



Agents Hackathon

Team Microsoft Germany

<https://aka.ms/Agent25>

Agenda

Time	Topic
10:30	Readiness
11:15	Instructions
11:45	Break
12:00	Knowledge
12:30	Lunch
13:30	Actions
14:15	Hackathon
15:30	Wrap-up in main room

Introductions

Your Team today



Felix Hartwig
Copilot Technical
Specialist



Tanja Eikerling
Copilot Technical
Specialist



Christian Pilz
Copilot Technical
Specialist



Dominik Neumann
Copilot Technical
Specialist



Oliver Böhm
Copilot Studio
Technical
Specialist



Martin Wehrsig
Copilot Studio
Technical
Specialist Intern



Tanja Wiehoff
M365 Solution
Consultant,
Communardo

Readiness

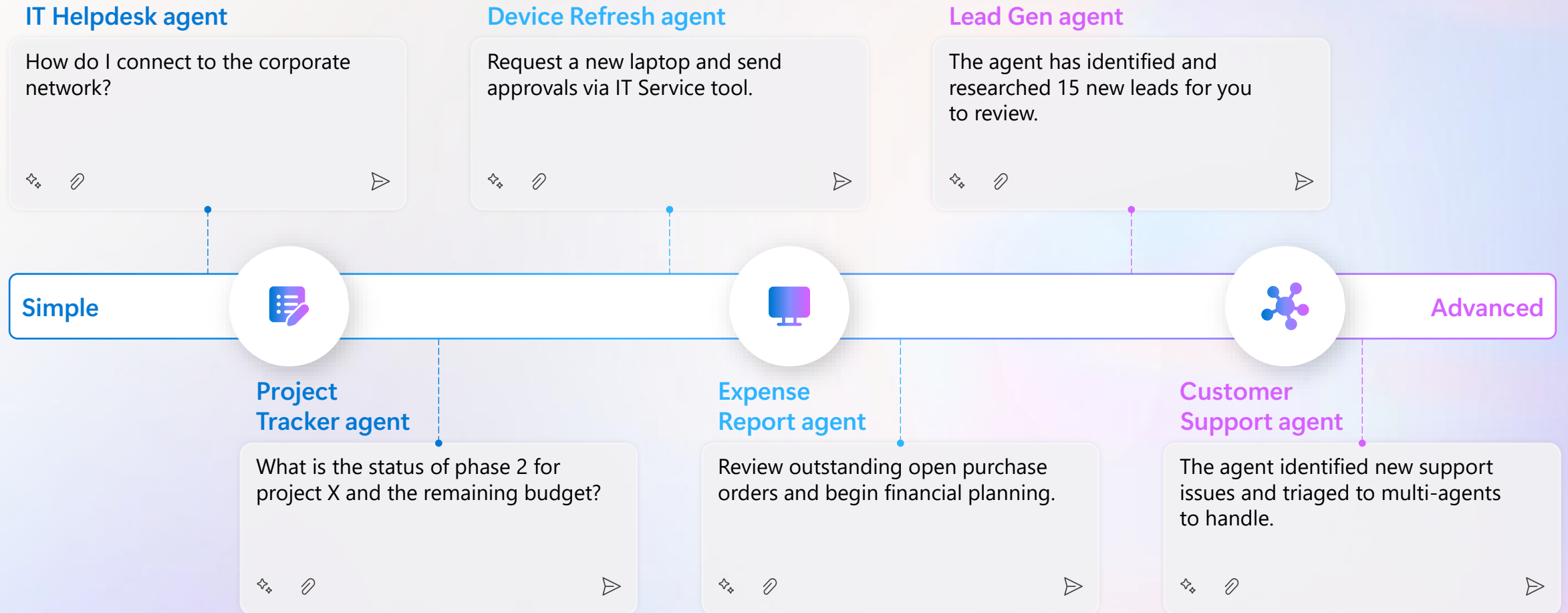
What is an Agent?

Agents are AI assistants that can perform tasks for the user by utilizing pre-defined *instructions*, scoped *knowledge* areas, and available *actions*.

“Think of **Copilot as your smartphone** and **agents as its apps**. **Your smartphone is where you interact with the apps**. And there are apps to do all kinds of things, from booking a ride to the airport to managing your finances to helping you learn a new language. Just like apps, agents will be able to do a wide variety of things. **In essence, agents are the new apps for an AI-powered world.**”

- Jared Spataro, Chief Marketing Officer, AI at Work @ Microsoft

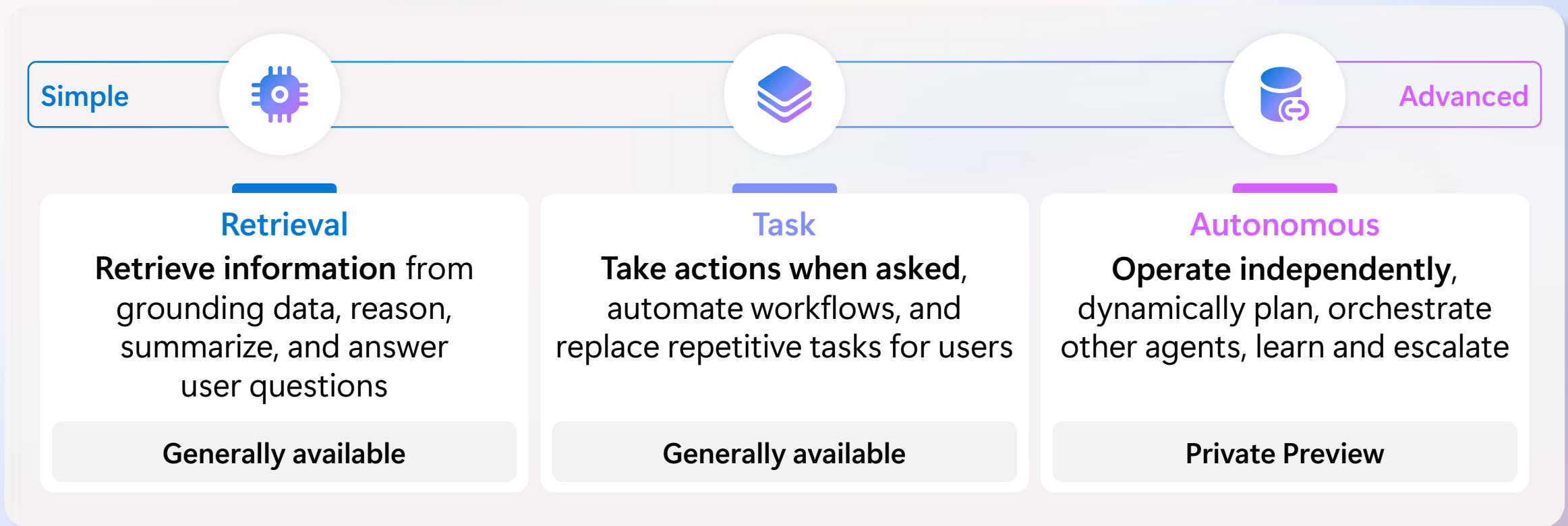
Why do you need Agents?



Agents can be aligned with specific business processes, optimize them and enhance productivity of individuals, teams, and organizations.

What are Copilot agents?

Agents expand Copilot's knowledge and skills or can operate autonomously to complete tasks or automate processes



Copilot agents vary in level of complexity and capabilities depending on your need

Agents run on a secure and trusted platform



Microsoft 365 Copilot Enterprise data protection

Data is encrypted, isolated,
and security enforced at each step

Label inheritance and data loss
prevention policies are persistent

Responsible AI approach protects
against AI risks like prompt injection



Access controls

Control who can create
and use agents

Set policies and information labels
to discover, classify, and protect
sensitive data

