

#CollabDaysBE

Calling APIs, Consuming Services and Exposing Data using Power Automate

Ahmad Najjar | @ahmadn82



CollabDays Belgium 2022 by BIWUG

Thanks to our sponsors!

Platinum



Gold



Silver



SharePint



Community



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About Me



@[ahmadn82](https://twitter.com/ahmadn82)



[linkedin.com/in/ahmadn82](https://www.linkedin.com/in/ahmadn82)

- Ahmad Najjar
- Oslo, Norway
- Power Platform Architect Lead
- Business Applications MVP
- Microsoft Certified Trainer (MCT)
- Independent Publisher Connector Project Coordinator & Publisher
- Architect at mind, developer at heart
- +15 years of experience in SharePoint
- +5 year of experience Power Platform
- +5 years of experience Logic Apps
- Events & Hackathons organizer



Microsoft Power Platform



Power BI

Business analytics



Power Apps

Application development



Power Automate

Process automation



Power Virtual Agents

Intelligent virtual agents



Power Pages

External facing websites



Power Fx



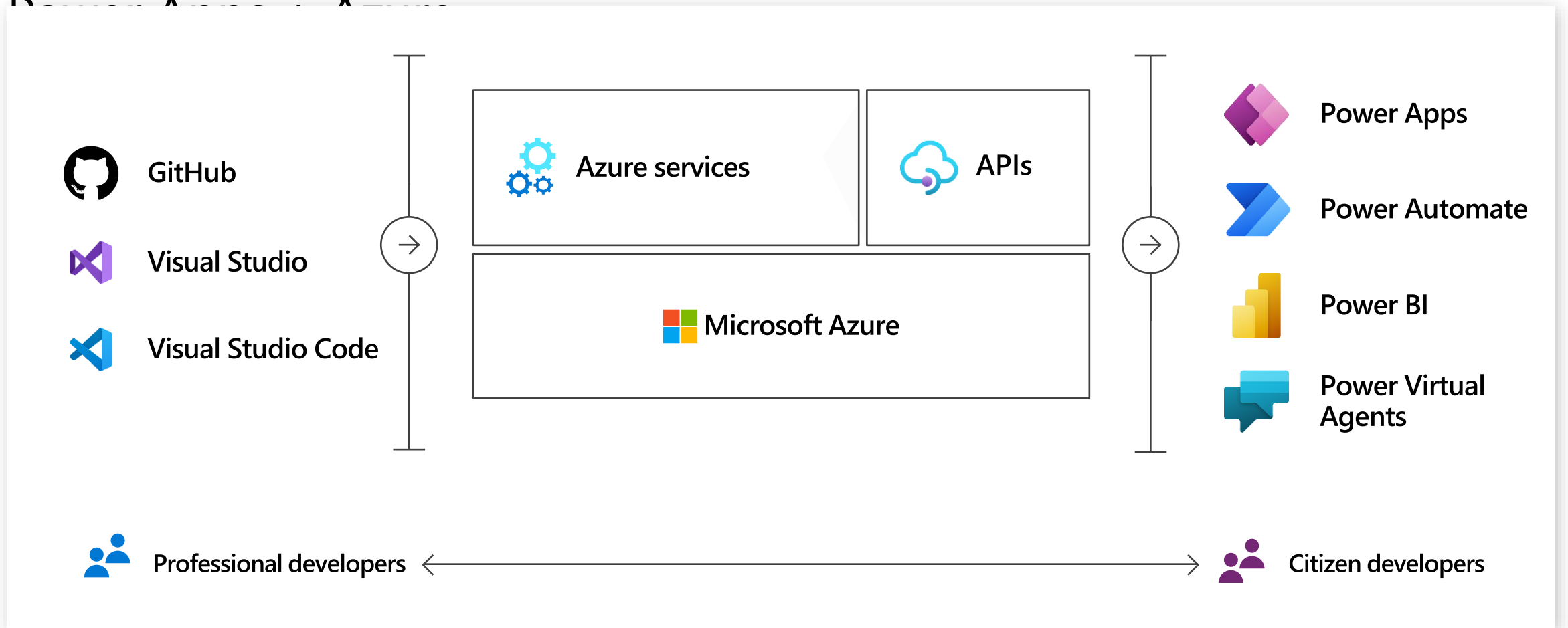
AI Builder



Dataverse

Empower everyone to be a developer

Low-code and pro-dev application development extensibility with



Empower everyone to be a developer

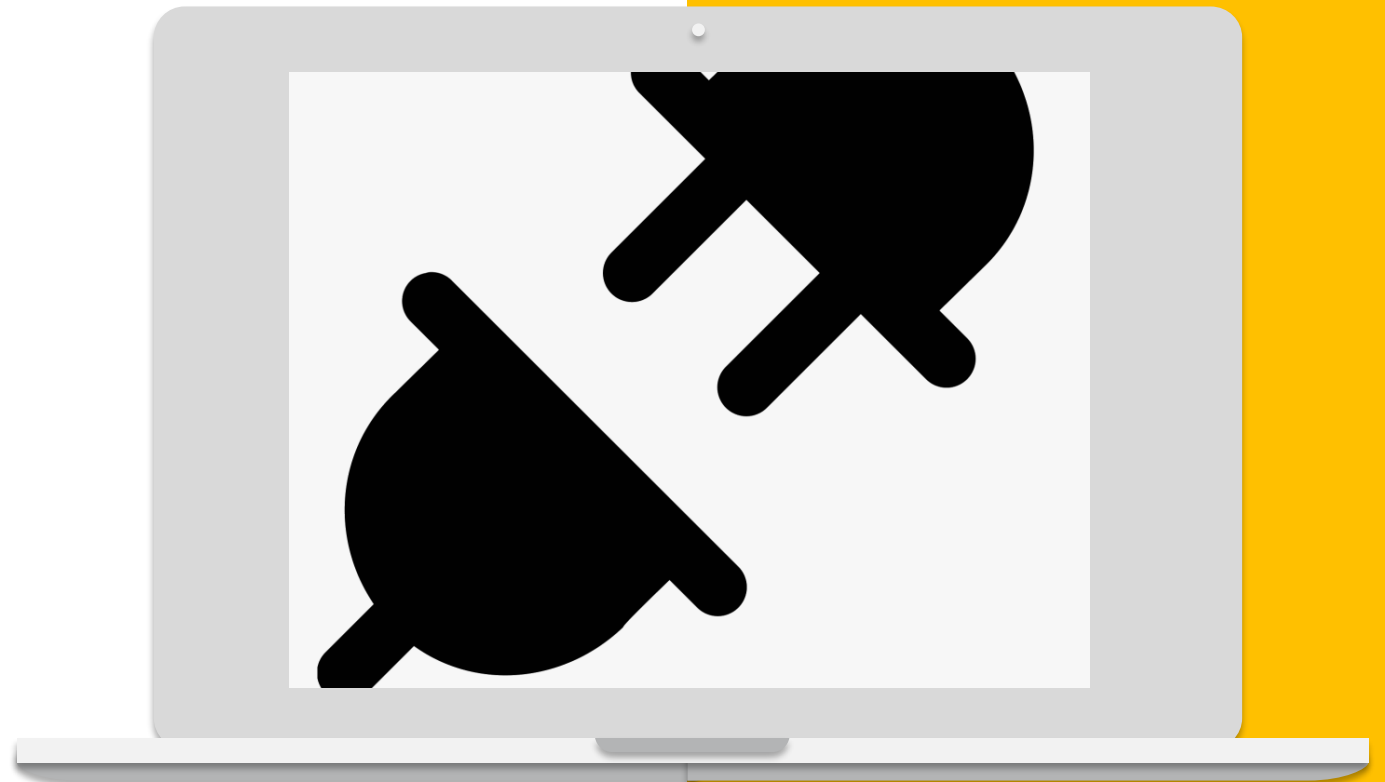


You said we wouldn't need
developers...



We said it was 'low-code',
not no-code...

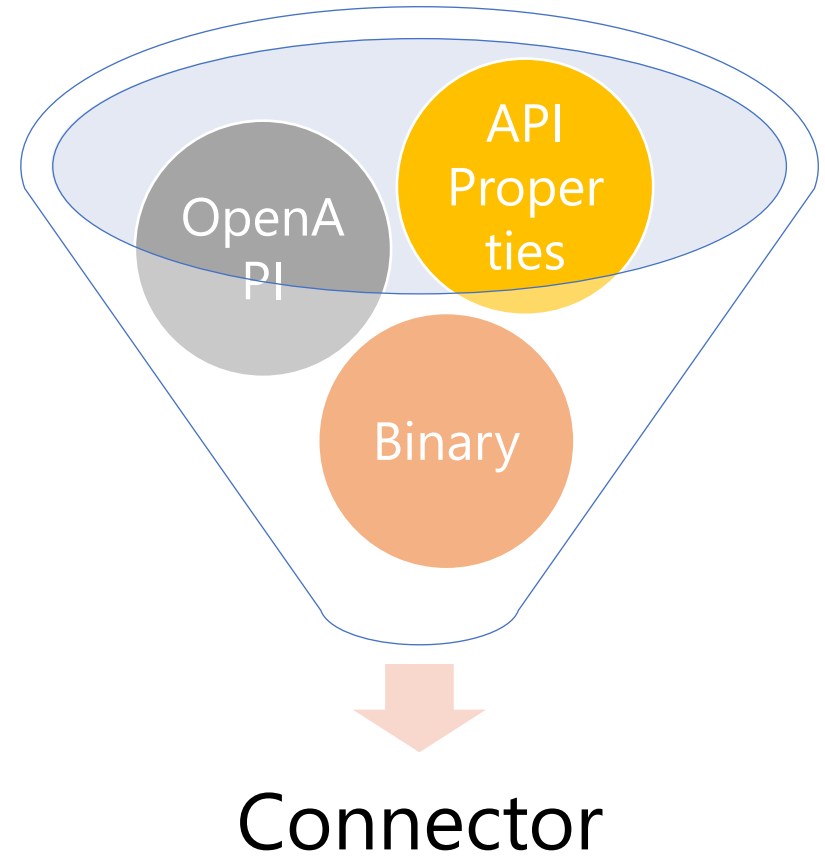
Connectors



What is a connector?

A formal
definition of a
REST API

Allows the REST
service to talk to
Power Automate
and Power Apps



Cloud and on-premises connectivity

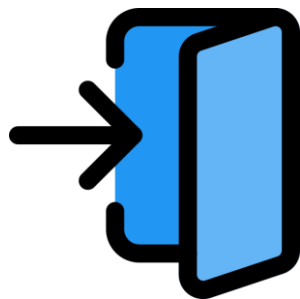
With public connectors built-in connectivity to over 700 cloud services, files, databases, web APIs, etc.

- Seamless hybrid connectivity to on-premises systems via the On-Premises Data Gateway
- Connect to the service with your own security credentials

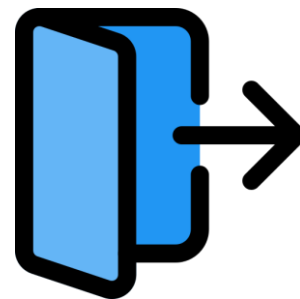


Calling APIs & services
using connectors





IN



OUT

- HTTP Request (Trigger)
 - HTTP Connector
 - Custom Connector
- HTTP Response
- HTTP Connector
- Custom Connectors

