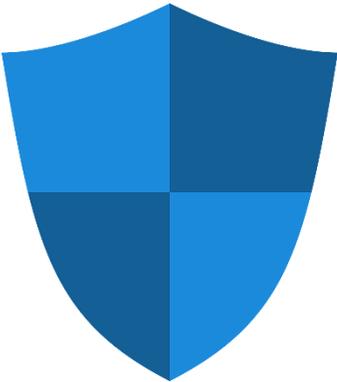


Functional Tips for Print Envoy



This month's tip for getting more from your Print Envoy implementation!

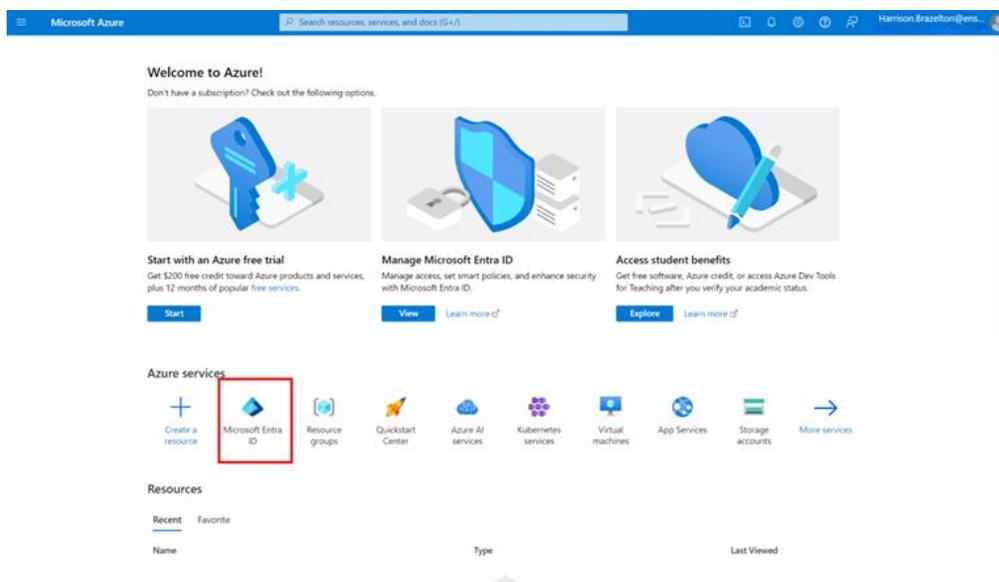
Print Envoy: Service Connection Best Practice

-By Harrison Brazelton harrison.brazelton@cloudinventory.com

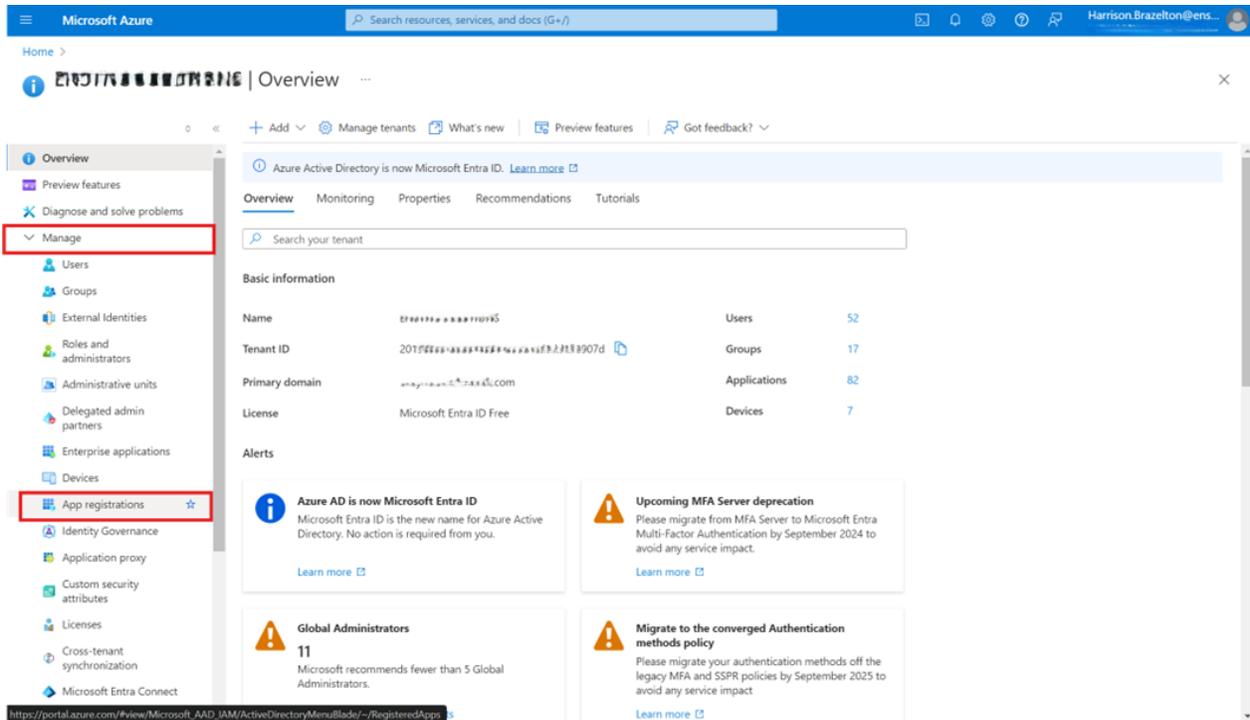
This month we will go over the creation and implementation of an application 'Client Id' and 'Secret' value used for authentication between Print Courier and D365. If you are currently using this method of authentication, you are using our recommended authentication setup and should not have to follow any of these steps. This authentication method is superior to using a 'Username' and 'Password' value to connect to D365, this is because accounts are created and inherently meant to be operated by a human. This can complicate matters when you need to reset passwords or adjust permissions and roles of users, potentially disrupting the service account from being able to connect properly and resulting in unexpected down-time and troubleshooting. There is also the security risk of using a user account, if the account information were to somehow be leaked or get into the wrong hands, the amount of areas that can be affected by a user account with advanced permissions or even strictly set permissions is likely to present a worse problem as opposed to having a 'Client Id' and 'Secret' linked to the service or automated task you associate it with. This 1:1 relation between the secret and the service ensures that you have an isolated method of connection that will not be interrupted and does not share the same limitations / security risks that a user account has.

