



SQL Databases in Fabric

Featured Partners



Agenda

- ✓ Introducing Fabric Databases
- ✓ Customer pitch
- ✓ Use Cases
- ✓ Demo
- ✓ Become a Featured Partner

Announcing



Fabric Databases

A new class of cloud databases

Simplified

Autonomous

Optimized for AI

aka.ms/Fabric



Microsoft Ignite 2024



Microsoft Fabric

The unified data platform for AI transformation

Public Preview



Data
Factory



Analytics



Databases



Real-Time
Intelligence



Power BI



AI



OneLake



Purview



Customer pitch for
SQL Database In Fabric



Microsoft Fabric

The unified **analytics platform** for the era of AI



Data
Factory



Synapse Data
Engineering



Synapse Data
Science



Synapse Data
Warehousing



Synapse Real
Time Analytics



Power BI



Data
Activator



AI



OneLake

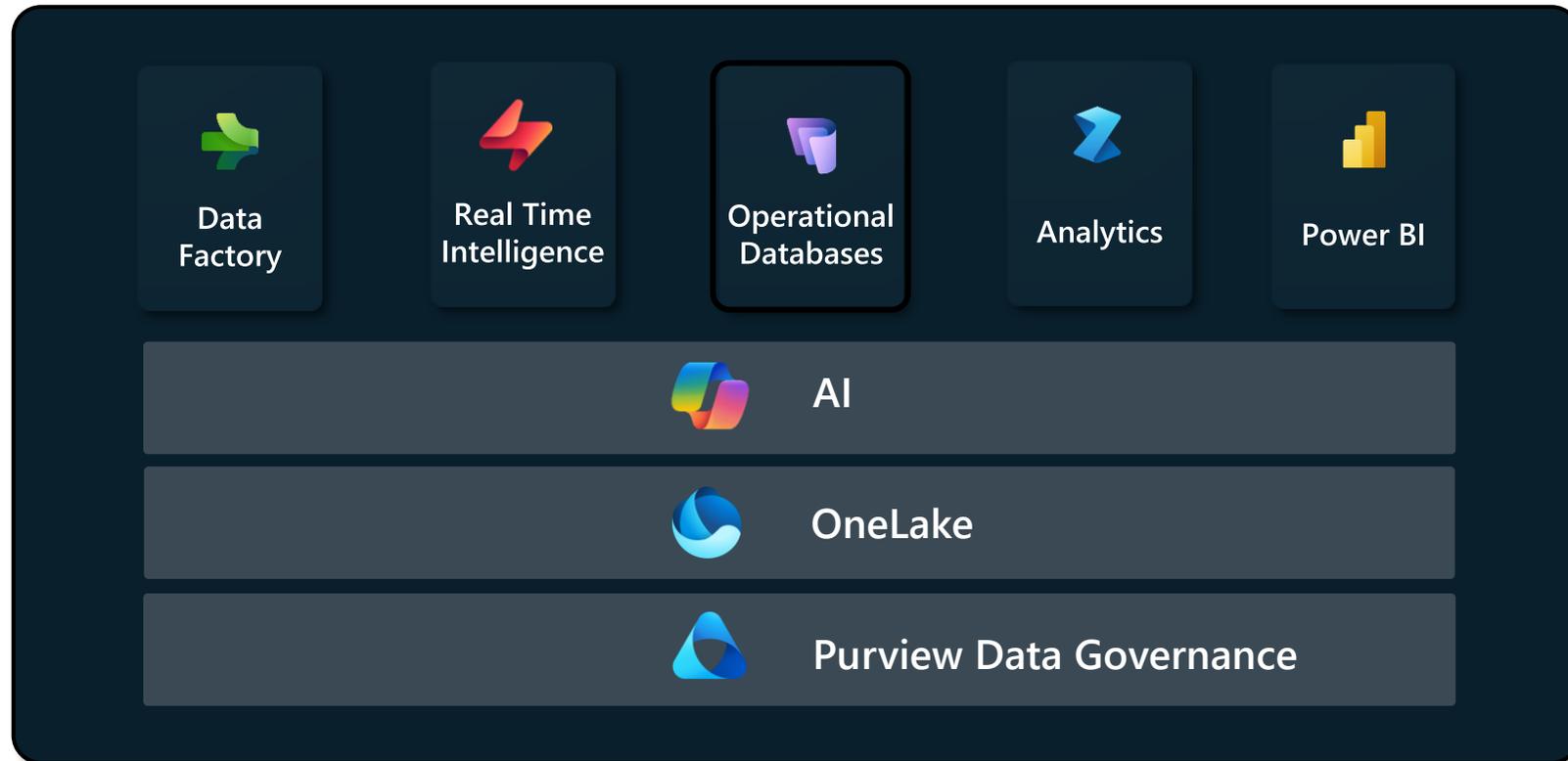


Purview



Microsoft Fabric

The unified data platform for the era of AI



Unified architecture

Unified experience

Unified governance

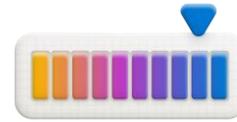
Unified business model

Database users want the same unified, simple SaaS experience offered by Fabric

You want to be able to...



Quickly spin-up databases



Automate database management



Seamlessly integrate with analytics and AI

SQL Database in Fabric



Autonomous database built on the foundation of Azure SQL Database



Simple

Integrated with Visual Studio and GitHub
Developer optimized with GraphQL
and CI/CD support
Unify OLAP + OLTP



Autonomous

Deploy in seconds
Auto-scaled compute and storage
Auto-managed HADR
Auto-optimized performance



Integrated

Built-in vector and RAG support
Integration with Azure AI
Integrated with all Fabric services by
default
AI-assisted



Secure by default



Powered by SQL



OneLake integrated



Simple, Quick and Efficient

Home Replication Security SQL database

Get data New Query Templates Open in New API for GraphQL Performance summary Copilot

Explorer Product

Data preview - Product Showing 1000 rows

