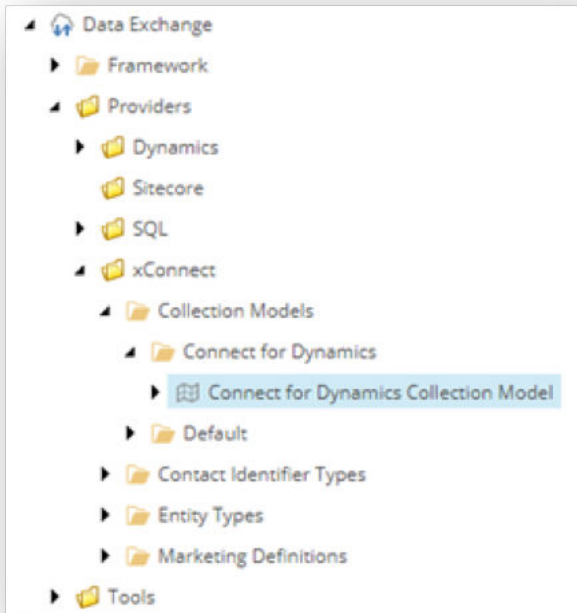
NOTE

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

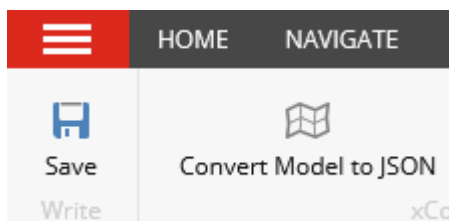
To deploy the xConnect collection model:

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 Sitecore 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 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 Sitecore Connect for Microsoft Dynamics 365 for Sales on your CD server, you must have:

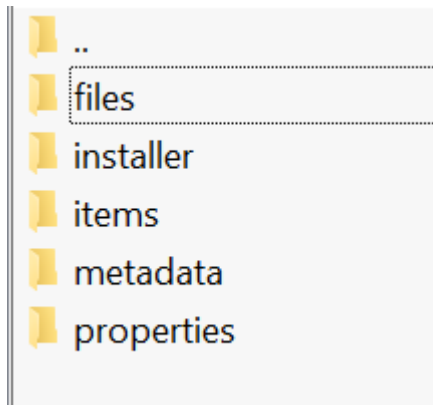
- Sitecore Experience Platform 9.1 or greater
- Data Exchange Framework 2.1.

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 following installation packages:
 - SQL Provider for Data Exchange Framework CD server
 - Sitecore Provider for Data Exchange Framework CD server
 - xConnect Provider for Data Exchange Framework CD server
 - Microsoft Dynamics 365 for Sales Provider for Data Exchange Framework CD server
 - Sitecore Connect for Microsoft Dynamics 365 for Sales CD server

2. Note that each installation package contains a `package.zip` file. The files in the `package.zip` files are in the following structure:



3. For each installation package, 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 2.0.1 to 2.1.

3.1. Prerequisites

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

- Sitecore Experience Platform 9.1 (or greater)
- Sitecore Connect for Microsoft Dynamics 2.0.1 (installed)

3.2. Install Sitecore installation and update packages

Sitecore Connect for Microsoft Dynamics consists of a number of Sitecore installation and update packages.

NOTE

Sitecore does not provide a single installation package because providing separate packages means that we can update individual components more easily.

To install Sitecore installation and update packages:

1. Download the following update packages:
 - Data Exchange Framework 2.1
 - Sitecore Provider for Data Exchange Framework 2.1
 - xConnect Provider for Data Exchange Framework 2.1
 - Dynamics Provider for Data Exchange Framework 2.1
 - Connect for Microsoft Dynamics 2.1
2. Download the following installation packages:
 - SQL Provider for Data Exchange Framework 2.1
 - Data Exchange Framework SDK 2.1
3. Install the update package for Data Exchange Framework 2.1.
4. Install the update package for Sitecore Provider for Data Exchange Framework 2.1.
5. Install the update package for xConnect Provider for Data Exchange Framework 2.1.

6. Install the update package for Dynamics Provider for Data Exchange Framework 2.1.
7. Install SQL Provider for Data Exchange Framework 2.1.
8. Install the update package for Connect for Microsoft Dynamics 2.1.
9. Install Data Exchange Framework SDK 2.1.

NOTE

After you have installed the update packages, you must install the [staging database](#) and [deploy the xConnect collection model](#).