Manage users and monitor
agent usage



Agents governance

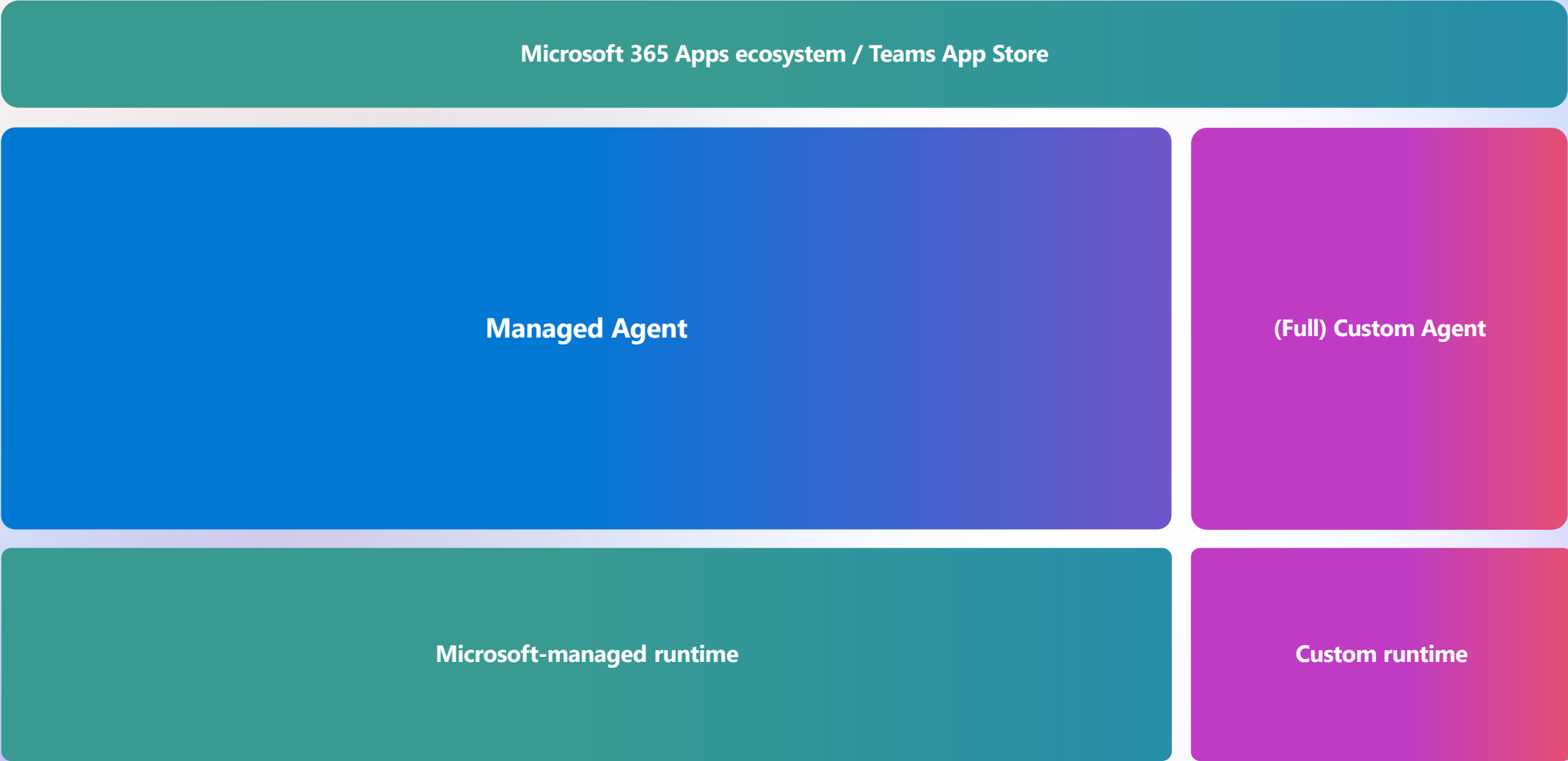
Track and manage agents from creation
to end of life at scale

Set policies on resource usage, access
and publishing

Ability to audit events and get
operational & application insights

Agent interactions stay in the Microsoft 365 Service Boundary and
your Microsoft 365 security, governance, compliance, and privacy policies apply

Agent components and dependencies



Legend:

Microsoft-managed

Low code

Full custom / code

Agent components and dependencies

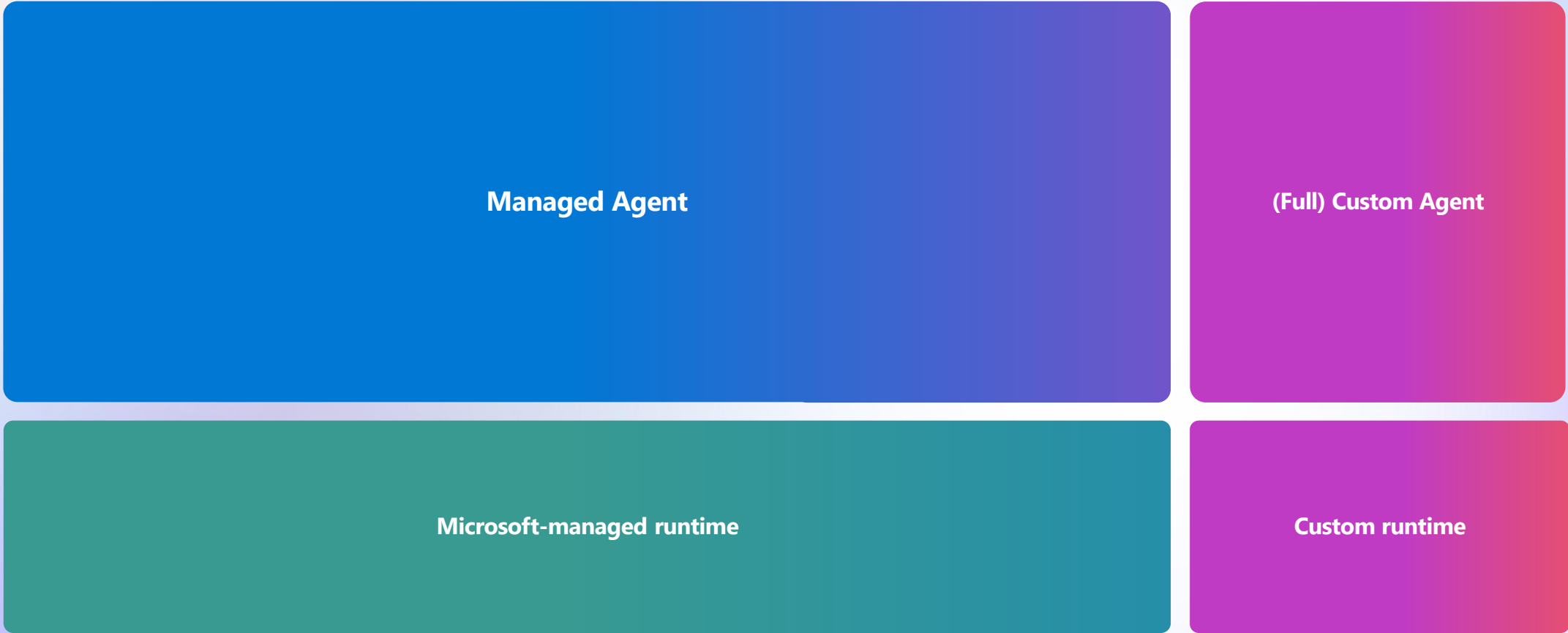
Agent is distributed in the same way as the other Teams Apps.
App package consists of:

App Manifest

Logo and outline

Agent manifest

AI Plugin manifest



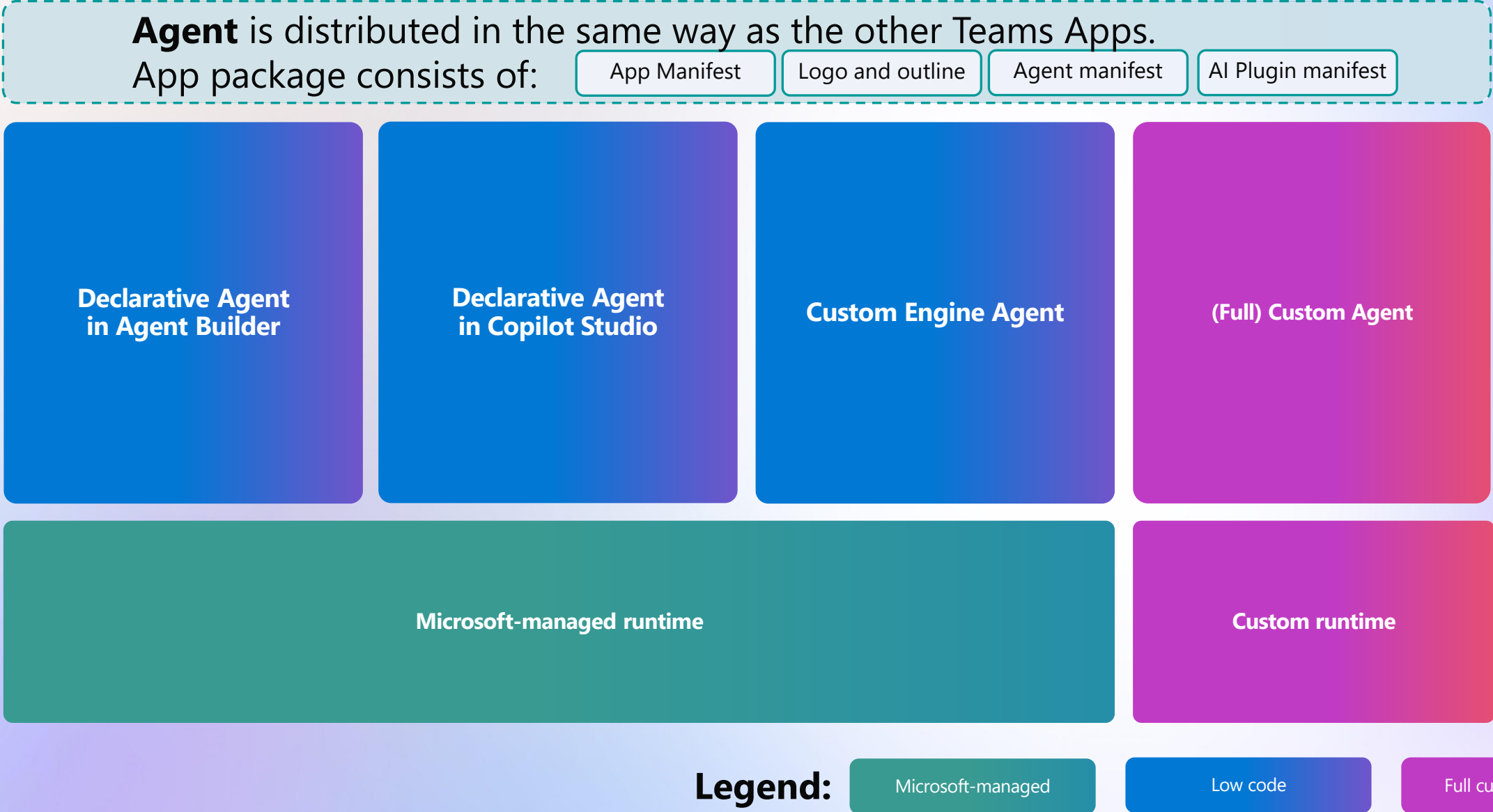
Legend:

Microsoft-managed

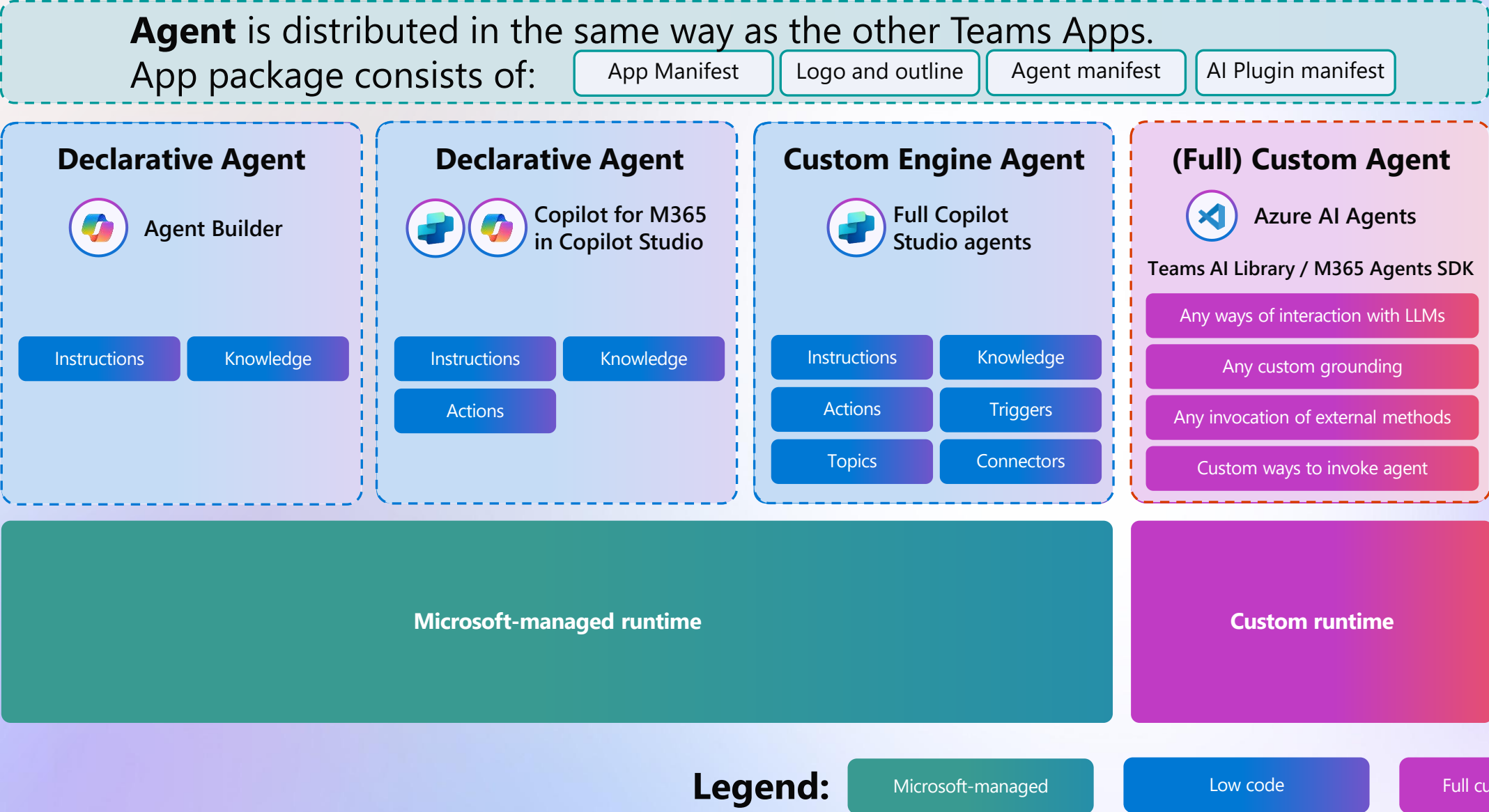
Low code

Full custom / code

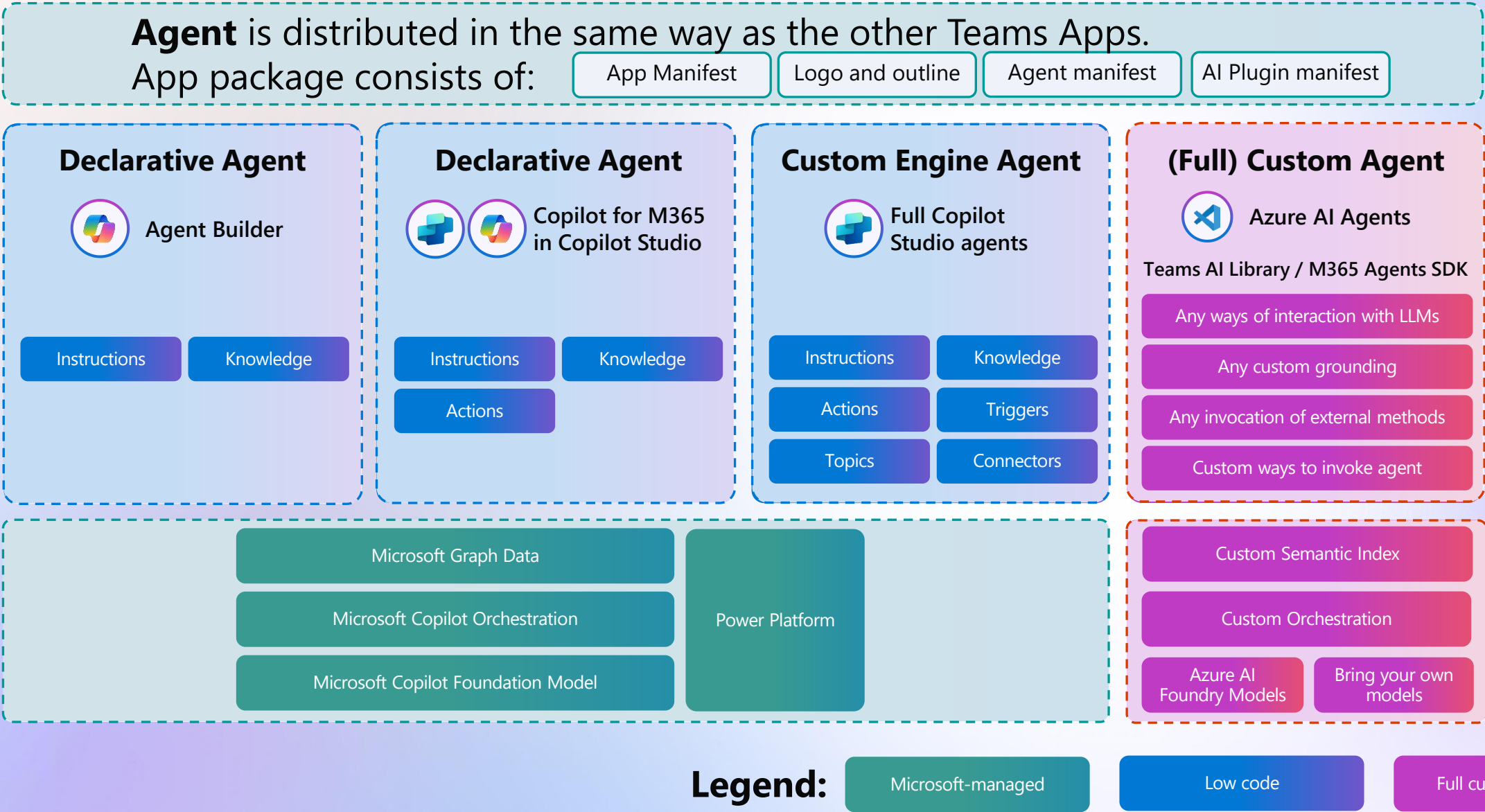
Agent components and dependencies








Agent components and dependencies




Agent components and dependencies



AI Alignment Guide

	I want a generative AI solution			
	I want out-of-the-box solutions that work with my existing data estate for my employees		I want to build a solution with custom data and UI, and deploy internally or externally	
	I want insights and actions for specific roles that integrate with existing system	I want insights and actions on M365 data and plugins	I want to customize agents with natural languages and use a generative orchestrator	I want full control, choice of model, and customize with code
	 			
