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TuneIn your own CoPilot

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Welcome

How to create an AI assistant with Copilot Studio

How to build an AI assistant using Azure Open AI

How to extend the AI Assistant to use the Graph API

Demos, Demos, Code and Demos

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Analytical and Generative AI

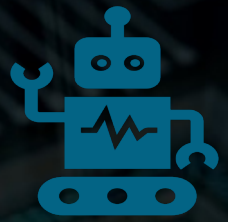
Analytical AI

Purpose: Analytical AI focuses on analyzing existing data to extract insights, classify information, or make predictions.

Specificity: It uses **tuned models** that are **tailored** to specific business data and use cases.

Applications: Analytical AI is commonly applied for **pointed solutions**, such as fraud detection, recommendation systems, and risk assessment.

Example: Imagine a credit card company using analytical AI to detect fraudulent transactions based on historical patterns.



Generative AI

Purpose: Generative AI goes beyond analysis; it **creates new content** based on patterns learned from existing data.

Novelty: It produces **fresh, original** outputs, such as text, images, music, or even entire artworks.

Applications: Generative AI finds use in **entertainment**, **design**, and **creative domains**.

Example: An AI artist generating unique paintings inspired by existing masterpieces.

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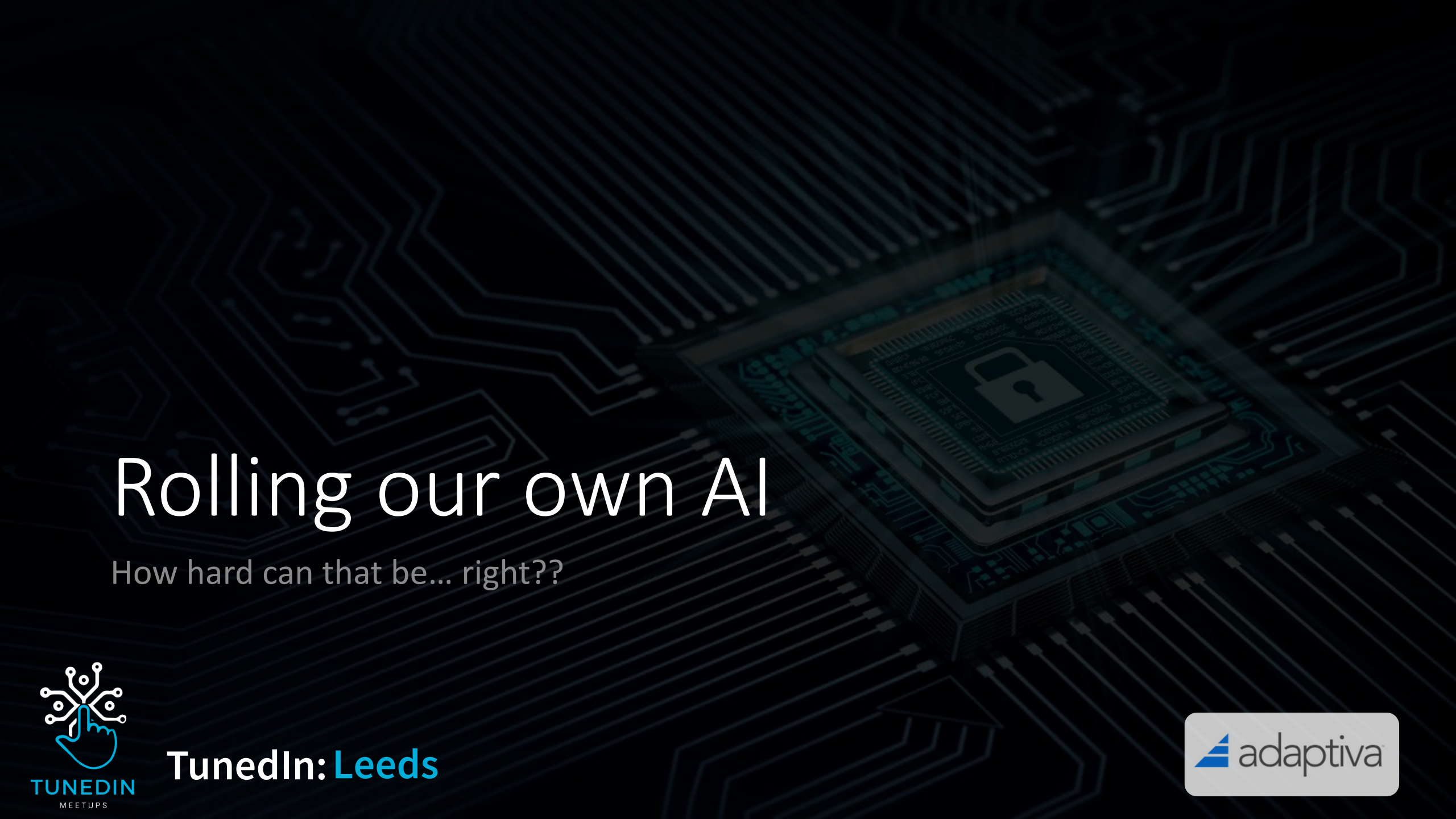

Rolling our own AI

How hard can that be… right??

