



Microsoft Copilot for Azure

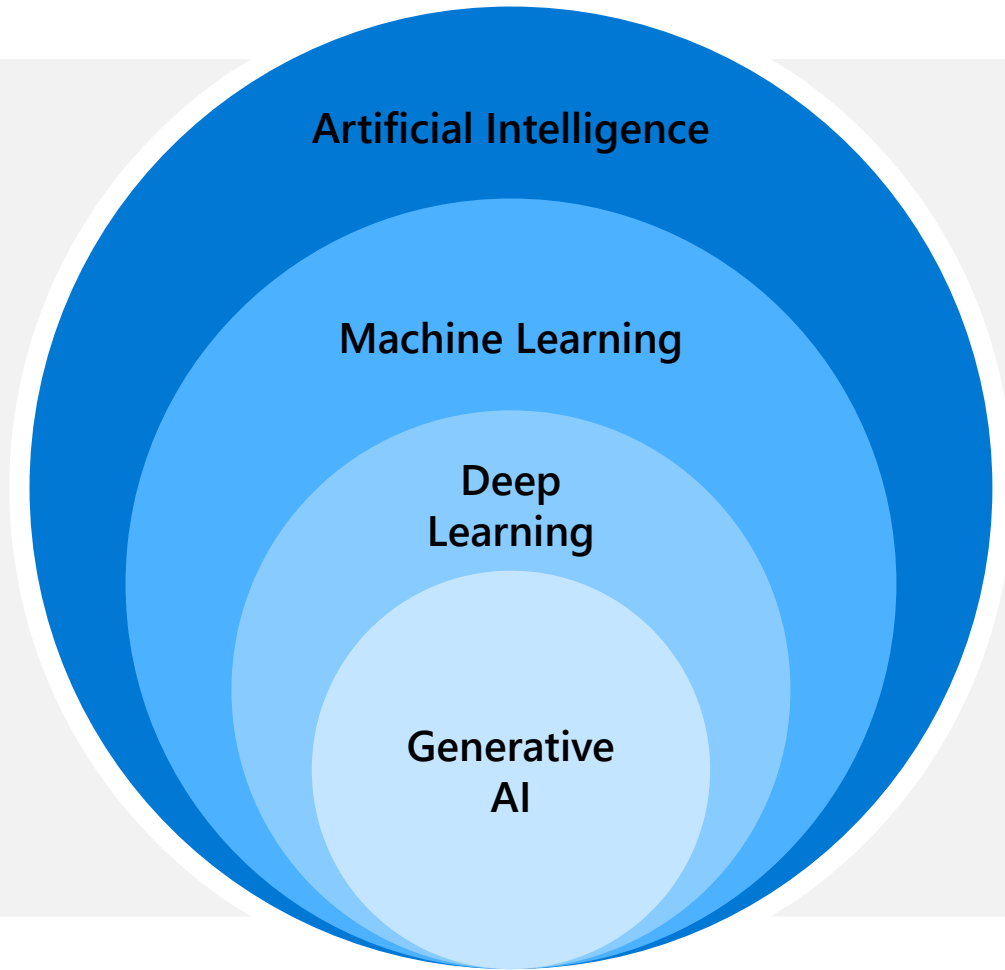
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Cloud Solution Architects

Agenda

1. Overview
2. Capabilities
3. Responsible AI FAQ
4. Demos
5. Under the hood

The journey continues with generative AI



1956

Artificial Intelligence

The field of computer science that seeks to create intelligent machines that can replicate or exceed human intelligence.

1997

Machine Learning

Subset of AI that enables machines to learn from existing data and improve upon that data to make decisions or predictions.

2012

Deep Learning

A machine learning technique in which layers of neural networks are used to process data and make **decisions**.

2021

Generative AI

Create new written, visual, and auditory content given prompts or existing data.