3.3. Upgrade the existing tenant

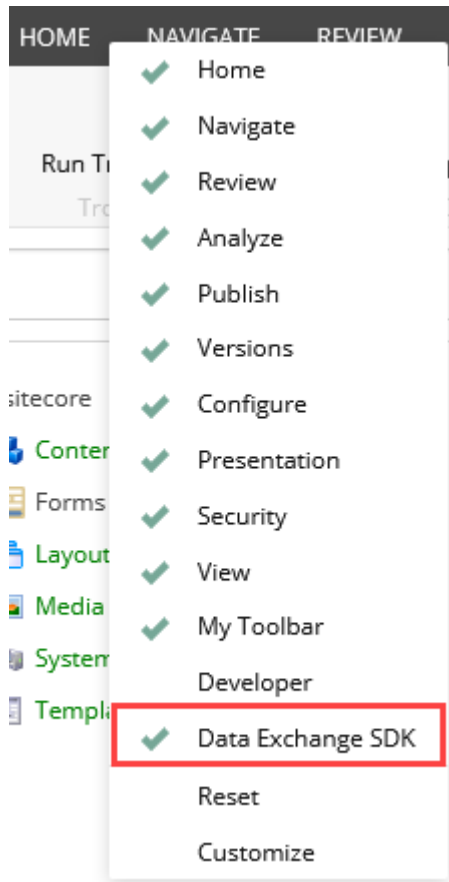
To take advantage of new and improved functionality, you must upgrade existing tenants.

NOTE

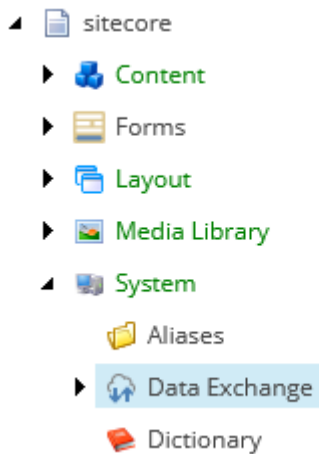
The upgrade tool automatically changes items in your tenant. The upgrade tool does make a backup of the tenant before making any changes, but we recommend that you create your own backup before using the tool.

To upgrade your existing tenant:

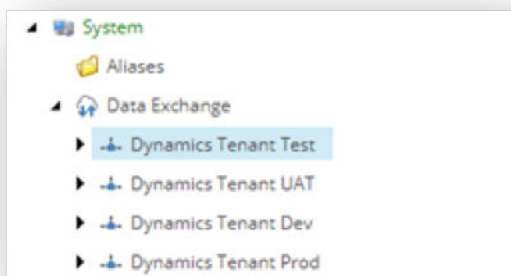
1. Download the update definition file for Sitecore Connect for Microsoft Dynamics 365 for Sales.
2. Copy the update definition file to the following folder on your Sitecore server: `...\App_Config\Sitecore\DynamicsConnect`
3. In the Content Editor, enable the **DATA EXCHANGE SDK** tab.



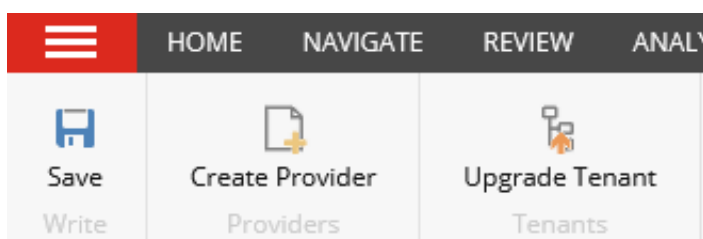
4. Navigate to `sitecore/system/Data Exchange`.