	123	ProductID	ABC Name	ABC Product...	ABC Color	12F Standard...	12F ListPrice	ABC Size	12F Weight	123 ProductC...	123 Product...	
1	680		HL Road Fram...	FR-R92B-58	Black	1059.3100	1431.5000	58	1016.04	18	6	20
2	706		HL Road Fram...	FR-R92R-58	Red	1059.3100	1431.5000	58	1016.04	18	6	20
3	707		Sport-100 Hel...	HL-U509-R	Red	13.0863	34.9900	NULL	NULL	35	33	20
4	708		Sport-100 Hel...	HL-U509	Black	13.0863	34.9900	NULL	NULL	35	33	20
5	709		Mountain Bik...	SO-B909-M	White	3.3963	9.5000	M	NULL	27	18	20
6	710		Mountain Bik...	SO-B909-L	White	3.3963	9.5000	L	NULL	27	18	20
7	711		Sport-100 Hel...	HL-U509-B	Blue	13.0863	34.9900	NULL	NULL	35	33	20
8	712		AWC Logo Cap	CA-1098	Multi	6.9223	8.9900	NULL	NULL	23	2	20
9	713		Long-Sleeve L...	LJ-0192-S	Multi	38.4923	49.9900	S	NULL	25	11	20
10	714		Long-Sleeve L...	LJ-0192-M	Multi	38.4923	49.9900	M	NULL	25	11	20
11	715		Long-Sleeve L...	LJ-0192-L	Multi	38.4923	49.9900	L	NULL	25	11	20
12	716		Long-Sleeve L...	LJ-0192-X	Multi	38.4923	49.9900	XL	NULL	25	11	20
13	717		HL Road Fram...	FR-R92R-62	Red	868.6342	1431.5000	62	1043.26	18	6	20
14	718		HL Road Fram...	FR-R92R-44	Red	868.6342	1431.5000	44	961.61	18	6	20
15	719		HL Road Fram...	FR-R92R-48	Red	868.6342	1431.5000	48	979.75	18	6	20
16	720		HL Road Fram...	FR-R92R-52	Red	868.6342	1431.5000	52	997.90	18	6	20
17	721		HL Road Fram...	FR-R92R-56	Red	868.6342	1431.5000	56	1016.04	18	6	20
18	722		LL Road Fram...	FR-R38B-58	Black	204.6251	337.2200	58	1115.83	18	9	20
19	723		LL Road Fram...	FR-R38B-60	Black	204.6251	337.2200	60	1124.90	18	9	20
20	724		LL Road Fram...	FR-R38B-62	Black	204.6251	337.2200	62	1133.98	18	9	20
21	725		LL Road Fram...	FR-R38R-44	Red	187.1571	337.2200	44	1052.33	18	9	20
22	726		LL Road Fram...	FR-R38R-48	Red	187.1571	337.2200	48	1070.47	18	9	20
23	727		LL Road Fram...	FR-R38R-52	Red	187.1571	337.2200	52	1088.62	18	9	20
24	728		LL Road Fram...	FR-R38R-58	Red	187.1571	337.2200	58	1115.83	18	9	20

Copilot Preview

Let's work with your data

Select a category to get started.

