Microsoft Fabric

The Intelligent Data Platform: Unlocking AI Potential in the Cloud

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Microsoft Fabric

Data Factory

Data Engineering

Data Warehouse

Data Science

Real-Time Intelligence

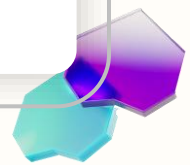
Power BI

Partner & Industry workloads

Copilot in Fabric

OneLake

Microsoft Purview



SaaS

"It just works"

5x5	Success by default	Centralized administration
Frictionless onboarding	Minimal knobs	Tenant-wide governance
Instant provisioning	Auto-optimized	Centralized security management
Quick results w/ Intuitive UX	Auto-integrated	Compliance built-in

5 seconds to signup, 5 minutes to wow

Understanding Microsoft Fabric / FAQ

- Think of it as taking the PBI workspace and adding a SaaS version of Synapse to it
- By January 1st, 2025 PBI workspaces will be migrated to Fabric workspaces. Your PBI tenant will have the Fabric workloads automatically built-in
- Aligned to backend fabric capacity. Similar to Power BI capacity – specific amount of compute assigned to it. A universal bucket of compute. No more Synapse DWU's, Spark clusters, ADF IR, KQL Database, dataset, etc
- Synapse Serverless Pool and Dedicated Pool combined into one – no more relational storage. Everything is serverless. All about data lakehouse
- No Azure portal, subscriptions, creating storage. User won't even realize they are using Azure
- Fabric has strong separation between person who buys and pays the bill, with person who builds stuff. In Azure, the person building the solution has to also have the power to buy
- This is not just for departmental use. It's not PaaS services (i.e., Synapse) vs Fabric. Fabric is the future. Fabric is going to run your entire data estate: departmental projects as well as the largest data warehouse, data lakehouses and data science projects
- One platform for enterprise data professional and citizen developer (next slide)

Data Engineers

- **Execute faster** with the ability to spin up a Spark VM cluster in seconds, or configure with familiar experiences like Git DevOps pipelines for data engineering artifacts
- **Streamline your work** with a single platform to build and operate real-time analytics pipelines, data lakes, lake houses, warehouses, marts, and cubes using your preferred IDE, plug-ins, and tools
- **Reduce costly data replication** and movement with the ability to produce base datasets that can serve data analysts and data scientists without needing to build pipelines

Supporting experiences

Data Factory
Data Warehouse
Data Engineering
Real-Time Intelligence

Serve data via warehouse or lakehouse

Data Scientists

- **Quickly tune a custom model** by integrating a model built and trained in Azure ML in a Spark notebook
- **Work faster** with the ability to user your preferred data science frameworks, languages, and tools
- **Bypass engineering dependencies** with the ability to use your preferred no-code ML Ops to deploy and operate models in production
- **Tap into proven-at-scale models and services** to accelerate your AI differentiation (AOAI, Cognitive Services, ONNX integration, etc.)

Supporting experiences

Data Science
Azure ML

Serve transformed data

Analysts

- **Avoid slow, progress-stagnating data wrangling** by seamlessly triggering a workflow that can unlock data engineering tools and capabilities quickly
- **Accelerate your work** with visual and SQL based tools for self-serve data transformations and modeling as well as self-serve tools for reporting, dashboards, and data visualizations
- **Turn data into impact with industry-leading BI tools and integration with the apps your people use everyday like Microsoft 365**

Supporting experiences

Data Warehouse
Real-Time Intelligence
Power BI

Serve insights via embedding

Data Citizens

- **Make more data-driven decisions** with actionable insights and intelligence in your preferred applications
- **Maintain access to all the data you need,** without being overwhelmed by data ancillary to your role thanks to fine grain data access management controls
- **Act on data, at scale and in a timely manner** by describing business conditions in a no-code experience to launch actions such as Email, Teams notifications, Power Automate flows and call into third party action systems