Connector Types

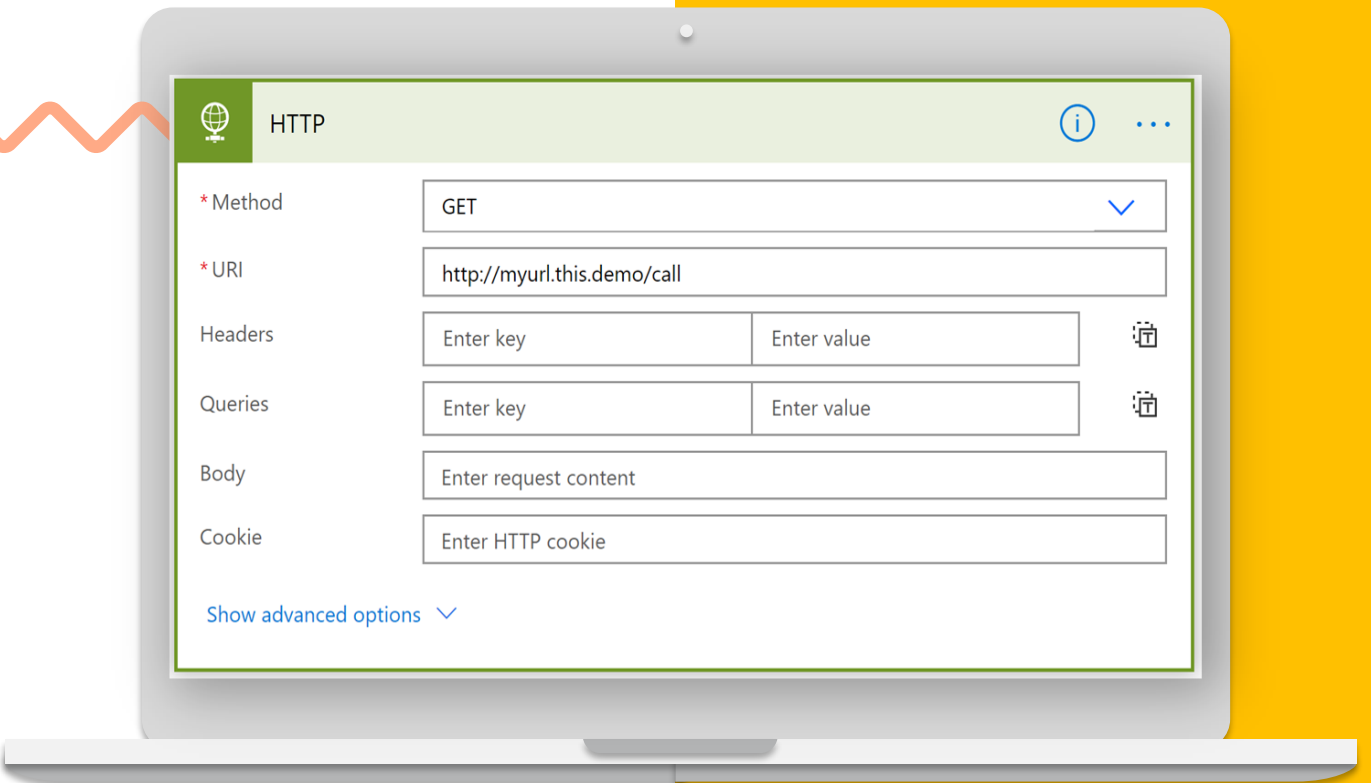
Connector Type	API Availability	Service Owner	Audience
Standard (Public)	Public	Microsoft *	Everyone
Custom	Public or Private	Connector developer or someone else	Internal consumption
Certified (3 rd Party)	Public	Connector developer	Everyone
Independent Publisher	Public	Someone else	Everyone

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Demo

HTTP Connector



The image shows a laptop screen displaying the configuration interface for an HTTP connector. The interface has a light green header bar with a globe icon, the text "HTTP", and an information icon. Below the header, there are several configuration fields:

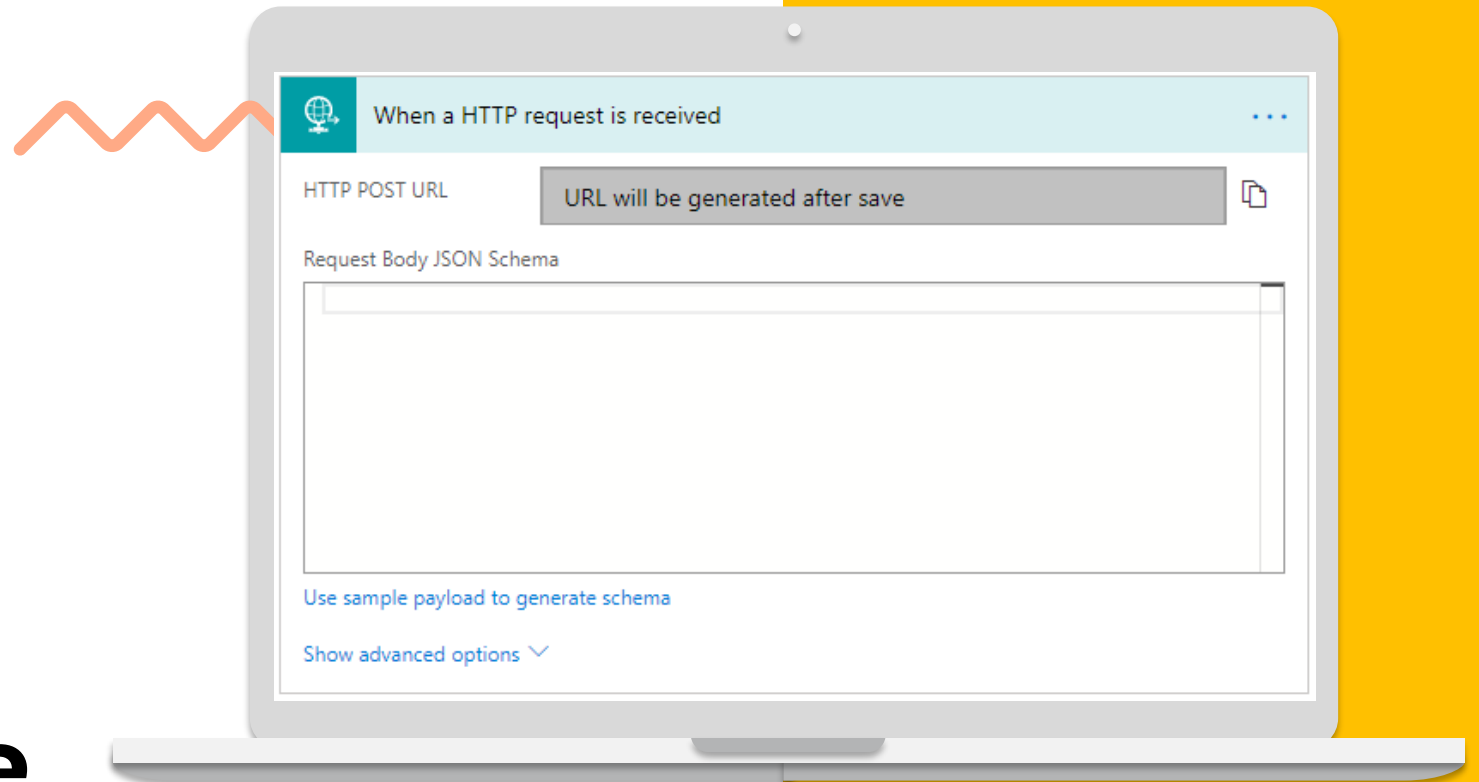
- * Method:** A dropdown menu showing "GET" with a blue checkmark icon.
- * URI:** A text input field containing "http://myurl.this.demo/call".
- Headers:** A table with two columns: "Enter key" and "Enter value". There is a trash icon to the right.
- Queries:** A table with two columns: "Enter key" and "Enter value". There is a trash icon to the right.
- Body:** A text input field containing "Enter request content".
- Cookie:** A text input field containing "Enter HTTP cookie".