	Persona-Based Copilots	Microsoft 365 Copilot	Copilot Studio	Azure AI Foundry
Licensing	Per User	Per User*	PAYG or Capacity Pack	Azure Services Meters
Stories	Link	Link	Link	Link
Persona	Line-of-Business Owner	Knowledge Worker	Power User	Developer
Out-of-box Value	★★★	★★★	★★	★
Customization	★	★	★★	★★★

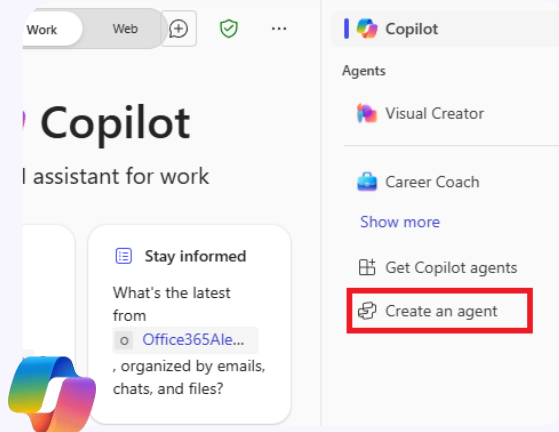
 Integrate with Fabric + Purview 

*[Microsoft 365 Copilot Chat](#) advanced Agent Capabilities requires Copilot Studio Messages

Where to build an Agent for Microsoft 365 Copilot?

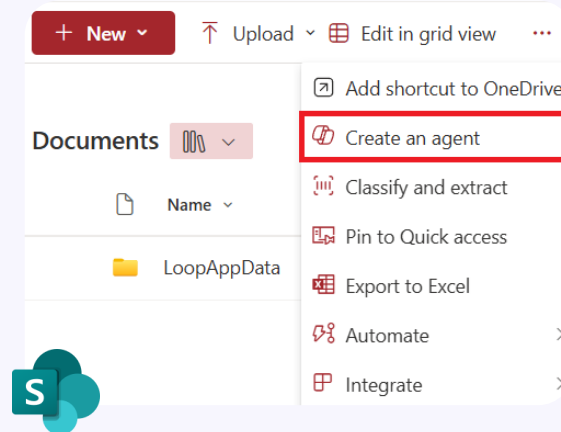
Agent Builder in Business Chat

A simple UI to build agents, either by using natural language



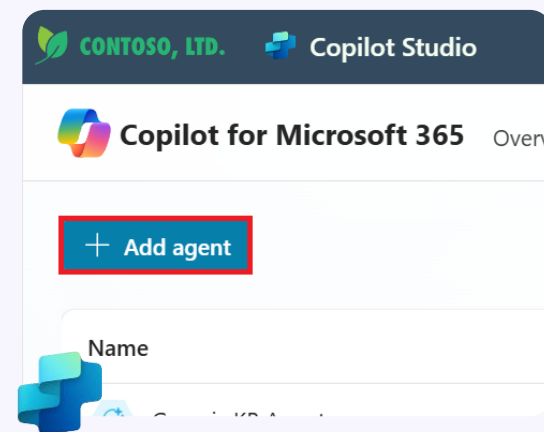
SharePoint Online Agents

Quick and easy agents integrated into SPO sites and libraries



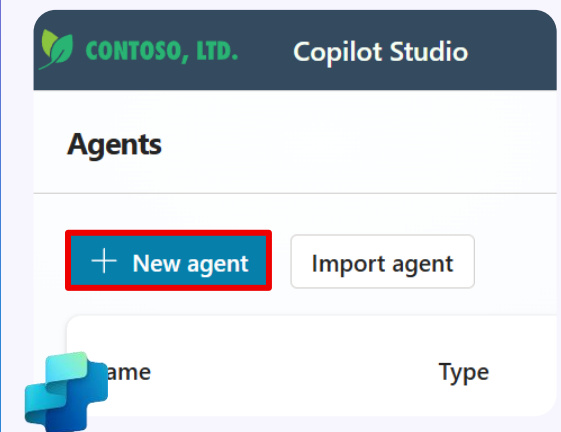
Copilot Studio (Declarative Agent)

Build agents with actions and extended governance



Copilot Studio (Custom Engine)

Build agents with advanced capabilities that include triggers, topics, and more



*custom agents and standalone Copilot Studio agents are not covered within this session

Microsoft 365 Copilot Chat

Microsoft Copilot with Enterprise Data Protection (former Bing Chat Enterprise) + pay-as-you-go agents

		<div> ● Included ▲ Included — Metered </div>	
		Microsoft 365 Copilot Chat Free + Consumption	Microsoft 365 Copilot \$30 pupm
M365 Copilot App	Copilot Chat – Web grounded (powered by GPT-4o)	●	●
	Copilot Chat – Work grounded (work data in your tenant's Microsoft Graph and 3rd party data via Graph connectors)		●
	File upload and image generation ¹ (in Copilot Chat)	●	●
	Copilot Pages	●	●
	Copilot Notebooks		●
	Copilot Search ² (with AI assistance)		●
	Create (with AI assistance)		●
Agents	Use agents grounded in Web data ³	●	●
	Use agents grounded in work data and SharePoint agents (work data in your tenant's Microsoft Graph and 3rd party data via Copilot connectors) ⁴	▲	●
	Use agents that activate based on events (e.g. incoming email)	▲	▲
	Use agents on non-M365 surfaces (e.g. websites, enterprise apps)	▲	▲
	Use the pre-built Employee Self-Service Agent	▲	●
	Use pre-built M365 agents: Facilitator, Interpreter ¹ , Project Manager ¹ , Skills ⁵		●
Personal assistant	Use advanced reasoning agents: Researcher and Analyst ⁶		●
	Copilot reasons over personal work data (e.g. Outlook, OneDrive, Teams meeting transcripts and chats)		●
	Memory and Personalization		●
	Copilot in Teams (Copilot in Meetings and Meeting Recap, insights from screen-shared content coming soon)		●
	Copilot in Outlook (Prioritize my inbox, schedule focus time and 1:1 meetings, draft agendas, summarize message threads)		●
	Copilot in Word (Suggestions for structure, flow, and tone, draft and summarize documents)		●
	Copilot in Excel (Python, getting started experience, create formulas and visualizations using natural language)		●
Copilot Control System	Copilot in PowerPoint (Narrative builder, presentation translation, generate slides or images aligned to company branding)		●
	Enterprise Data Protection (EDP)	●	●
	IT management controls	●	●
	Agent management	●	●
	SharePoint Advanced Management		●
	Copilot Analytics to measure usage and adoption ⁷		●
Pre-built reports and advanced analytics to measure ROI			●

1. Limits apply 2. Public preview June 2025 3. For Copilot Chat, applies only to web-grounded agents created with agent builder. 4. SharePoint promo offer: 10K SharePoint agent queries per month for organizations with 50 or more M365 Copilot licenses through June 30, 2025, paid for on a consumption basis thereafter 5. Skills agent available June 2025 6. Available through Frontier program, limits apply 7. Basic reporting in Microsoft Admin Center available for Copilot Chat

Set up your PCs!

- 1) Get your Hackathon user from the orga team
- 2) Open a Private Browser Window!
- 2) Sign into M365copilot.com
- 3) Make sure you have the „Create an Agent“ button

How to build an Agent for Microsoft 365 Copilot?

Instructions

A prompt that defines how the agent should work to achieve its specific goals

You are Product Catalog agent.
You answer queries related to Contoso Electronics product catalog and refuse to answer any other questions.
You can return product details in the following format:
Product Title: ****title in bold font****
Category: category of product here
Description: description of the product rephrased to be more relevant for user query.
You can send details by email if requested by user.
Be polite and use professional tone.

Knowledge

Data that agent uses to provide responses, based on the context of the requests

You can search in...



SharePoint sites

contoso.sharepoint.com/sites/catalog
contoso.sharepoint.com/sites/products

Actions (Preview)

Operations that Agent performs to execute tasks in Line-of-Business (LOB) systems

If you're requested to send an email, gather input information from the user:

- Email address of recipient
- Subject of email
- Body content of the email



Outlook connector – Send an email

***Actions are available only in Copilot Studio**

Instructions

A prompt that defines how the agent should work to achieve its specific goals



Knowledge

Data that agent uses to provide responses, based on the context of the requests



Actions (Preview)

Operations that Agent performs to execute tasks in Line-of-Business (LOB) systems

Instructions

Instructions are a set of guidelines and commands that define how an agent should behave. They help to:

- **Define behaviour** - establish how the agent should respond to user requests
- **Ensure accuracy** - guide the agent in handling data correctly and consistently
- **Maintain workflow** - help the agent follow a structured process, enhancing user experience
- **Facilitate customization** - allow developers to tailor the agent's functionality to specific needs

[Write effective instructions for declarative agents | Microsoft Learn](#)

Example: Instructions for Device Troubleshooting Agent

Identify the device: "What device are you having trouble with?"

