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Rivoluziona la gestione di Azure con Copilot in Azure

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Sponsor

TD SYNNEX

Cloud Administration Challenges

Each day, you must accomplish even more…

- …more users
- …more needs
- …more workloads
- …more requirements
- …more services
- …more capabilities
- …more middleware
- …more platforms
- …more solutions
- …more devops

… more …. more
… EVERYDAY!!!

Cloud Administration Challenges

- Correct
- Compliant
- Safe
- Performant
- Repeatable
- Cost Effective

... and YESTERDAY!!!

... and it is necessary ...

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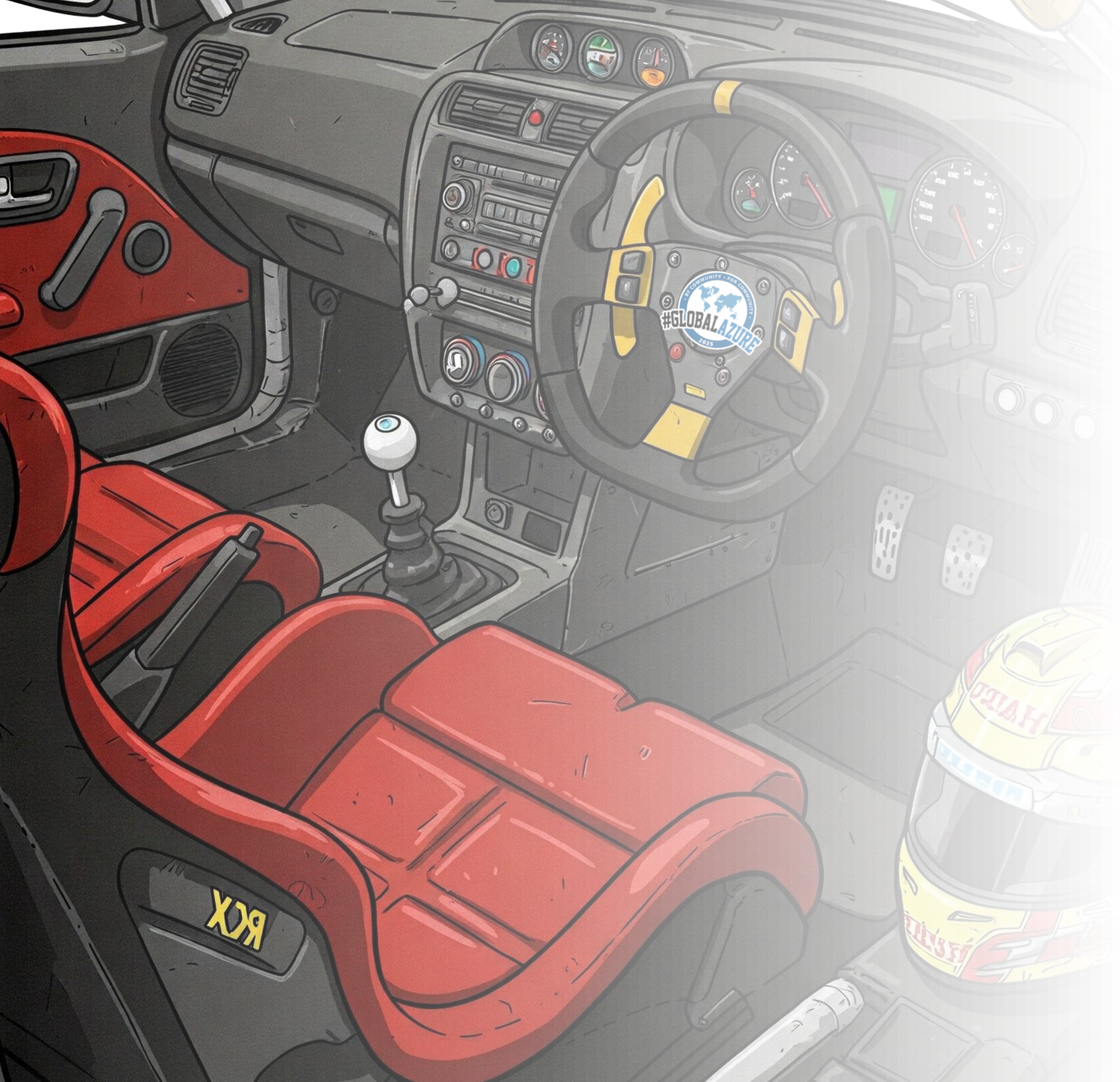
What is Microsoft Copilot in Azure

