

POWER PLATFORM FOR TEAMS - WELCOME TO MICROSOFT DATAVERSE

Marco Rocca



Who I'm....

Marco Rocca

CSA Modern Workplace @Microsoft Italy



I ❤️ SharePoint (since 2008)

Focusing On Power Platform

- Power Apps
- Power Automate
- Power Virtual Agents



marocc@microsoft.com



[/in/marco-rocca](https://www.linkedin.com/in/marco-rocca)



[@marco_r_73](https://twitter.com/marco_r_73)

Agenda

- How to work in a different way...
- Introducing Microsoft Dataverse (for Teams)
- Power Apps in Teams
- Power Automate and Virtual Agents in Teams
- Extend Dataverse for Teams
- Q&A

How to work in a different way...

How Organizations worked in the past

Disconnected

Remote Teams and Locations

Outdated

Legacy tools, apps and devices

Fragmented

Fragmented systems and manual repetitive tasks

At Risk

Growing security and compliance challenges



Create a completely different way for work

Integrate business processes and Line of Business apps

Automate repetitive tasks

Access the partner apps you already use and love

Communicate and collaborate

All in a single hub

Microsoft Teams is the HUB



Microsoft Power Platform

The world's most complete set of integrated, low-code development tools



Power Apps
for
web and mobile
application
development



Power Automate
for
process
or workflow
automation



Power Virtual Agents
for
chatbots and
conversational
agents



Power Pages
for
building secure,
data-centric
business websites



Power BI
for
data exploration,
analytics and
reporting



**Data
connectors**



AI Builder



Dataverse



Power Fx



**Managed
Environments**

Today we are in this situation....



Microsoft Teams

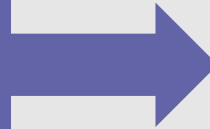
Platform for teamwork

Chat, collaboration, meetings, calling, and app integrations for **75M+ daily active users** and **200M+ meeting participants** in a single day, generating **>4.1B meeting minutes**

Microsoft Power Platform

Low-code business applications

Used by **97% of the Fortune 500** to accelerate internal app development and empower citizen developers to build custom line of business solutions.



Introduction to Microsoft Dataverse (for Teams)

What is Dataverse

Dataverse is a relational database for Power Platform

Dataverse securely stores and manages data used by business apps

Custom data are stored within set of tables

A table is a set of rows and columns

Standard and custom entities and columns

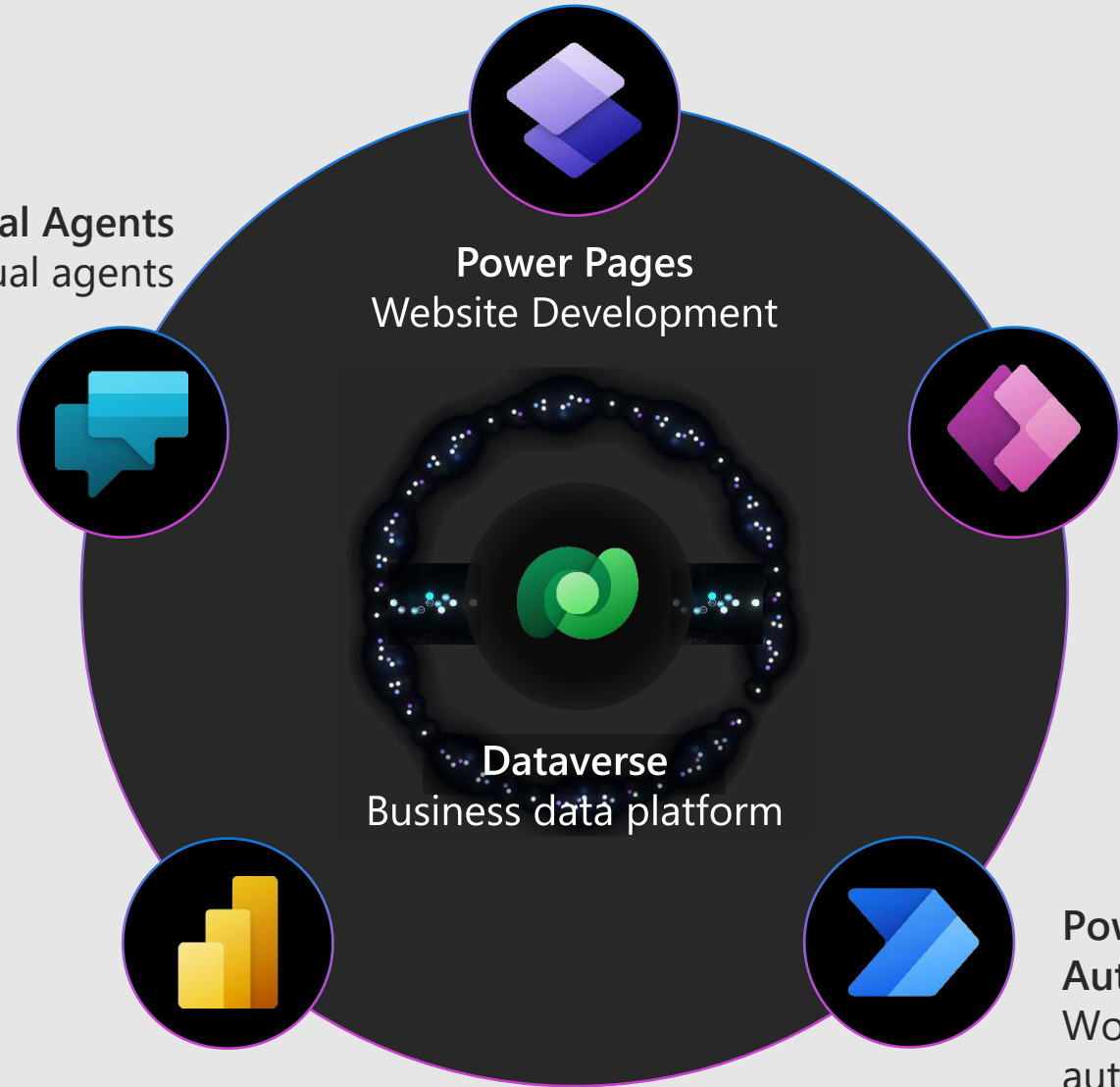
Power Virtual Agents
Intelligent virtual agents