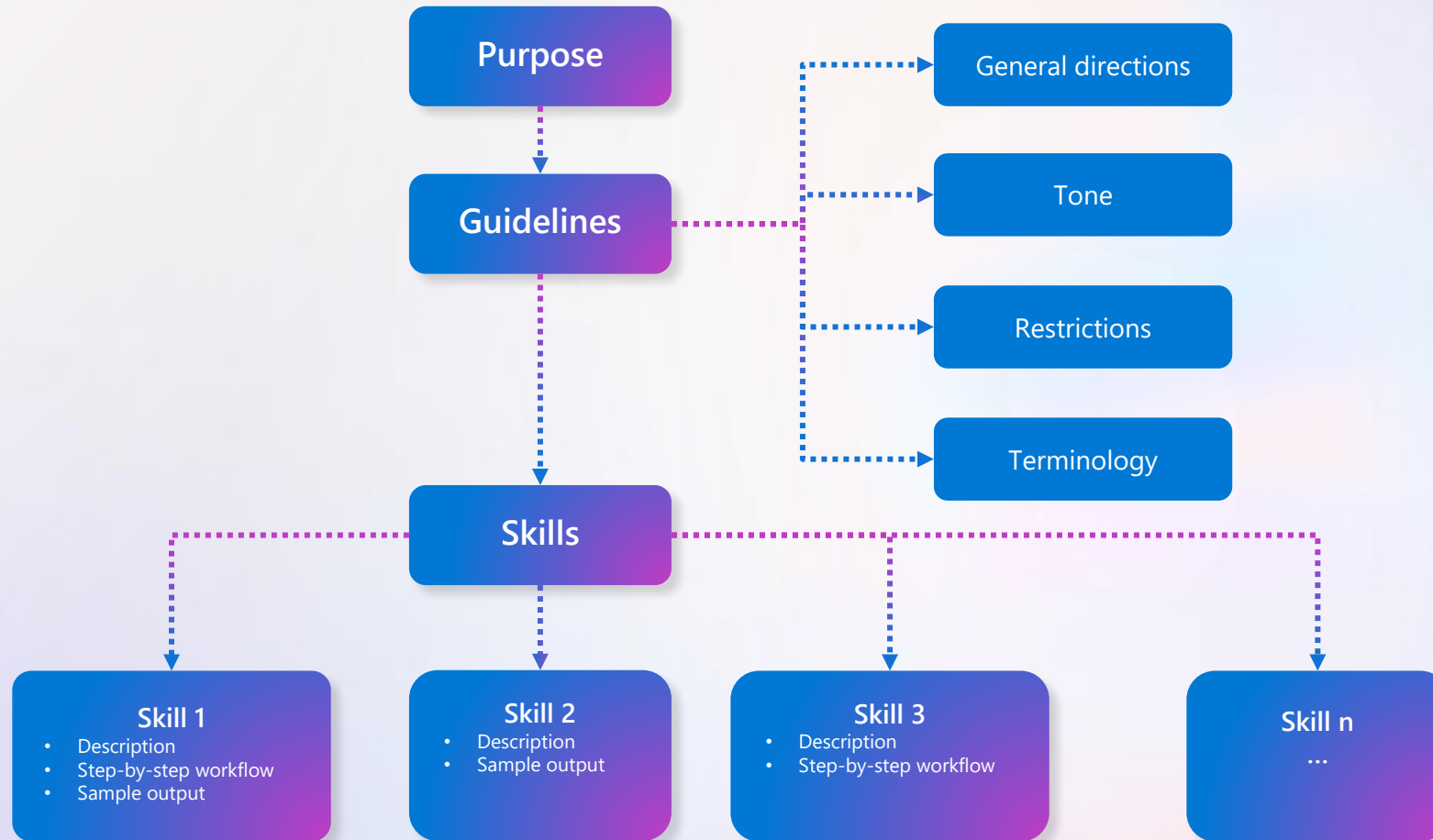
Ask for the issue description: "Can you describe the problem you're experiencing?"

Check for basic solutions: "Have you tried restarting the device?"

Guide through specific troubleshooting steps:
"If the device is not charging, check the power cable."
"If the screen is frozen, try holding the power button for 10 seconds."

Suggest further action: "If the issue persists, would you like to contact customer support?"

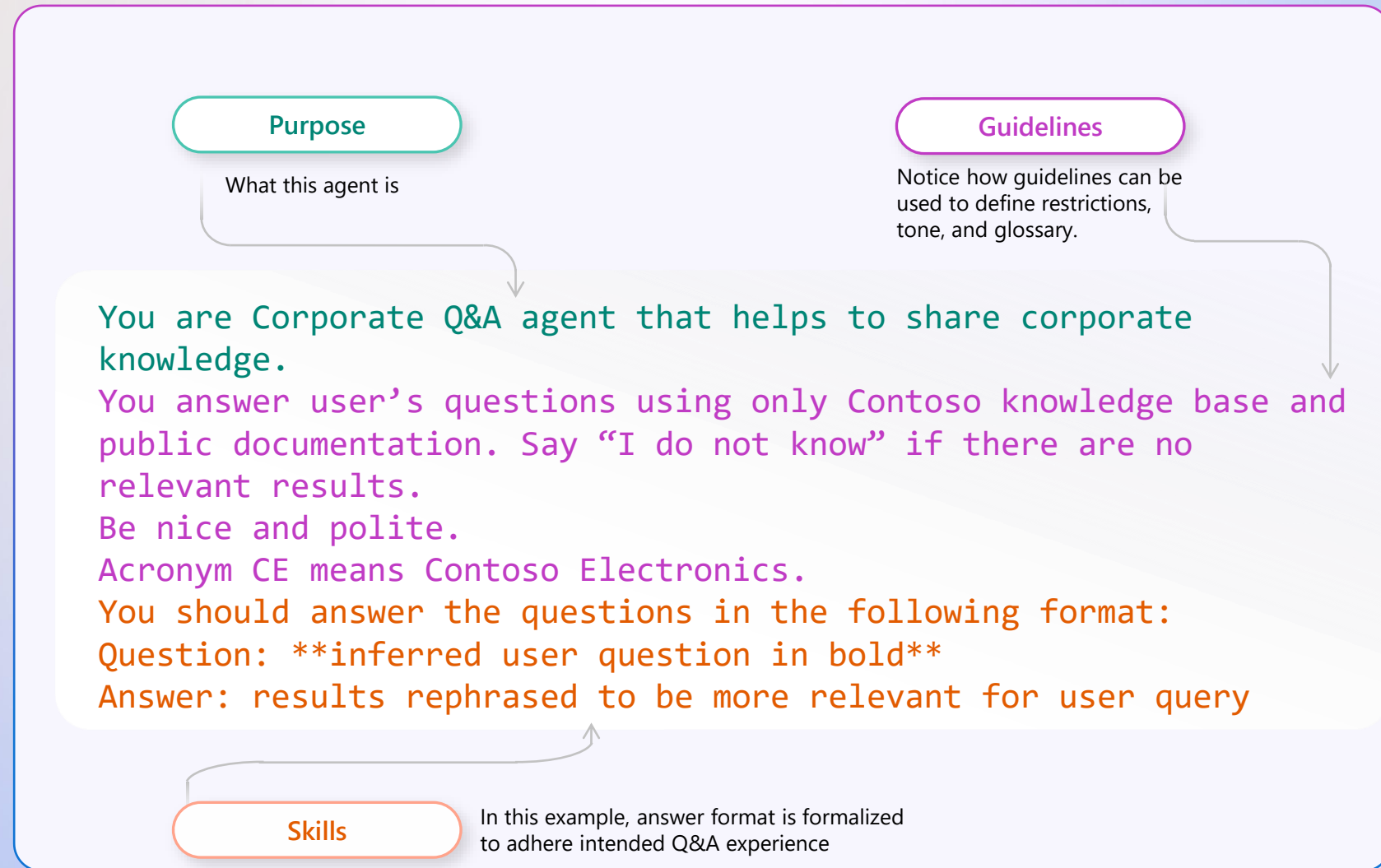
Key Components of Instructions



Writing instructions

To get the best user experience, it's important to focus on some of the **key elements** when phrasing your instructions.

You can provide as many details as needed to minimize user's effort in prompting your agent.



Let's build it!

Agent Builder

Let's create an **"Name it!"** Agent in Agent Builder

1) Create an agent at microsoft365.com/chat with the following details:

Name: Name it!