- Microsoft Copilot in Azure is an **AI-powered** tool to help you do more with Azure.
- With Microsoft Copilot in Azure, you can gain new insights, discover more benefits of the cloud, and orchestrate across both **cloud** and **edge**.
- Copilot leverages **Large Language Models** (LLMs), the **Azure control plane**, and **insights** about your Azure environment to help you work more efficiently.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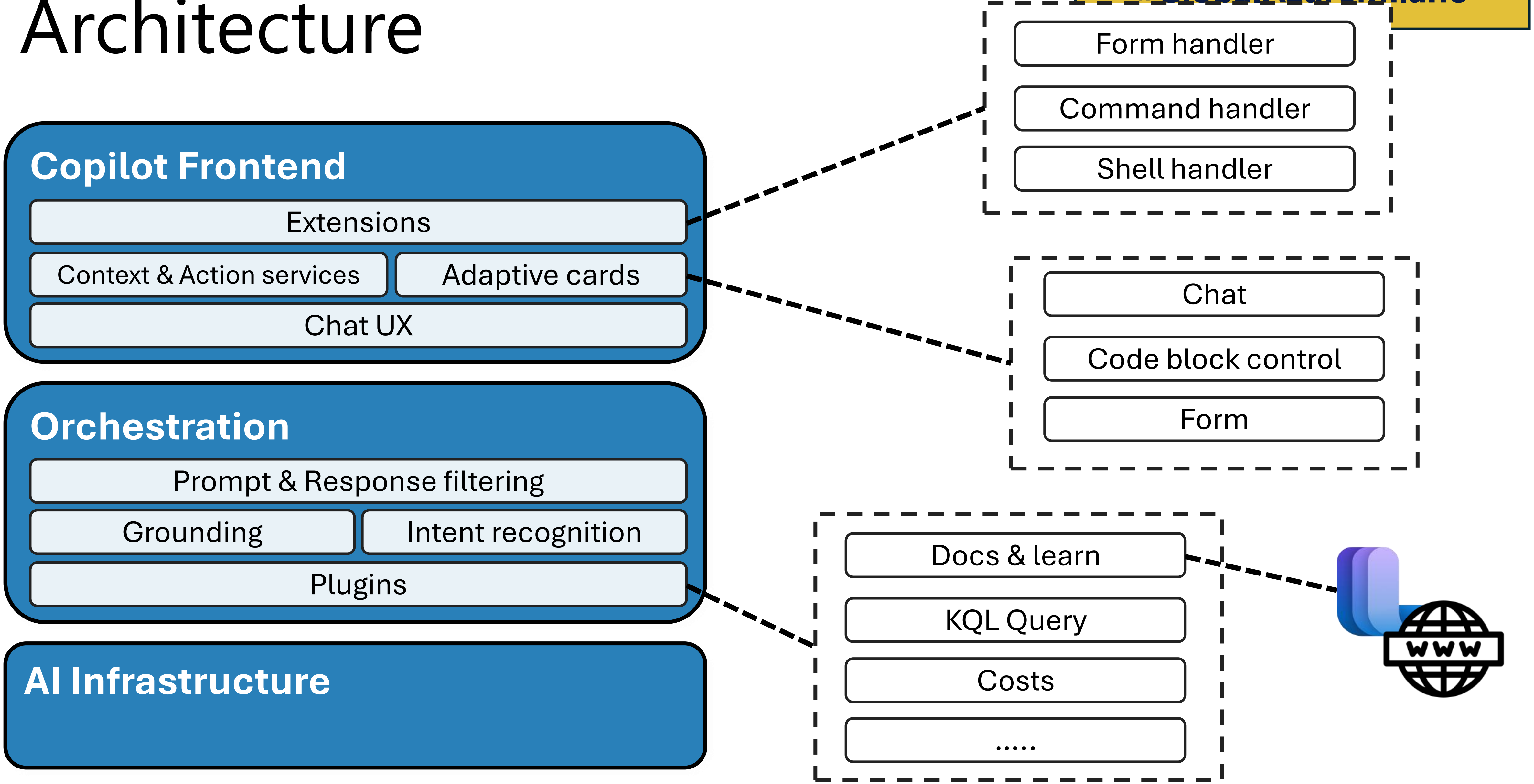
RKX

DEMO
Hello Copilot!!

Architecture



Copilot Frontend

- Extensions
- Context & Action services
- Adaptive cards
- Chat UX

Orchestration

- Prompt & Response filtering
- Grounding
- Intent recognition
- Plugins

AI Infrastructure

- Form handler
- Command handler
- Shell handler

- Chat
- Code block control
- Form

- Docs & learn
- KQL Query
- Costs
- .....