Azure Setup & Information Gathering

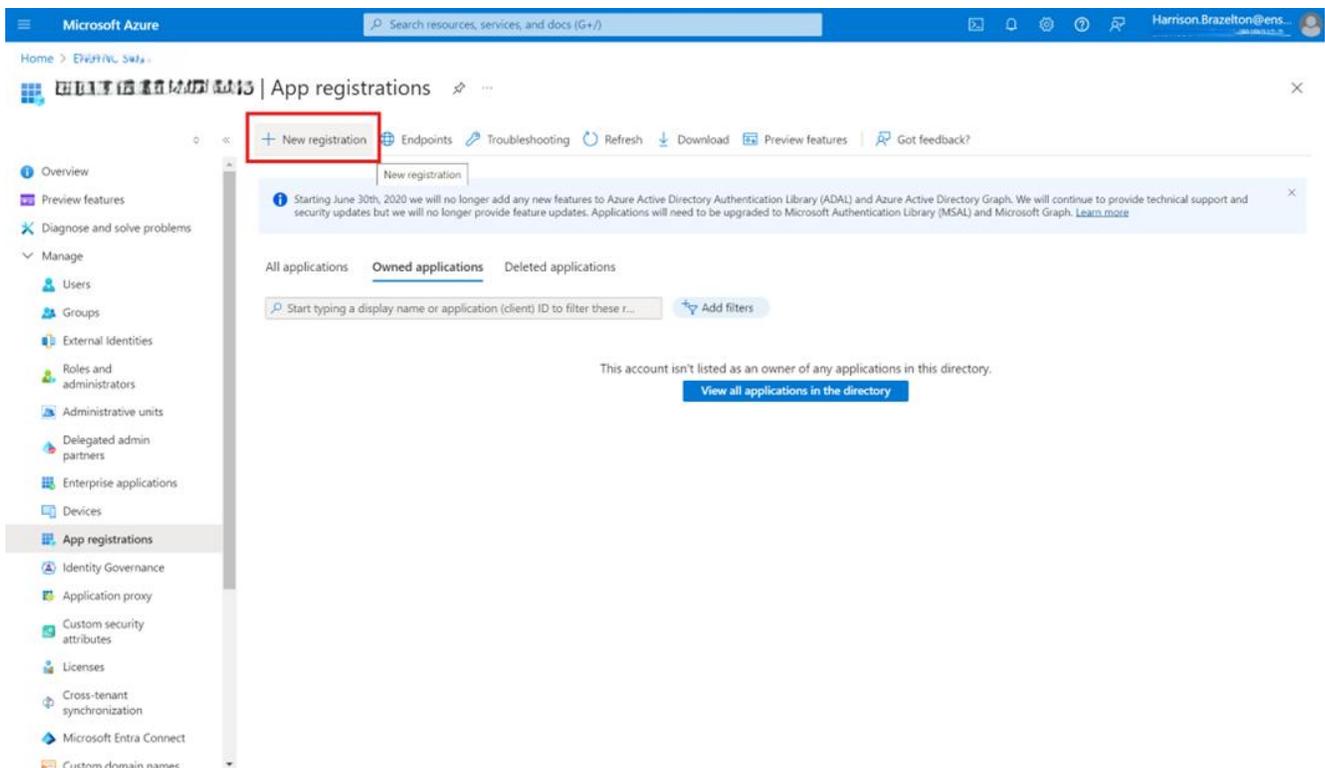
Navigate to the following url: <https://portal.azure.com/#home>



Once you have logged in, click on the 'Microsoft Entra ID' icon highlighted above.



You will then need to expand the 'Manage' tab on the lefthand side of the screen and click 'App registrations'.



Click 'New registration'.

Home > [Microsoft Entra ID | App registrations](#) >

Register an application ...

×

* Name

The user-facing display name for this application (this can be changed later).

Harrison Test App

Supported account types

Who can use this application or access this API?

- Accounts in this organizational directory only (B2B and B2C only - Single tenant)
- Accounts in any organizational directory (Any Microsoft Entra ID tenant - Multitenant)
- Accounts in any organizational directory (Any Microsoft Entra ID tenant - Multitenant) and personal Microsoft accounts (e.g. Skype, Xbox)
- Personal Microsoft accounts only

[Help me choose...](#)

Redirect URI (optional)

We'll return the authentication response to this URI after successfully authenticating the user. Providing this now is optional and it can be changed later, but a value is required for most authentication scenarios.

Select a platform

Register an app you're working on here. Integrate gallery apps and other apps from outside your organization by adding from [Enterprise applications](#).