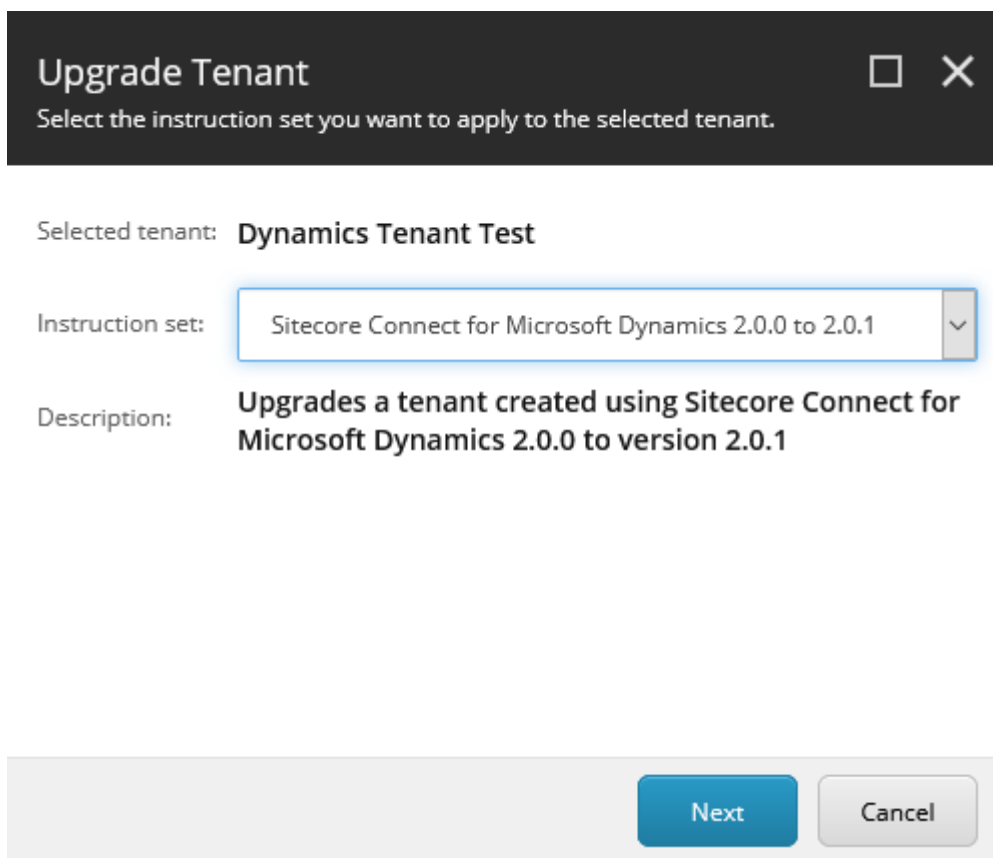
5. Click the tenant you want to upgrade.



6. On the **Data Exchange SDK** tab, click **Upgrade Tenant**.

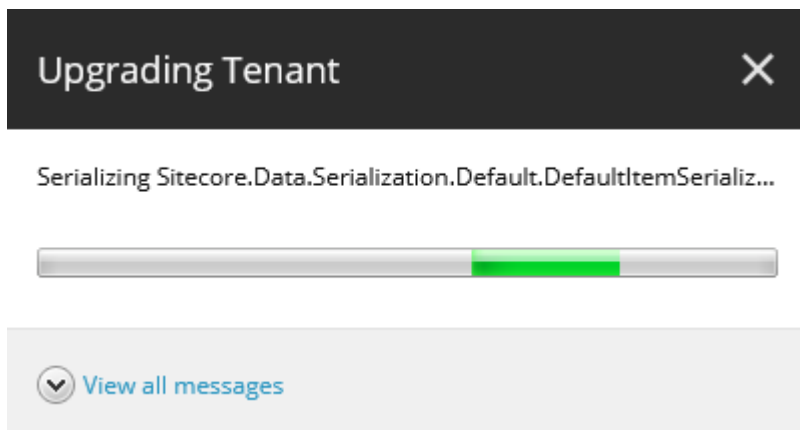


7. In the **Upgrade Tenant** dialog box, in the **Instruction set** field, click **Sitecore Connect for Microsoft Dynamics 2.0.0 to 2.0.1** and then click **Next**.

