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STEP BY STEP GUIDE FOR GENERATING SPO APPID AND SECRET

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ABSTRACT

This document helps how to create an App with App Id and Secret from a SPO site collection and assigned App with a specific permission. The end users can use App Id and Secret to access SharePoint resources based on the permission scopes programmatically.

KEYWORDS

App authentication is the validation of an external app for SharePoint's identity and the authorization of both the app and an associated user when the app requests access to a secured SharePoint resource. App authentication occurs when an external component of a SharePoint Store app or an App Catalog app, such as a web server that is located on the intranet or the Internet, attempts to access a secured SharePoint resource. For example, an app for SharePoint that includes a component that runs in Microsoft Azure is an external app. App authentication enables a new set of functionalities and scenarios that can be achieved by allowing apps to include data from SharePoint resources in the results that the app processes and displays for users.

1. INTRODUCTION

To authorize the access, SharePoint Server relies on the set of app permissions, which was specified in the app manifest file when it was installed, and the permissions that are associated with the user on whose behalf the app is acting.

Note that app authentication in SharePoint Server is separate from user authentication and is not used as a sign-in authentication protocol by SharePoint users. App authentication uses the Open Authorization (OAuth) 2.0 protocol and does not add to the set of user authentication or sign-on protocols, such as WS-Federation.

2. CREATE AN APP

SPO allows developers to create an App with an App Id and Secret which can be used to access SPO. The following steps showed how to create an App.

1. Login your site collection and type https:// [site collection url /layouts/15/AppRegNew.aspx. for example, https://contoso.sharepoint.com/sites/Dev1/_layouts/15/AppRegNew.aspx. Fill out the following information.

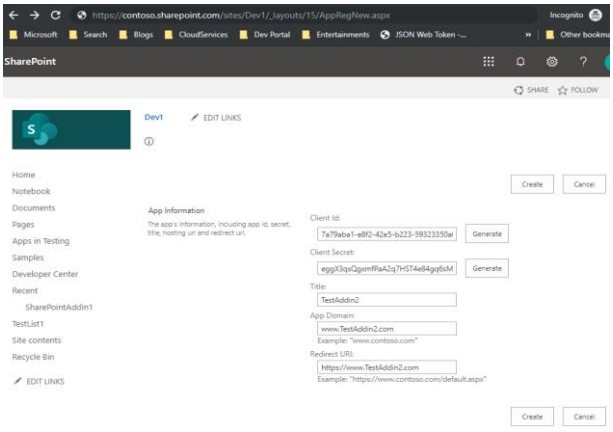

Figure 1- INFORMATION

2. Click “Generate” button at “Client Id” to generate a client id.

3. Click “Generate” button at “Client Secret” to generate a client secret.

4. Fill “Title”. For example, “TestAddin2”.

5. Fill “App Domain”. It doesn’t have to be a real domain. For example, www.testaddin2.com. But don’t use [your tenant]. sharepoint.com which will cause an error.

6. Fill “Redirect URI”. It doesn’t have to be a real domain. For example, https://www.testaddin2.com. But don’t use https:// [your tenant]. sharepoint.com which will cause an error.

7. Click “Create”. The SPO will generate an App for you.

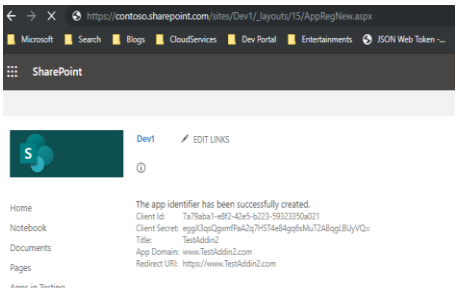

Figure 2- Compatibility

3. UPDATE ON APP PERMISSIONS

After you created an App, you can access AppInv.aspx page to search the app which you created. You can update an app’s permission on this page.

Access to https://[site collection url]/_layouts/15/AppInv.aspx to list the created App. For example: https://contoso.sharepoint.com/sites/Dev1/_layouts/15/AppInv.aspx.

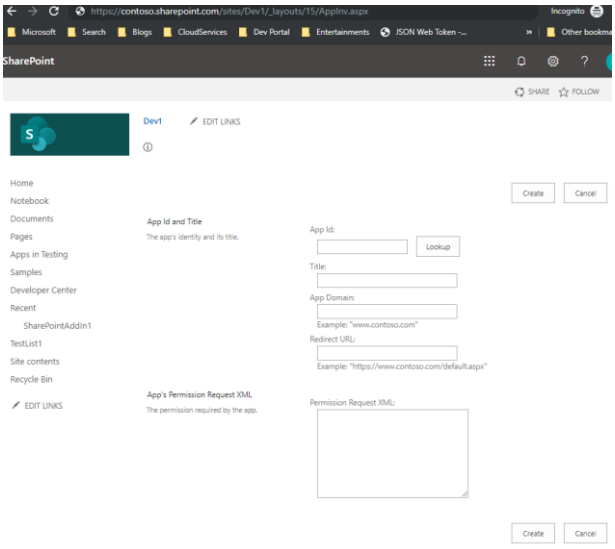

Figure 3- APPID AND SECRET

Fill out the “App Id” with a client id which you generated App Id and click “Lookup” button to find out the App which you just created it.