Supporting experiences

Power BI
Microsoft 365

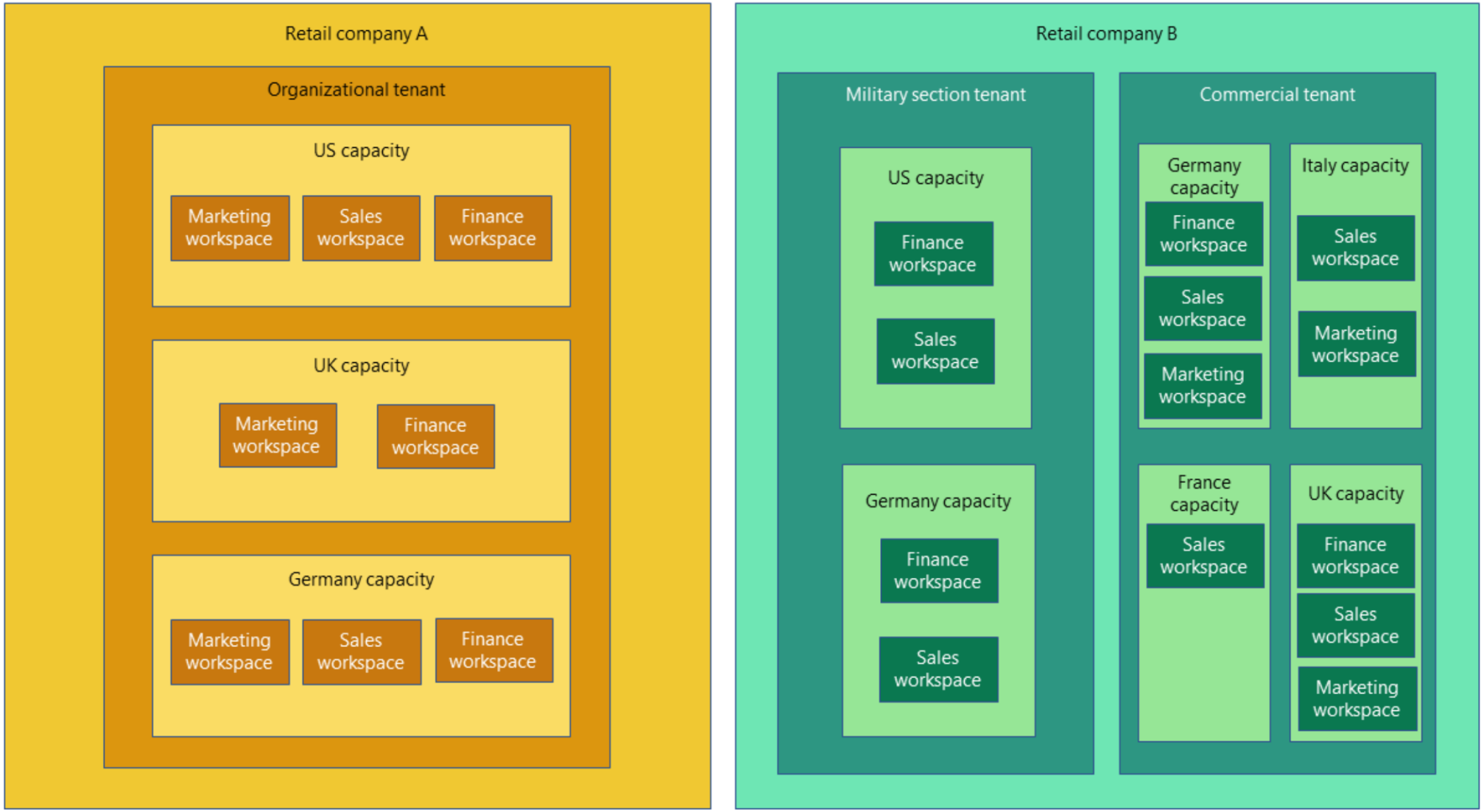
Serve data via warehouse or Lakehouse

Data Stewards

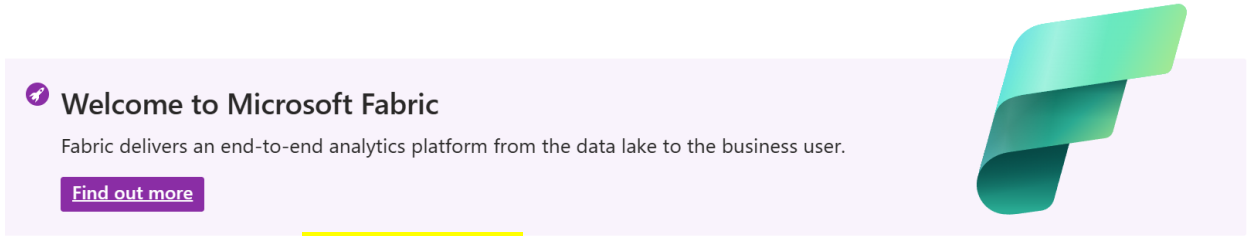
- **Maintain visibility and control of costs** with a unified consumption and cost model that provides evergreen spend optics on your end-to-end data estate
- **Gain full visibility and governance** over your entire analytics estate from data sources and connections to your data lake, to users and their insights

Workspaces and capacities

Company examples



Create fabric capacity



Azure portal

Basics Tags Review + create

Create Fabric capacity that you can use with your Fabric workspaces.