Power Pages
Website Development

Power Apps
Application development

Power Automate
Workflow automation

Power BI
Business analytics



Reasons why Enterprises decide for Dataverse



MANAGE

Easy to manage, deploy & maintain



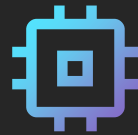
SECURE

RBAC security offers granular control



APPS

Work with any type of app



RECOVERY

Build-in Backup and Recovery options



COMPLIANT

complies with numerous standards (e.g. GDPR)



ECONOMY

Meet your sustainability goals with SaaS



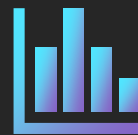
SCALE

Backed by Azure services in backend that auto-scale by demand



METADATA

A common data model allows for easy understanding your data



ANALYTICS

Build reports or ingest additional data or export to Azure Synapse



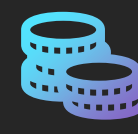
REGIONS

Select a Datacenter Region that fits your requirements



AVAILABILITY

A service level agreement of 99.9% uptime



COSTS

Lower deployment and maintenance costs by using SaaS

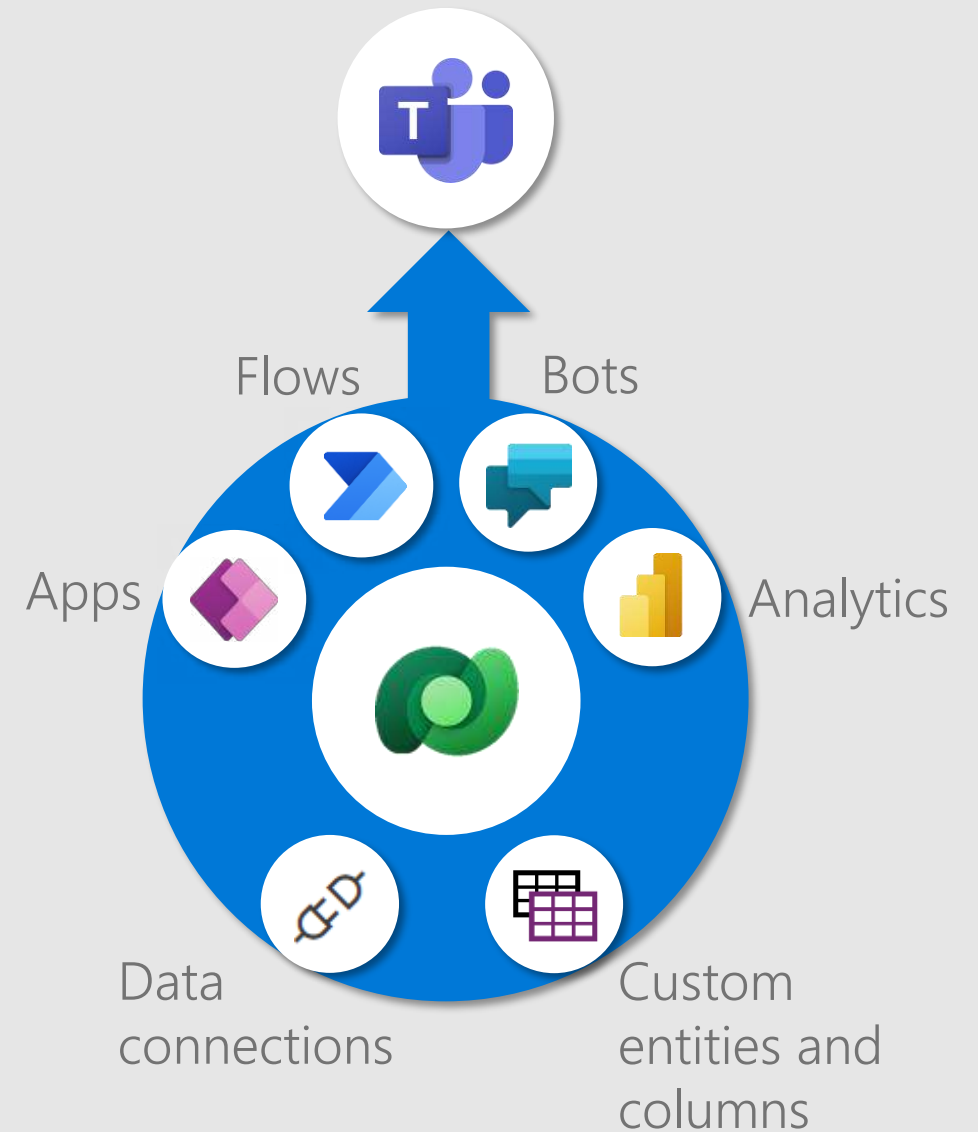
What is Dataverse for Teams

A new built-in low-code data platform for
Microsoft Teams

Subset of Dataverse capabilities

Included in most Teams licenses

Allows building of apps, automation,
chatbots **within Microsoft Teams**



What is a Dataverse for Teams Environment

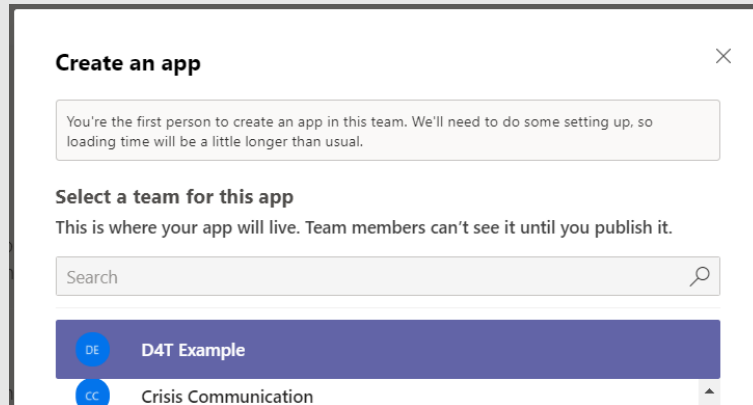
- A **container** for the Dataverse for Teams data, apps, flows and bots
- It is automatically created for the team when an app or a bot is created within it
- **One Environment** for each Teams

Dataverse for Teams environment and its contents will be **removed** if the team expires or is deleted