At the bottom of the interface, there is a link "Show advanced options" with a blue downward arrow.

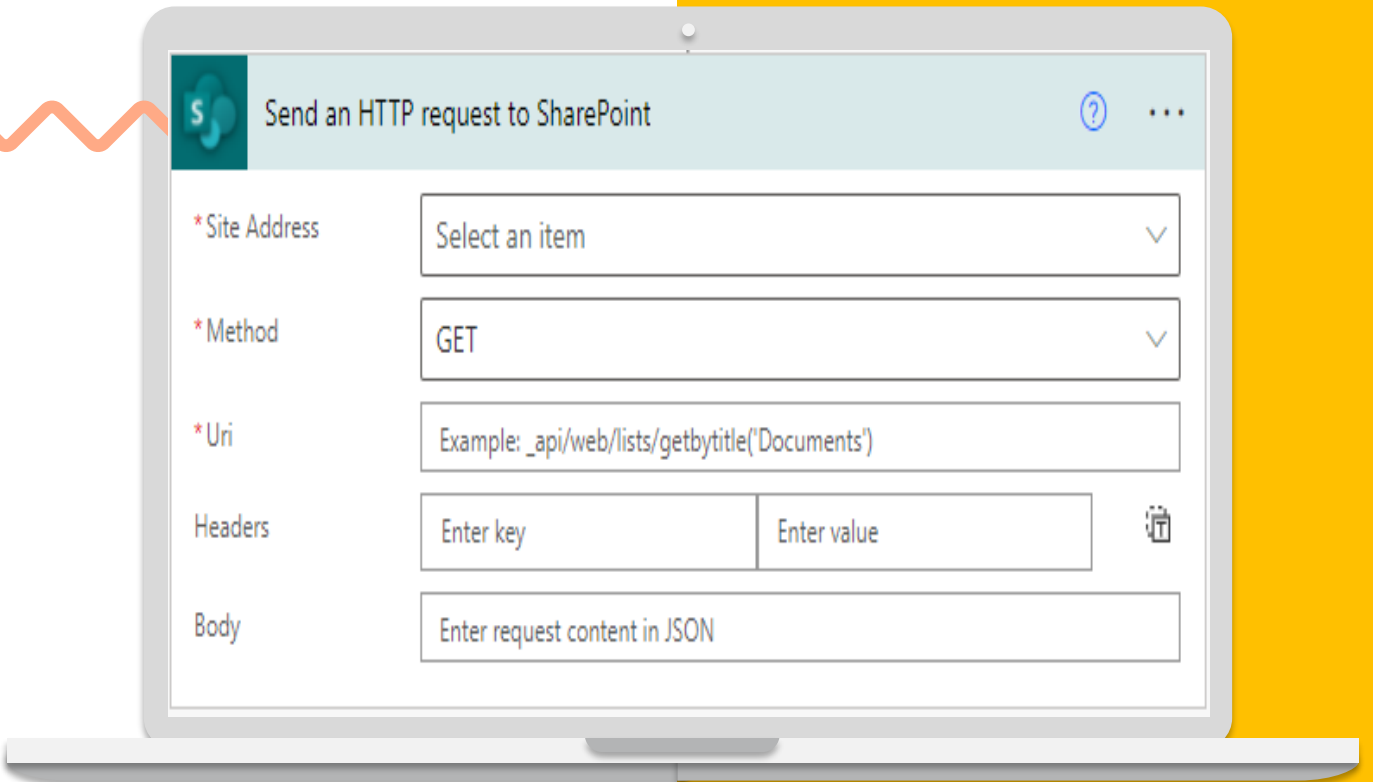
Demo

***HTTP Request
(Trigger)***

***HTTP Response
(Action)***



Send an HTTP request to SharePoint

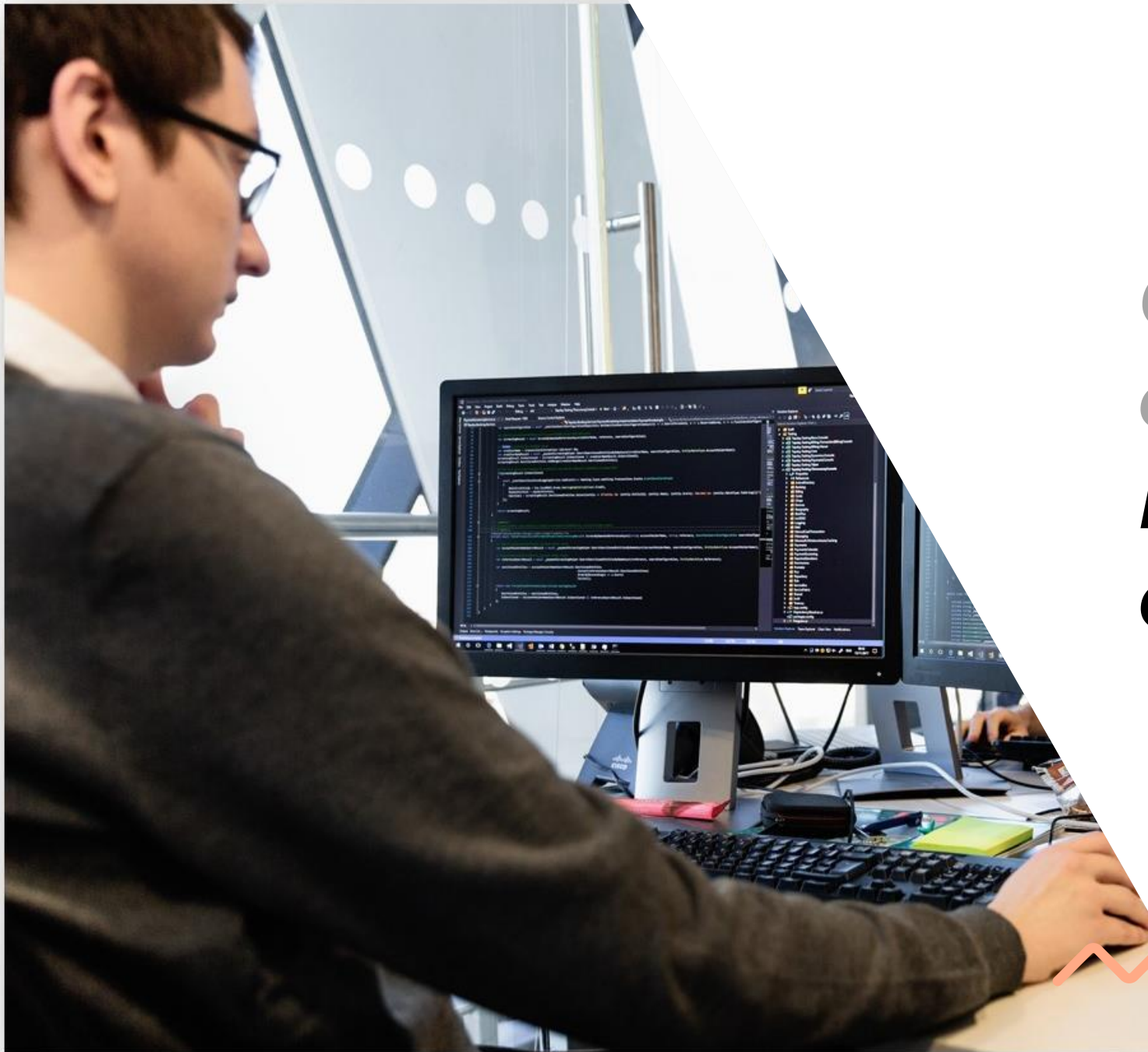


The image shows a software interface for sending HTTP requests to SharePoint. It features a title bar with a SharePoint logo and the text "Send an HTTP request to SharePoint". Below the title bar, there are several input fields: "Site Address" with a dropdown menu showing "Select an item", "Method" with a dropdown menu showing "GET", "Uri" with a text box containing "Example: _api/web/lists/getbytitle('Documents')", "Headers" with a table for key-value pairs, and "Body" with a text box for JSON content. An orange wavy line points from the title text to the interface.

Send an HTTP request to SharePoint					
* Site Address	Select an item				
* Method	GET				
* Uri	Example: _api/web/lists/getbytitle('Documents')				
Headers	<table border="1"><thead><tr><th>Enter key</th><th>Enter value</th></tr></thead><tbody><tr><td colspan="2"></td></tr></tbody></table>	Enter key	Enter value		
Enter key	Enter value				
Body	Enter request content in JSON				

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*Custom
connectors
Extending the
data reach*



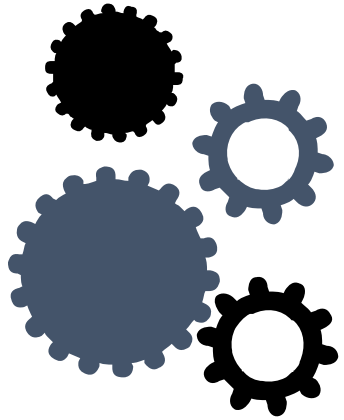
Why use Custom Connectors over HTTP Requests?



What API's can I create a connector to?

- Any Restful API!
- Public API's from services like Spotify, Yelp, Nasa API, etc...
- Public API's you manage
 - Azure Functions
 - Azure Web Apps
 - Azure API Apps
 - And more
- Private API's via the On-Prem Data Gateway

Why Build a Custom Connector?



Enterprise developers

- Looking for connectivity to a service that is currently not supported by Microsoft
- Need connectivity to a custom or internal service

Why Build a Custom Connector?