By proceeding, you agree to the [Microsoft Platform Policies](#)

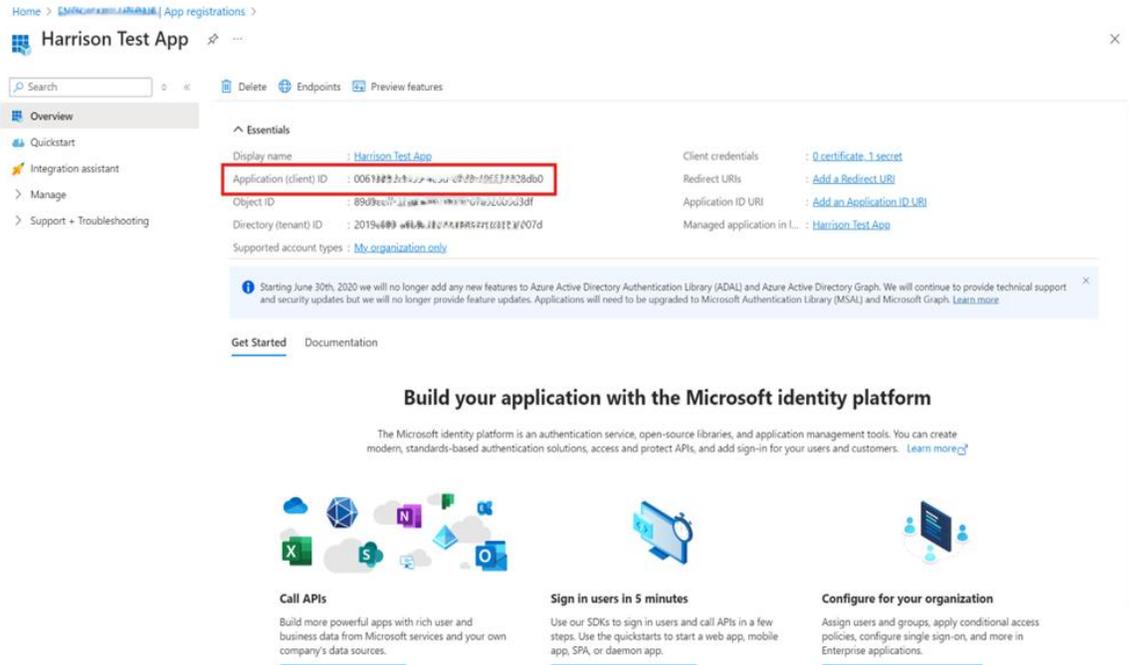
1. Enter a name for the application. We suggest using the name “Print Envoy”.
2. Under ‘Supported account types’, select based on the needs and requirements of your company. In most cases the default value of ‘Single tenant’ is used, but if you would like to provide access to users across your Microsoft Entra ID tenant, select one of the two multitenant options.
3. ‘Redirect URI’ is completely optional and can be changed later, for now do not worry about this.
4. Click ‘Register’ at the bottom of the form.

Obtaining Application ID & Secret Value

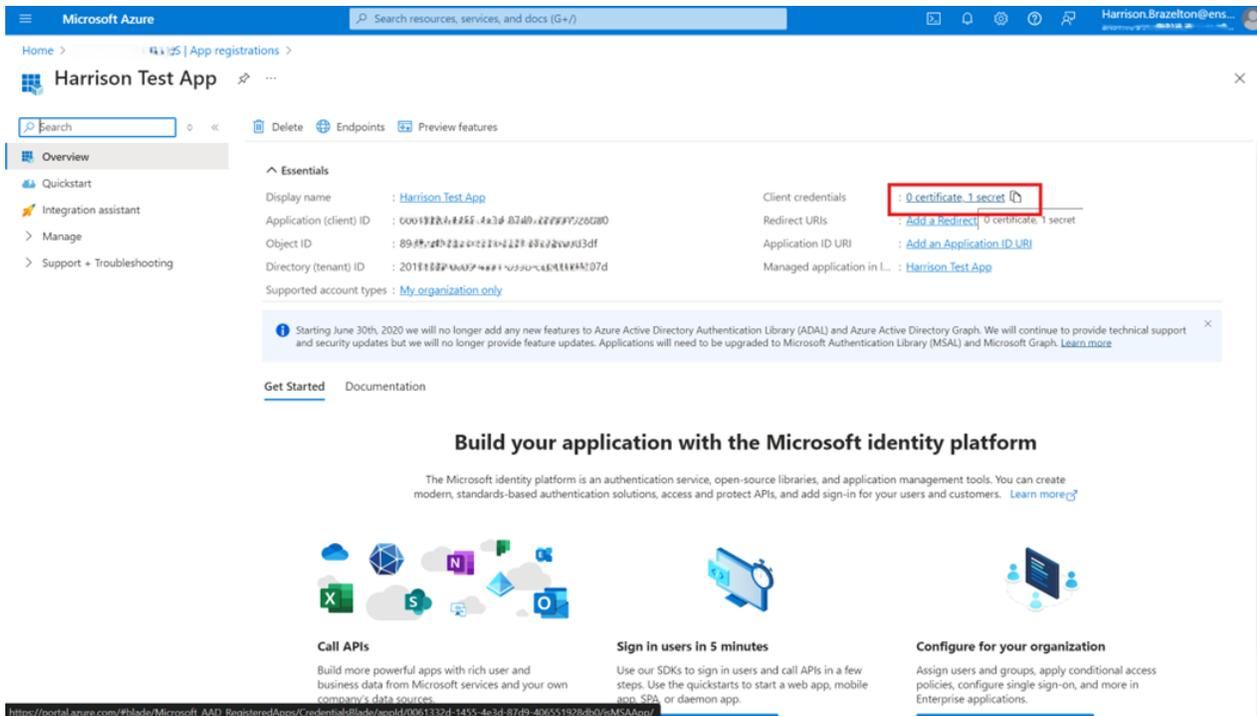
The screenshot shows the Microsoft Azure portal interface. The left-hand navigation pane has 'App registrations' highlighted with a red box. The main content area shows the 'App registrations' page with the 'All applications' tab selected. A search bar contains the text 'Harrison'. Below the search bar, a table lists one application found:

Display name	Application (client) ID	Created on	Certificates & secrets
Harrison_Test.App	0066b581-1d48-4b3c-8b3b-1b0	6/13/2024	Current

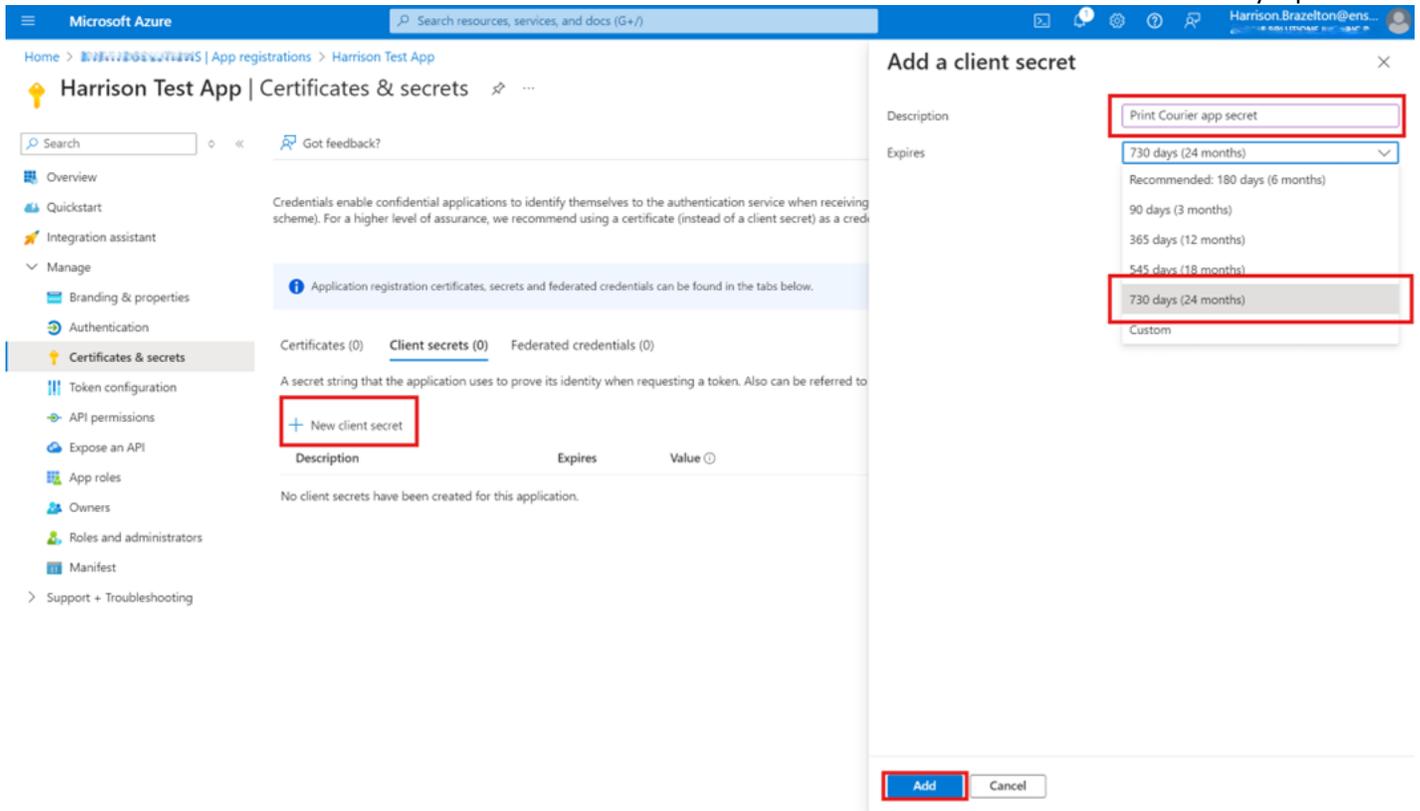
1. Navigate to 'App registrations'.
2. Select 'All applications'.
3. Search or select the relevant application.
4. Click your application.



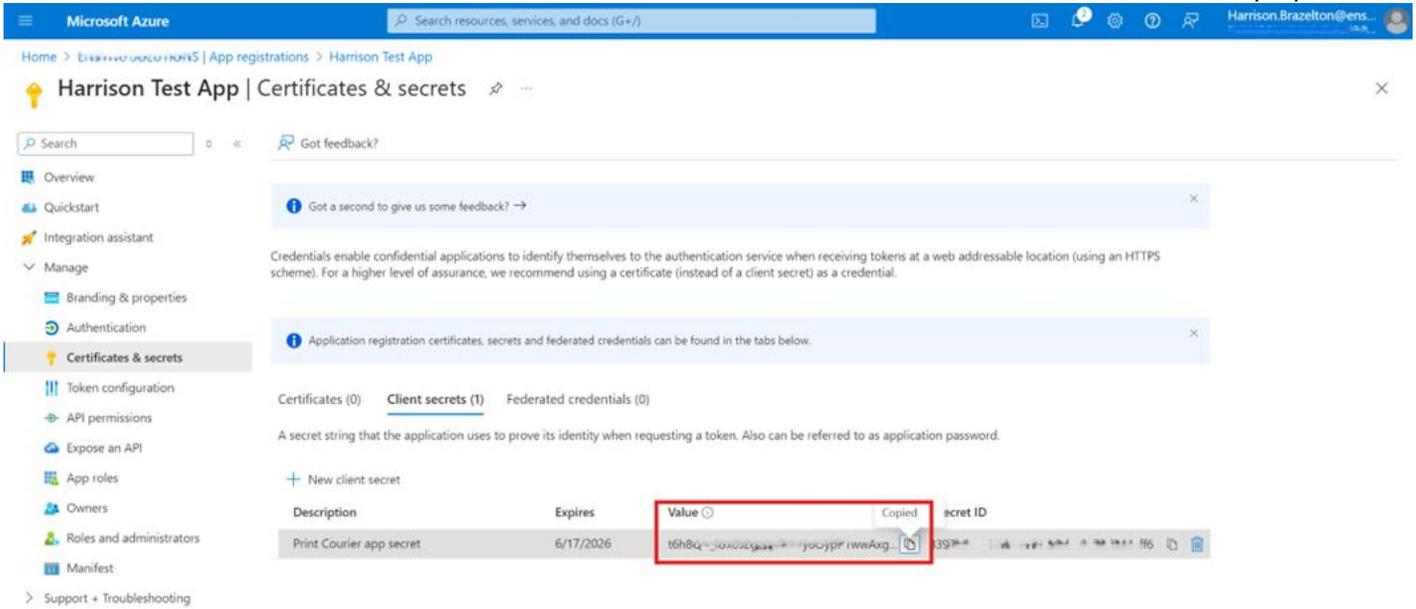
Once you have registered the application you will immediately be able to see the application (client) ID. You will need to write this value down exactly or remember where to find it, as it will need to be copied into your configuration file for Print Courier.