Environment

Monitoring Capacity & Resources in Admin Center



In **Dataverse for Teams** a new environment is created for each Team the first time an application associated to that Team is created

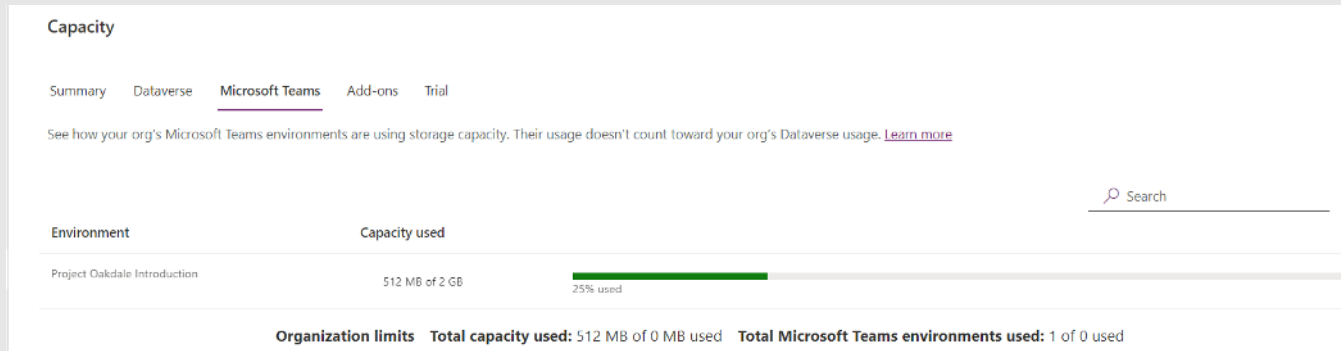
+ New Refresh Search

✓ New environment D4T Example has been successfully created.

Environments

Environment	Type	State	Region	Created on ↓	Created by
D4T Example	Microsoft Teams	Ready	United States	04/06/2021 1:39 PM	Marco Rocca

Monitoring Capacity & Resources in Admin Center



Power Platform Admin Center enable you to check Capacity used by Dataverse for Teams Environment.

You are also enabled to view all apps and flows that are included in Dataverse for Teams Environment.

Environments > Project Oakdale Introduction > Power Apps

- View Power Apps details and manage them across your org. [Learn more](#)
- Export assigned user licenses using PowerShell command. [Learn more](#)

Name	Modified	Owner	Type
SampleApp	4 mo ago	Marco Rocca	Canvas
Manage initiatives	3 d ago	Marco Rocca	Canvas
Manage bulletins	10 h ago	Marco Rocca	Canvas
Team Initiatives	3 d ago	Marco Rocca	Canvas
ManageProducts	2 wk ago	Marco Rocca	Canvas
ProvisioningApp	3 d ago	Marco Rocca	Canvas
Bulletins	10 h ago	Marco Rocca	Canvas
ShowVideo	1 mo ago	Marco Rocca	Canvas

Use new "Tenant Analytics"!

Unit	Service limit
Dataverse for Teams environments	5 environments, + 1 additional environment for every 20 eligible Microsoft 365 user licenses. Should more instances be needed, consider deleting unused environments or upgrading environments to Dataverse. Customers with more than 200,000 eligible Microsoft 365 seats should contact their Microsoft representative.
Max Dataverse for Teams environment storage per tenant	10 GB + Dataverse for Teams environments × 2 GB (up to a maximum of 19.5 TB). The 2 GB storage limit can't be extended further. Should more storage be needed, consider upgrading environments to Dataverse.

Demo: Power Platform Admin Portal

Dataverse for Teams VS Dataverse

Environment lifecycle	Dataverse for Teams	Dataverse
Environments	1 per Team	Unlimited
Maximum size	1 million rows or 2 GB	4 TB or more
Upgrade to Dataverse	Yes	N/A

Feature	Dataverse for Teams	Dataverse
Basic data types	Yes	Yes
Advanced data types (customer, multiple transaction currencies)	No	Yes
Relational storage	Yes	Yes
Non-relational storage (logs)	No	Yes
Managed data lake	No	Yes
File and image support	Yes	Yes
Find, filter, sort	Yes	Yes
Advanced and Dataverse search	No	Yes
Mobile offline	No	Yes

Integration feature	Dataverse for Teams	Dataverse
Power Automate	Yes	Yes
Azure Synapse Link for Dataverse	No	Yes
Data Export Service	No	Yes
Events to Azure Event Hubs	No	Yes
Events to Azure Service Bus	No	Yes
Webhooks	No	Yes
Server-side sync	No	Yes
SQL Server Management Studio	No	Yes

Area	Feature	Dataverse for Teams	Dataverse
Business intelligence	Data visualization	Yes	Yes
	Paginated reports (SQL Server Reporting Services)	No	Yes
Professional developer	API access	No	Yes
	Plug-ins	No	Yes
	Power Apps component framework	No	Yes

Built in Security & Governance

Dataverse for Teams is enterprise grade and designed to work within Teams.

Focused on Teams, it aligns with the core roles identified in that environment, e.g. Owners, Members, and Guests.

Access to the environment is restricted just to the Teams owners, members and guests

Ability to assign different security role to Teams Owners and Members.

Security feature	Dataverse for Teams	Dataverse
Admin roles	System Administrator and System Customizer	System Administrator and System Customizer and other service admin roles. More information: Use service admin roles to manage your tenant
User roles	Team owners, members, and guests	Several standard security roles and custom roles can also be created. More information: Security roles and privileges
Activity logging	No	Yes
Auditing	No	Yes
Business units	One	Unlimited
Customer-managed environment encryption key	No	Yes
Field-level security	No	Yes
Hierarchical security	No	Yes
Record sharing	No	Yes

Applying a DLP policy to all Dataverse for Teams environments

Microsoft offers a solution that applies a data loss prevention policy (DLP) to all Teams environments within a tenant, allowing you to better control your organization's data without hindering your ability to create low-code and no-code solutions within Teams.



```
Windows PowerShell
PS C:\Users\> UpdatePolicyEnvironmentsForTeams -OnlyEnvironmentsPolicyName $OnlyEnvironmentsPolicyName -OnlyEnvironmentsPolicyDisplayName "Only Teams Environments"
UpdatePolicyEnvironmentsForTeams starts.
OnlyEnvironments policy is updated.
UpdatePolicyEnvironmentsForTeams completes.
```

We recommend to use this under a scheduled script to ensure that the DLP policy will always apply to the most recent list of Teams environments.