- Create a table
Create a table [to store employee data (EmployeeID, full name, hire date)]
- Get insights
Retrieve the total number of tables in my database.
- Ask a question
What data types are available?

Ask me anything about this database, or tell me how I can help.

0 / 500

Succeeded (6 sec 933 ms) Columns: 17 Rows: 295



Autonomous and Automated

Home Replication Security

Get data New Query Templates Open in New API for GraphQL Performance su

Explorer

Search

bwoody-supply-chain-db

- dbo
- SalesLT
 - Tables
 - Address
 - Customer
 - CustomerAddi
 - Product**
 - ProductCateg
 - ProductDescri
 - ProductModel
 - ProductModel
 - SalesOrderDet
 - SalesOrderHez
 - Views
 - Stored Procedu...
 - Functions
 - Shortcuts
- Queries

Data preview - Product

	123	ProductID	ABC Name	ABC Product...	ABC Color	12F Standard...	12F ListPr
1	680	HL Road Fram...	FR-R92B-58	Black	1059.3100	1431.5000	
2	706	HL Road Fram...	FR-R92R-58	Red	1059.3100	1431.5000	
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11	715	Long-Sleeve L...	LJ-0192-L	Multi	38.4923	49.9900	
12	716	Long-Sleeve L...	LJ-0192-X	Multi	38.4923	49.9900	
13	717	HL Road Fram...	FR-R92R-62	Red	868.6342	1431.5000	
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15	719	HL Road Fram...	FR-R92R-48	Red	868.6342	1431.5000	
16	720	HL Road Fram...	FR-R92R-52	Red	868.6342	1431.5000	
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19	723	LL Road Fram...	FR-R38B-60	Black	204.6251	337.2200	
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24	728	LL Road Fram...	FR-R38R-58	Red	187.1571	337.2200	

Succeeded (6 sec 933 ms)

Performance summary

bwoody-supply-chain-db

Refreshed: 11/12/24, 9:23:43 AM EST

CPU consumption

0.01 vCores

— N/A Over last 24 hours

— N/A Over last 1 week

0 Trend over past 24 hours

View more

User connections

3

— N/A Over last 24 hours

— N/A Over last 1 week

50 Trend over past 24 hours

View more

Requests per second

17

— N/A Over last 24 hours

— N/A Over last 1 week

360 Trend over past 24 hours

View more

Blocked queries per second

0

— N/A Over last 24 hours

— N/A Over last 1 week

0 Trend over past 24 hours

View more

Allocated size

32 MB

— N/A Over last 24 hours

— N/A Over last 1 week

32 Trend over past 24 hours

View more



Integrated and Unified

Welcome to Fabric

Create a workspace with a predesigned template called a task flow. Task flows keep your items organized. [Learn more](#)



- New workspace
- General
- Basic data analytics
- Data analytics using a SQL ...
- Medallion
- Event analytics
- Lambda
- Sensitive data insights
- Basic machine learning models