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all of your resources.

Subscription * : Azure subscription 1

The Fabric resource provider is now registered with this subscription.

Resource group * : (New) Fabric

Create new

Capacity details

Name your Capacity and select a location.

Capacity name * : chktestfabriccap

Region * : East US

Size : **F8**
8 Capacity units
Change size

Fabric capacity administrator * : james@serracs.com

Select

Licensing Pricing

Select the resource size (Based on region)

SKU	Capacity Units	Burstable Scale Factor	(730 hours) COST (ESTIMATED/MONTH)
F2	2	1x - 32x	$262.80
F4	4	1x - 16x	$525.60
F8	8	1x - 12x	$1,051.20
F16	16	1x - 12x	$2,102.40
F32	32	1x - 12x	$4,204.80
F64	64	1x - 12x	$8,409.60
F128	128	1x - 12x	$16,819.20
F256	256	1x - 12x	$33,638.40
F512	512	1x - 12x	$67,276.80
F1024	1024	1x - 12x	$134,553.60
F2048	2048	1x - 12x	$269,107.20

Capacity is a dedicated set of resources reserved for exclusive use. It offers dependable, consistent performance for your content. Each capacity offers a selection of SKUs, and each SKU provides different resource tiers for memory and computing power. You pay for the provisioned capacity whether you use it or not, unless you pause it (considered pay-as-you-go). Bursting and smoothing allow for temporarily exceeding capacity units to avoid throttling. To get notified when your close to exceeding your capacity, setup alerts.

A capacity is a quota-based system, and scaling up or down a capacity doesn't involve provisioning compute or moving data, so it's instant.

Each 8 CU is equal to one v-core. You can save 41% with monthly reserved pricing.

OneLake storage $0.023/GB month. Announcing Fabric Copilot pricing

Create fabric capacity

Admin portal

- Tenant settings (New)
- Usage metrics
- Users
- Premium Per User
- Audit logs
- Domains (preview) (New)
- Capacity settings
  - Refresh summary
- Embed Codes
- Organizational visuals
- Azure connections
- Workspaces
- Custom branding
- Protection metrics
- Featured content

Power BI Premium | Power BI Embedded | Trial | Fabric Capacity

PREMIUM CAPACITIES

CAPACITY NAME	CAPACITY ADMINS	ACTIONS	CAPACITY SKU	CAPACITY UNITS	REGION	STATUS
chktestfabriccap	James Serra		F2	2	East US	Active

Set up a new capacity in Azure

Once the capacity is created, we can see the capacity on the Admin portal- Capacity Settings pane under the "Fabric Capacity" tab

All services >

Microsoft Fabric

Serra Consulting Services (serracs.com)