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What's involved and what do we need?

- Do I need to code?
  - Copilot Studio is a 'no code' solution
  - Azure OpenAI, unfortunately, yes. But hang in there, we'll show you some simple starting blocks

- Copilot Studio Licensing
  - $200/month for 25000 messages
    - https://www.microsoft.com/en-us/microsoft-copilot/microsoft-copilot-studio

- Azure… we need some Azure. (or rather a subscription…)
  - Why? Data Boundaries and not letting your data be used to train a dataset.

- In Azure we'll be talking about:
  - Resource Groups
  - OpenAI Workspace
  - Azure AI Search (previously Azure Cognitive Services)
  - Azure AI Studio
  - Prompt Flow

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What’s involved and what do we need?

- Summary of what we’ll be doing:
  - Copilot Studio
    - Create a Copilot
    - Define a Copilot Topic
    - Link to external links for information
    - Test and refine
  - Azure OpenAI
    - Create an Azure OpenAI workspace
    - Define the assistant's capabilities
    - Extend the assistant with a function to use Intune data to ground it
    - Test and refine the assistant
    - Have some fun along the way

Flying with your Copilot (Studio)

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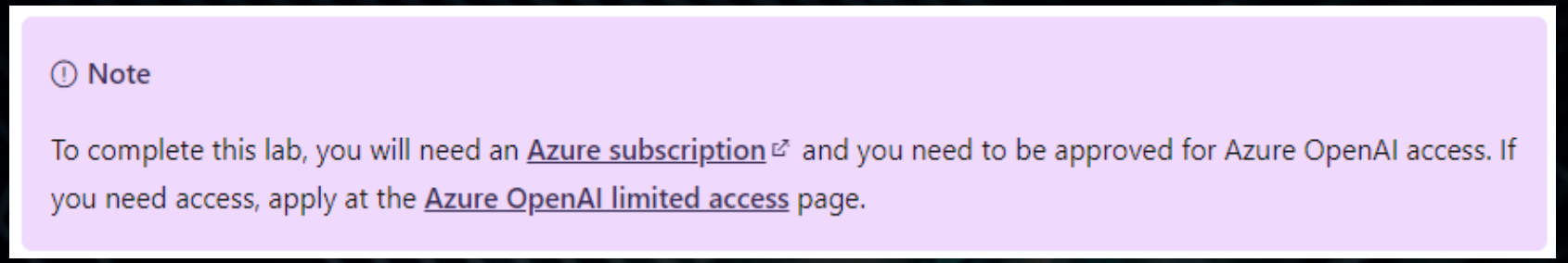
Simple, but constrained

- Easy right!
- It may well serve your needs but your bound by the constraints of what are offered from the Copilot Studio
- Per Tenant ($200) & Per User ($0) (to create and manage) Copilot Studio License
- Capacity Addon may also needed



The (Azure) bare bones of what we need

Let’s deploy some bits!

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Hi, I’m HAL. How can I help you?

- Now we have a basic AI Assistant, but it knows nothing about our Intune environment. It’s like Kevin the new summer apprentice. It’s allowed nowhere near it without some training.
- We need to extend the LLM’s capabilities using Functions.
- We’ll (David will) be showing that in Python 🐍

Connecting the AI Assistant to Intune using the Graph API

- Generate a Graph API access token
- Grant permissions to the assistant
- Define the Intune resources to access
- Implement Graph API endpoints in the assistant
- Test the connection and fix any issues