Click the highlighted link next to 'Client credentials'.



1. Click 'New client secret'.
2. Give your application secret a description.
3. For the 'Expires' value, it is recommended to select the highest value shown here which is 24 months, but any value listed here is fine to select. Keep in mind that when this time runs out a new secret will have to be generated for Print Courier to run properly.
4. Click 'Add'.

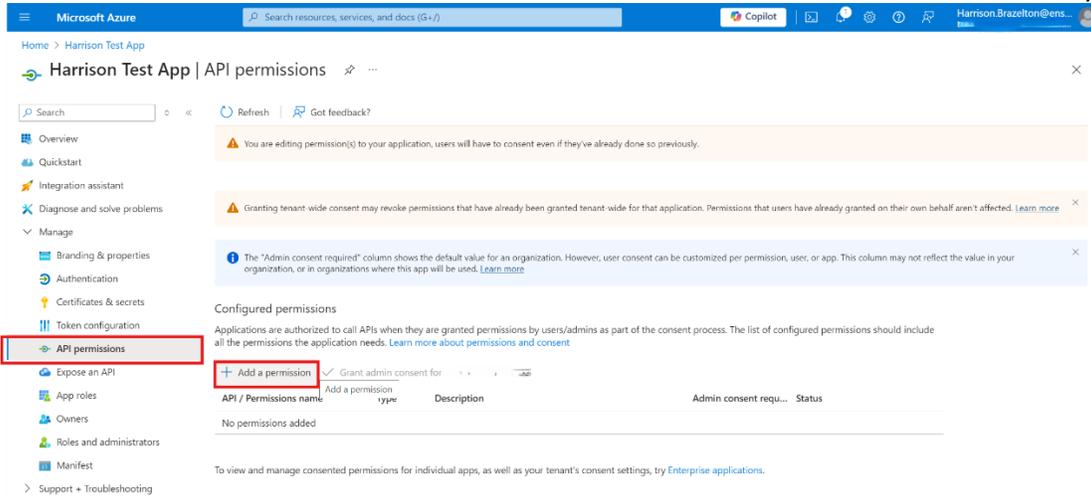


IMPORTANT

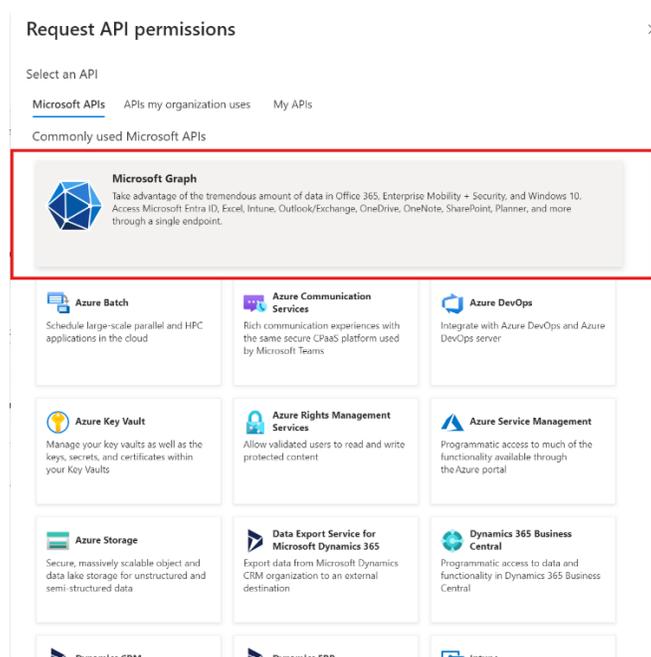
Once you have generated your new secret, you will need to copy and save the value (**NOT** the secret ID) and keep it somewhere you will be able to find it as you will need to reference it later. This must be done now as this value will disappear forever once you navigate off this screen and you will not be able to copy it again. This value is also used alongside the application ID to set up Print Courier.