If a Teams environment is created after this script is run, it will not be governed by the policy until the policy's environments are updated

Move customizations between environments

The screenshot shows the Microsoft Teams interface with the Power Apps (Preview) application open. The 'Export' dialog box is displayed on the right side of the screen. The dialog has a title bar with 'Export' and a close button. Below the title bar, there is a section titled 'Review selections' with a sub-header 'Make sure everything you need to export is present. Dependencies are included by default — you can change this in **Advanced settings**.' Below this, there is a table listing the items to be exported:

Items	Type
Employee Locations <small>Show dependencies (2)</small>	Canvas app
Location	Table
Employee	Table
Overall Brand Name <small>Show dependencies (0)</small>	Environment Variable Definition

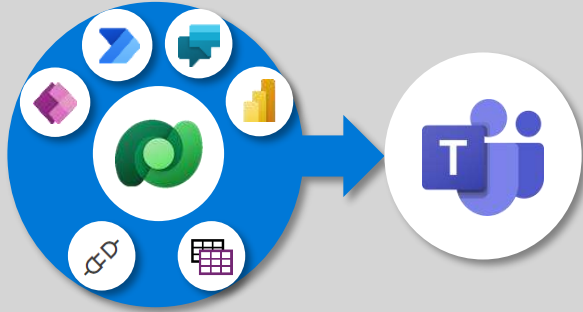
Below the table, there is a section titled 'Advanced settings' with a sub-header 'Dependencies'. There are two radio button options: 'Export all dependencies (recommended)' (which is selected) and 'Export selected dependencies'. Below these options, there is a note: 'Export any items that the selected items use to run correctly, i.e. a table used to create a selected app. Selecting this option will allow you to choose which dependencies are exported.'

At the bottom of the dialog, there is a purple button labeled 'Export as zip'.

Microsoft Dataverse for Teams provides a simplified way to transport customizations between Dataverse for Teams environments.

Additionally, customizations can also be moved between Dataverse and Dataverse for Teams environments.

Conclusion...D4Teams when & why



For use in Teams only

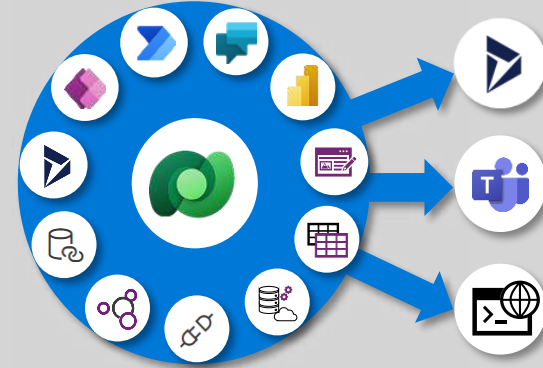
Relational data storage within a Team

1 Dataverse for Teams environment per Team
(max environments: 5 default + 1 per 20 users)

Up to 2 GB data storage per team

Permissions inherited from the Team

Capacity add-ons are not available



For building larger scale applications

Larger datasets, data lake, offline data, data integrations

Unlimited number of environments

Up to 4 TB of data storage

Rich access control and auditing capabilities

Capacity add-ons available

Power Apps in Teams

Overview of Power Apps in Teams



Embedded Power Apps studio in Teams



Simplify work and increase productivity



Easy way to create, edit and publish app within Teams



Build apps based on custom data tables that are Teams-specific and scenario-specific



Ability to share apps with the other team

Pre-Built App Templates in Teams



Pre-built apps designed for Teams



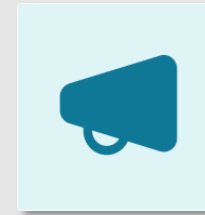
Easy to modify to meet specific business needs