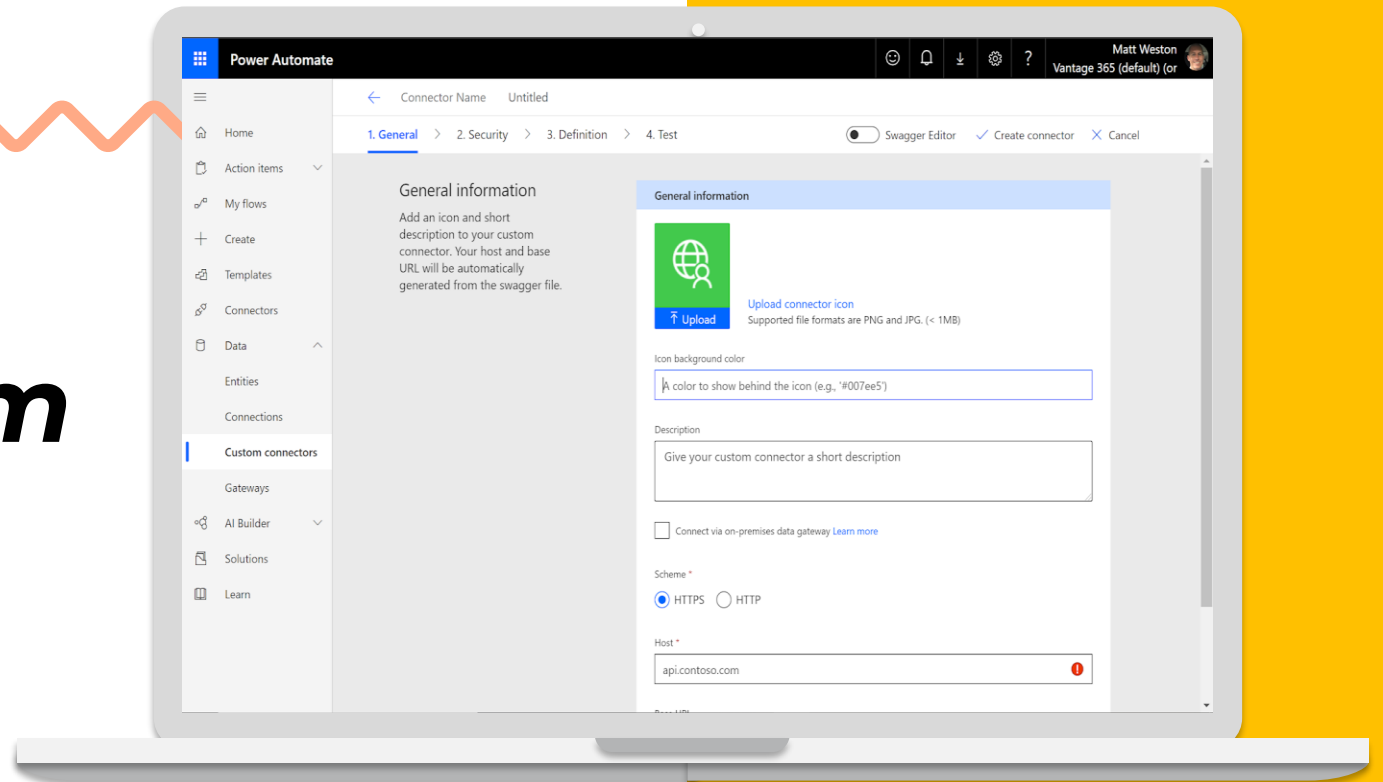


Partners and ISVs

- Expand the number of services you integrate with
- Provide the extensibility your customers need
- Increase exposure and adoption

Demo

Building a custom connector



Power Platform + Azure API Management

Home > API Management services > pgmAPIM

API Management s...

Test_Test_ALM2019

+ Add Manage view ...

Filter by name...

Name ↑↓

pgmAPIM ...

pgmAPIM | APIs
API Management service

Search (Ctrl+ /)

Developer portal Developer portal (legacy)

Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems

General

Quickstart
Properties

APIs

Named values
Subscriptions
Products
Backends
Tags

Developer portal

Portal overview
Users
Groups
Identities
Delegation
OAuth 2.0
OpenID Connect
Issues (legacy)

Monitoring

Search APIs
Filter by tags
Group by tag

+ Add API

All APIs

Employees ...

HR ...

REVISION 1 CREATED Nov 17, 2020, 5:33:06 PM

Export API

OpenAPI v3 (YAML)
Standard, language-agnostic interface to REST APIs

OpenAPI v3 (JSON)
Standard, language-agnostic interface to REST APIs

OpenAPI v2 (JSON)
Standard, language-agnostic interface to REST APIs

WADL
Standard XML representation of your RESTful API

WSDL
Standard XML representation of your SOAP API

Power Apps and Power Automate
Create a custom connector in Power Apps and Power Automate

