

[OData SPO]SharePoint Online List with OData Connector

Last updated by | Jackie Huang | Jan 4, 2022 at 12:24 AM PST

Symptoms

Customer want to use Odata connector to extract SharePoint Online List, but the authentication is failed no matter which authentication to use

Resolution

Public doc is available:

<https://docs.microsoft.com/en-us/azure/data-factory/connector-sharepoint-online-list> 

SharePoint online only supports Oauth authentication, but Oauth with user's personnel credential is not support in ADF v2 today, following the steps below to address this issue:

Workaround 1: [\[OData\] How to connect to SharePoint List Using OData Connector](#)

With this workaround sometimes customer complain they are not able to create self-signed cert or they are not able to find the tenant admin to grant permission for them.

Then go to:

Workaround 2:

1. Register SharePoint Application and Grant permission

1. Register AAD Application (with user's personnel account)

1. Open azure portal aad app registration page:

https://portal.azure.com/#blade/Microsoft_AAD_IAM/ActiveDirectoryMenuBlade/RegisteredApps 

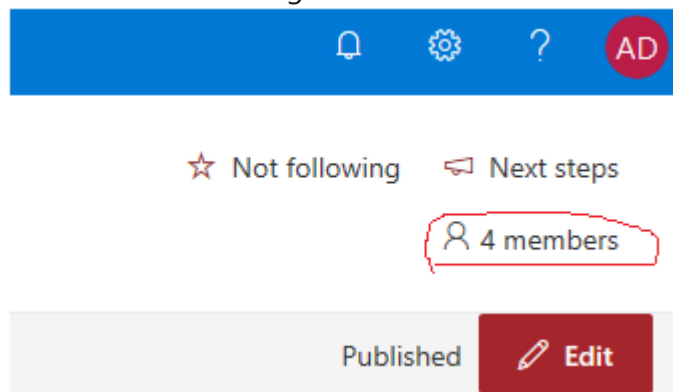
2. New registration, enter your app name

3. Go to "Certificates & secrets", create new client secret, you can set the expire to 1Y/2Y/Never

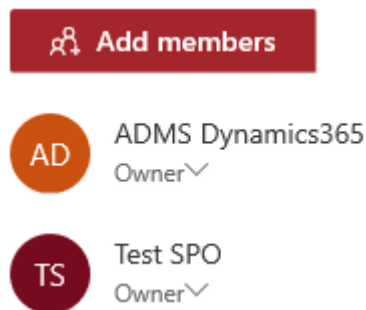
2. Grant sharepoint site permission to your registered App (**need site owner permission**)

1. How to find the site owner

- Go to site home page(eg. <https://admsdynamics.sharepoint.com/sites/site2>), and click the "X members" in the right corner



2. Check who is the owner



- Open sharepoint site link: [https://\[Tenant-Name\].sharepoint.com/sites/\[Site-Name\]/_layouts/15/appinv.aspx](https://[Tenant-Name].sharepoint.com/sites/[Site-Name]/_layouts/15/appinv.aspx) (replace tenant/site name)

- Search the AppId you just registered in Step 1a and fill the empty fields and click **"Create"**
App Domain: localhost.com

Redirect URL: <https://www.localhost.com> 

Permission Request XML:

```
<AppPermissionRequests AllowAppOnlyPolicy="true">
  <AppPermissionRequest Scope="http://sharepoint/content/sitecollection/web" Right="Read"/>
</AppPermissionRequests>
```

App Id:

Title:

App Domain:

Example: "www.contoso.com"

Redirect URL:

Example: "https://www.contoso.com/default.aspx"


Permission Request XML:

```
<AppPermissionRequests
AllowAppOnlyPolicy="true">
  <AppPermissionRequest
Scope="http://sharepoint/content/sitecollection/we
b" Right="Read"/>
</AppPermissionRequests>
```

4. Click **"Trust It"** for this app

2. Create ADF Pipeline

1. Create Web Activity to get the access token

- URL: [https://accounts.accesscontrol.windows.net/\[Tenant-ID\]/tokens/OAuth/2](https://accounts.accesscontrol.windows.net/[Tenant-ID]/tokens/OAuth/2) 
- Method: POST
- Headers:
 - Content-Type: application/x-www-form-urlencoded
 - Body: grant_type=client_credentials&client_id=[Client-ID]@[Tenant-ID]&client_secret=[Client-Secret]&resource=00000003-0000-0ff1-ce00-000000000000/[Tenant-

Name].sharepoint.com@[Tenant-ID]

General **Settings** **User properties**

URL *

Method *

Headers * + New 🗑 Delete

NAME	VALUE
Content-Type	application/x-www-form-urlencoded

Body

Datasets + New 🗑

+ Add dataset reference

2. Create Odata Linked Service

1. Create new Dataset, select "OData" as data store type
2. In the Connection tab, create a new linked service
3. Check the "Specify dynamic contents in JSON format" and manually input the json content

```
{
  "name": "odata",
  "type": "Microsoft.DataFactory/factories/linkedservices",
  "properties": {
    "type": "OData",
    "annotations": [],
    "parameters": {
      "accessToken": {
        "type": "String"
      }
    },
    "typeProperties": {
      "url": "https://[Tenant-Name].sharepoint.com/sites/[Site-Name]/_vti_bin/listdata.svc/",
      "authenticationType": "Anonymous",
      "additionalHeaders": {
        "Authorization": "Bearer @{linkedService().accessToken}"
      }
    }
  }
}
```

3. In the dataset tab

- add a new parameter **"accessToken"**

General

Connection

Parameters

+ New

|

Delete

<input type="checkbox"/>	NAME	TYPE	DEFAULT VALUE
	accessToken	String	Value

- assign the parameter value to linked service parameter

General

Connection

Parameters

Linked service *

admsdynamics_odata

Test connection

Open

+ New

Linked service properties

NAME	VALUE
accessToken	@dataset().accessToken

Path

LargeList

Preview data

- Edit and set the Path to the list name you want to extract

4. Assign the web activity output value to dataset parameter

General

Source

Sink

Mapping

Settings

User properties

Source dataset *

SPOListDemo

Open

+ New

Preview data

Dataset properties

NAME	VALUE	TYPE
accessToken	@activity('GetAccessToken').output.access_token	string

Use query

Table

Query

Detail

How good have you found this content?