Create Permissions

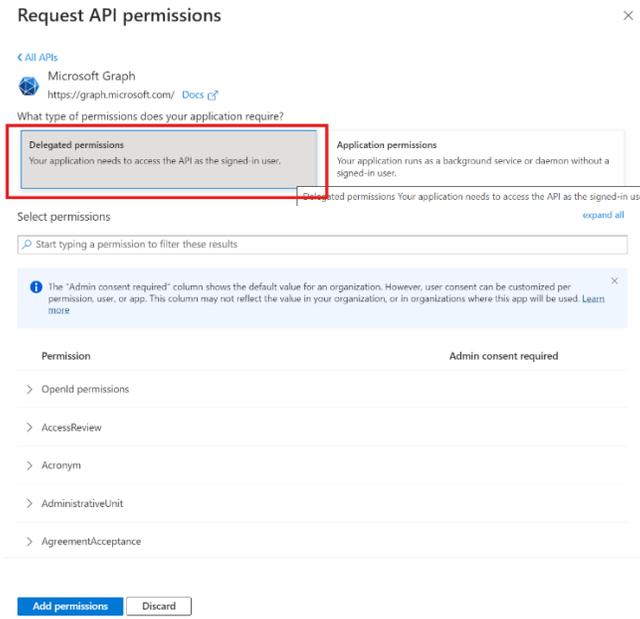
For Print Envoy to work correctly, permissions must be setup for the registered application in Azure. Follow the instructions provided below to make sure that the required permissions are set up correctly and active.



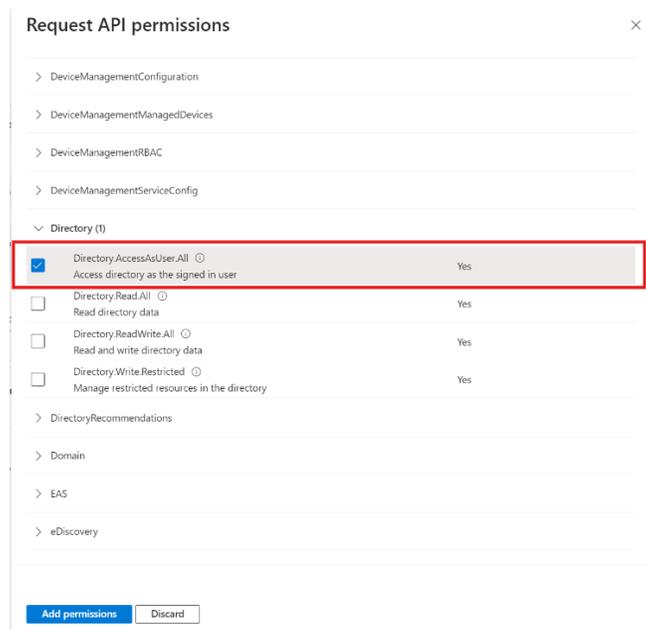
Once you have registered your application and created the secret value, you will need to set up permissions. On the left-hand side, select the drop-down list 'Manage', and then click 'API permissions' as highlighted above. Then you will see the 'Add a permission' button, click this to continue.



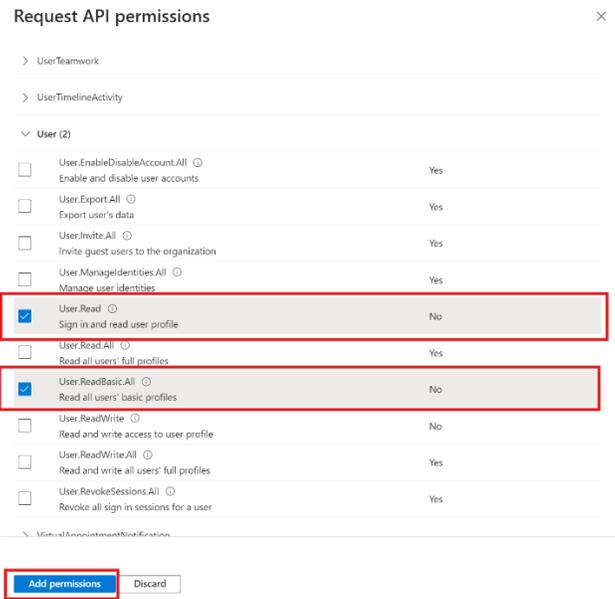
Select 'Microsoft Graph' under the 'Microsoft APIs' tab.



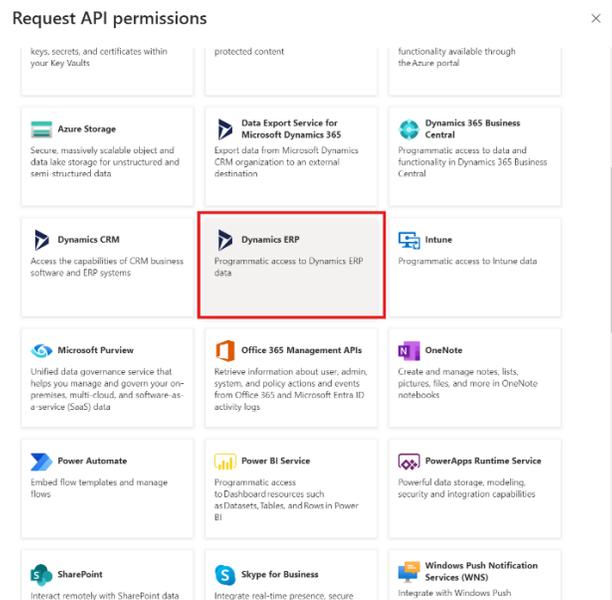
Click 'Delegated permissions'.