Create | Manage view | Refresh | Export to CSV | Open query | Assign tags

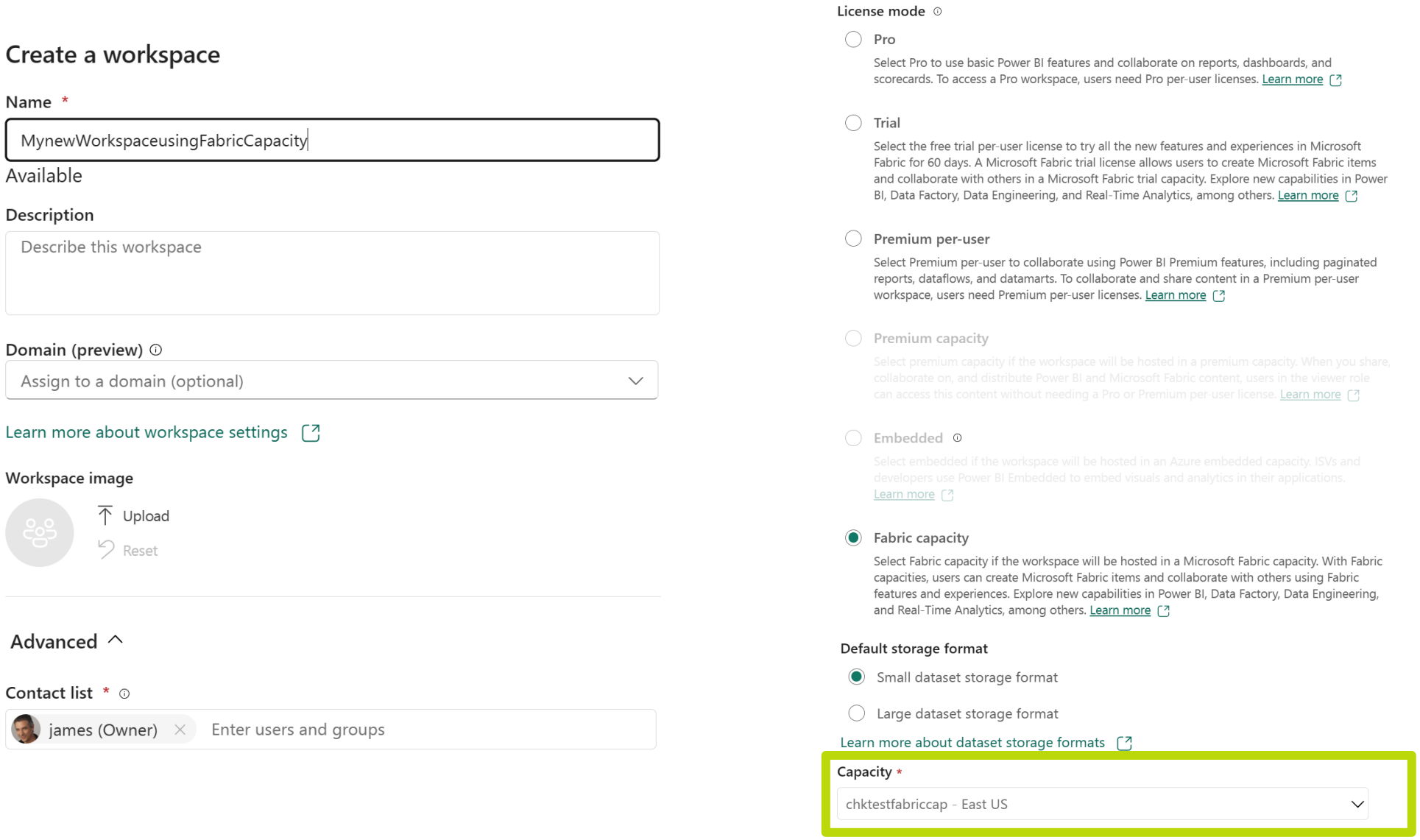
Filter for any field... | Subscription equals **all** | Resource group equals **all** | Location equals **all** | Add filter

Showing 1 to 1 of 1 records. | No grouping | List view

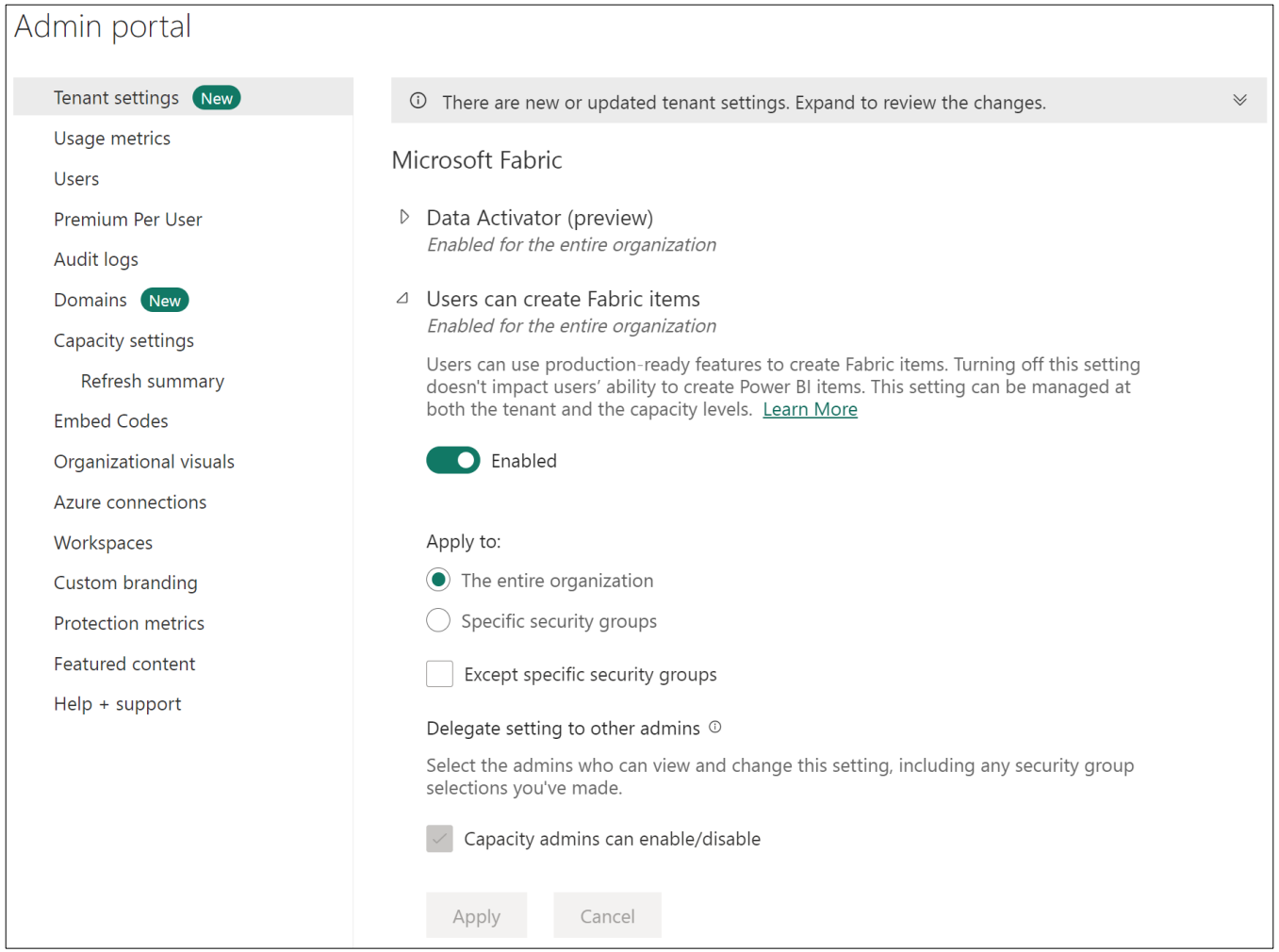
Name	Type	Resource group	Location	Subscription
chktestfabriccap	Fabric Capacity	Fabric	East US	Azure subscription 1

