Data Exchange Framework Tenant Web Service 6.0 Installation Guide

A guide to installing the Data Exchange Framework Tenant Web Service

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1. Introduction

The Data Exchange Framework (DEF) Tenant Web Service gives you the ability to trigger data synchronization processes via web-based push notifications.

1.1. Requirements

The guide assumes that you have installed the following on your Sitecore server:

- Sitecore 10.1

- DEF 6.0.0. This installation includes the basic tenant service functionality. This requirement is covered by the Installation Guide for Data Exchange Framework, which you can download from the Sitecore download page.

> **NOTE**
>
> You can confirm that the tenant service functionality is installed by opening the Content Editor and locating the `/sitecore/templates/Data Exchange/Services/Tenant Service` item.

1.2. Install the web-component of Tenant Service on IIS

The Tenant Web Service (TWS) is a web-based service and must be configured as a web site via IIS. This chapter guides you through the process of installing Web-Based Micro TWS. There are two alternative ways of installing TWS:

- Manually

- Using PowerShell and Sitecore Installation Framework.

After installing TWS, either manually or with PowerShell, you must configure the tenant service (TS) connection strings.

> **NOTE**
>
> For information on how to configure a tenant when you have installed the service, please refer to the developer documentation.

Install manually

> **NOTE**
> For information on how to create certificates, please refer to the Set Up Client Certificates section of the Sitecore Experience Platform Installation Guide, available from the Sitecore Downloads page.

To install a TWS manually:

1. Download the `Sitecore Data Exchange Framework Tenant Web Service` package from the Sitecore Downloads page. It contains the `Sitecore Data Exchange Framework Tenant Web Service 6.0.0.scwdp.zip` file.

2. Extract the `.zip` file into the website IIS root folder. By default, this folder is located at `C:\inetpub\wwwroot\<service folder>`, where `<service folder>` is the name you choose for your tenant, for example, `my-tenant.service`.

3. Configure a TS connection string.

4. Create and start the site in IIS.

> **NOTE**
> When a TWS is set up as described above, you can access it by requesting the `http://[tenantservice]` URL. If the service is running successfully, you will get a response showing the date and time.

Install using PowerShell and Sitecore Installation Framework

To install TWS using SIF installation files and PowerShell:

1. Download the `Sitecore Data Exchange Framework Tenant Web Service` package from the Sitecore download page.

2. Download the `SIF installation scripts for Tenant Service` package from the Sitecore download page. It contains the following files:

   - `tenantservice-xp0.json` - an installation configuration file

   - `createcert.json`- an installation configuration file

   - `deploy.ps1` - a PowerShell deployment script

3. Unzip the installation script files to a folder on your installation.

> **NOTE**
> The `deploy.ps1` script contains a `SitecoreTenantID` parameter that is used to create the necessary connection string for the tenant service. If you already have a tenant service, you can edit the `deploy.ps1` script and change the `SitecoreTenantID` parameter to the Tenant ID of the tenant service. You can also add or change the `SitecoreTenantID` in the `connectionstrings.config` file later.

4. Open a PowerShell console with administrator rights. Navigate to the folder where you unpacked the installation script files. Run the `deploy.ps1` script with the following syntax:

```
.\deploy.ps1 -scInstanceName "<sitecore instance>" -servicePackage "<path to
tenantservice.scwdp.zip file>"
```

The following table explains the parameters you need to supply when running the script:

Parameter	Description	Example
scInstanceName	The name of your Sitecore instance. The script will automatically name the tenant service instance `<scInstanceName>.service`. If you need to give the tenant service a different name, you must use the manual installation procedure.	my-sitecore
servicePackage	The location of the `Sitecore Data Exchange Framework Tenant Web Service` package.	c:\tenant-scwdp.zip

5. Configure the necessary connection strings.

1.3. Configure tenant service connection strings

When you have installed the tenant web service (TWS), you must configure a tenant service connection string. This will enable you to read its configuration through the Web Item API. You can configure the connection string two ways:

- With Identity Server authorization

- With username and password authorization

When you have configured the connection string using either of those two methods, you must add it to your tenant service configuration.

1.3.1. Use Identity Server authorization

To configure a connection string for Identity Server (IS) authorization:

1. On your IS instance, go to the installation folder, and open the IS config file, for example, `\sitecore\Sitecore.Plugin.IdentityServer\Config\identityServer.xml`.