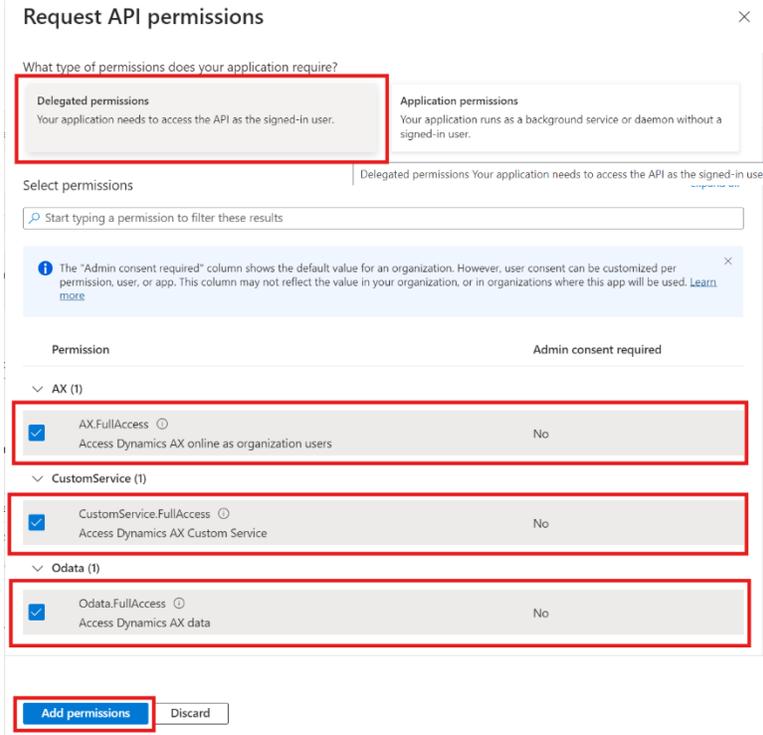
Scroll down to the 'Directory' list, expand it and make sure the 'Directory.AccessAsUser.All' is enabled.



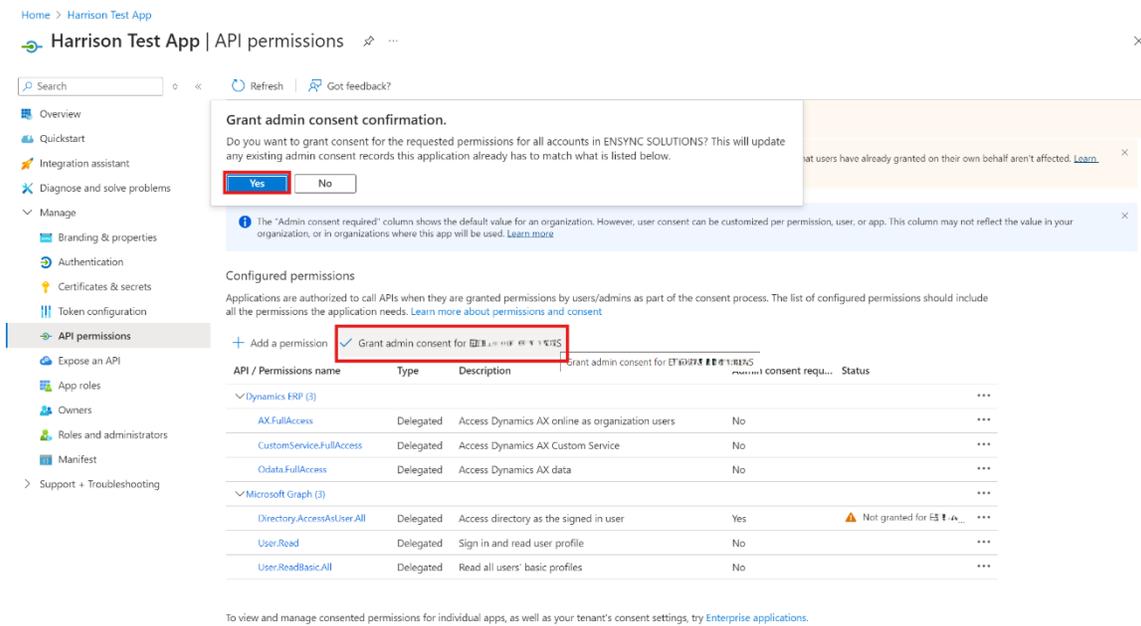
Scroll down to the 'User' list, expand it and make sure 'User.Read' and 'User.ReadBasic.All' are both enabled. Once confirmed, click 'Add permissions' at the bottom.



Follow the same process as last time on the 'API permissions' screen and click 'Add a permission', this time we want to scroll down and find the 'Dynamics ERP' API and click into it.



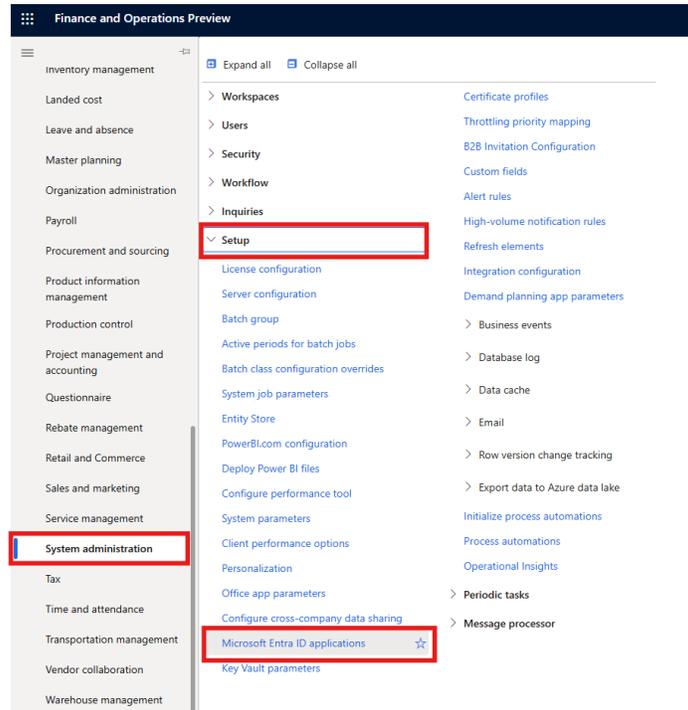
Select 'Delegated permissions', then make sure the following permissions are enabled before finally clicking 'Add permissions'.