Microsoft and OpenAI partnership



Ensure that artificial
general intelligence
(AGI) benefits humanity



Empower every person
and organization on the
planet to achieve more

Azure OpenAI Service – as of February 20, 2023

GPT-4, 4-Turbo and
3.5-Turbo

Language

GPT-4 Vision

Multi-Modal

Babbage and
Davinci

Fine Tuning

DALL·E 3

Images

Whisper

Transcription &
Translation

On Your Data

Azure AI Studio

Assistants

A copilot for every Microsoft Cloud experience

Microsoft 365 Copilot

Empower everyone with a copilot that works alongside you

Dynamics 365 Copilot

Specialized copilots for every role and function

Copilot in Power Platform

Imagine it, describe it, and Power Platform builds it

Microsoft Security Copilot

Defend at machine speed with Microsoft Security Copilot

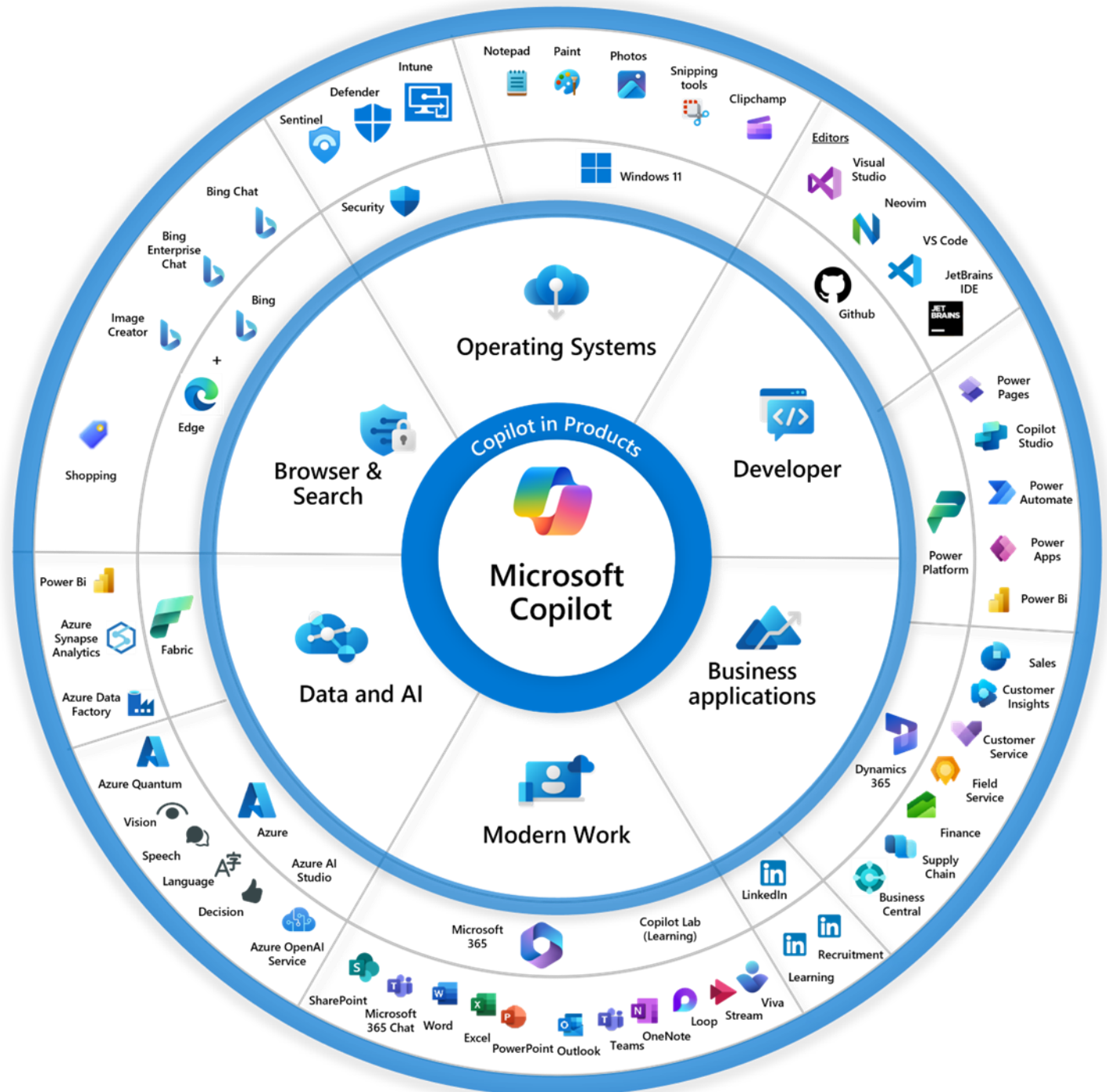
Windows Copilot

The first centralized AI assistance on a platform

GitHub Copilot

Increase developer productivity to accelerate innovation

A copilot for every Microsoft Cloud experience





Microsoft Copilot for Azure

Microsoft Copilot for Azure is an AI-powered tool simplifies how you design, operate, optimize and troubleshoot both apps and infrastructure from cloud to edge.