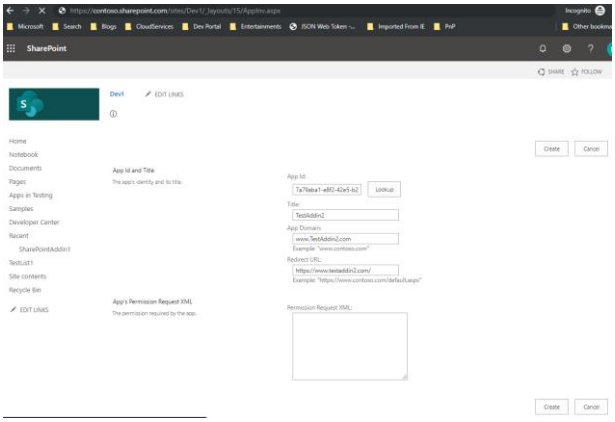

Figure 4 - APPID AND SECRET POPULATED

Once your app was retrieved, make sure the title is same as the one you created at previous steps. If you don’t see your app, make sure the App Id is correct.
Fill out the permission xml string to “Permission Request XML” textbox. For detail XML syntax, please reference to Permission in Appendix.

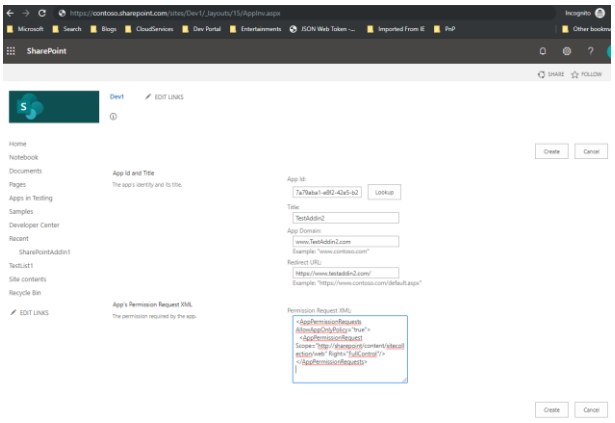

Figure 5 - APPID AND SECRET DEPLOY

Click “Create” button to update the permission for this app.

The SPO will redirect you to trust confirmation page. Please make sure the application’s permission is the same as what you requested in permission XML.

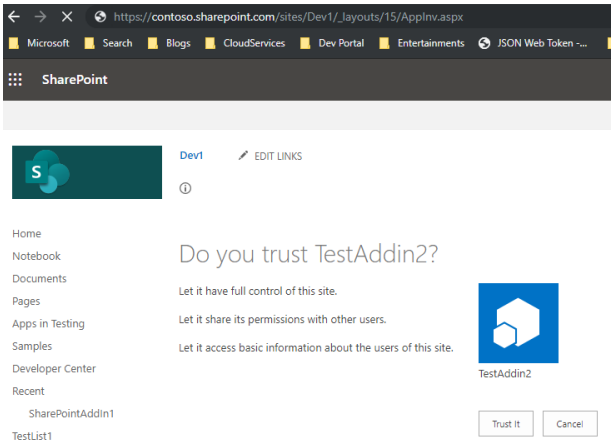

Figure 6 - APPID AND SECRET PERMISSIONS

Once you confirm the permission is correct, click “Trust It” button. The SPO will redirect you back to “Site Setting” page which means your App is created.

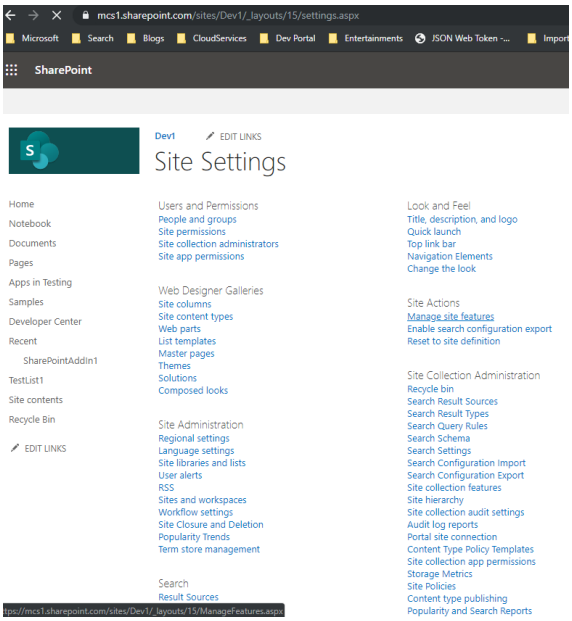

Figure 7 - SITE PERMISSIONS

4. VIEW CREATE APPS

After you created and updated your App, you can visit AppPrincipals.aspx page to see all apps which you created.