Easy to discover in the Teams App store



Some app templates are available on GitHub



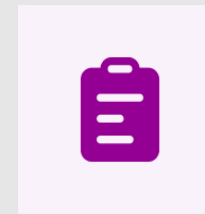
Employee ideas



Inspection



Issue reporting



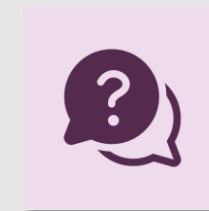
Bulletins



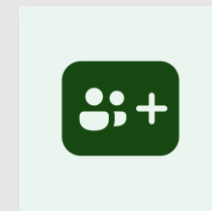
Milestones



Boards

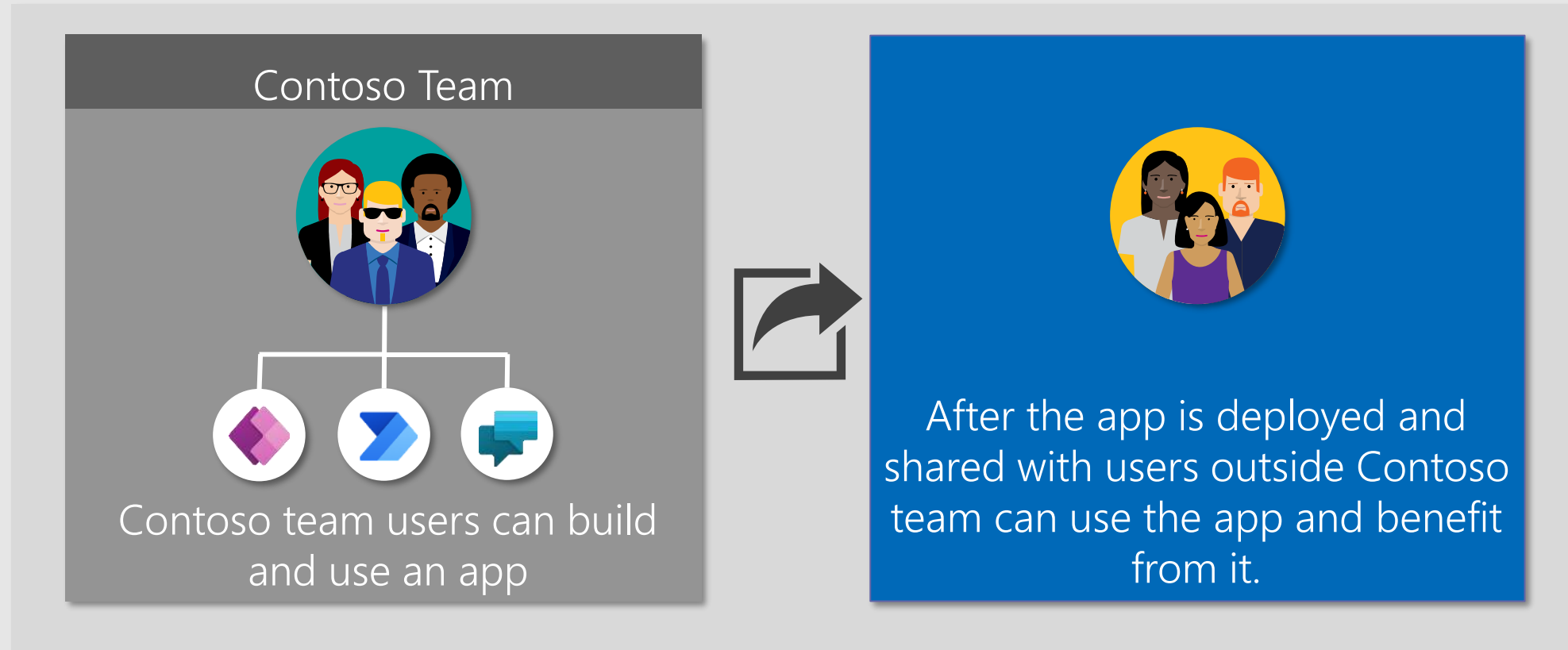


Perspectives



Profile+

Broad App Distribution



You can share Power Apps beyond a team

Share App with colleagues – Table permissions

By default, Colleagues with access role has No access to your Dataverse for Teams tables

With Broad app distribution you can provide users outside your team permissions to access the tables via your app

Manage HintCategory table permissions ✕

Set permissions for each type of user group. [Learn more](#)

User Group	Access Role	Permissions
Dataverse MIP Labs team		
Owner	Full access	Full access
Member	Full access	Full access
Guest	Private	Private
Colleagues with access		
Mark 8 Project Team	None	None

Permission	Permissions
Full access	<ul style="list-style-type: none">✓ Create new records✓ Read all records✓ Update or delete all records
Collaborate	<ul style="list-style-type: none">✓ Create new records✓ Read all records🔒 Update or delete their own records
Reference	<ul style="list-style-type: none">✗ Can't create new records✓ Read all records✗ Can't update or delete records
Private	<ul style="list-style-type: none">✓ Create new records🔒 Read their own records🔒 Update or delete their own records
None	<ul style="list-style-type: none">✗ Can't access records at all




Share App with colleagues

- You can share apps with a security group or a security-enabled Microsoft 365 group
- You can share apps to a group with less than 10,000 members
- Group members can install and use your app

Share with colleagues in the Microsoft Teams app store ✕

Choose a Microsoft 365 group or Azure Active Directory security group to share with, so group members can install and use your app. [Learn more](#)

Enter or select a security group

 Digital Initiative Publ... DigitallInitiativePublicRel...	App	Colleague can use
	Manage initiatives	<input type="checkbox"/> off
	Teams Initiatives	<input checked="" type="checkbox"/> on

Built by your colleagues

Team owners can choose to share apps with other colleagues that don't belong to the development team

Apps appear in the "Built by your colleagues" category in Teams App store

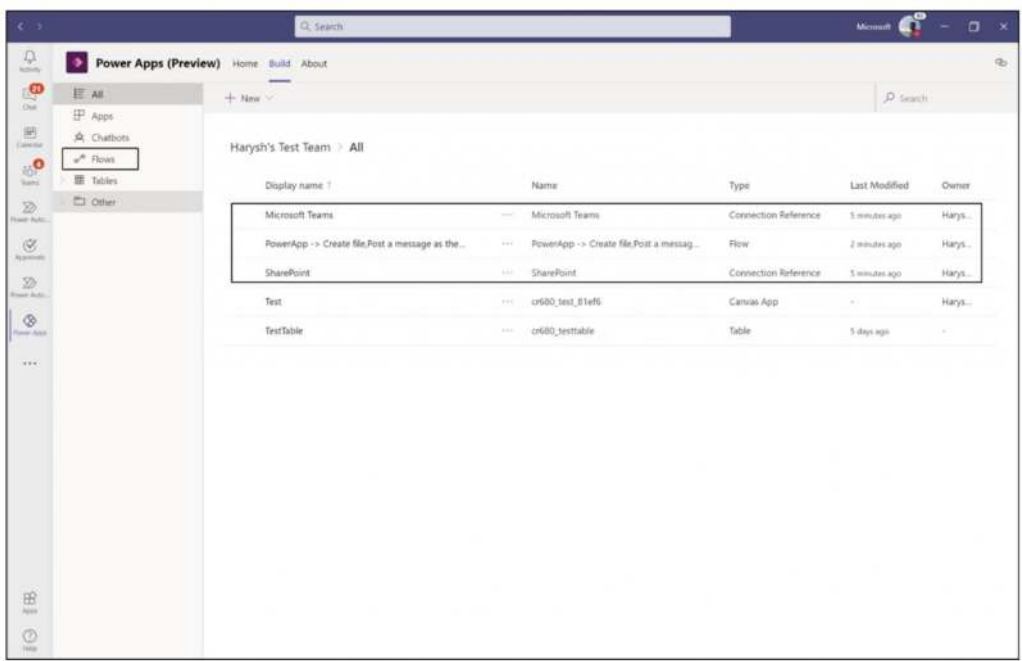
The screenshot displays the Microsoft Teams App Store interface. On the left is a navigation sidebar with categories like 'All', 'Personal app', 'Bots', 'Tabs', 'Connectors', 'Messaging', 'Built for Van Arsdel', 'Top picks', 'Popular apps', 'What's new', 'Analytics and BI', 'Developer and IT', 'Education', 'Human resources', 'Productivity', 'Project management', 'Sales and support', 'Social and fun', 'Submit to app catalog', and 'Upload a custom app'. The main content area is titled 'Apps' and features a search bar. It is divided into two sections: 'Built by your org' and 'Built by your colleagues'. The 'Built by your org' section, created and approved by Van Arsdel's technology team, lists apps such as Tech Support, Expenses, Shuttle, Time off, Travel, and Dining. The 'Built by your colleagues' section, highlighted with a red border, lists apps created and shared by colleagues: Announcement bot (owner: Babak Shammis), Leader board (owner: Kayo Miwa), Culture club (owner: Aadi Kapoor), Stickies (owner: Ray Tanaka), Resources (owner: Daniela Madeira), and Onboarding (owner: Bryan Wright). A 'Show more' link is located below the 'Built by your colleagues' section.