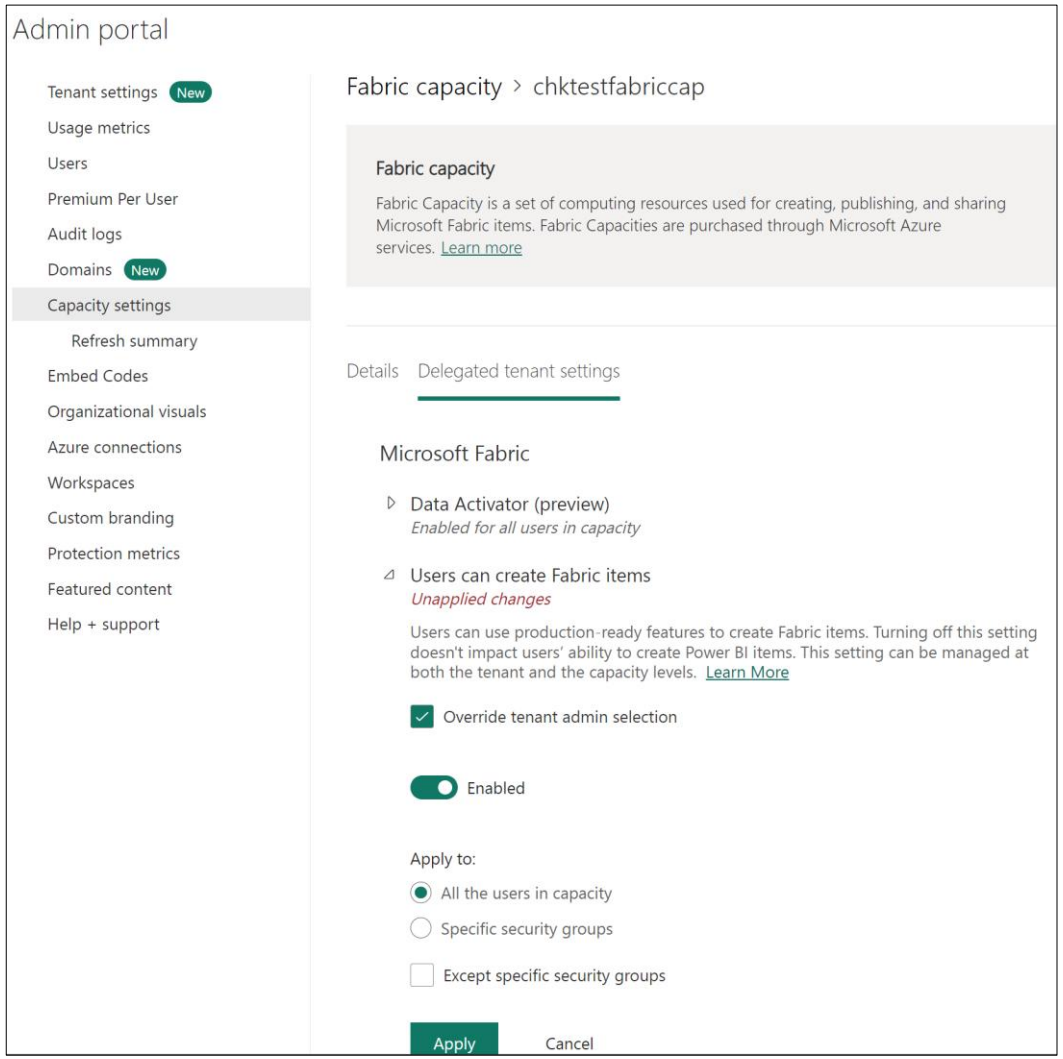
Can also see it in the Azure portal

Create workspace with fabric capacity



Turning on Microsoft Fabric





[Enable Microsoft Fabric for your organization - Microsoft Fabric | Microsoft Learn]

Demo

Copilot in Microsoft Fabric

Data Factory

Get intelligent code generation to transform data with ease and code explanations to help you better understand complex tasks

Data Engineering and Data Science