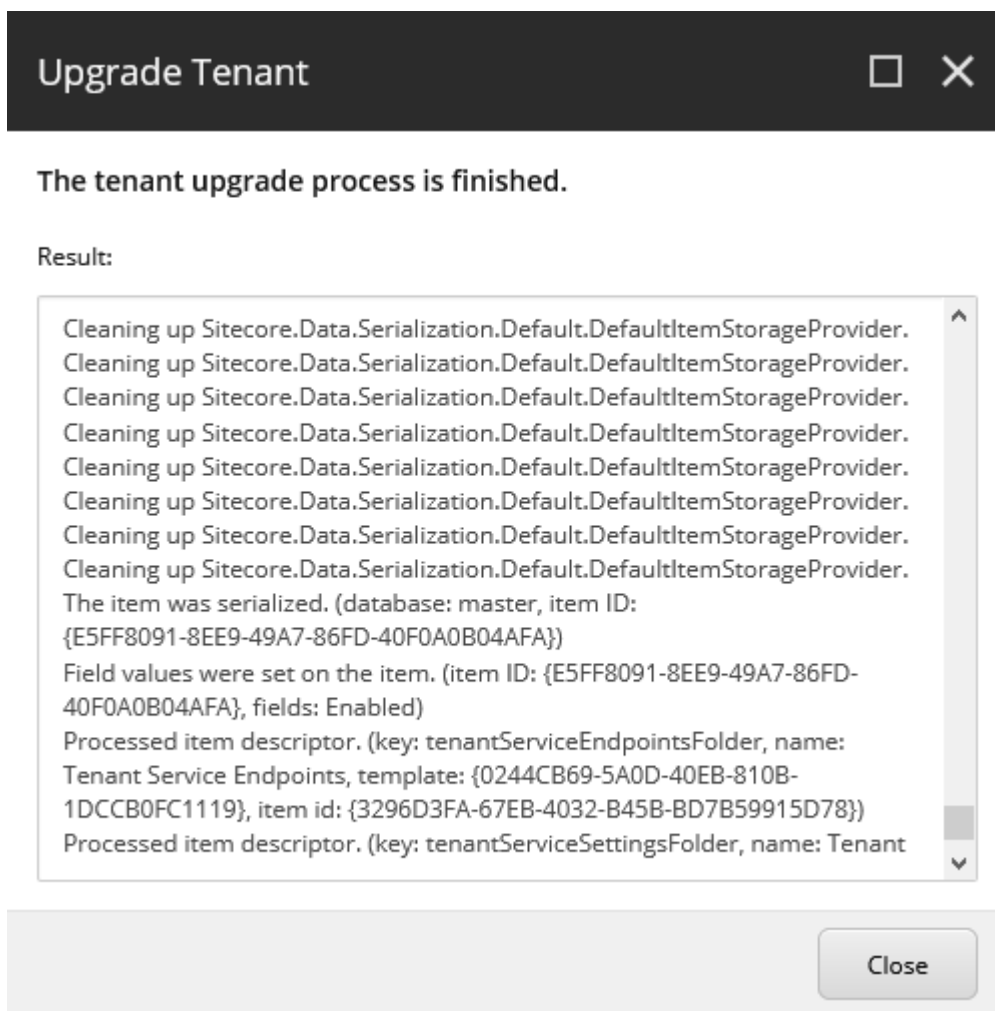


8. Read the information screen carefully. When you are ready to start the upgrade process, click **Start upgrade**.

While the tenant is upgraded a status box appears.



9. When the upgrade process is finished, a summary of the upgrade process is displayed. Click **Close**.



NOTE

After you have upgraded the tenant, you must manually [re-enable the tenant](#) before you can run any pipeline batches.

4. Upgrade a content delivery server

This section explains how to upgrade Sitecore Connect for Microsoft Dynamics 365 for Sales on your content delivery server.

4.1. Prerequisites

Before you upgrade Sitecore Connect for Salesforce, you must have the following:

- Sitecore Experience Platform 9.1 (or greater)
- Data Exchange Framework 2.1
- Sitecore Connect for Microsoft Dynamics 365 for Sales 2.0.1.

4.2. Installation

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

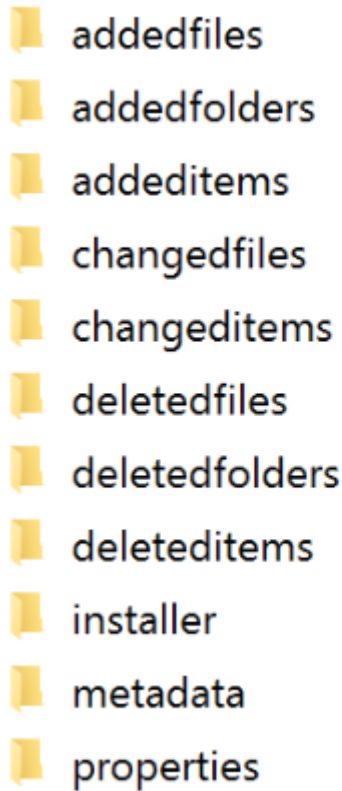
NOTE

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 file 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 following update packages:
 - Update Package for Microsoft Dynamics 365 for Sales Provider for Data Exchange Framework
 - Update Package for Sitecore Provider for Data Exchange Framework
 - Update Package for xConnect Provider for Data Exchange Framework
 - Update Package for Sitecore Connect for Microsoft Dynamics 365 for Sales