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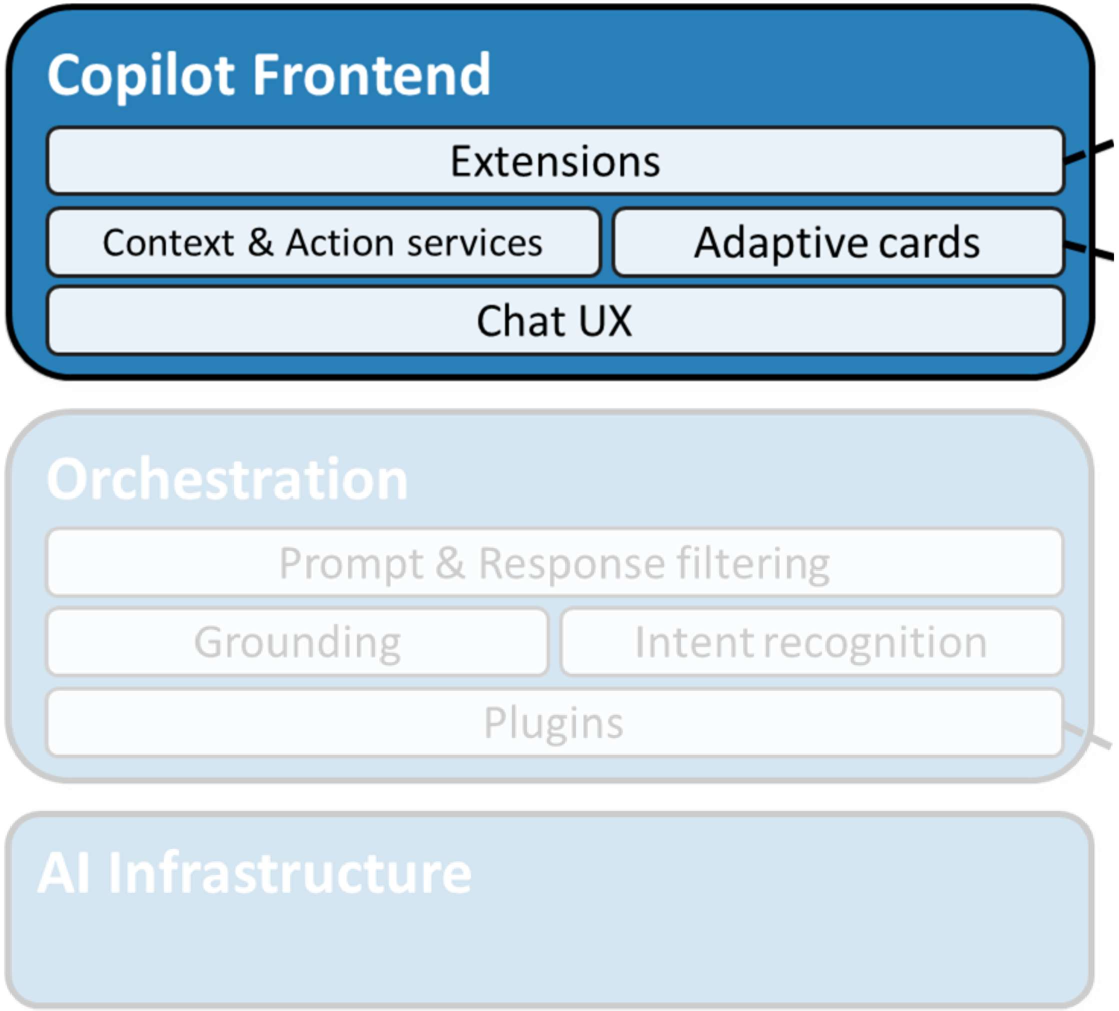
Frontend



Copilot Frontend
Extensions
Context & Action services
Adaptive cards
Chat UX
Orchestration
Prompt & Response filtering
Grounding
Intent recognition
Plugins
AI Infrastructure

Form handler

- The Frontend provides a common, consistent user interface to Copilot in Azure.
- It implements the conversation window, provides multimodal responses to questions (text, charts, illustrations), and collects user feedback.
- It also understands the current navigation context so the user can ask questions in a natural manner over the resources displayed on the current portal page.