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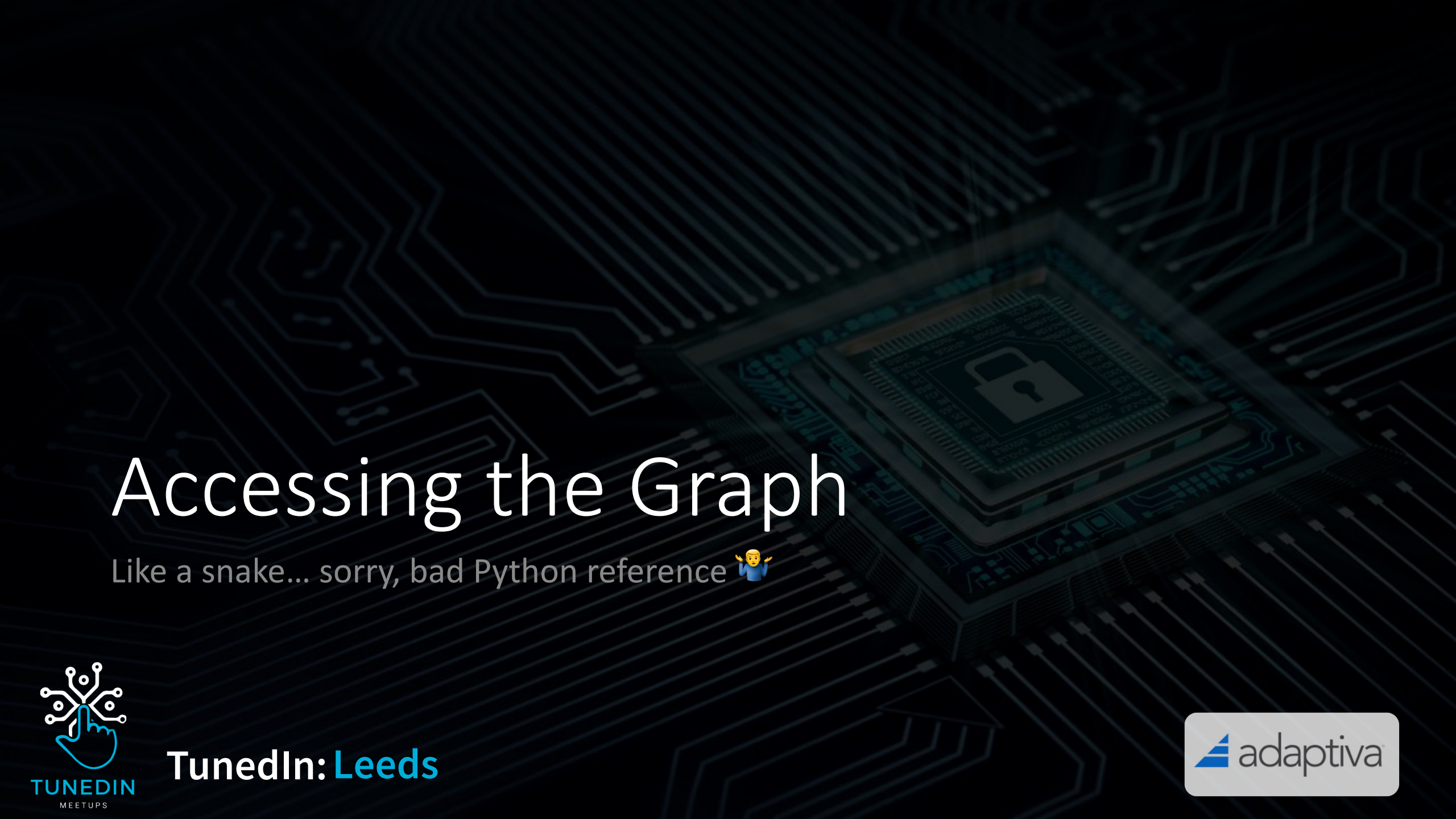

Accessing the Graph

Like a snake… sorry, bad Python reference 🤷

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Awesome! We have Intune Data!

But we'll add some humor to keep things interesting:

- Create custom error messages
- Use emojis to convey information
- Personalize the assistant with a name and personality
  - Aka Prompt Engineering

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Fine tuning the Personality and Skill

Lets make a lovable HAL

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So what the HAL could we do with a CoPilot?

- Analyze policies with the assistant?
- Assess devices with the assistant?
- Deploy software updates with the assistant?
- Manage compliance policies with the assistant?
- Get insights into Intune data with the assistant?

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Taking HAL for a drive

And hoping it will let us do it…

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Ramping HAL to 9000

- Grounding Data for R.A.G (Retrieval Augmented Generation)
  - Azure AI Search (formerly Azure Cognitive Search) Services
- Easy – point it at Blob Storage
- Doable (not via the GUI) – point it at SharePoint (or Teams)

- Expand with Vision

- Build it into your own Web App

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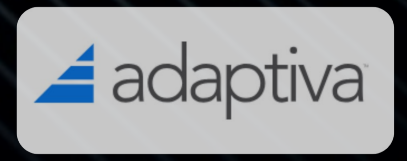

Everything costs...

Azure Open AI (UK South) Costs

Models	Context	Input (Per 1,000 tokens)	Output (Per 1,000 tokens)
GPT-3.5-Turbo-0125	16K	£0.0004	£0.0012
GPT-3.5-Turbo-Instruct	4K	N/A	N/A
GPT-4-Turbo	128K	£0.008	£0.024
GPT-4-Turbo-Vision	128K	£0.008	£0.024
GPT-4	8K	£0.024	£0.048
GPT-4	32K	£0.048	£0.096

Summary - AI Has Potential

- We’re at the top of the Hype Curve, now we’re seeing real world applications.
- Microsoft are doing A LOT of work on this to unlock potential.
- Security, both in solution design of AI and managing your environment is key.
- The AI platform from Microsoft allows you to both use and develop as you need.
- Learn prompting. It’s the single way (atm) to get the best results from AI systems.

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Q&A

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