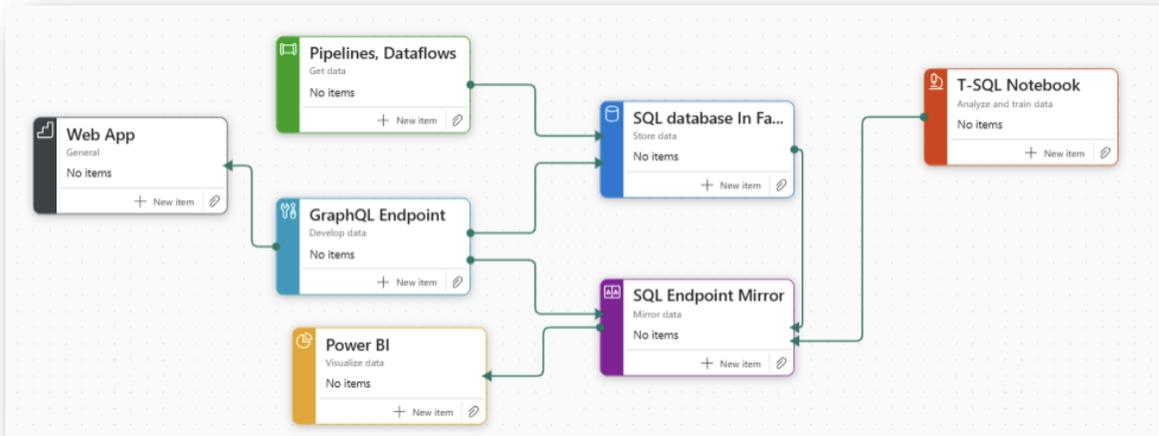
Learn more about Fabric



- What is Microsoft Fabric?**
Watch this 1-minute introductory video
- Ingest data into Fabric**
Complete an end-to-end tutorial for Data Factory
- Build a lakehouse**
Complete an end-to-end tutorial for Lakehouse
- Build a warehouse**
Complete an end-to-end tutorial in Data Warehouse
- Build a machine learning model**
Complete an end-to-end tutorial in



Developer Ready



Source control interface showing a 'View repository' button and 'Current branch: main'.

The screenshot shows the Azure portal interface. On the left is the 'Schema explorer' for a database named 'bwody-supply-chain-db'. The main area displays a GraphQL query named 'Query1' with the following code:

```
1 query {
2   vProductAnd
3     items {
4       Name
5       Product
6       Descrip
7     }
8   }
9 }
10 }
```

Below the query, the 'Results' section shows a JSON response:

```
1 {
2   "data": {
3     "vProduct
4     "items"
5     {
6       "Na
7       "Pr
8       "De
9     },
10    {
11     "Na