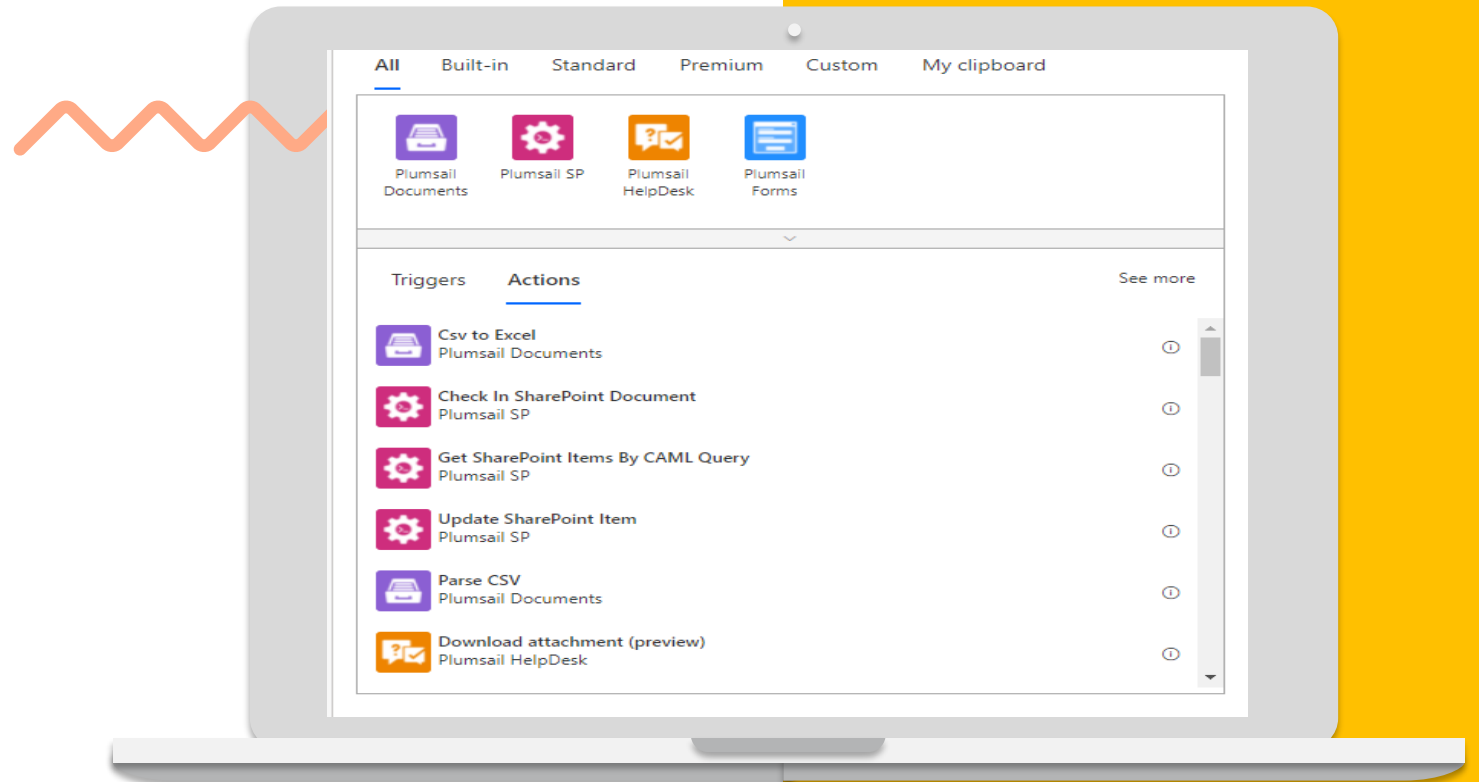
SOAP API only

< Page 1 of 1 >

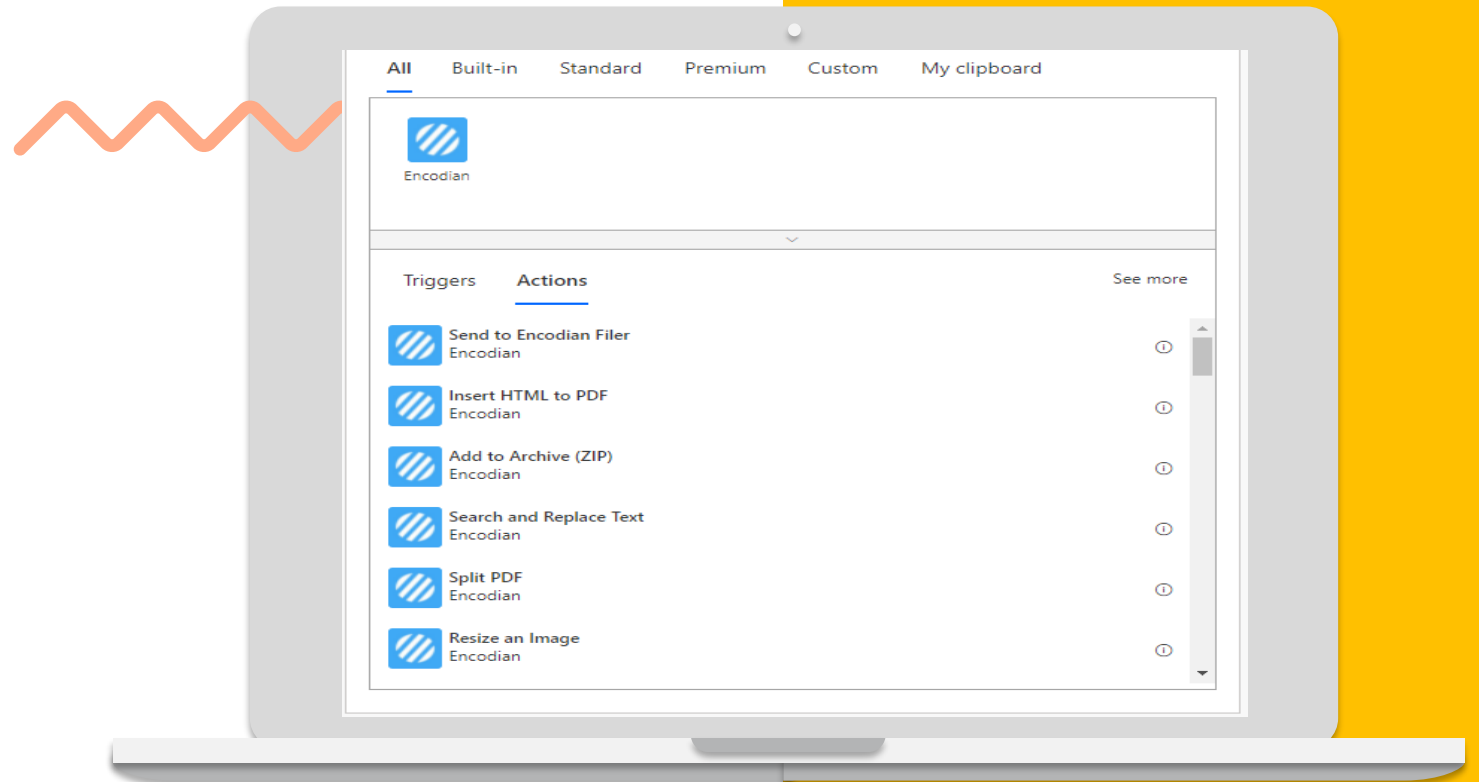
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Plumsail



Encodian



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What is an Independent Publisher connector?

A Power Platform connector submitted by ANYONE!

An Independent Publisher connector is a premium connector developed and maintained by 1+ Independent Publisher.