Quickly generate code in Notebooks to help work with Lakehouse data and get insights.

Data Warehouse

Write and explain T-SQL queries, or even make intelligent suggestions and fixes while you are coding

Real-Time Intelligence

Translate questions into KQL queries that you can execute.

Power BI

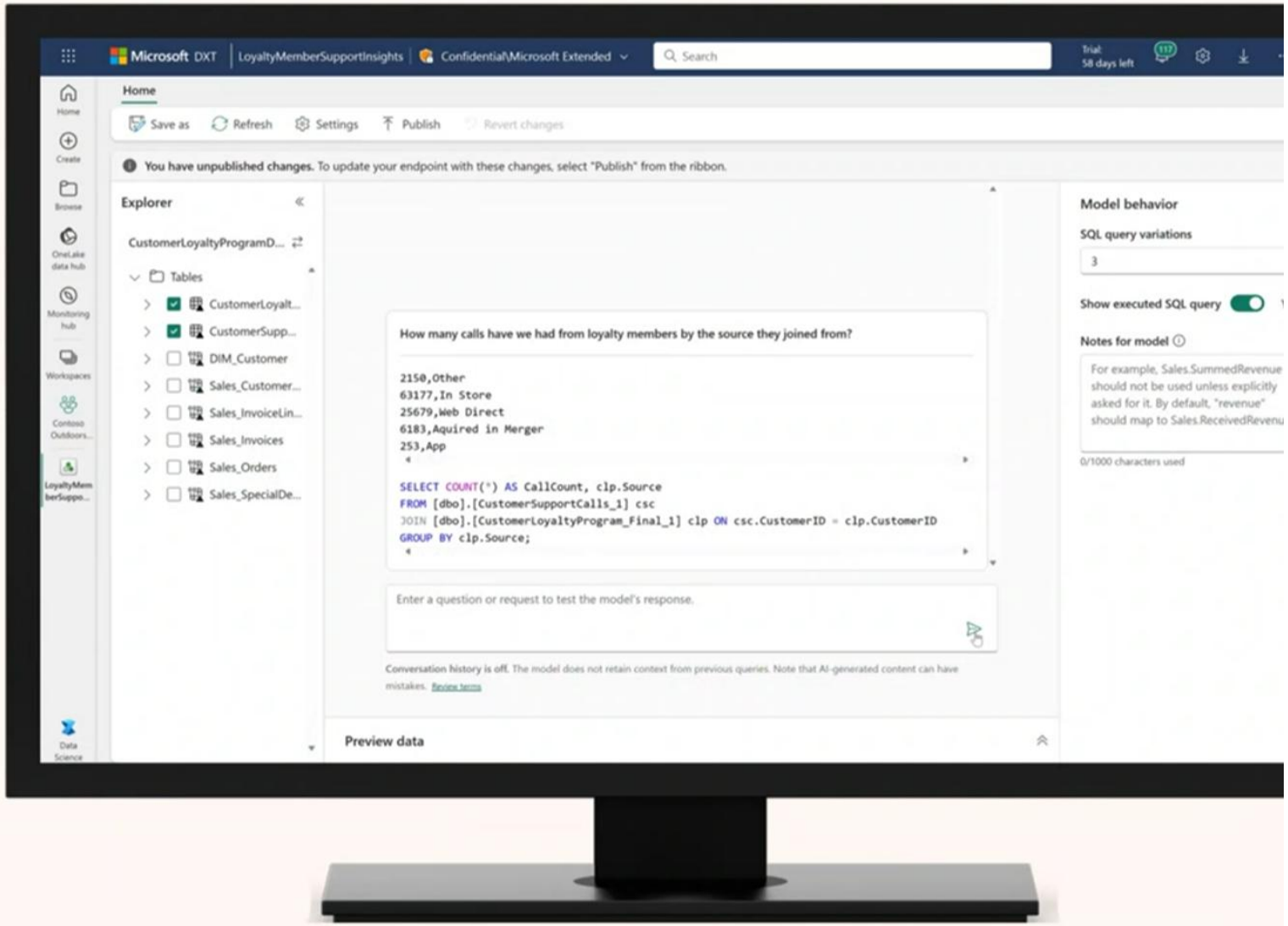
Quickly create report pages, natural language summaries, and generate synonyms.