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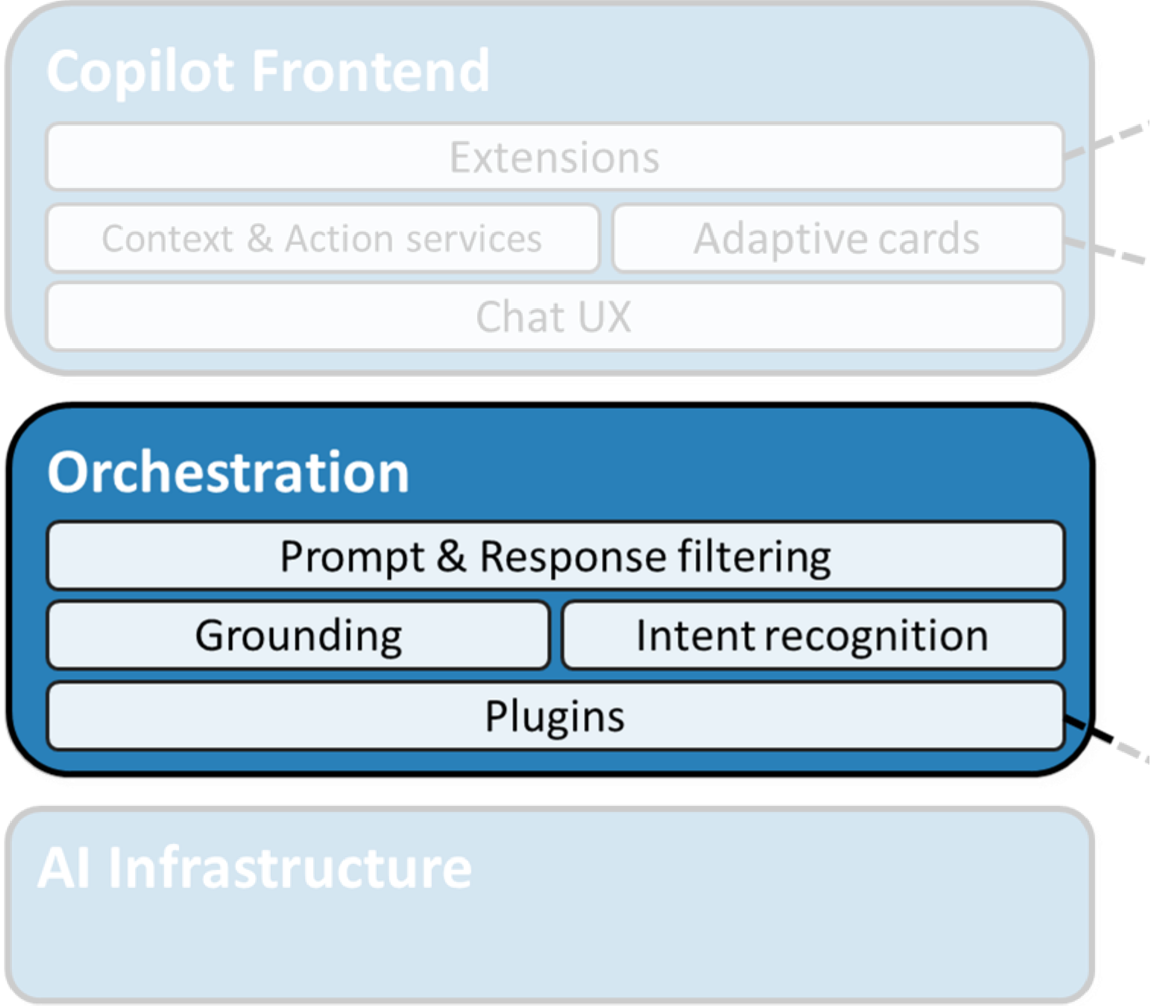
Orchestration