Independent Publishers can be developers from companies, MVPs, and anyone else. This program is ideal for 3rd party services.

Goals & Benefits of the Program- Why should you contribute?

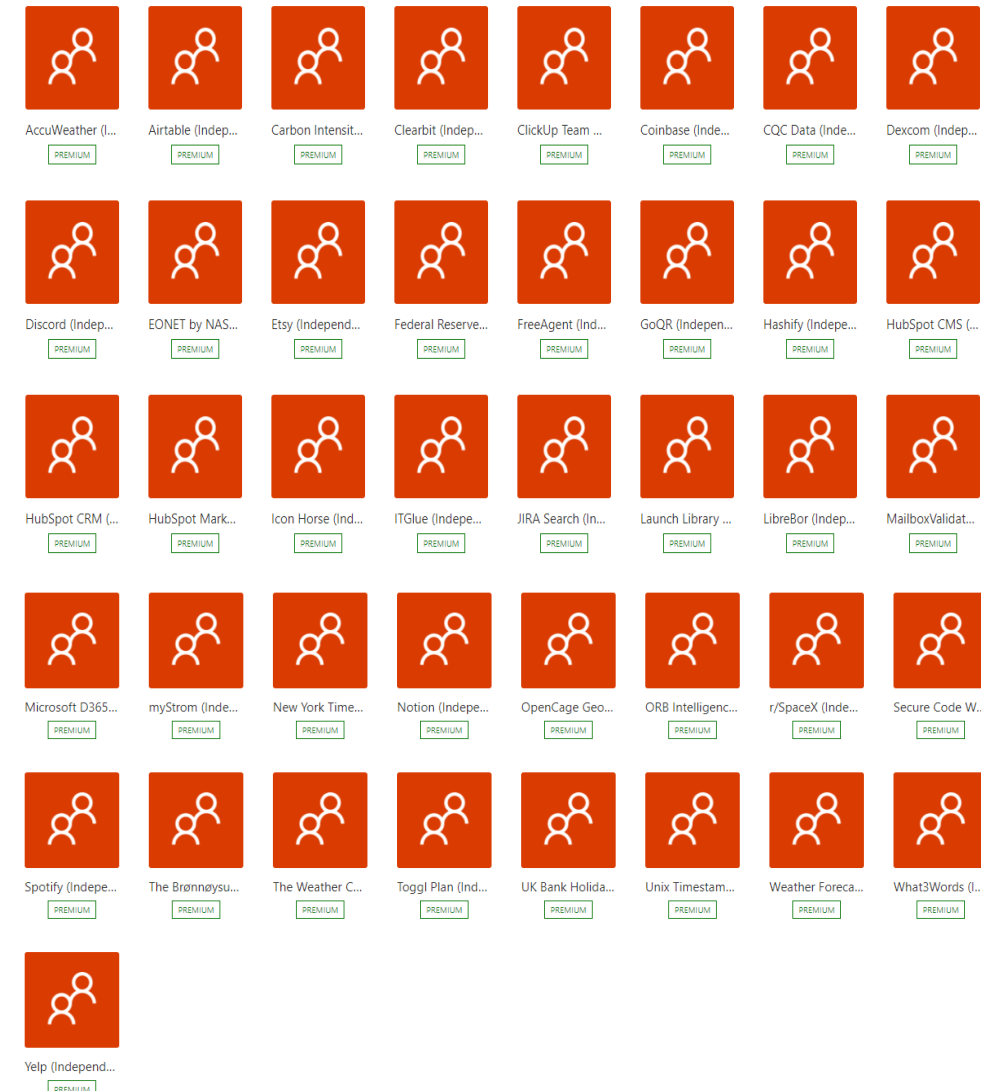
- **Gain visibility across Power Platform products and documentation.**
- **Maintainer rights on your connector.**
- **Share and collaborate on building custom connectors.**
- **Receive the official stamp that your connector has been validated and certified.**
- **Open-source contribution.**
- **[Coming very soon] Achieve a Credly certificate.**