12     "Pr
13     "Description": "Hl Road Enage, Black, 58"
14   },
15   {
16     "Name": "Hl Road Enage, Black, 58"
```

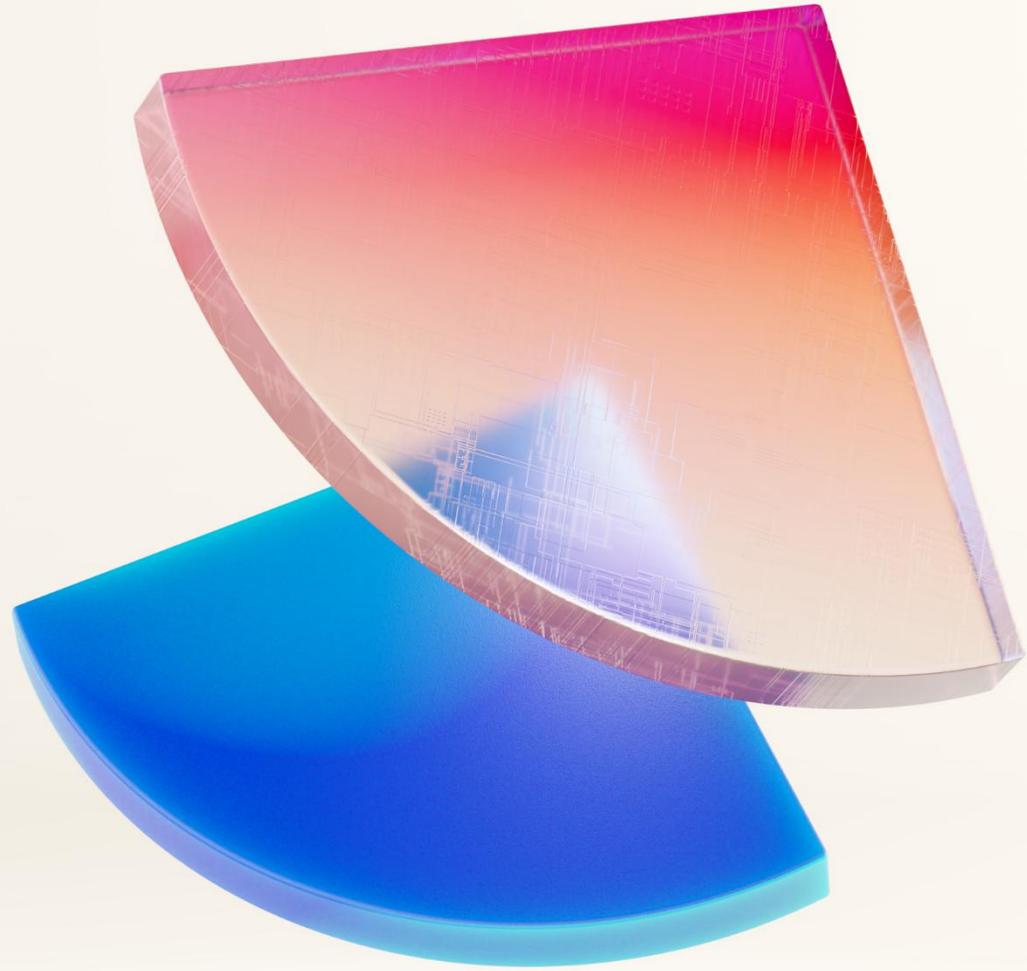
A 'Generate code' dialog box is open, showing Python code for interacting with the GraphQL endpoint:

```
1 from azure.identity import InteractiveBrowserCredential
2 import requests
3 import json
4
5 # Acquire a token
6 # DO NOT USE IN PRODUCTION.
7 # Below code to acquire token is for development purpose only to test the GraphQL endpoint
8 # For production, always register an application in a Microsoft Entra ID tenant and use the
9 # https://learn.microsoft.com/en-us/fabric/data-engineering/connect-apps-api-graphql#create
10
11 app = InteractiveBrowserCredential()
12 scp = 'https://analysis.windows.net/powerbi/api/user_impersonation'
13 result = app.get_token(scp)
14
15 if not result.token:
16     print("Error:", "Could not get access token")
17
18 # Prepare headers
19 headers = {
20     'Authorization': f'Bearer {result.token}',
21     'Content-Type': 'application/json'
22 }
```