Form handler


Copilot Frontend
Extensions
Context & Action services
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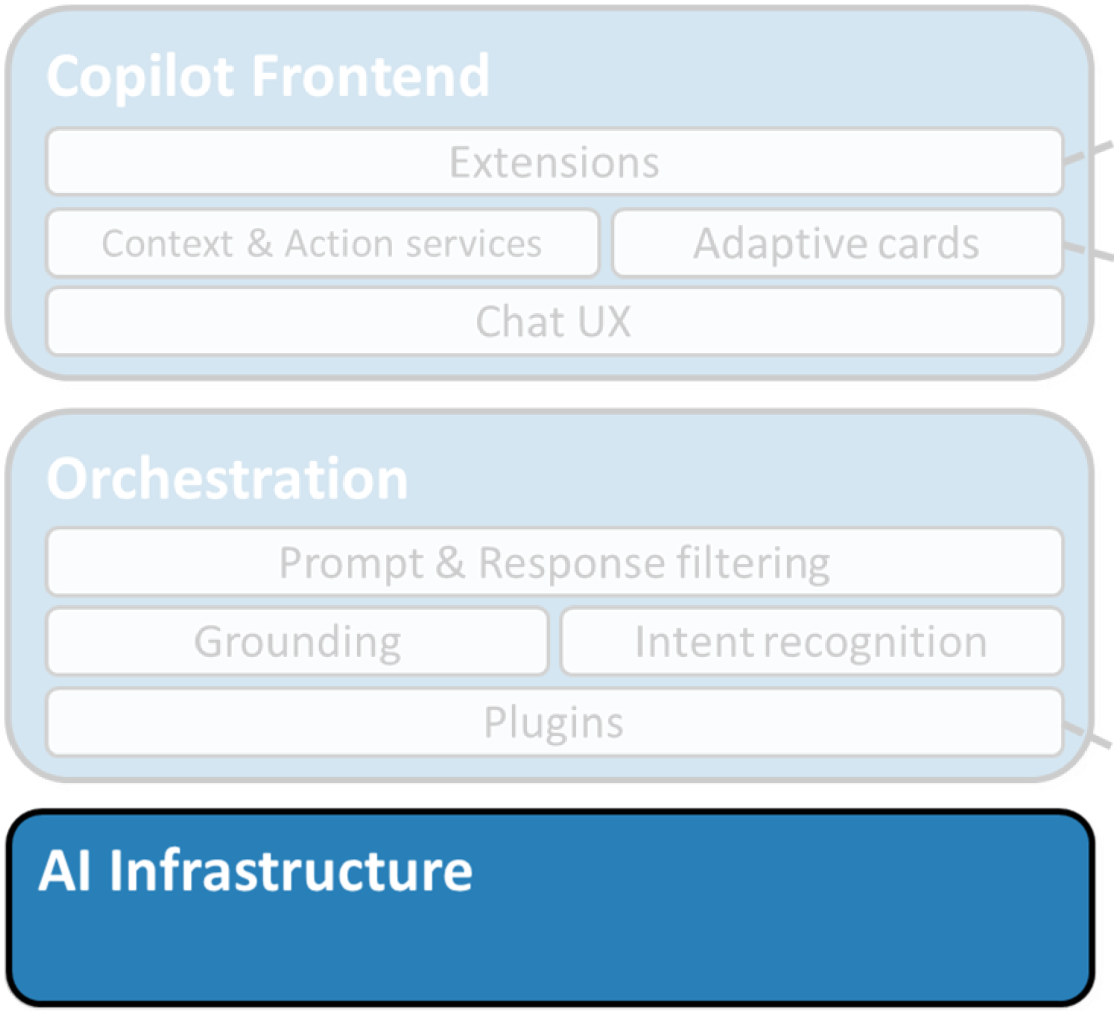
Prompt & Response filtering
Grounding
Intent recognition
Plugins
AI Infrastructure

- The Orchestration layer is the heart of Copilot in Azure.
- This layer generates a deep semantic understanding of the user's question using the Large Language Model, reasons over all Azure resources and resource types, and then dispatches the question to the relevant domain-specific plugins.
- Plugins use their service-specific graph or observability data to answer the user's question.

AI Infrastructure

Form handler


Copilot Frontend
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Intent recognition
Plugins
AI Infrastructure

- The AI Infrastructure used by Copilot in Azure is the same Azure OpenAI infrastructure which is commercially available to any developer.