Independent Publisher Connectors in Production Today! (41)

1. Ahmad Najjar- **Yelp**
2. Ahmad Najjar- **Accuweather**
3. Daniel Laskewitz- **Spotify**
4. Daniel Laskewitz- **Toggl Plan**
5. Daniel Laskewitz & Michal Guzowski- **Discord**
6. Martyn Lesbirel- **CQC**
7. Matt Beard- **What3Words**
8. Paul Culmsee- **Jira Search**
9. Martyn Lesbirel- **UK Government Bank Holidays**
10. Troy Taylor- **Etsy**
11. Troy Taylor- **Hashify**
12. Troy Taylor- **HubSpot CMS**
13. Troy Taylor- **HubSpot CRM**
14. Troy Taylor- **HubSpot Marketing**
15. Troy Taylor- **Secure Code Warrior**
16. Woong Choi- **Airtable**

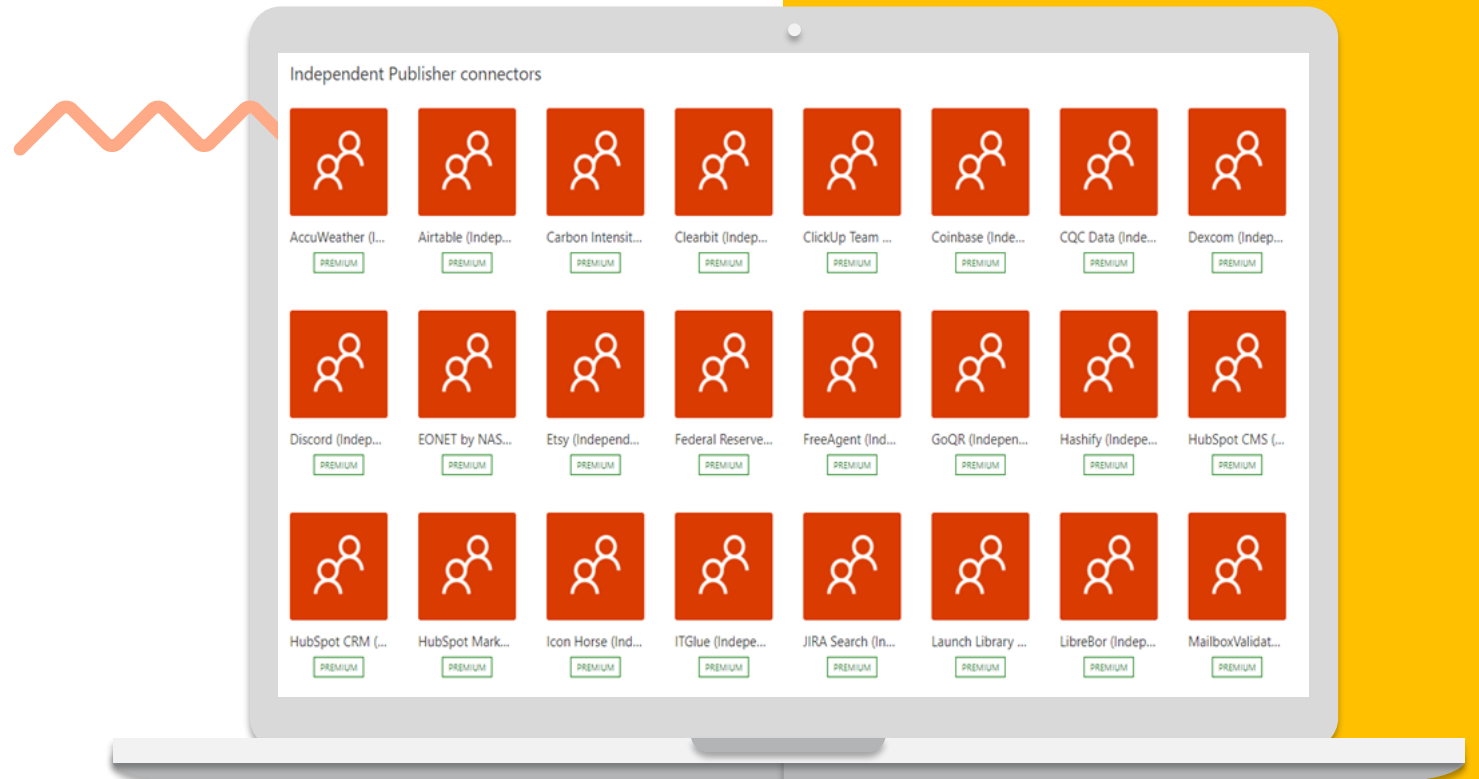
List goes on...

Independent Publisher connectors



Demo

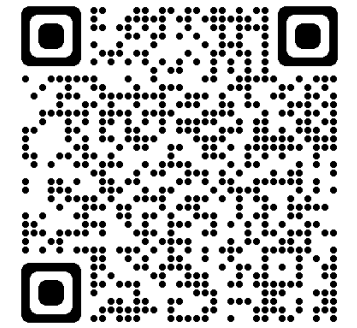
Independent Publisher Connectors



COMMUNITY

<https://collabdays.be>

Please rate this session and have a
chance to win an awesome prize



#CollabDaysBE

#CollabDaysBE

THANK
YOU