2. Uncomment the `<CredentialsClient>` node. Inside this node, locate the `<ClientSecrets>` node. Add a securely generated value that IS can use for tenant service authentication. For example:

```
<CredentialsClient>
     ***
  <ClientSecrets>
     <TenantService>2ffe4e77325d9a7152f7086ea7aa5114</TenantService>
  </ClientSecrets>
</CredentialsClient>
```

3. Save the file. Restart the Identity Server to force it to load the updated configuration.

4. Construct a connection string using the following properties:

Property	Description
name	Must be *sitecore*.
database	The Sitecore database the connection goes to.
tenant ID	The ID for the tenant created in Data Exchange Framework.
host	The URL for your Sitecore instance. If you use a scaled Sitecore topology, use the URL for your content management server.
auth endpoint	The URL for your Sitecore Identity Server.
client secret	The secure value you entered in the `identityServer.xml` config file.
client ID	

For example:

```
<add name="sitecore"
connectionString="database=master;
    tenant id={2A593000-2FDA-1234-1234-092F0CA338BD};
    host=https://my-sitecore-instance;
    timeout=20;
    auth endpoint=https://my-sitecore-identityserver/;
    client secret=2ffe4e77325d9a7152f7086ea7aa5114;
    client id=SitecoreCredentials" />
```

5. Follow the instructions in Add connection strings to tenant web service.

1.3.2. Use username and password authorization

To configure a connection string for username and password authorization:

1. Construct a connection string using the following properties:

Property	Description
name	Must be *sitecore*.
database	The Sitecore database the connection goes to.
tenant ID	The ID for the tenant created in Data Exchange Framework.
host	The URL for your Sitecore instance.
user name	A user name that has access to Sitecore.
password	The password for the user name.

For example:

```
<add name="sitecore"
connectionString="database=master;
    tenant id={2A593000-2FDA-1234-1234-092F0CA338BD};
    host=https://my-sitecore-instance;
    password=b;
    user name=sitecore\admin;
    timeout=20" />
```

2. Follow the instructions in Add connection strings to tenant web service.

1.3.3. Add connection strings to tenant web service

To add the necessary connection strings to the tenant web service:

1. In the tenant service installation, in the `C:\inetpub\wwwroot\<service folder>\App_Config` folder, open the `ConnectionString.config` file.

2. Locate the connection string named `sitecore`. If it is not there, add the connection string you constructed. If it is there, replace it with the connection string you constructed.

3. Save the file.

4. On the Sitecore servers that connect to the tenant service, open the server's `App_Config\ConnectionStrings.config` file.

5. In the `connectionStrings` node, add a connection string for the tenant service. For example:

```
<add name="my-tenant" connectionString="https://my-sitecore.service"/>
```

> **NOTE**
> You can test the connection between the Sitecore server and the tenant service by requesting the `http://<tenantservice>/api/tenant` URL. The response displays the available tenant service endpoints.

1.4. Troubleshooting tips

This topic addresses a problem you might encounter when you use the tenant web service functionality in Data Exchange Framework.

1.4.1. No details are generated in the tenant web service logs

If the tenant web service logs do not show details:

*   In the `<Tenant Server>/App_Data/config/sitecore/CoreServices/sc.Serilog.xml` file, set the `MinimumLevel` parameter to *Information*. For example:

```
<Settings>
  <Serilog>
    <Using>
      <FileSinkAssembly>Serilog.Sinks.File</FileSinkAssembly>
      <RollingFileSinkAssembly>Serilog.Sinks.RollingFile</RollingFileSinkAssembly>
    </Using>
    <MinimumLevel>
      <Default>Information</Default>
    </MinimumLevel>
    <WriteTo>
      <FileSink>
        <Name>RollingFile</Name>
        <Args>
          <pathFormat>App_Data\\Logs\\DEF-WEB-log-${MachineName}-${InstanceName}-{Date}.txt</pathFormat>
          <retainedFileCountLimit>7</retainedFileCountLimit>
          <buffered>False</buffered>
        </Args>
      </FileSink>
    </WriteTo>
    <Properties>
      <Application>Data Exchange Framework Web</Application>
```

```
        </Properties>
    </Serilog>
</Settings>
```

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