It leverages Large Language Models (LLMs), the Azure control plane, and insights about your Azure environment to help you work more efficiently.

Available initially in Azure portal. Expanding to Azure mobile app and CLI.



Microsoft Copilot for Azure

Using across the lifecycle



Design



Operate



Optimize



Troubleshoot



Microsoft Copilot for Azure

Generate deep insights instantly

Find personalized solutions for your workloads with an AI assistant that knows your environment.

Discover new cloud functionality

Ask Copilot questions using natural language to discover and utilize the full functionality of Azure services.

Do complex tasks faster

Optimize processes, resources, and workloads with AI orchestration and analysis.

Capabilities

- Understand your Azure environment
 - Work smarter with Azure services
 - Write and optimize the code
-
- From anywhere in the Azure portal, you can ask Copilot for Azure to explain about Azure concepts, services or offerings.
-
- Describe the problem, and Microsoft Copilot for Azure (preview) will provide some suggestions on how you might be able to resolve the issue.

Microsoft Copilot for Azure - Azure Environment

- Get resource information
 - Write a KQL query to list my VMs by OS
 - Sort them alphabetically
- Understand service health
 - Is there any Azure outage ongoing impacting me?
 - What is the status of the event with tracking ID {0}
- Analyse, estimate, and optimize costs
 - Why did my cost spike on Nov 11th?
 - How can we reduce our costs?
 - Which resources are covered by savings plans?

Microsoft Copilot for Azure - Azure Services

- Deploy Virtual Machines effectively
 - Help me create a cost-efficient VM
 - How do I create a resilient virtual machine
 - Which Virtual Machine size will best suit my requirements?
- Build infrastructure and deploy workloads
 - Help me deploy a website on Azure
 - Can you give me comparison table for these options? Also include approximate cost.
 - I like this infrastructure. Give me an ARM template to deploy this.
 - Can you explain this design in more detail?

Microsoft Copilot for Azure - Azure Services - Cont....

- Get information about Azure Monitor metrics and logs
 - Show me container logs that include word 'error' for the last day for namespace 'xyz'
 - Check in logs which containers keep restarting
- Work smarter with your Azure Resources
 - Find any anomalies in my AKS clusters
 - Summarize my resource usage
- Secure and protect storage accounts
 - How can I prevent this storage account from being deleted?
 - Does this storage account follow security best practices?

Microsoft Copilot for Azure - Write Code

- Generate Azure CLI scripts
 - I want to use Azure CLI to deploy AKS using a private service endpoint
 - I want to create a web app using Azure CLI
- Author API Management policies
 - Generate a policy to remove a 'X-AspNet-Version' header from the response
 - Generate a policy to configure rate limiting with 5 requests per second
- Generate Kubernetes YAML files
 - Help me generate a Kubernetes YAML file for a "frontend" service using port 8080
 - Generate a Kubernetes Ingress YAML file that routes traffic to my frontend and backend services based on hostnames.

Microsoft Copilot for Azure - Optimize & Troubleshoot

- Optimize your code
 - My app code is running slow
 - Show my code performance recommendations
 - Make my app faster with a code change
- Troubleshoot your apps faster with App Service
 - Take a memory dump
 - My web app is down
 - Enable auto heal

Microsoft Copilot for Azure - Cosmos DB

- Generate a query
 - Show all products that have the word "ultra" in the name or description
 - Count all the products, group by each category
 - Show me all names and prices of products that reviewed by someone with a username that contains "Mary"

Cosmos DB Queries

The screenshot displays the Azure Cosmos DB web interface. At the top, there is a search bar and a navigation bar with icons for various tools. Below the navigation bar, the left sidebar contains a list of menu items: Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Cost Management, Quick start, Notifications, Data Explorer (highlighted), Settings, Features, Replicate data globally, Default consistency, Backup & Restore, Networking, and CORS. The main content area is titled 'Welcome to Azure Cosmos DB' and includes the subtitle 'Globally distributed, multi-model database service for any scale'. Below the title, there are four action cards: 'Launch quick start' (with a lightning bolt icon), 'New Container' (with a blue square icon), 'Query faster with Copilot' (with a Copilot icon), and 'Connect' (with a plug icon). The top right of the interface shows 'Execute Query' and 'Save Query' buttons, along with settings, help, and feedback icons.