2. Note that each update package file contains a `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. For each update package:
 - Add the folders in the `addedfolder` folder into the website root folder of your CD server.
 - Add the files in the `addedfiles` folder into the website root folder of your CD server.
 - Delete the folders in the `deletedfolder` folder from the website root folder of your CD server.
 - Delete the files in the `deletedfiles` folder from the website root folder of your CD server.
 - Add the files in the `changedfiles` folder into the website root folder of your CD server, overwriting the existing files.
4. 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

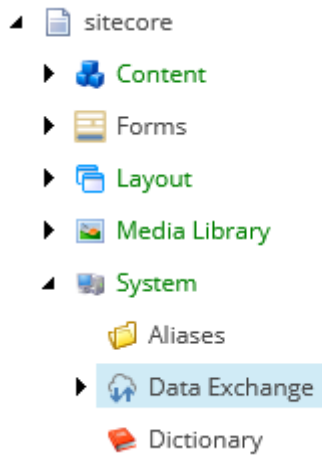
A tenant is the basic unit of configuration in Sitecore Connect. All of the settings that determine how data between Microsoft Dynamics and Sitecore is synchronized are contained in the tenant.

NOTE

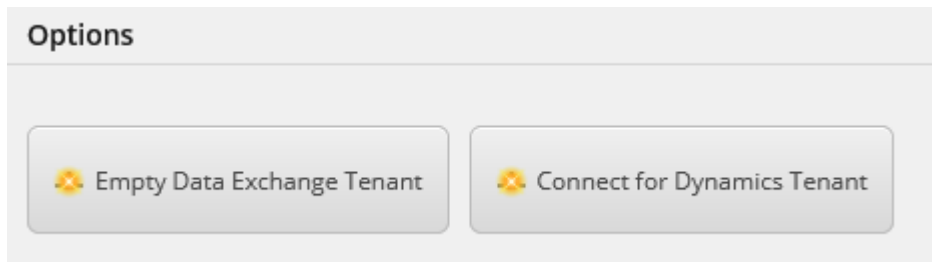
Usually, a tenant represents a specific Microsoft Dynamics instance. You can configure multiple tenants if you have multiple Microsoft Dynamics instances you want to connect. It is also possible to configure a single tenant to connect to multiple Microsoft Dynamics instances. However, that configuration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

To create a tenant:

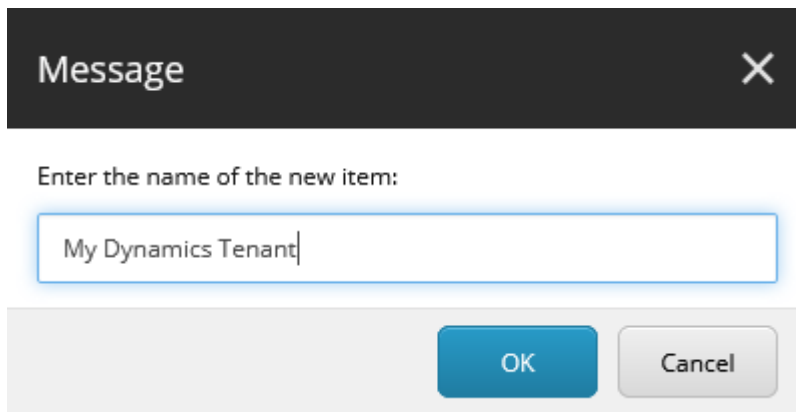
1. In the Content Editor, navigate to `sitecore/system/Data Exchange`.



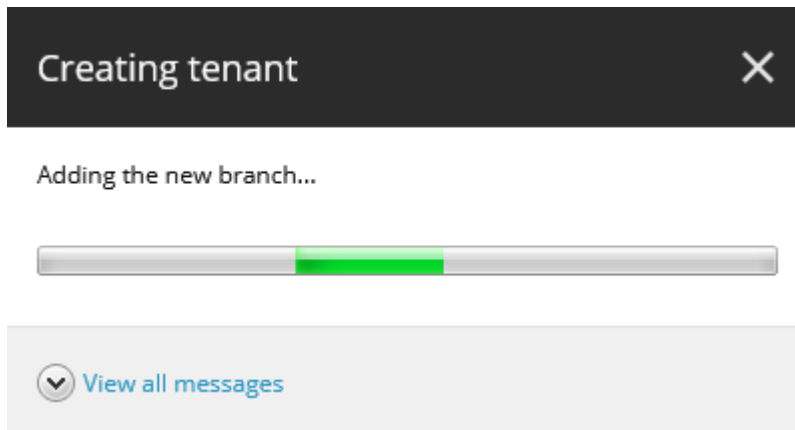
2. On the **Options** tab, click **Connect for Dynamics Tenant** to add a new item.