Demo: Power Apps in Teams

Power Automate and Virtual Agents in Teams

Overview of Power Automate in Teams

With Power Automate's integration to Dataverse for Teams, users can easily add automation to apps built with Dataverse for Teams



Overview of Power Virtual Agents in Teams



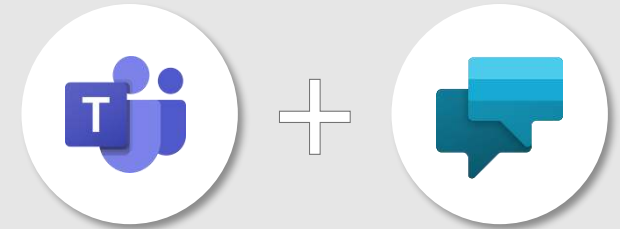
Power Virtual Agents is a low-code / no-code, guided graphical interface that allows easy creation of chatbots by users of Microsoft Teams



Chatbots in Teams to help employees with common issues and answer common questions



Chatbots in Teams are transforming how organizations engage with their employees

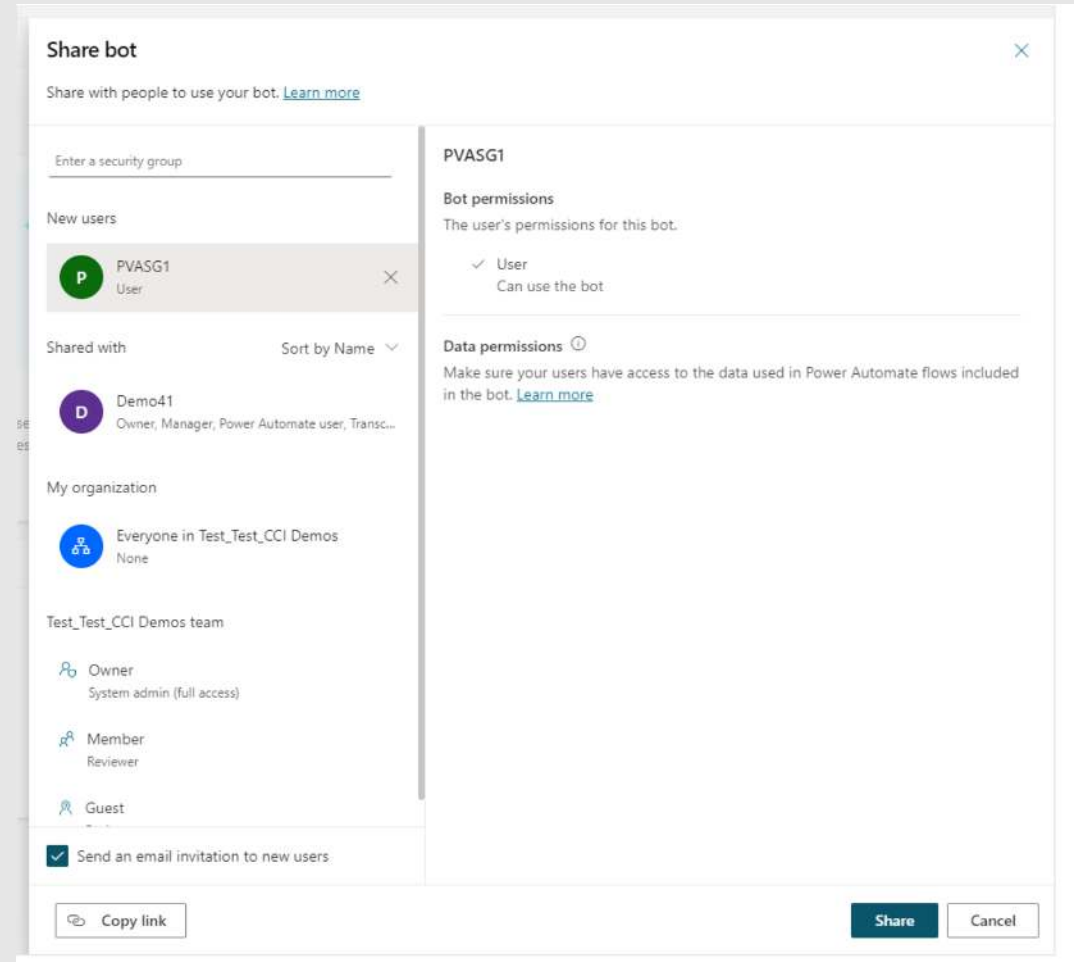


Share BOT with your Teams or Organization

You could choose to share with your bot with your team to use

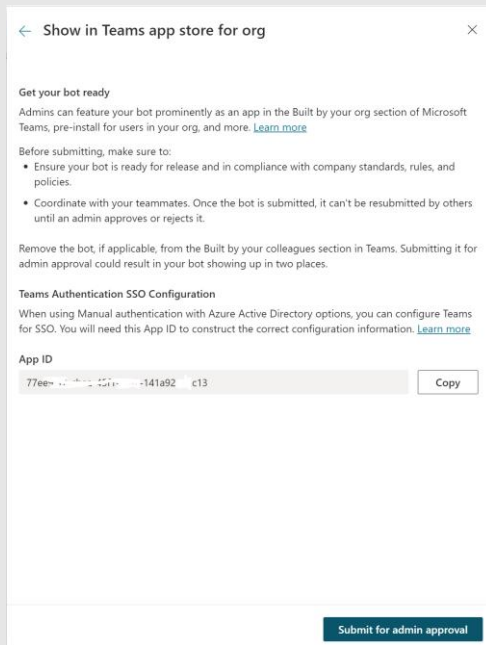
You can only share a bot with security groups. You cannot share with individual users directly.