Search

Execute Query Save Query

Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
Cost Management
Quick start
Notifications
Data Explorer
Settings
Features
Replicate data globally
Default consistency
Backup & Restore
Networking
CORS

NOSQL API <

Home

MY DATA

SAMPLE DATA


CopilotSampleDb


NOTEBOOKS


Gallery


Welcome to Azure Cosmos DB

Globally distributed, multi-model database service for any scale

**Launch quick start**
Launch a quick start tutorial to get started with sample data

**New Container**
Create a new container for storage and throughput

**Query faster with Copilot**
Copilot is your AI buddy that helps you write Azure Cosmos DB queries like a pro. Try it using our sample data set now!

**Connect**
Prefer using your own choice of tooling? Find the connection string you need to connect

Cosmos DB Queries

NOSQL API

MY DATA

SAMPLE DATA

CopilotSampleDb

NOTEBOOKS

Gallery

Home

Query

Execute Query

Save Query

Copilot

Find all products that have at least 4 reviews

AI-generated content can have mistakes. Make sure it's accurate and appropriate before using it. [Read preview terms](#)

Provide feedback on the query generated

Copy query

Delete query

```
1 -- **Prompt:** Find all products that have at least 4 reviewers
2 -- **Explanation of query:** The query selects the 'name' property from the container where the length of the 'customerRatings'
  array is greater than or equal to 4. The ARRAY_LENGTH function is used to get the length of the 'customerRatings' array for each
  record in the container. If the length is greater than or equal to 4, the record is included in the result.
3 SELECT c.name FROM c WHERE ARRAY_LENGTH(c.customerRatings) >= 4
```

Results

Query Stats

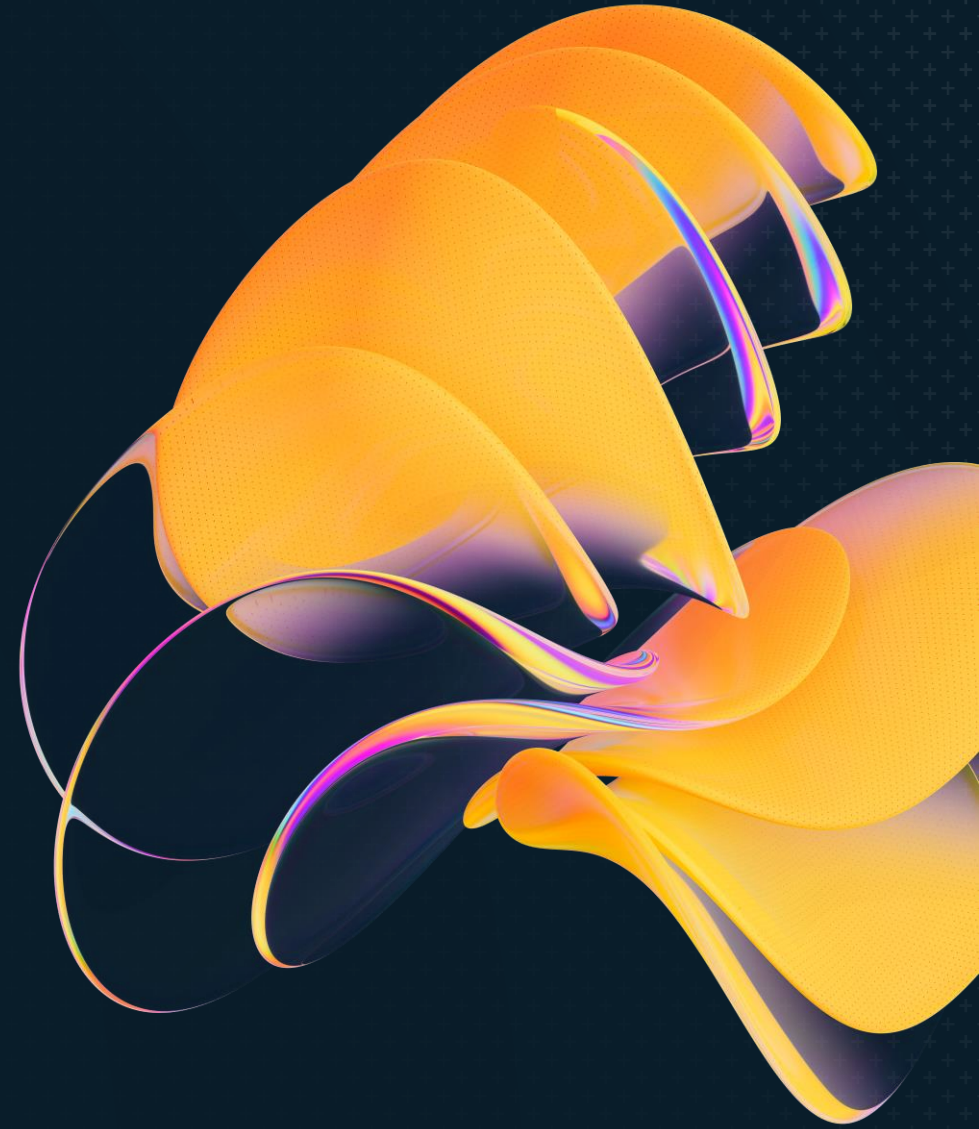
1 - 100 | Load more

```
{
  "name": "Amazing Phone 3000 (Black)"
},
{
  "name": "Basic Keyboard Micro (Black)"
},
{
  "name": "Luxe Phone Micro (Gold)"
},
{
  "name": "Premium Mouse Ultra (Steel)"
},
{
```