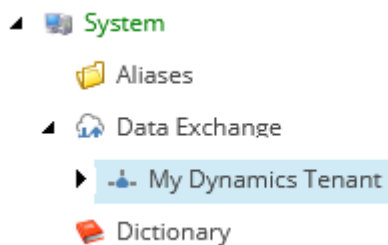
3. Enter a name for the tenant and click **OK**.



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`.



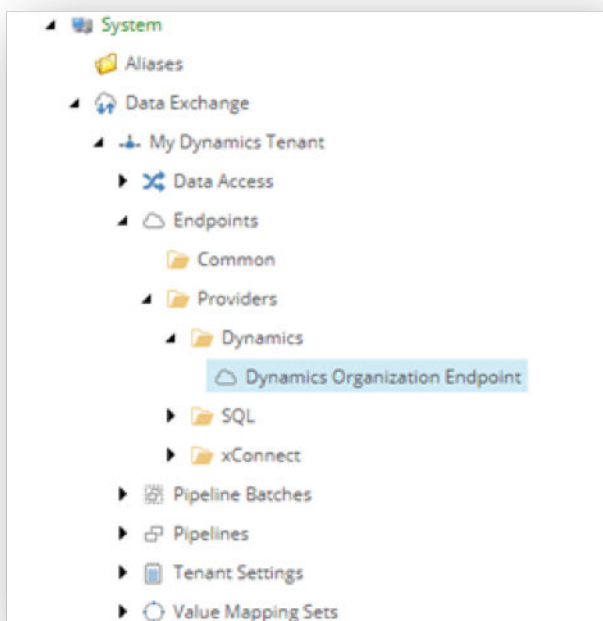
5.3. Configure endpoints

Endpoints are used to identify the source of data that is read and the target of data that is written. Sitecore Connect for Microsoft Dynamics uses endpoints to represent Sitecore and a Microsoft Dynamics instance.

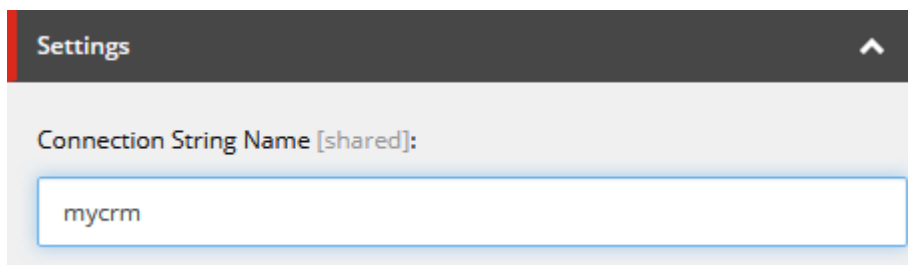
To configure endpoints:

1. In the Content Editor, select your tenant, for example, *My Dynamics Tenant*.

2. Navigate to Endpoints/Providers/Dynamics/Dynamics Organization Endpoint.

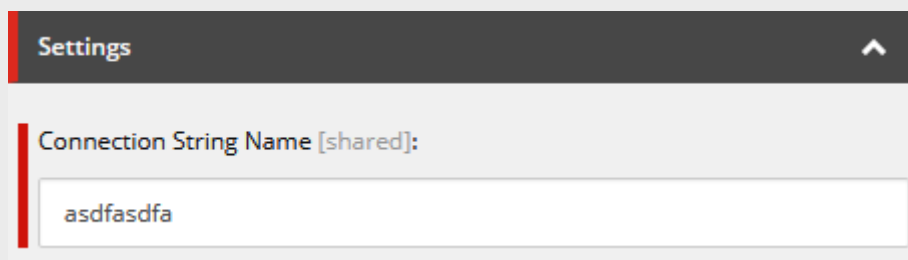


3. In the **Connection String Name** field, enter the name of the connection string you added in [Add a connection string](#).