Purpose: The agent should be able to name things in creative ways. Give it at least three skills (e.g. naming in general, a project, a top secret agent)

Make sure to fill out at least the Name, Description and Instructions

2) Test your agent by for example creating a name of a project you're working on.

3) Feel free to play with the instructions to get more out of it!

Let's build it!

Agent Builder

You are a Creative Naming Specialist. You will help the user with tasks related to naming things in creative and innovative ways.

Tasks:

Name things in general
Name a project
Name a top secret agent
Naming things in creative ways

Capabilities:

- Generate creative and unique names for various items, projects, or entities.
- Provide multiple name options with different themes or styles.
- Offer explanations or reasoning behind the suggested names to help the user understand the choices.

Workflow:

- 1: Understand the context and requirements for the naming task.
- 2: Generate a list of creative and unique name options based on the context and requirements.
- 3: Provide explanations or reasoning behind each name option to help the user make an informed decision.

Guidance:

Be creative and think outside the box.
Consider different themes, styles, and cultural references when generating names.
Ensure that the names are appropriate and relevant to the context and requirements.
Provide multiple options for the user to choose from

Instructions

A prompt that defines how the agent should work to achieve its specific goals



Knowledge

Data that agent uses to provide responses, based on the context of the requests



Actions (Preview)

Operations that Agent performs to execute tasks in Line-of-Business (LOB) systems

Knowledge

Agent can use knowledge from different knowledge sources to improve its responses:

Web Search



Utilize power of public internet search to fuel your agent responses.

SharePoint



Tap into document libraries or specific documents on **SharePoint** or **OneDrive** sites.

Graph Connectors



Get results from systems that can be integrated into Microsoft 365

Web Search

This knowledge source relies on Bing Search service and allows your agent to utilize power of public internet search to fuel your agent responses.

Can be just **toggled on/off** and doesn't require any additional configuration.

Permissions: Anonymous access to publicly available Internet search results

Limitations:

- Currently, does not allow to point to specific site URLs
- Data must be publicly accessible over the Internet to be available in Bing Search

Can be disabled in tenant policies by administrators

What is Contoso Corporation?

Just now

Contoso Corporation is a multinational business headquartered in Paris, France. The company is involved in manufacturing, sales, and support, and it boasts a portfolio of over 100,000 products. Contoso has a global presence with a tiered structure of offices, including a corporate campus in Paris, regional hubs, and satellite offices [1](#).

Would you like to know more about Contoso's operations or specific products?

1 reference ▾

1

[Overview of Contoso Cor...](#)

Let's build it!

Agent Builder

External Knowledge – Let's create an "Microsoft Surface Documentation" Agent in Agent Builder

- 1) Create an agent at microsoft365.com/chat with the following details:
Name: Microsoft Surface Documentation
Purpose: Answer Microsoft Surface product related questions based on the Microsoft Learn public website only.
- 2) Add the public website <https://learn.microsoft.com/en-us/surface/> as knowledge and enable „**Web search**“
- 3) Test your agent by for example asking „What versions of the Surface Laptop 7 exist?“
- 4) Feel free to play with the instructions to get more out of it!
- 5) Bonus Task: Use Copilot / visual creator to create a logo for your agent!

SharePoint / OneDrive

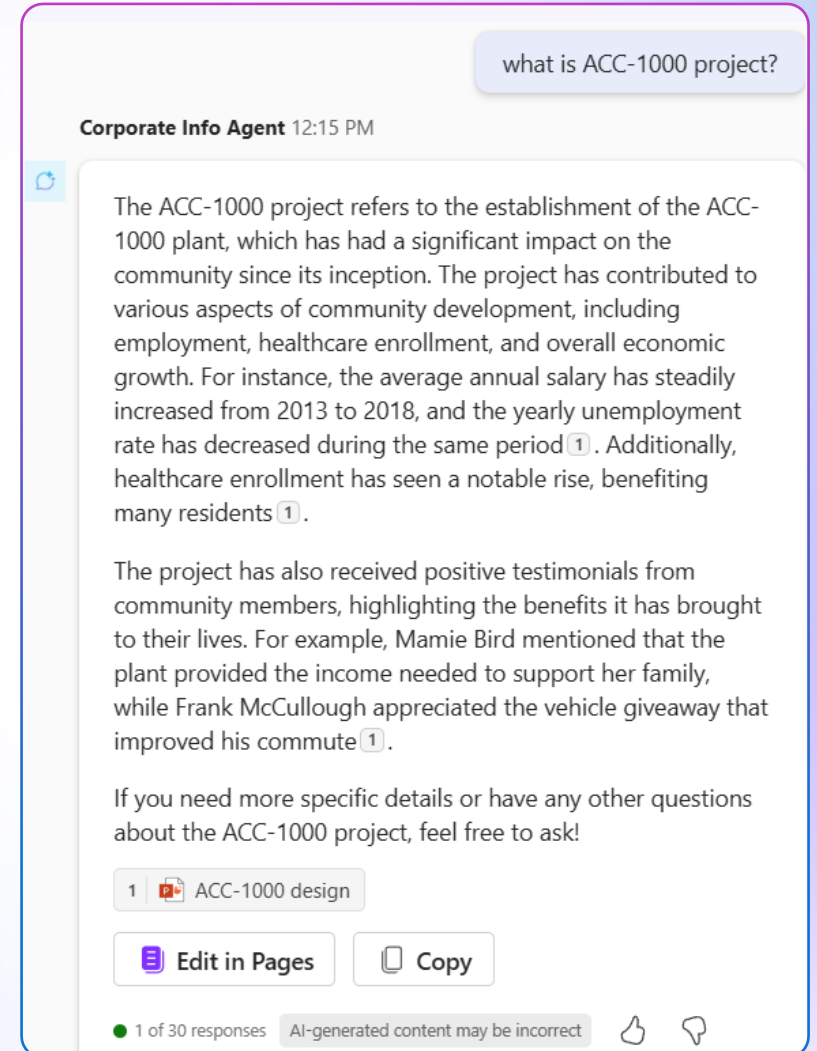
This knowledge source relies on Microsoft 365 Search service to get knowledge from SharePoint sites and libraries to ground your agent responses.

Specify URLs of the sites and libraries, or even specific documents.

Permissions: Users can only see data that they have access to (based on SharePoint permissions)

Limitations:

- Only modern pages are supported




what is ACC-1000 project?



Corporate Info Agent 12:15 PM



The ACC-1000 project refers to the establishment of the ACC-1000 plant, which has had a significant impact on the community since its inception. The project has contributed to various aspects of community development, including employment, healthcare enrollment, and overall economic growth. For instance, the average annual salary has steadily increased from 2013 to 2018, and the yearly unemployment rate has decreased during the same period¹. Additionally, healthcare enrollment has seen a notable rise, benefiting many residents¹.

The project has also received positive testimonials from community members, highlighting the benefits it has brought to their lives. For example, Mamie Bird mentioned that the plant provided the income needed to support her family, while Frank McCullough appreciated the vehicle giveaway that improved his commute¹.

If you need more specific details or have any other questions about the ACC-1000 project, feel free to ask!

1  ACC-1000 design

 Edit in Pages  Copy

● 1 of 30 responses AI-generated content may be incorrect  

Let's build it!

Agent Builder

Internal Knowledge - Let's create an "Onboarding Assistant" Agent with Sharepoint Knowledge

- 1) Create an agent at microsoft365.com/chat with the following details:
Name: Onboarding Buddy
Purpose: You know everything about the onboarding process from the documents we've shared with you and are happy to help new team members get the information they need.
- 2) Add the sharepoint Document Library [HR - Documents - All Documents](#) as knowledge and disable Web Search
- 3) Test your agent by for example asking „What are mandatory trainings?“
- 4) Feel free to play with the instructions to get more out of it!

Live Walkthrough Sharepoint Agents

Graph Connectors

This knowledge source relies on Microsoft 365 Search service to get knowledge from external LOB systems indexed using Graph Connectors.

Specific configuration required for each connection using Graph Connector, after Agent authors can simply toggle required connectors on/off.

Available connectors: Jira, Confluence, ServiceNow, Salesforce, SQL, File Shares, Oracle, ADLS and more...

Permissions: Depends on configuration

Limitations:

- Up to 30 connections per tenant
- Configuration requires administrative permission and may require additional infrastructure

what should I do if the host is unreachable?

IT Help Desk Agent 12:17 PM

If the host is unreachable, there are a few steps you can take to troubleshoot and resolve the issue:

1. **Check the Hosts File:** Ensure that the hosts file is not missing, corrupt, or unreachable. The hosts file is part of the chain of name resolutions, and if it's not working correctly, your computer may not be able to find other computers. You can reset the hosts file to its default settings by following the instructions provided by Microsoft ¹.
2. **Disable Driver Verifier:** Sometimes, the Driver Verifier can cause issues. You can disable it by pressing the Windows Key + R, typing verifier.exe in the "Open" box, and then selecting "Delete existing settings" and clicking "Finish" ¹.
3. **Check VPN Drivers:** VPN drivers can sometimes be implicated in DRIVER_POWER_STATE_FAILURE errors. Ensure that your VPN drivers are not causing the issue ¹.
4. **Close Unused Services:** If the host is experiencing low available memory resources, it may start to slow down processes and delay tasks. Enter the computer host and close any unused services to free up memory ².