Responsible AI

- Are Microsoft Copilot for Azure's results reliable?
- How does Microsoft Copilot for Azure (preview) use data from my Azure environment?
- What data does Microsoft Copilot for Azure collect?
- What should I do if I see unexpected or offensive content?
- Do all Azure services have the same level of integration with Microsoft Copilot for Azure?

Under the hood



Copilot for Azure

Tooling

API
SDK
CLI
PowerShell

Data sources

Cost
Documentation
Logging
Monitoring

Governance

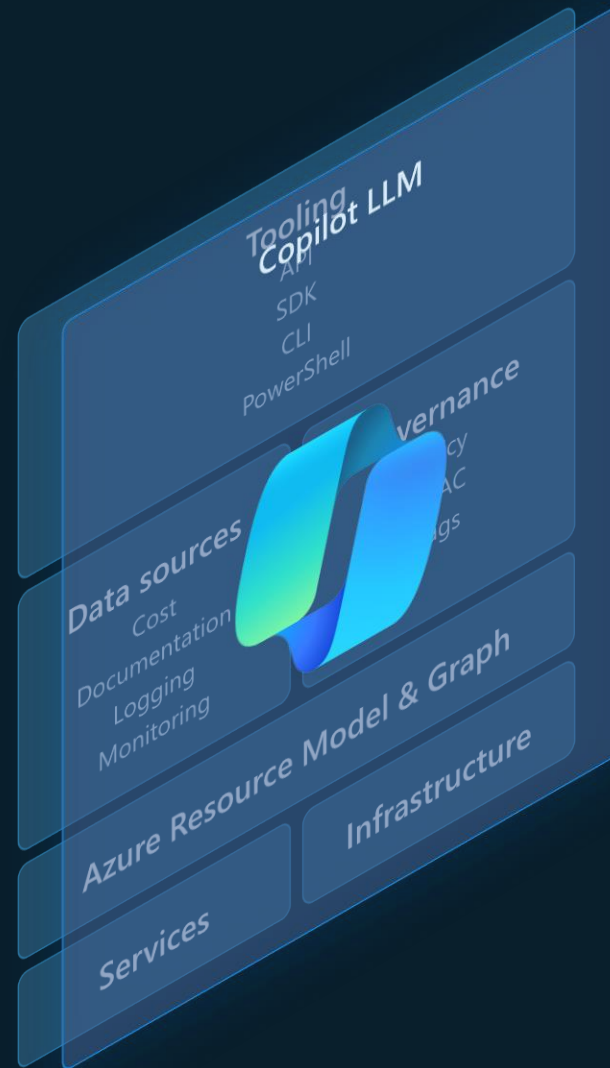
Policy
RBAC
Tags

Azure Resource Model & Graph

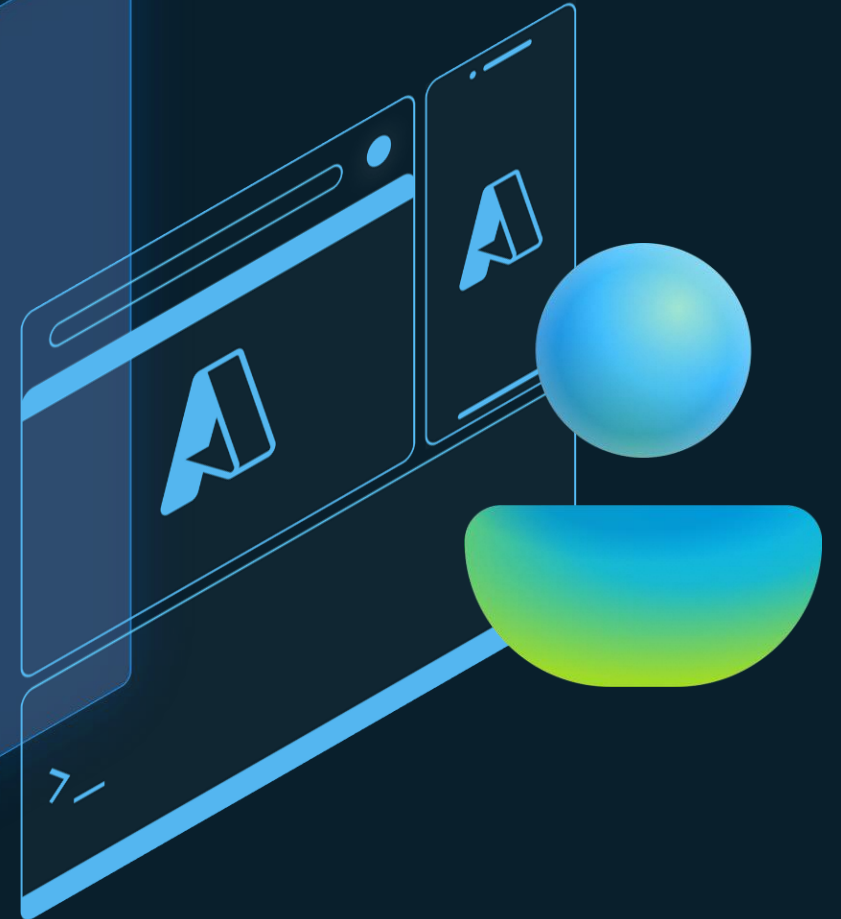
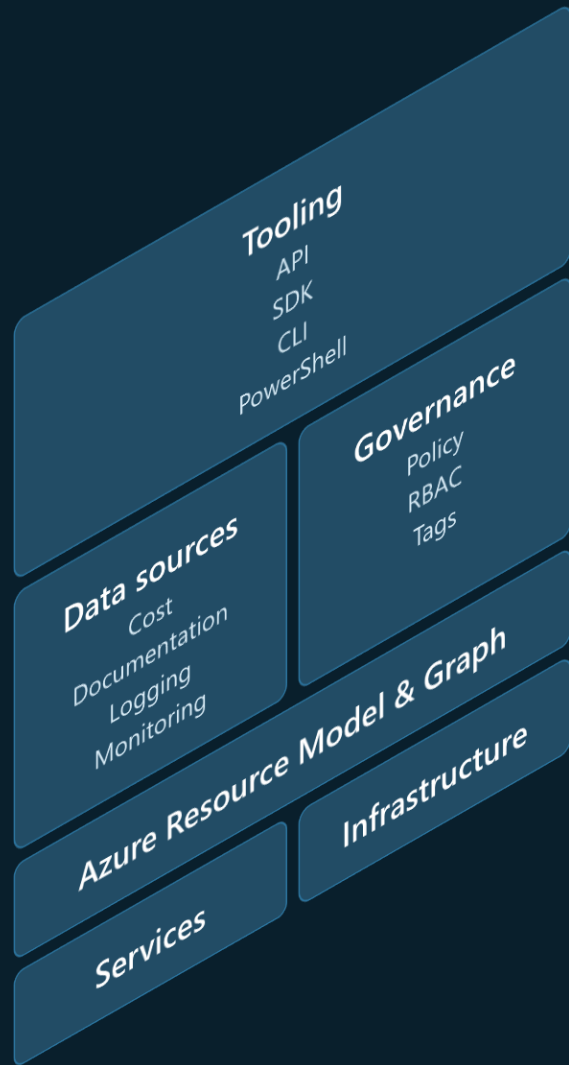
Services