AI Skills in MS Fabric

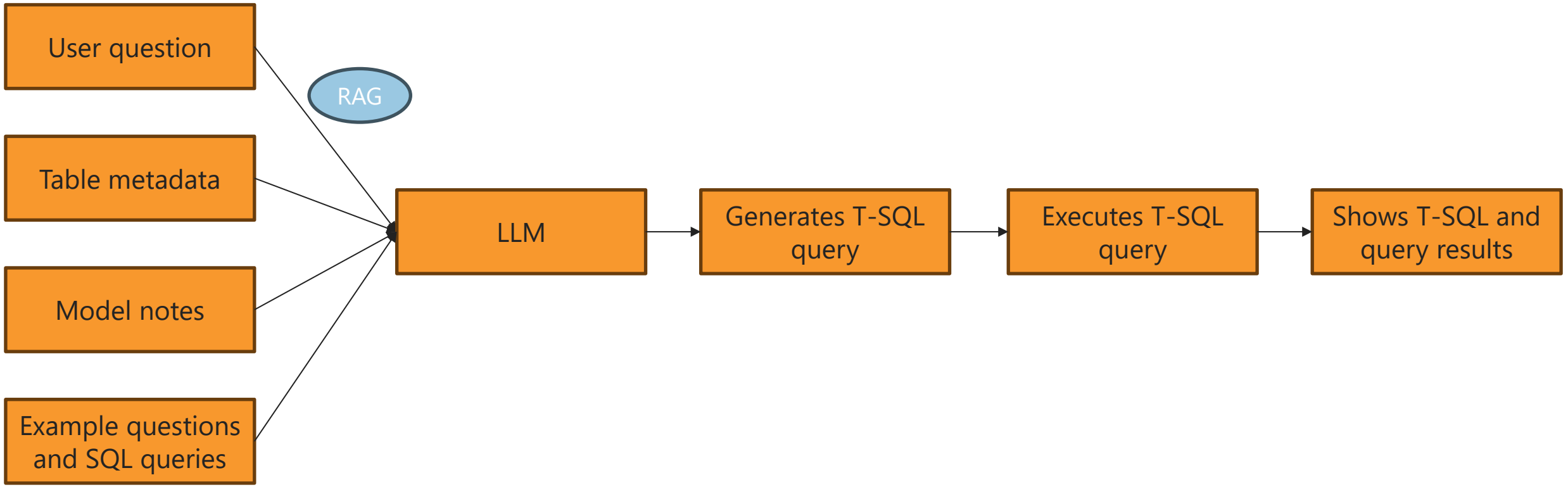
Public Preview

Deliver custom generative AI experiences for your data with AI Skills

- Allow your users to talk to your data in OneLake from your own applications
- Create, curate and configure a Data expert on your data domain
- Your data expert connects seamlessly in with your own Applications, M365 Chat, Copilot Studio, and Azure AI Studio