The dialog box has a 'Copy' button at the bottom right.

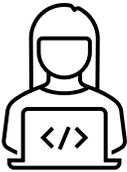
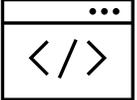
Resources

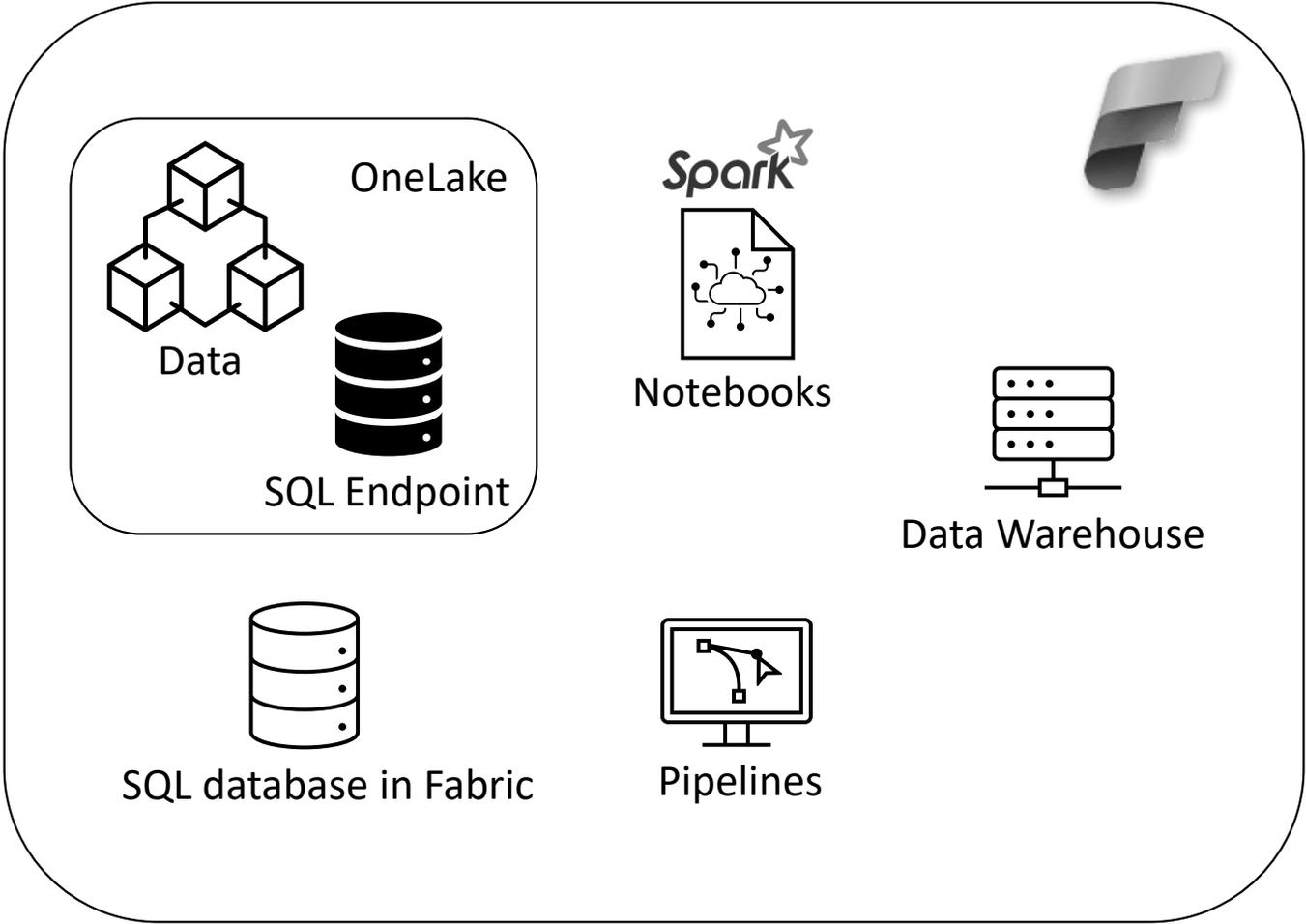
- Forum - <https://community.fabric.microsoft.com/t5/Databases-preview-forums/ct-p/databases>
- Announcements - <https://blog.fabric.microsoft.com/en-US/blog/>
- Ideas - <https://ideas.fabric.microsoft.com/>
- Regions - <https://learn.microsoft.com/en-us/azure/reliability/reliability-fabric>
- Roadmap - <https://learn.microsoft.com/en-us/fabric/release-plan/>
- What "Preview" means - <https://learn.microsoft.com/en-us/fabric/get-started/preview>
- Getting Started - <https://learn.microsoft.com/en-us/fabric/database/sql/connect>
- Tutorial - <https://learn.microsoft.com/en-us/fabric/database/sql/tutorial-introduction>
- Documentation - <https://learn.microsoft.com/en-us/fabric/database/sql/overview>
- MS Learn Course - https://learn.microsoft.com/en-us/training/paths/implement-operational-databases-in-microsoft-fabric/?ocid=fabricdb_prodanna_blog_azdata
- Data Exposed - <https://www.youtube.com/watch?v=uYBIBZDHAeg>
- Learn together - https://developer.microsoft.com/en-us/reactor/series/S-1431?ocid=fabricdb_prodanna_blog_azdata
- Mechanics video - <https://www.youtube.com/watch?v=rEyv8pt4l-4>