Infrastructure

Copilot for Azure




Copilot for Azure



Azure Arc and Edge

- Edge Computing and Azure Arc serve complementary purposes, and their integration provides a powerful solution for managing resources across diverse environments.
- Azure Arc is a bridge that extends the Azure platform to help you build applications and services with the flexibility to run across datacenters, at the edge, and in multicloud environments.
- Azure Edge enables you to process data locally on these edge devices or nearby servers.

Feedback for Co-Pilot

 Copilot
Preview

...

×

Contrast Light, and High Contrast Dark.
AI-generated content may be incorrect

4 of 10 requests

Change portal theme to dark

Changing theme to Dark
AI-generated content may be incorrect

Submit feedback to Microsoft

×

What did you like?

Provide details without including personal information

Share my prompts and generated responses for this chat.
Preview what will be shared [here](#)

☐ Yes, share

☐ No, don't share

By pressing Submit, your feedback will be used to improve Microsoft products and services. [Privacy statement](#)

Submit

Cancel


6 of 10 requests

Great! Please take a minute to [provide some details](#), it'll help Copilot get even better.

I want to ...

0 / 500

▶

 Copilot
Preview

...

×

Contrast Light, and High Contrast Dark.
AI-generated content may be incorrect

4 of 10 requests

Change portal theme to dark

Changing theme to Dark
AI-generated content may be incorrect

Submit feedback to Microsoft

×

The content is

☐ Inaccurate

☐ Irrelevant

☐ Offensive or inappropriate

☐ Too slow to respond

☐ Other

What went wrong?

Provide details without including personal information

Share my prompts and generated responses for this chat.
Preview what will be shared [here](#)

☐ Yes, share

☐ No, don't share

By pressing Submit, your feedback will be used to improve Microsoft products and services. [Privacy statement](#)

Submit

Cancel

Copilot get even better.

I want to ...

0 / 500

▶

Resources



[Discussion](#)



[Blog Post](#)



[Learn how to sign-up](#)



[Documentation](#)



Request Access to Preview Microsoft Copilot for Azure

Please read all instructions carefully and complete form as instructed

Thank you for your interest in Microsoft Copilot for Azure. Please submit this form to register for approval to access and use limited public preview of Microsoft Copilot for Azure.

Limited access: Please visit aka.ms/MicrosoftCopilotForAzureLimitedAccess to learn more about limited access of Microsoft Copilot for Azure.

- Microsoft Copilot for Azure is only available to approved enterprise customers.
- Microsoft Copilot for Azure is only available to public cloud (no national clouds).
- Access to Microsoft Copilot for Azure would be for the entire tenant(s) that you will provide below.
- Microsoft Copilot for Azure is available only in English during the limited access public preview.
- Microsoft Copilot for Azure is available only in portal.azure.com
- Microsoft Copilot for Azure limited access public preview comes with no additional charge.

Possible causes for a denied application:

- 1) You are not an approved enterprise customer
- 2) Application submitted with personal email (Example: @gmail.com, @yahoo.com, @hotmail.com, etc.)

Updates about your onboarding request: Please add maccount@microsoft.com and azurecopilotpp@microsoft.com to your Safe Senders list to ensure you receive all correspondence pertaining to your application. For any issues about the application process, please contact our support team at azurecopilotpp@microsoft.com.

Feedback Link : <https://forms.office.com/r/j53u1DVcf9>

Feedback QR:



Thank You