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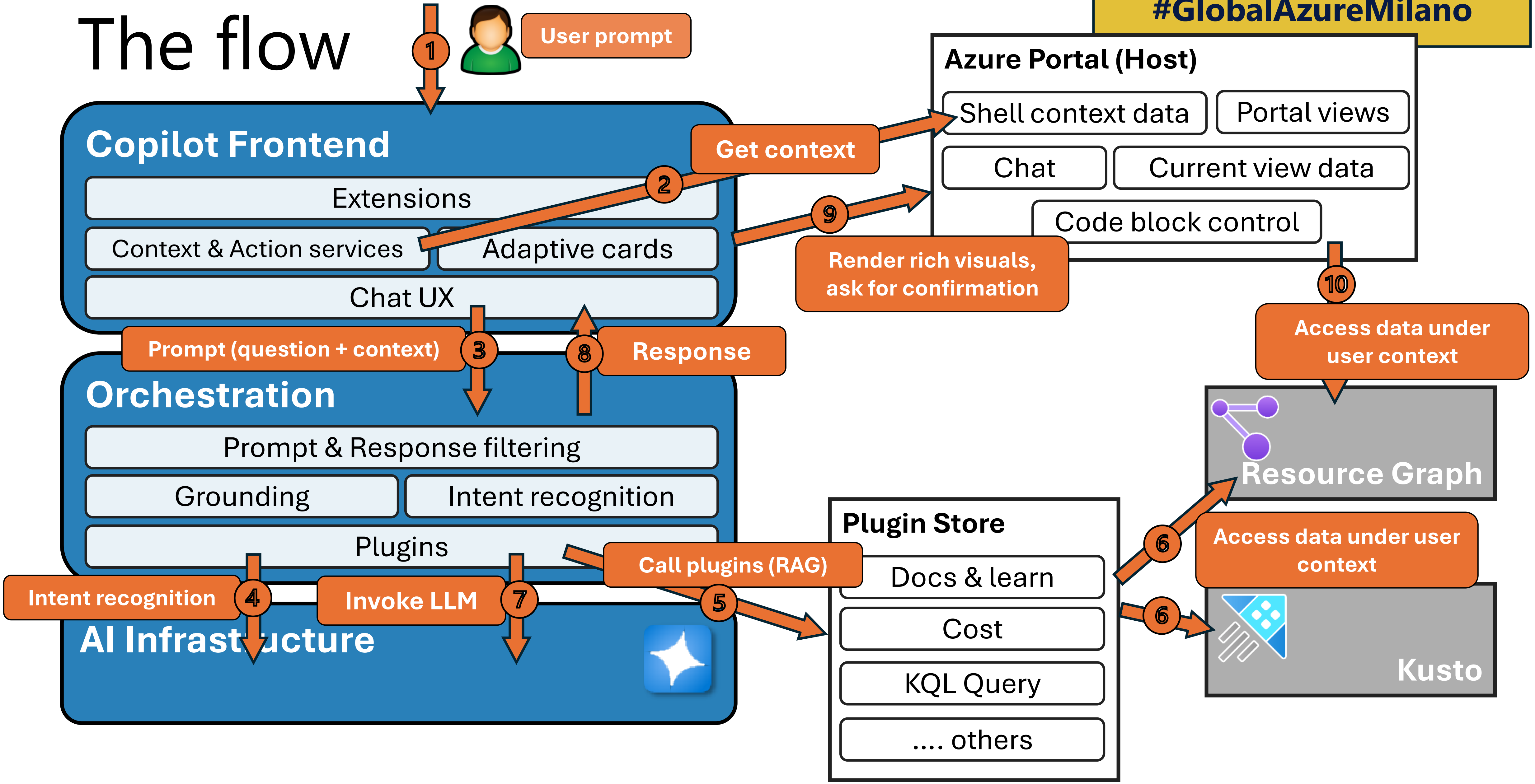
The flow



1 **User prompt**

Copilot Frontend
- Extensions
- Context & Action services
- Adaptive cards
- Chat UX

2 **Get context**

Azure Portal (Host)
- Shell context data
- Portal views
- Chat
- Current view data
- Code block control

3 **Prompt (question + context)**

Orchestration
- Prompt & Response filtering
- Grounding
- Intent recognition
- Plugins