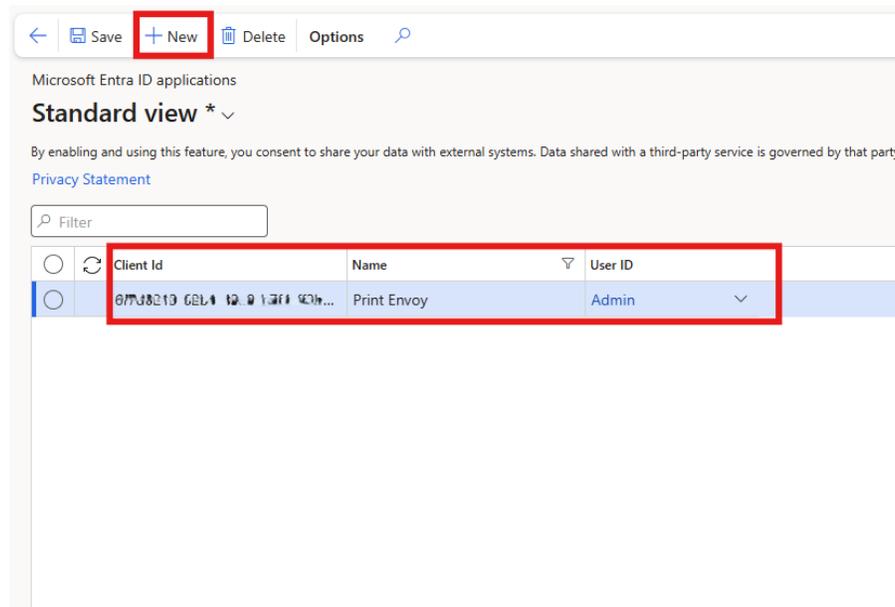
You should be redirected back to the 'API permissions' screen in Azure, if not please navigate to this location now. You will then need to click the 'Grant admin consent for <YourTenantName>' button and click the 'yes' on the confirmation pop-up. This is the last step required to enable permissions.

Update Configuration File & Entra ID Record

To finish the process, you will need to make a record in D365 that will allow the connection to be made, and you will also need to update your Print Courier configuration file. First, we will go over creating the necessary record in D365.



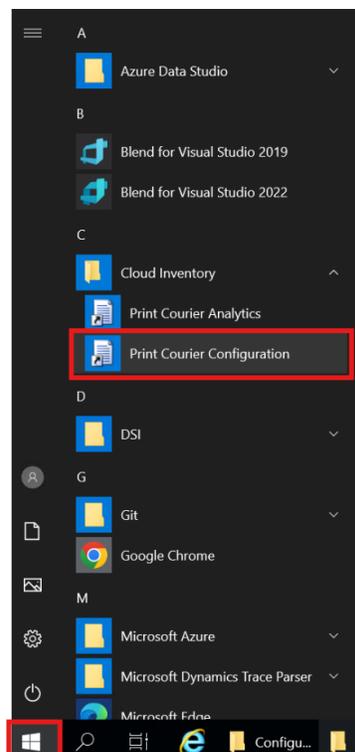
Log-on to the D365 environment and navigate to System Administration – Setup – Microsoft Entra ID applications.



Click 'New' to create a new record. Copy the 'Client Id' value over and name the record 'Print Envoy' or something that you will remember and relate to the registered application for Print Envoy. Assign a user to the record, this user will need to have administrator privileges in D365.

*** To complete the process and start utilizing your newly created 'Client ID' and 'Secret', first navigate and log-on to the server hosting Print Courier. You will want to stop the 'Print Courier' service while you perform these steps. ***

If you have an up-to-date version of Print Courier installed, you will want to follow the steps outlined below. If you are on an outdated version of Print Courier, I will attach further instructions below on how to edit the configuration file via Notepad instead of our configuration tool. You can reach out to me if you would like to take the new version, I will provide you with the MSI installer and instructions on the installation process. The new version comes with the configuration editor tool, as well as a built-in analytics webpage that displays useful information, see Print Envoy Newsletter issue 11 for more details.



Click the Windows icon in the bottom left-hand corner. Find the 'Cloud Inventory' folder underneath the 'C' category. Open the folder and run the 'Print Courier Configuration'. Optional path is as follows: C:/Program Files/DSI/Print Courier Service/Configuration/PrintCourierConfigurationForm.

Print Courier Configuration

Use this form to configure Print Courier's Server configuration.

If these values are unknown or you do not want to enter the values now, click 'Cancel' and this installation will complete. You can then run this configuration program from the Windows Start menu

Dynamics 365 Endpoint:

Active Directory Resource:

Active Directory Tenant:

Active Directory Client App ID:

Client App ID Secret: Show

Companies: Comma separated list of D365 companies

Maximum Polled Labels: 1 - 100 labels

Polling Delay Period: 5 - 120 seconds

For assistance call the Cloud Inventory Support Center at 816.416.7500

Once the form is open, copy the corresponding values into the 'Client App ID' and 'Secret' fields. Once you have made the changes, click 'Test Connection', this will ensure that the service can be started and connect properly. Once you have finished here, click 'Accept and Close'.

Editing Configuration File via Notepad



Once you are on the server, open the file explorer and navigate to C:/Program Files/DSI/Print Courier, and locate the 'PrintCourier.exe.config' file. You will want to open this in Notepad as an Administrator to complete the next step.