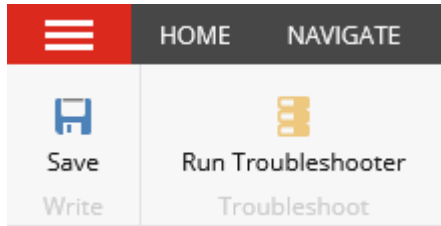


NOTE

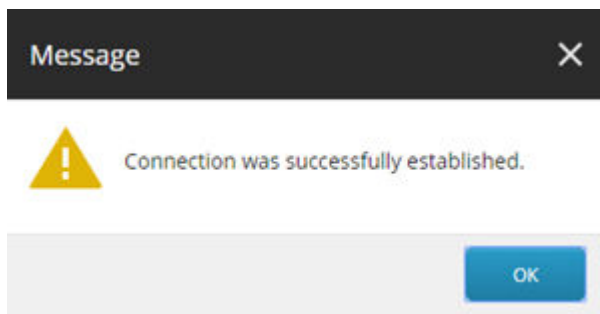
If you enter a connection string that is not defined on your Sitecore server, a validation error is displayed.



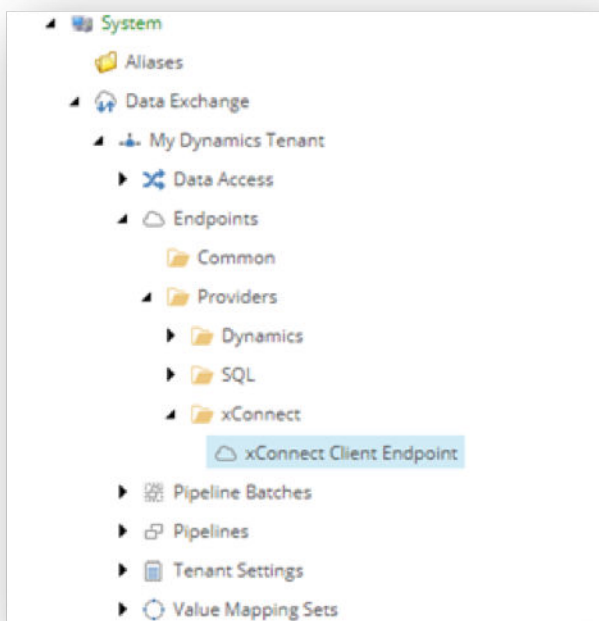
4. Save the item and then, on the ribbon, click **Run Troubleshooter**.



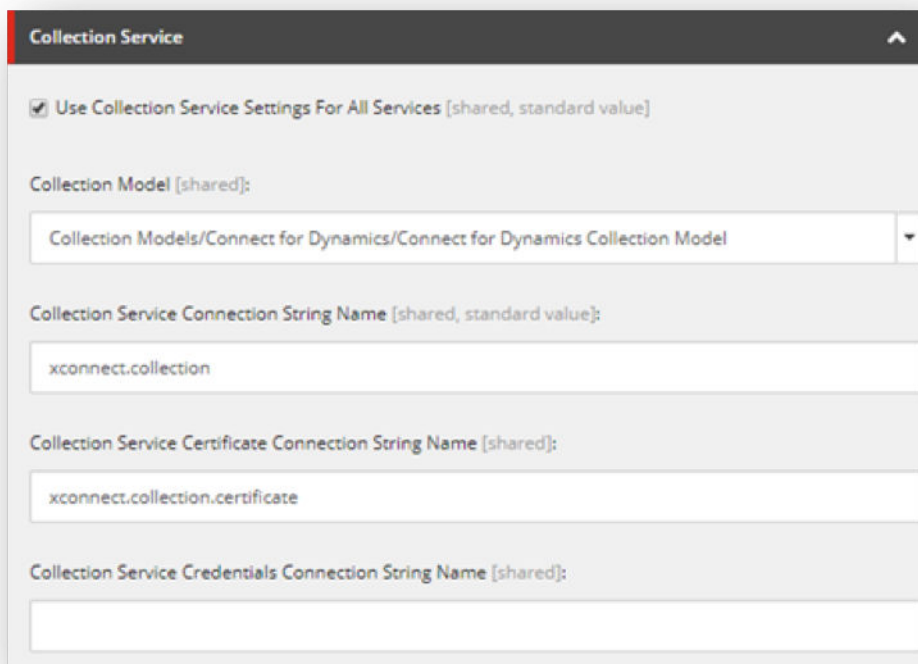
5. A message indicates if a connection could be established to your Dynamics instance. Click **OK**.