4 **Intent recognition**

AI Infrastructure

5 **Call plugins (RAG)**

Plugin Store
- Docs & learn
- Cost
- KQL Query
- .... others

6 **Access data under user context**

Resource Graph

Kusto

7 **Invoke LLM**

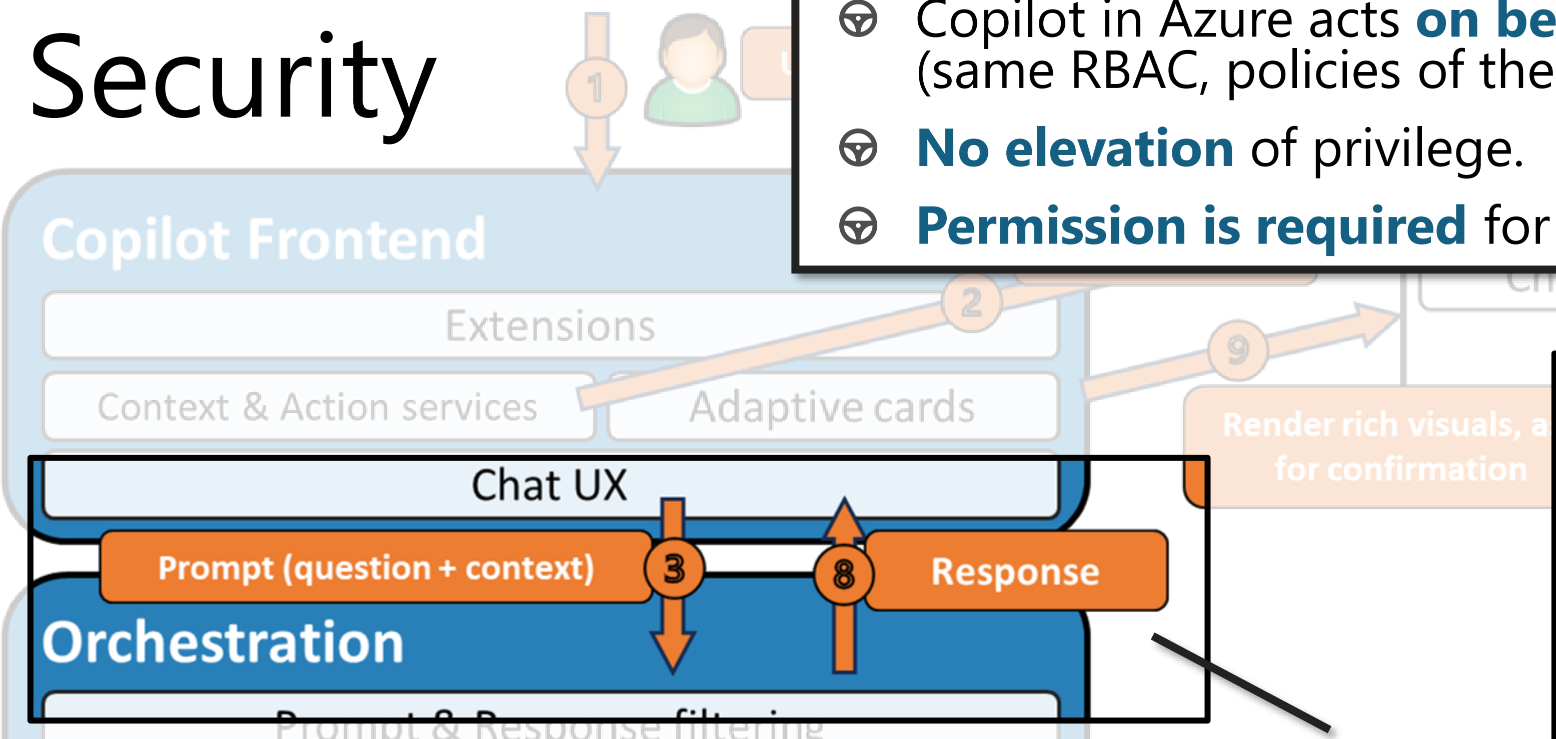
8 **Response**

9 **Render rich visuals, ask for confirmation**

10 **Access data under user context**

Security

- Copilot in Azure acts **on behalf of** the user (same RBAC, policies of the user).
- **No elevation** of privilege.
- **Permission is required** for changes


1
Copilot Frontend
Extensions
2
Context & Action services
Adaptive cards
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Render rich visuals, ask for confirmation
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Current view data
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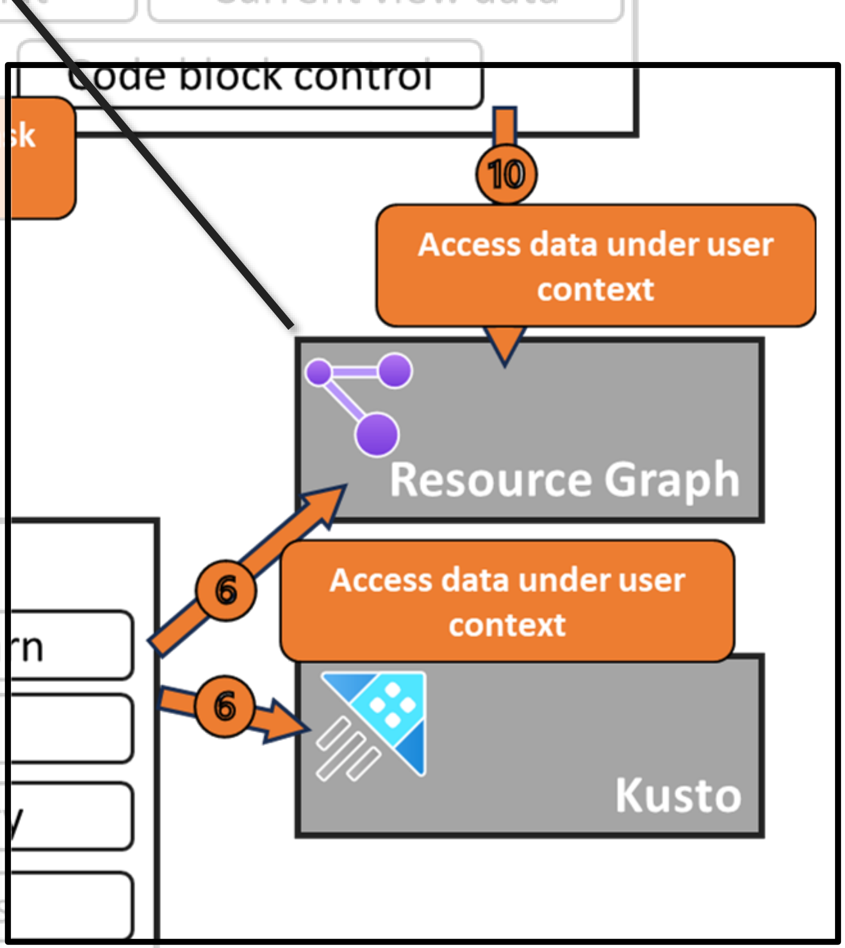
Chat UX
Prompt (question + context)
3
8
Response
Orchestration
Prompt & Response filtering