Access tohttps://[site collection URL]/_layouts/15/AppPrincipals.aspx to view all created applications. For example, https://contoso.sharepoint.com/sites/Dev1/_layouts/15/AppPrincipals.aspx

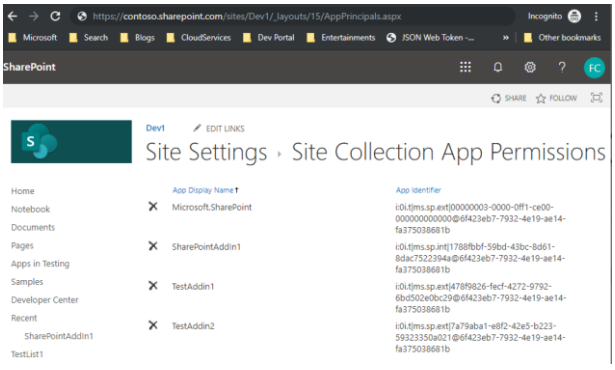

Figure 8 - SITE SETTINGS

5. TEST APPID AND SECRET TO ACCESS SPO RESOURCES

You can use various ways to access SPO once you have App Id and Secure created. The following examples demonstrated how to access SPO using Postman and a .Net Console application. The Postman approach can be

referenced as a general access flow for other languages, such as Java, PHP, and Python.
foundation. The data modeling in the data foundation can then be shared by multiple universes.

6. USE POSTMAN TO TEST SPO

The Postman is a well-known tool to help developers to test REST API. It also supports various authentication methods and verbs. For a typical SPO resource access, the access flow requires the following steps:

1. Use App Id and Secret to retrieve an Access Token

2. Use an Access Token as a Bearer token to access SPO resources.

To make the Postman generic to access different SPO sites, we leveraged the Collection at Postman. It allows us to group and manage REST APIs and variables.

CREATE DOTNET APPLICATION TO ACCESS IPO

Like what Postman can do, you can create a .Net application to access the SPO resources by leveraging Office PnP library. The Office PnP Library simplify the token process and can help you focus on the business process. The following steps mentioned the details. NOTE: the below steps are using Visual Studio 2019. The screenshot might be different compared to other Visual Studio versions. Such as Visual Studio 2017 or Visual Studio 2015.

1. Create a new project using the following parameters.

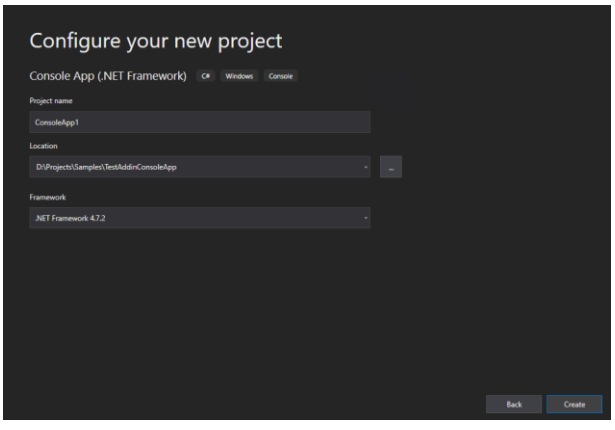

Figure 9 – NEW PROJECT

Project Template: “Console App (.NET Framekwork)”.
Framework: .Net Framework 4.5 above.
Project Name: your project name. For example, “TestAddinConsoleApp”.
Location: your project location.

7. CONCLUSION

This document mentioned how to create an App with App Id and Secret from a SPO site collection and assigned App with a specific permission. The end users can use App Id and Secret to access SharePoint resources based on the permission scopes programmatically.

8. APPENDIX

Site Collection Full Control permission:

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

Site Collection Read permission:

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

Site Collection Web Full Control permission:

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

Site Collection Web Read permission:

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

Site Collection lists Full Control:

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

Site Collection lists Read:

```
<AppPermissionRequests
AllowAppOnlyPolicy="true">
```

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

9. REFERENCES

[1] https://www.process.st/how-to/get-client-id-and-client-secret-in-sharepoint-online/

[2] https://learn.microsoft.com/en-us/sharepoint/dev/solution-guidance/security-apponly-azureacshttps://dwbicastle.com/2016/09/16/how-to-create-sap-bo-universe-unx-using-information-design-tool-idt/

[3] https://answers.microsoft.com/en-us/msoffice/forum/all/need-share-point-client-id-and-client-secret/417e8301-9822-4a49-95e9-4229eca5d7cf