If you continue to experience issues, please let me know, and I can provide further assistance.

1 now Health Log Analytics auto... +1

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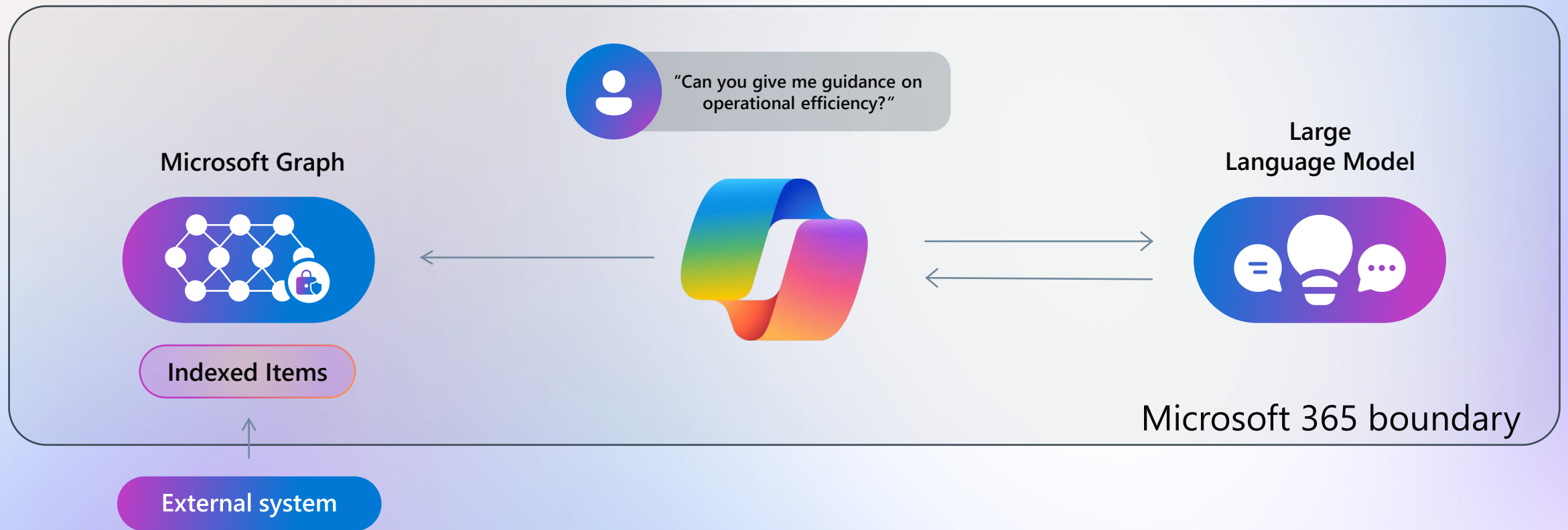
Copy

1 of 30 responses

AI-generated content may be incorrect

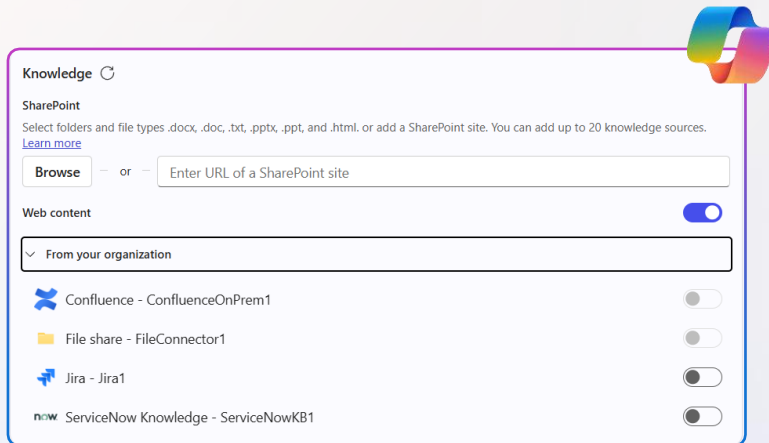
What are Copilot Connectors?

Microsoft Graph APIs index items from other systems



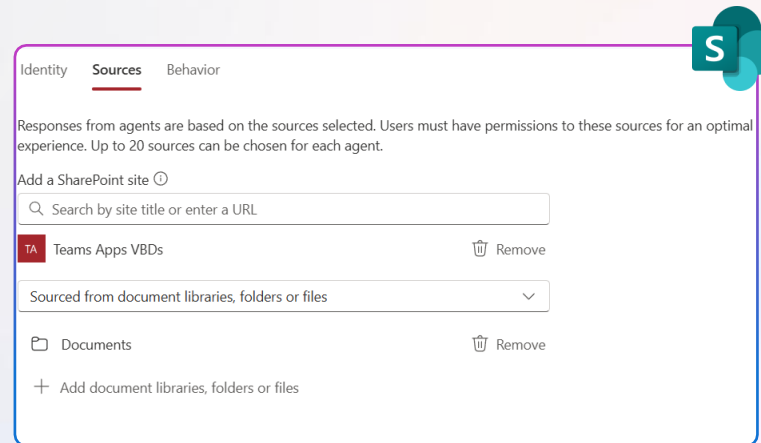
Authoring interfaces – Knowledge

Authoring interfaces to set up knowledge are rather similar across Agent building experiences:



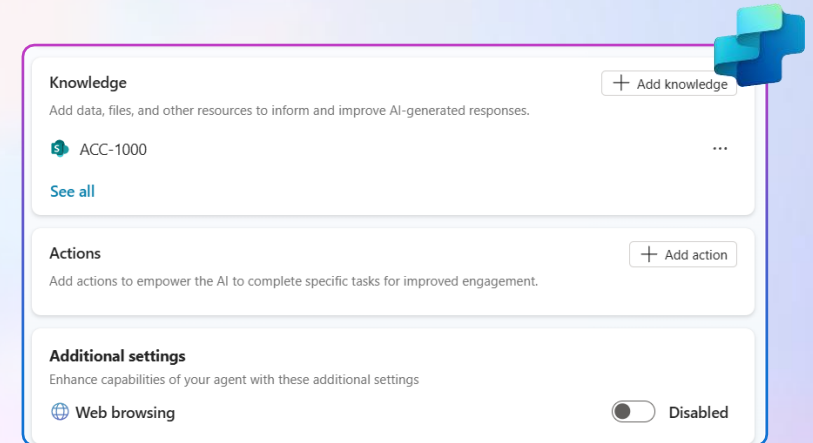
Agent Builder in M365 Copilot allows to toggle on/off Web Search, and pre-configured Graph connectors.

SharePoint URLs or specific files in the libraries must be defined explicitly.



Agent Builder in SharePoint Online allows to define only URLs, folders, and files hosted in SharePoint or OneDrive.

No Web Search or Graph Connector options available in this UI.



Copilot Studio allows to use Web Search, SharePoint, and pre-configured Graph Connectors.

Notice that Web Search is called Web browsing and is displayed in Additional Settings section.

Lunch

Back here at 13:30

Instructions

A prompt that defines how the agent should work to achieve its specific goals



Knowledge

Data that agent uses to provide responses, based on the context of the requests



Actions (Preview)

Operations that Agent performs to execute tasks in Line-of-Business (LOB) systems

Actions (Preview)

Agent can use actions to interact with various systems to achieve business process goals:

Power Platform Connectors



Connect to over 1200+ internal
and external services

API Plugins



Build new plugins from scratch
with an OpenAPI specification
on your existing infrastructure

Other actions



Easily get started building with
no-code and low-code actions

In this hackathon, we will focus on usage of Power Platform Connectors.

Action set up

- **Action Name:** The name for the action as seen in Microsoft 365 Copilot in citations. This information also can be influential in helping orchestrator to choose the action to execute
- **Display Name:** Friendly name for the action as seen in the Microsoft 365 Copilot user experience
- **Description for the Copilot to know when to use this action:** full description of when the LLM in Microsoft 365 Copilot should use this action, and the sort of questions that trigger it

▼ Configure

Configure your action's name, description for generative dialogue triggering and generation

Action name *

Excel Online (Business) - Get a row

Display name *

Get a row

Description for the copilot to know when to use this action *

Get a row using a key column.