6. In the Content Editor , select your tenant.
7. Navigate to Endpoints/Providers/xConnect/xConnect Client Endpoint.



8. In the **Collection Service** section, enter values for the following fields:

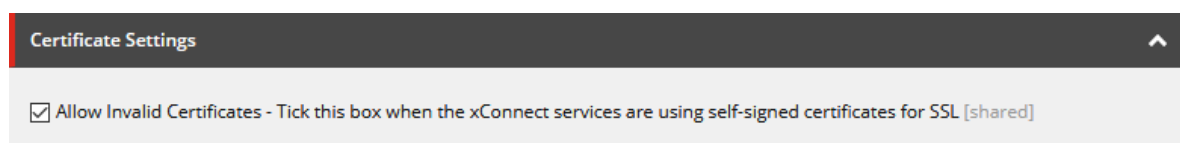


NOTE

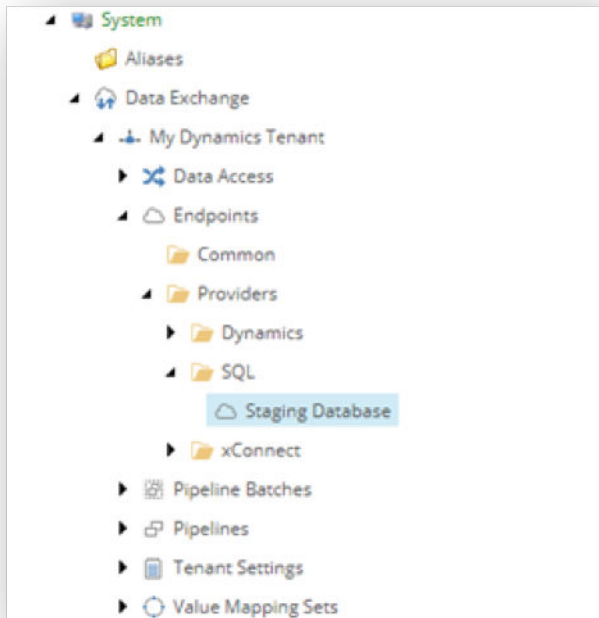
All of these values are connection string names from the `ConnectionStrings.config` file on your Sitecore server.

Field name	When required	Description
Collection Service Connection String Name	Always required	<ul style="list-style-type: none"> • Connection string that identifies the xConnect collection service • By default the value is <code>xconnect.collection</code>
Collection Service Certificate Connection String Name	Required if SSL is enabled on the xConnect server.	<ul style="list-style-type: none"> • Connection string that identifies the certificate to use when establishing a secure connection to the xConnect server. • By default the value is <code>xconnect.collection.certificate</code>.
Collection Service Credentials Connection String Name	Required if authentication is enabled on the xConnect server.	<ul style="list-style-type: none"> • 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.

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



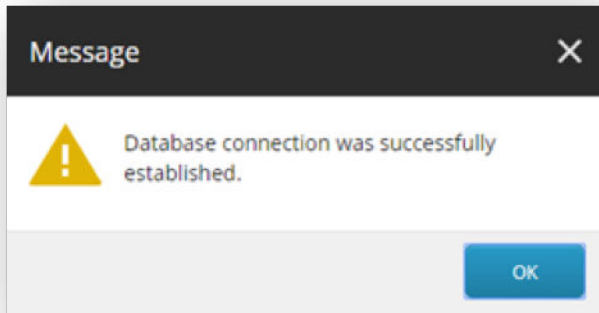
10. On the ribbon, click **Run Troubleshooter**. A message indicates if a connection could be established to your xConnect server. Click **OK**.
11. Select your tenant and navigate to `Endpoints/Providers/SQL/Staging Database`.



12. In the **Settings** section, ensure the **Connection String Name** field matches the connection string for the staging database you added to the Sitecore server.



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



5.4. Run pipeline batches

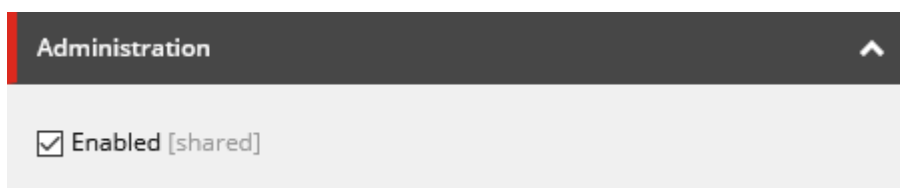
You execute the data synchronization by running the tenant pipeline batches. By default, the pipeline batches are not scheduled to run. For more information on how to run pipeline batches, please refer to the [developer documentation](#) for the Sitecore Data Exchange Framework.

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.