You can manage individual user access by adding or removing users from the security group.



Share BOT with your Teams or Organization

You could choose to share with your bot with your organization, require admin approval



← Show in Teams app store for org ×

Get your bot ready

Admins can feature your bot prominently as an app in the Built by your org section of Microsoft Teams, pre-install for users in your org, and more. [Learn more](#)

Before submitting, make sure to:

- Ensure your bot is ready for release and in compliance with company standards, rules, and policies.
- Coordinate with your teammates. Once the bot is submitted, it can't be resubmitted by others until an admin approves or rejects it.

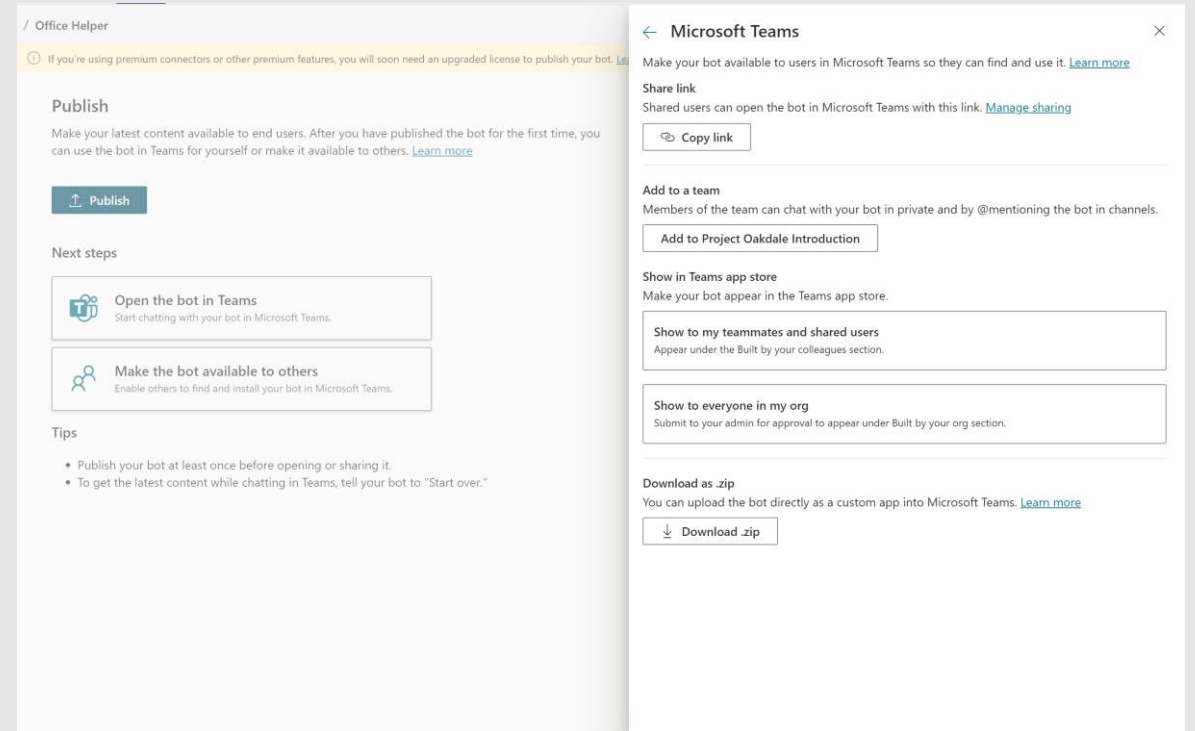
Remove the bot, if applicable, from the Built by your colleagues section in Teams. Submitting it for admin approval could result in your bot showing up in two places.

Teams Authentication SSO Configuration

When using Manual authentication with Azure Active Directory options, you can configure Teams for SSO. You will need this App ID to construct the correct configuration information. [Learn more](#)

App ID

77ee-...-141a92 c13



/ Office Helper

ⓘ If you're using premium connectors or other premium features, you will soon need an upgraded license to publish your bot. [Learn more](#)

Publish

Make your latest content available to end users. After you have published the bot for the first time, you can use the bot in Teams for yourself or make it available to others. [Learn more](#)

Next steps

- Start chatting with your bot in Microsoft Teams.
- Enable others to find and install your bot in Microsoft Teams.

Tips

- Publish your bot at least once before opening or sharing it.
- To get the latest content while chatting in Teams, tell your bot to "Start over."

← Microsoft Teams ×

Make your bot available to users in Microsoft Teams so they can find and use it. [Learn more](#)

Share link

Shared users can open the bot in Microsoft Teams with this link. [Manage sharing](#)

Add to a team

Members of the team can chat with your bot in private and by @mentioning the bot in channels.

Show in Teams app store

Make your bot appear in the Teams app store.

Appear under the Built by your colleagues section.

Submit to your admin for approval to appear under Built by your org section.