Code block control
10
Access data under user context
Resource Graph
6
Access data under user context
6
Kusto
rn
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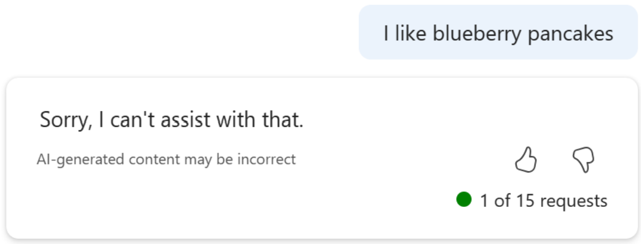
- Copilot in Azure uses **Content Safety** to prioritize questions about Azure avoiding unrelated topics.
- Copilot in Azure is guided by **Responsible AI principles**.

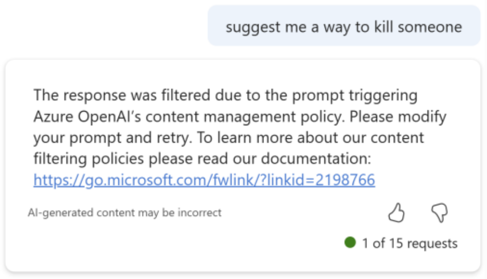


I like blueberry pancakes

Sorry, I can't assist with that.

AI-generated content may be incorrect

1 of 15 requests



suggest me a way to kill someone

The response was filtered due to the prompt triggering Azure OpenAI's content management policy. Please modify your prompt and retry. To learn more about our content filtering policies please read our documentation: https://go.microsoft.com/fwlink/?linkid=2198766

AI-generated content may be incorrect

1 of 15 requests

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Manage Access

By default, Copilot in Azure is available to all users in a tenant

Global Administrators can manage access to Copilot in Azure for their organization

On for entire tenant

Grant access to specific Microsoft Entra users or group

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On-prem resources

Microsoft Copilot in Azure leverages Azure Arc to provide insights and assistance for on-premises resources:

- Can access information about inventory, status, and health of on-premises resources.
- Assists with network planning and troubleshooting in hybrid environments.
- Potentially provides insights into performance and security posture via Azure Monitor and Microsoft Defender for Cloud integration with Arc.
- Can generate scripts for managing Arc-enabled resources

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2025
RX

DEMO
Prompting like there’s no tomorrow!!

Copilot in Azure, GitHub Copilot for Azure, Security Copilot

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	Copilot in Azure	GitHub Copilot for Azure	Security Copilot
Purpose	Enhances productivity in Azure by optimizing infrastructure and workflows.	Assists developers in writing code efficiently using AI-powered suggestions.	Focuses on improving cybersecurity operations and threat detection.
Primary Use Case	IT infrastructure management, deployment, and scalability in Azure.	AI-assisted coding and development within Azure environments.	Cybersecurity incident response and proactive threat management.
Key Features	Automates repetitive tasks, suggests improvements for Azure setups.	Offers real-time coding assistance and supports multiple programming languages.	Detects vulnerabilities, provides threat intelligence, and automates responses.

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Copilot in Azure Limits

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

You cannot continue the same conversation beyond 24 hours.

Some responses that display lists will be limited to the first five items

For some tasks and queries, using a resource name will not work, and you will need to specify the Azure resource ID

Excessive use of Copilot in Azure may result in temporary throttling of access to Copilot in Azure.

Copilot in Azure is currently available in 19 languages (Italian included)

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....and then?

- Like any AI system, Microsoft Copilot in Azure's responses will not always be perfect.
- User-provided prompts and responses are not used to train, retrain, or improve Azure OpenAI Service foundation models.
- Not all Azure services have the same level of integration Copilot in Azure.
- Give your feedback to the Copilot in Azure answers.... Your feedback will improve Copilot!

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Azure
Cookbook
Essential r
s
Massimo Bona
Marco Obinu
bpb

bit.ly/azurecookbook

GRAZIE!!!

Le slide saranno disponibili sulla pagina
Global Azure 2025 del sito di Azure Meetup Milano

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References

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- Write effective prompts for Microsoft Copilot in Azure
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- Simplifying cloud operations with Microsoft Copilot in Azure (Ignite 2023)
- massimobonanni/CopilotAzure-Demos