Introducing Microsoft Copilot for Azure

ANS

Think Bigger.

Agenda

- What is Microsoft Copilot for Azure?

- What can it do?

- How does it work?

- Writing effective prompts

- Limitations

- How do I access it?

- Demo

What is Microsoft Copilot for Azure?

- AI companion that helps you design, operate, troubleshoot and optimise your Azure workloads and environments.

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

- Utilizes large language models (LLMs) and the Azure control plane,

- Currently in limited public preview and you have to request access.

- Available in the Azure Portal (will be available in Azure mobile and the CLI in the future).

- Enabled at a tenant level – applies to all subscriptions

- Enabled for all users, but only has the permissions they have and is still bound by policies and RBAC.

What Can Copilot for Azure Do?

Design

Configure the right services for your applications and environment while aligning with organizational policies.

- Which service should I use to create a web site?
- Help me create an API policy for rate-limiting.

Operate

Use Copilot AI assistance to answer questions, author complex commands, and act on your behalf using natural language

- Generate a CLI script to create...
- What are some ways to secure my Azure storage account?
- Help me make my VM more resilient

Optimise

Improve costs, scalability, security, and reliability through recommendations for your environment.

- Any available app code optimisations?
- How can I improve outbound network connectivity for my VMs?
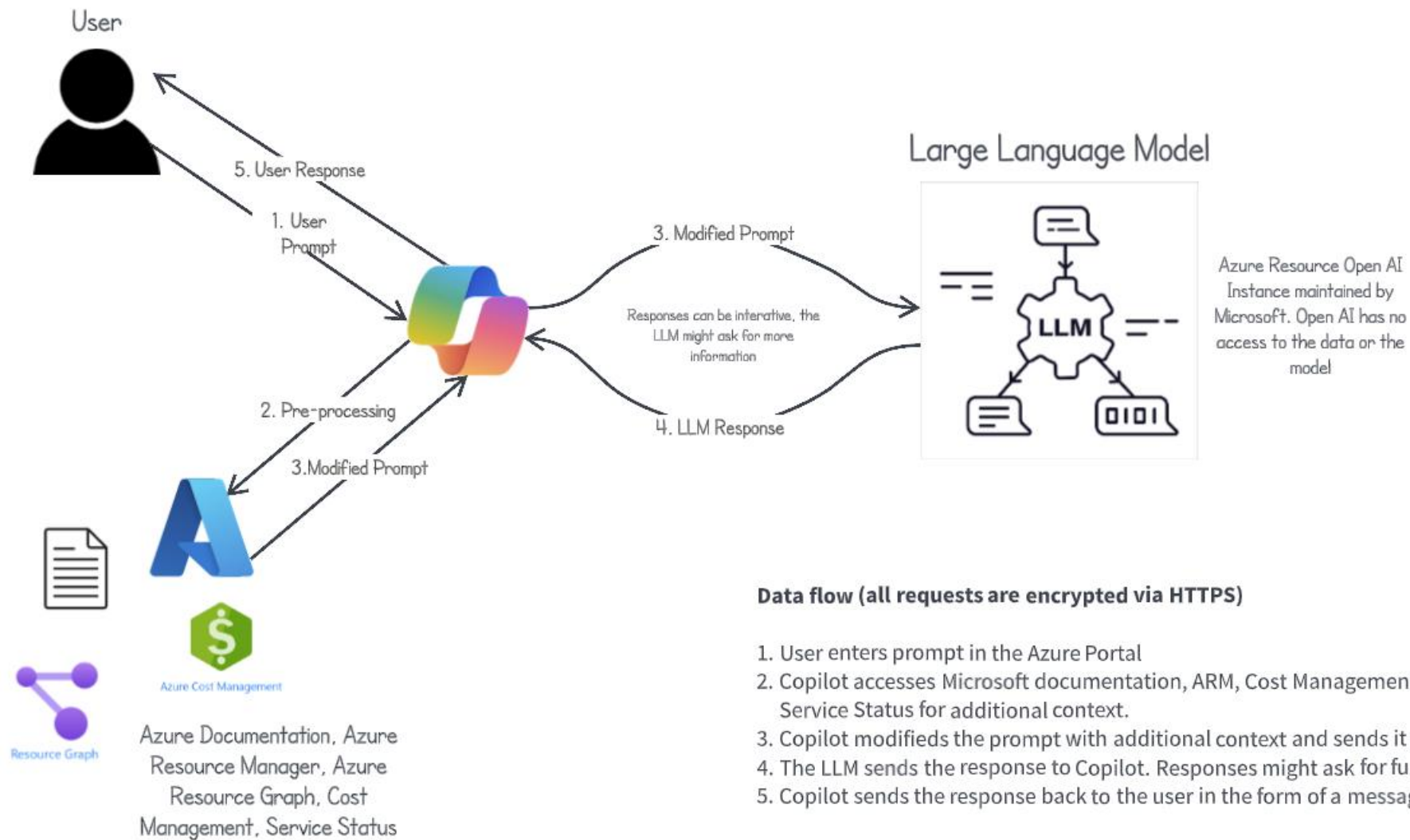- How can I reduce the cost of my VMs?