Download as .zip

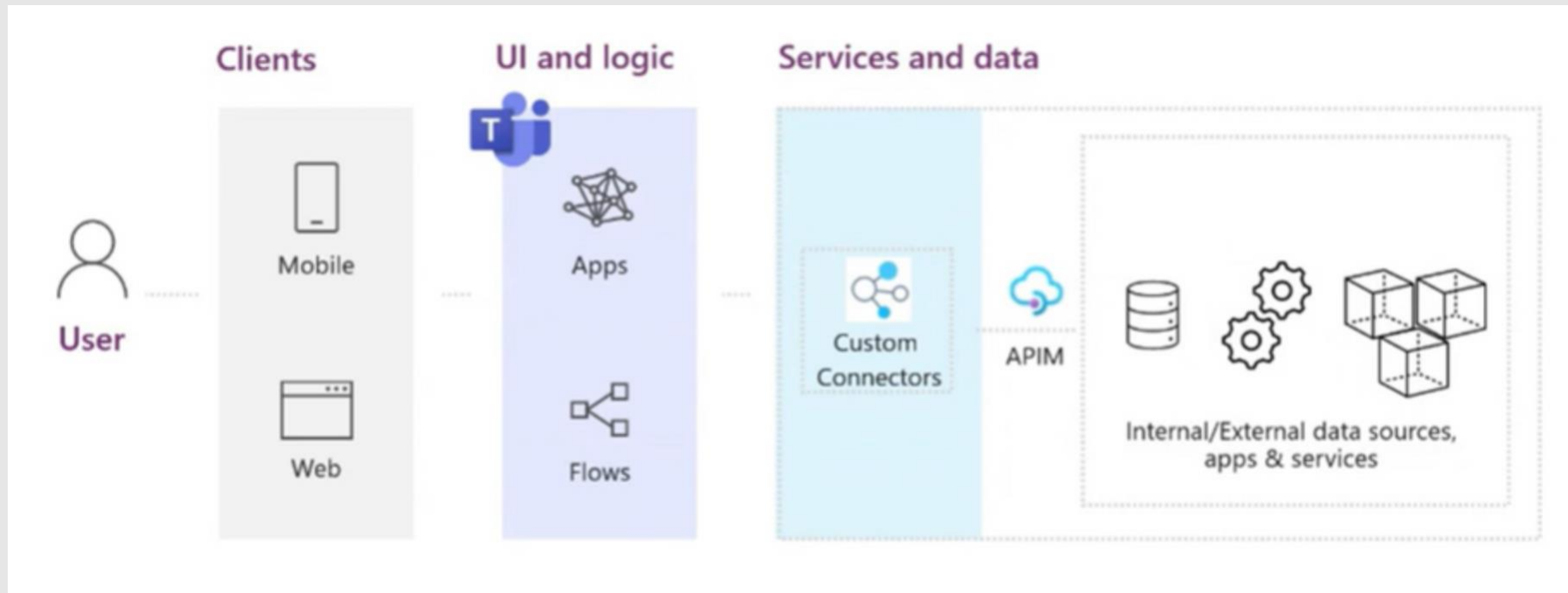
You can upload the bot directly as a custom app into Microsoft Teams. [Learn more](#)

Demo: Power Automate and Virtual Agents in Teams

Extend Dataverse for Teams

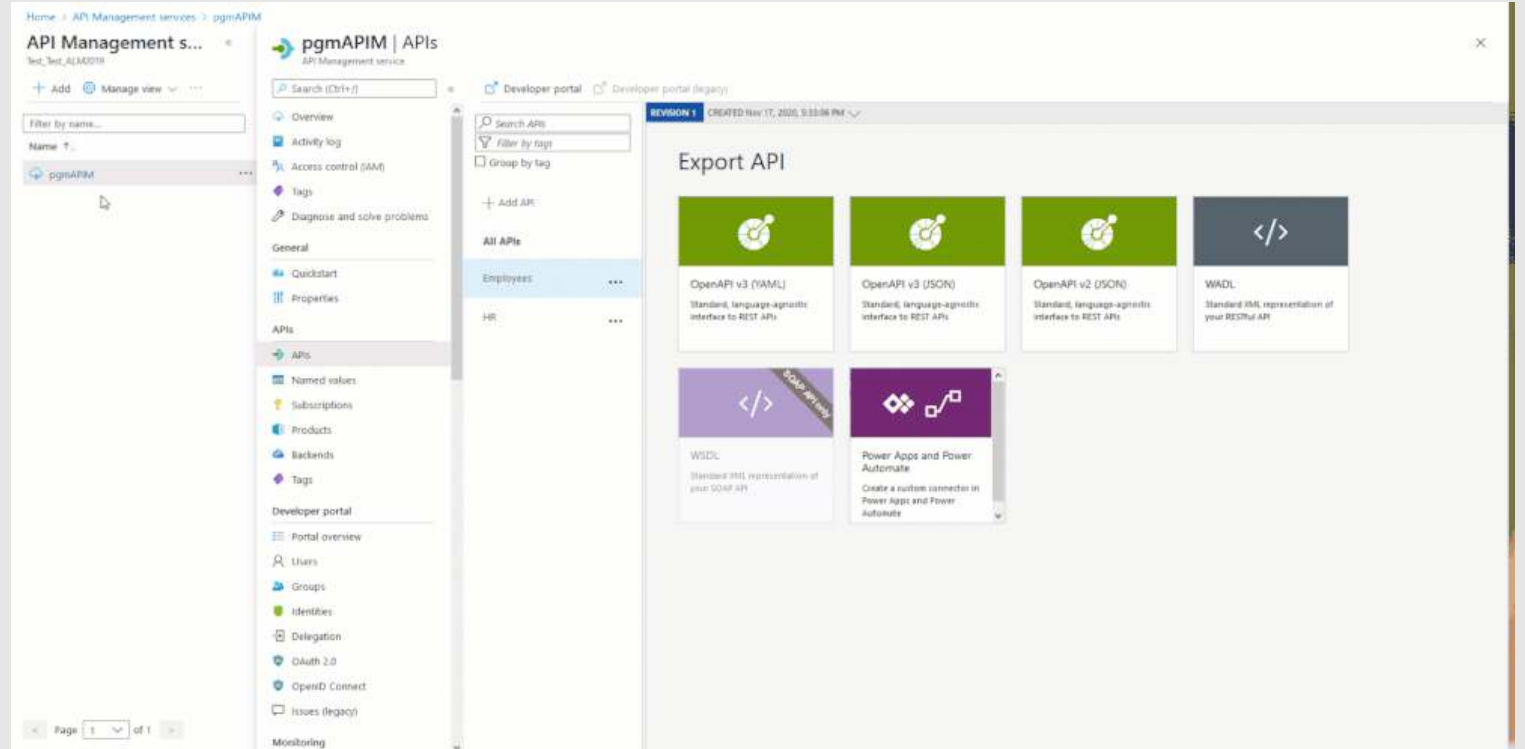
API Management, Power Platform, & Teams Better Together

If you already have Teams subscriptions and Azure API Management subscriptions, there is no additional cost to import your custom connectors in Teams.



API Management

- Azure API management is a fully managed service that enables organizations to publish, secure, transform, maintain, and monitor APIs
- API management cost is "for hour"
- Valid from Power Apps and Power Automate not from Power Virtual Agents



Demo: API Management

Q&A



Thanks for your attention!