Use Cases

GraphQL <...>

-   Application
-  DevOps
-  Analysis (Power BI, Code, Notebooks)



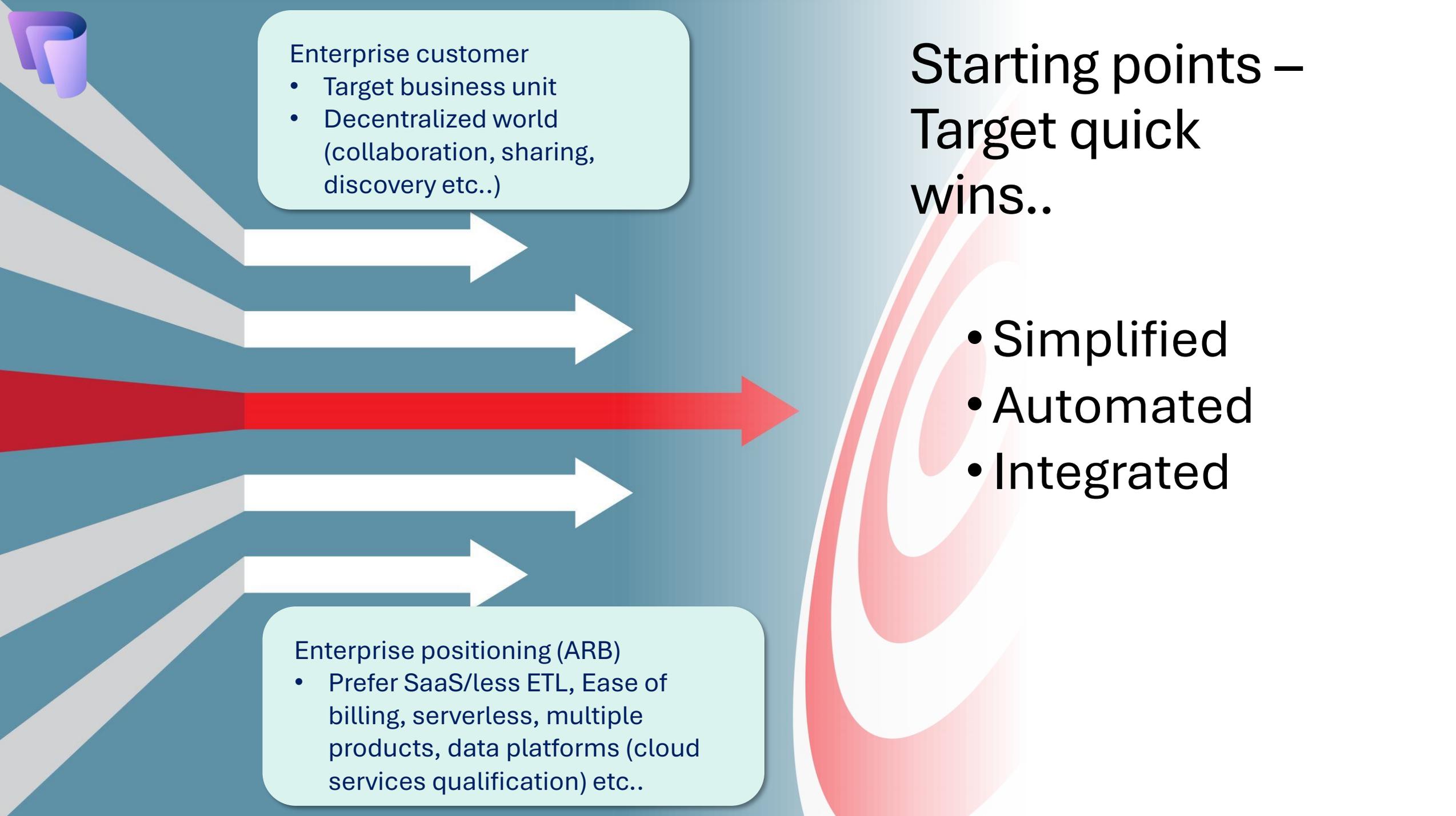
This complete analytics solution view leverages the new SQL database in Fabric, providing a simplified and integrated experience for developers. The use of GraphQL, Fabric Notebooks, and Power BI ensures that developers can easily ingest, process, analyze, and visualize data, enabling the company to gain valuable insights and make informed decisions.





Use Cases

- **Building AI apps – RAG and Vector support, call any model via APIs**
- DevOps / SRE team - Automate performance tuning, day-to-day database management
- **Metadata driven ingestion framework**
- Configs or repository workloads
- ISV – Embedded workloads
- .NET applications for operational data
- Accelerating Productivity with Copilot for SQL Database
- Cloud migrations / serving layers
 - Phase 1 (replicate existing operational data to cloud relational database engine)
 - Phase 2 – plan migration
- **Unified Data Culture - Advanced Analytics and Transactional (Translytical)**
 - Reverse ETL
 - Write back feature
 - Data already replicating to OneLake (Mirroring automatically enabled - *storage cost is free up to a certain limit*).
 - SQL Analytics Endpoint (read-only data copy in your OneLake) – Create reports, Write cross database queries etc..
 - PowerBI DirectLake



Enterprise customer

- Target business unit
- Decentralized world (collaboration, sharing, discovery etc..)

Starting points – Target quick wins..

- Simplified
- Automated
- Integrated

Enterprise positioning (ARB)

- Prefer SaaS/less ETL, Ease of billing, serverless, multiple products, data platforms (cloud services qualification) etc..

Pub Preview to GA Journey – Decision Guide

Key Considerations

- Advanced-HA Active geo-replication, geo-replicated backups (**Roadmap**)
- Customer-managed keys (**Roadmap**)
- Hyper scale workloads (**Roadmap**)
- Change event streaming (**Roadmap**)
- Private links - Tenant-level PL – few weeks in public preview, Workspace level PL public preview in May
- Extensive *customizations* for database settings or optimizations (Azure SQL DB)
- Elastic pools (Azure SQL DB)
- >7 days of backup retention
- Granular auditing
- Filesystem access
- >32 vCores

Quick Wins (Phase 1)

- Automated DB management
(***Co-Managed vs Fully Managed Autonomous*)
- Open for having less control
- Medium to large scale workloads (*up to 4TB*)
- Auto scale
- Net new workloads
 - (*next phase migration*)
- Multi-model (*relational, vector, graph, json, key-value*)
- Performance tuning (*auto create / drop indexes*)
- Join operational application data with other data in Fabric
- Active collaboration (Data, Analytics, AI practices)
- Avoid complex ETL processes
- Rapid Time-to-Value (*faster project kick-offs*)
- Standalone Relational DB vs Unified Data Platform
- Cost – *no cost until Feb 1st, 2025*
- Features are same at any *Fabric capacity*