Troubleshoot

Orchestrate data across Azure services for insights to summarize issues, identify causes, and suggest solutions. E.g.

- Is my web app experiencing any downtime
- Help me detect and diagnose performance issues in my database queries

Example Use Cases.

- Get information through Azure Resource Graph Queries.

- Understand service health events and status.

- Analyse, estimate, and optimise costs.

- Deploy virtual machines effectively

- Build infrastructure and deploy workloads

- Get information about Azure Monitor metrics and logs

- Secure and protect storage accounts

- Improve Azure SQL Database-driven applications

- Generate Azure CLI scripts

- Discover performance recommendations with Code Optimizations

- Author API Management policies

- Generate Kubernetes YAML files

- Troubleshoot apps faster with App Service

- Microsoft Copilot for Azure (preview) capabilities | Microsoft Learn

How does it work?

User

5. User Response
1. User Prompt
2. Pre-processing
3. Modified Prompt

3. Modified Prompt

Responses can be interative, the LLM might ask for more information

4. LLM Response

Large Language Model

Azure Resource Open AI Instance maintained by Microsoft. Open AI has no access to the data or the model

Resource Graph

Azure Cost Management

Azure Documentation, Azure Resource Manager, Azure Resource Graph, Cost Management, Service Status

Data flow (all requests are encrypted via HTTPS)

1. User enters prompt in the Azure Portal
2. Copilot accesses Microsoft documentation, ARM, Cost Management, Resource Graph and Service Status for additional context.
3. Copilot modifieds the prompt with additional context and sends it to the LLM.
4. The LLM sends the response to Copilot. Responses might ask for further context.
5. Copilot sends the response back to the user in the form of a message in the portal

Writing effective prompts.

- Be clear and specific
  - E.g. "Check the performance of Azure SQL Database in the last 24 hours."

- Set expectations – different verbs can return different results, e.g.:
  - For high-level information – **How to** or **Create a guide**.
  - For actionable responses – **Generate**, **Deploy**, or **Stop**.
  - To fetch information – **Fetch**, **List**, or **Retrieve**.
  - To change your view or navigate to a new page, – **Show me**, **Take me to**, or **Navigate to**.

- Add context about your scenario
  - Detail your goals and why you're undertaking the tasks
  - e.g. instead of just saying "Deploy Azure function", describe your end goal in detail, such as "Deploy Azure function for processing data from IoT devices with a new resource".

- Break down your requests into smaller parts.

- Use feedback loops.

Limitations

- Because Copilot is still evolving you may experience errors, time-outs, links that don't work, and generated responses that aren't as relevant.

- AI-generated content can contain mistakes. Make sure it's carefully tested, reviewed, and vetted before making changes to your Azure environment.

- Some Azure services have richer integrations than others.

- Any action taken on more than 10 resources must be performed outside of Microsoft Copilot for Azure.

- You can only make 15 requests during any given chat, and you only have 10 chats in a 24-hour period.

- Some responses that display lists will be limited to the top five items.

- For some tasks and queries, using a resource's name will not work, and the Azure resource ID must be provided.

- Is currently available in English only.

How do I access it?

- Currently in limited public preview.

- Only available to approved enterprise customers and partners.

- Check with your tenant admin before you apply (it is applied to the entire tenant).

- Apply with a business email address, personal accounts will be denied (e.g. @gmail.com, @yahoo.com, @hotmail.com,etc.)

- Review the Microsoft Copilot for Azure transparency note.

- Apply for access

- No charges whilst in preview