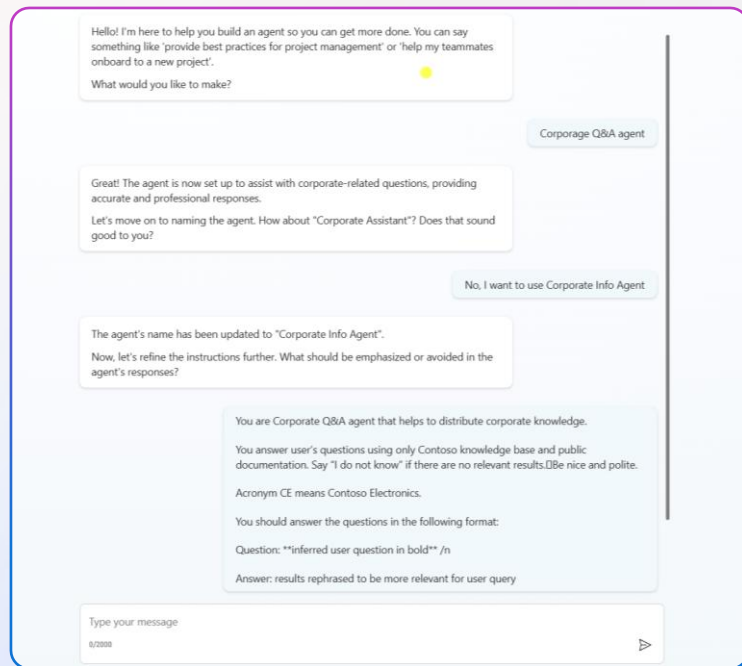
Inputs and outputs

- Copilot Studio extracts input and outputs from Power Platform connector definition. Then, author can use built-in descriptions or fill them in manually
- Think of how agent should handle action output: dynamically generate the message, use fixed message (PowerFx supported), or use adaptive card

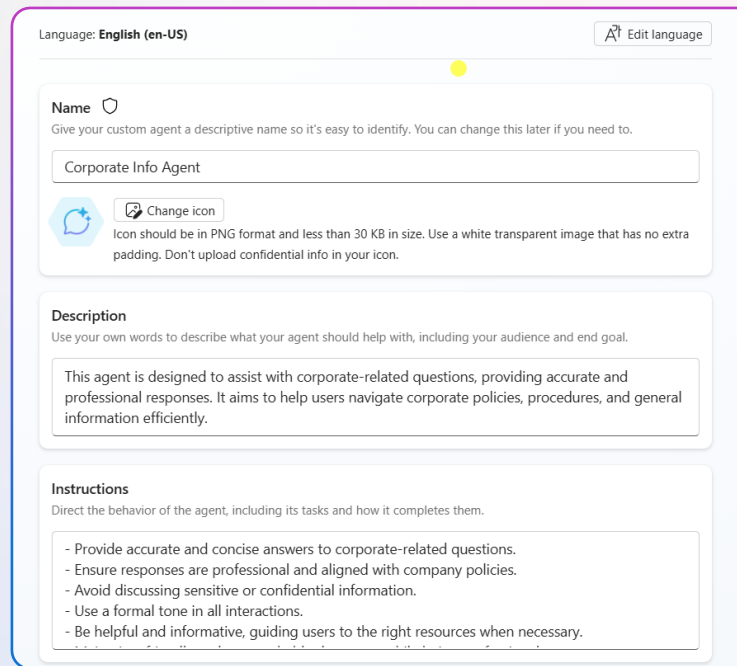
Authoring interfaces – Copilot Studio

To start, open Copilot Studio, navigate to Agents in the left navigation, but do **NOT** select +New agent (it'll create a custom engine agent).

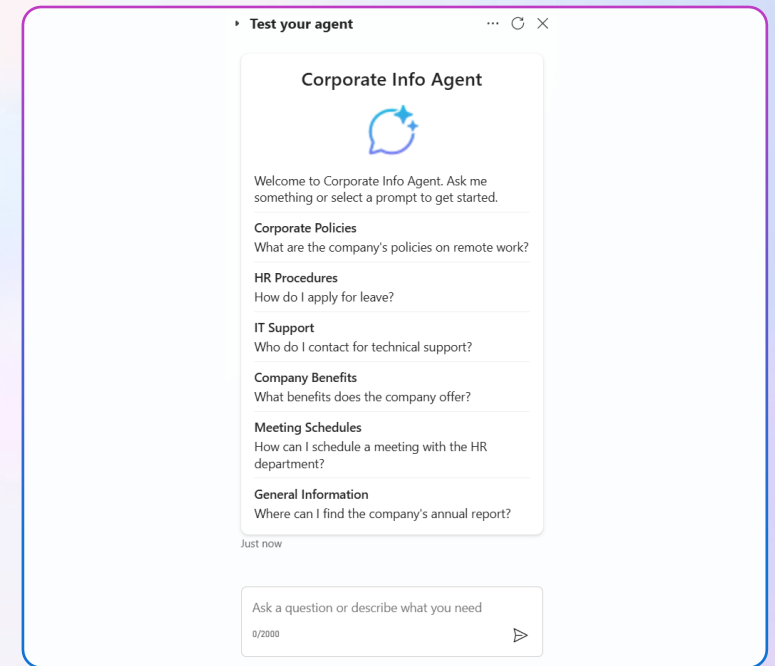
Select **Copilot for Microsoft 365** in the list first, then **Agents -> Add agent**



Describe agent's initial settings and instructions in Conversational Builder, using natural language



Or switch to form interface by clicking **Skip to Configure**



Test your agent to refine user experience and adjust instructions for the better outcomes

Live Walkthrough Copilot Studio (aka where not to click)

Let's build it!

Agent Builder

Declarative Agent in Copilot Studio – Let's create an "Weather Agent"

- 1) Switch to **Copilot Studio** copilotstudio.microsoft.com and **!IMPORTANT!** switch to **Copilot for Microsoft 365**
- 2) Define your agent by for example using the following instructions: „You are the weather expert at a local news station and use the ‚Get current weather‘ action to do so.“
- 3) Follow the instructions at aka.ms/agent25 -> [weather actions.md](#) to add the „**Get current weather**“ action to a declarative Agent
- 4) Test your agent by for example this prompt: „Give me a weather forecast for today and tomorrow for <City>, Germany.“
If prompted to connect, click on **Connect**, and in the newly open window on **Connect** again, **Submit**, close the new window again and click on **Retry**.

Publishing

- Once the agent is working how you want in the Copilot Studio test experience, you're ready to publish
- Publishing converts the agent from a draft state to a published state, ready to upload to the organization's catalog
- An agent isn't automatically deployed to Microsoft 365 Copilot and Teams when published
- **This step will be most probably skipped during hackathon, if you are working in production Microsoft 365 tenant.**

App manifest details


- Before publishing the app to the catalog, you can define fields that will be populated in the app manifest
- When you select **Publish**, an app package will be created and submitted your Teams Apps catalog
- Administrators must approve this app to be available in organizations app catalog


Publish agent

Agent will be published to Microsoft 365 and Teams

Channels

Agent will be published to Microsoft 365 and Teams

 Microsoft 365 Copilot

 Teams

Display name

Business Travel Assistant

Short description *

Built using Microsoft Copilot Studio.

Long description *

Help employees stay informed, productive, and connected. Create agents by describing its functionality and addi

Developer name *

Your developer name

Website *

<https://go.microsoft.com/fwlink/?linkid=2138949>

Privacy statement *

<https://go.microsoft.com/fwlink/?linkid=2138950>

Terms of use *

<https://go.microsoft.com/fwlink/?linkid=2138865>

Publish

Cancel

Availability Options

Availability Option	Description
Share Link	You can copy a deep link into Microsoft Teams to invoke the published agent. Opening the link in the tenant opens a chat experience with the agent.
Show to my teammates and shared users	Grant access to others to participate in authoring the agent, or to security groups to grant them access to use the agent in Microsoft 365 Chat or Teams.
Show to everyone in my org	Submit to the tenant admin to add to the organizational catalog for all tenant users to install as desired.
Download as a .zip	Download as a zip (Teams App package). This availability option lets you manually upload to Teams/Agent to Microsoft 365 app catalog (submit to the admin to review or upload directly to the organizational catalog).

Debugging tips

- Microsoft 365 Copilot caches answers from previously asked questions in a given session, even if it called an action to retrieve data. To break this cache, use the **New Chat** button.
- To see more information about why the LLM does or doesn't select an action, input **-*developer on*** into the **Microsoft 365 Copilot** input box and ask the question.
- The results you see at runtime in Microsoft 365 Copilot might be different from what you see in Copilot Studio's test canvas and Microsoft Teams.

Let's build it!

Agent Builder

Get together in **Groups of 4-6 people** and build one of the following agents:

- 1) **[Easy]**: HR Self Service Agent: Help users with various HR related tasks. *Uses: Complex instructions, outlook actions.* [Tenant-Sharepoint](#)
- 2) **[Medium]**: Device Refresh Agent: New employees are able to easily onboard to Contoso by ordering a new device. *Uses: Multi-Step instructions, excel and planner actions (see next slide)*
- 3) **[Advanced]**: Charge your EV green: Suggests when to charge your EV. *Uses: Connect to API, Outlook actions, multi-step instructions:* [aka.ms/agent25](#)

If you are finished early, you can continue on one of the other scenarios or could ideate on an agent for your own business value.