Microsoft Fabric AI Skill – model flow



Free Trial

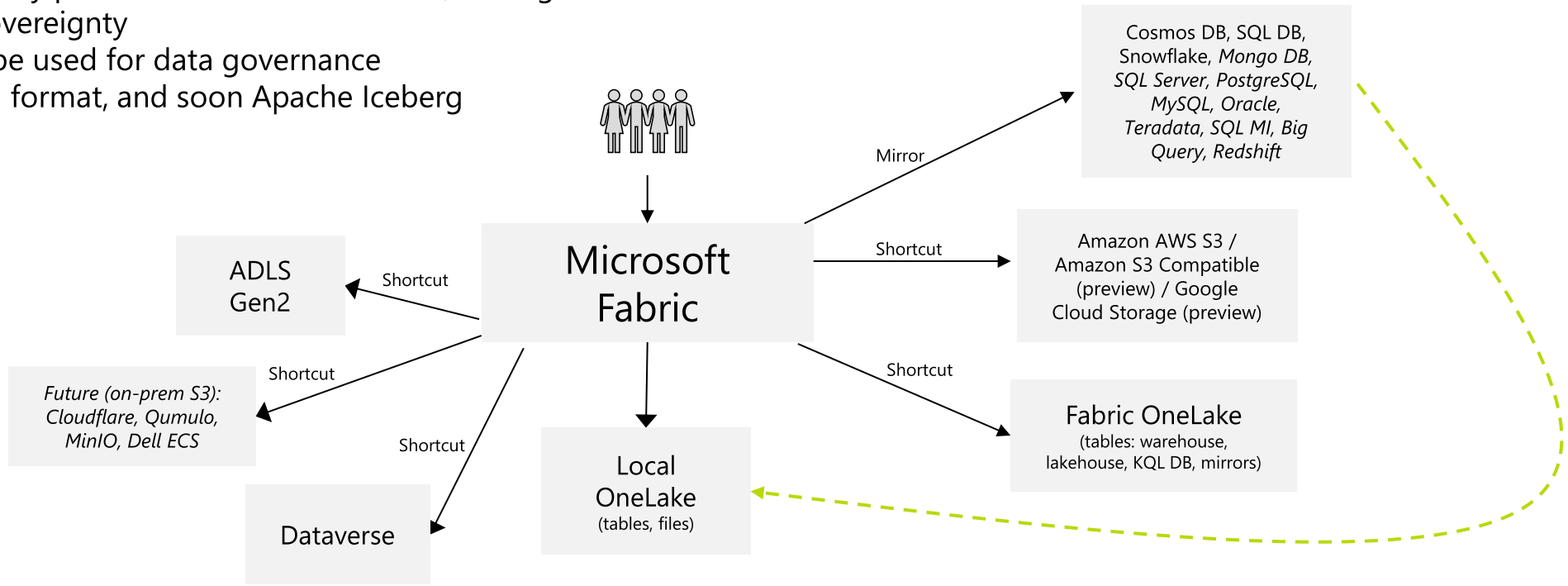
- F64, $8500/m, 2 months $17k free
- 2 months (60 days)
- No Azure subscription or credit card required, just AAD ID
- https://learn.microsoft.com/en-us/fabric/get-started/fabric-trial
- You have seven days after the expiration date to save your non-Power BI Fabric items by assigning the workspaces to an active capacity
- If in government cloud: The only way to try it right now is through commercial cloud. So you could do a trial over there with a non-gov account, or you could go out and spin up a M365 trial and start the trial on there. The M365 trials would be a throw away tenant, it wouldn't use your identity. So it would not be able to connect to anything in your Azure subscriptions unless it's something like a SQL DB that has a public endpoint

With one Fabric trial capacity, you get the following features:

- Full access to all of the Fabric workloads and features. There are a few key Fabric features that aren't available on trial capacities. These include Copilot, Trusted workspace access, and Managed private endpoints.
- OneLake storage up to 1 TB. If more is needed, you would need to upgrade to a paid plan
- One capacity per trial. Additional Fabric capacity trials can be started until a maximum, set by Microsoft, is met (most customers have a 5-10 per tenant limit). You can share trials. You can request an extension or more trials
- The ability for users to create Fabric items and collaborate with others in the Fabric trial capacity.

Think of Fabric as the great unifier

- Supplement other sources (Databricks, Snowflake) and storage (S3) and use shortcuts to give end-users the ability to easily create reports from multiple sources
- Some customers will use a competing cloud platform for various data analytics workloads, but may still want to use Fabric's business intelligence, data science, data engineering, and other capabilities on that data
- Easy button - helps end-users who are not technical to unify data from all different sources
- Microsoft is not trying to compete or replace other products/clouds
- Helps with being multi-cloud
- Great for bringing data together to train ML models
- Think of shortcuts as a light virtualization layer
- Shortcuts cache data and only pull over data that is needed, storing it in Delta format
- Shortcuts supports data sovereignty
- Microsoft Purview should be used for data governance
- Shortcuts are against Delta format, and soon Apache Iceberg



Feedback: https://aka.ms/summit/feedback

Q & A

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