Mostly asked

-
- **Connectors** – Data flow gen2, Data pipeline
 - **Mirrored data use Direct lake** – Yes, since tables are all v-ordered delta tables.
 - **V-order optimization** – Yes, when it replicates, tables are all v-ordered delta tables
 - **Schema (deploy / incremental updates)** - SQL Package
 - **SLA** – For previews, no SLA. At GA, SQL DB will be listed under Fabric section.
 - **Capacity** – It's available on F2 onwards
 - **AI integrations with Semantic kernel** – Yes
 - **.net 9 compatibility** – Yes
 - **Migrations** – import/export with sqlpackage, data pipelines, DMA (not pursuing as key scenario)
 - **Override autonomous tuning features** – No
 - **Notebook (SparkSQL) to write SQL DB** – Yes
 - **Region availability** - <https://learn.microsoft.com/en-us/fabric/admin/region-availability>

AI Considerations

- **Vector support** - SQL Server, Azure SQL and Fabric SQL will all have DiskANN index support (**will land early in 2025**).
- MSSQL Engine can also take advantage of query optimizer to improve query performance of complex queries when a mix of predicates are specified, which is very common in real-world scenarios. For example, having a query with **vector, geospatial, JSON and relational** filters all at once.
- RAG and Beyond RAG (Agentic RAG, RAG+NL2SQL) solutions are also covered end-to-end.
- **Semantic Caching** is also possible in MSSQL.



Industry data points..

Industry	Use Cases	Key Benefits
Retail and E-Commerce	<ul style="list-style-type: none">- Personalized customer insights- Inventory management- Sales performance dashboards	<ul style="list-style-type: none">- Improved customer experience- Reduced stockouts/overstocking- Real-time sales trends
Financial Services	<ul style="list-style-type: none">- Fraud detection- Regulatory compliance- Operational reporting	<ul style="list-style-type: none">- Enhanced security- Meet compliance needs- Quick decision-making
Healthcare and Life Sciences	<ul style="list-style-type: none">- Patient data analytics- Regulatory alignment- Operational efficiency	<ul style="list-style-type: none">- Better patient care- Compliance with HIPAA/GDPR- Optimized resource use
Manufacturing	<ul style="list-style-type: none">- Supply chain optimization- Predictive maintenance- Product quality analysis	<ul style="list-style-type: none">- Cost savings- Prevent downtime- Improved product standards
Technology and SaaS	<ul style="list-style-type: none">- Usage analytics- Scalable architecture- Operational insights	<ul style="list-style-type: none">- Better user experience- Efficient scaling- Streamlined operations
Energy and Utilities	<ul style="list-style-type: none">- Smart grid analytics- Environmental compliance- Asset management	<ul style="list-style-type: none">- Energy optimization- Meet regulatory goals- Extend asset lifespan
Education	<ul style="list-style-type: none">- Student performance analytics- Resource optimization- Compliance reporting	<ul style="list-style-type: none">- Personalized learning- Efficient resource use- Data privacy compliance
Retail Banking	<ul style="list-style-type: none">- 360° customer view- Branch performance analysis- Risk analysis	<ul style="list-style-type: none">- Improved customer retention- Branch-level insights- Reduced financial risks
Government and Public Sector	<ul style="list-style-type: none">- Citizen data management- Real-time decision support- Budget allocation insights	<ul style="list-style-type: none">- Better citizen services- Faster emergency responses- Transparent budget tracking
Media and Entertainment	<ul style="list-style-type: none">- Content performance analytics- Personalized recommendations- Ad performance tracking	<ul style="list-style-type: none">- Increased user engagement- Targeted content delivery- Effective ad campaigns

Retail & E-Commerce: Enhancing Customer Experience



Scenario:

A growing e-commerce business struggles with delivering **personalized product recommendations** due to **data silos** across transactional systems and analytics platforms. **Inventory updates** are delayed, leading to stockouts and dissatisfied customers.



How SQL Database in Fabric Solves It:

With SQL Database in Microsoft Fabric, the business can integrate transactional and operational data into a single platform. Real-time queries enable personalized recommendations during user interactions, while up-to-date inventory tracking ensures accurate product availability.



Outcome:

Increased customer satisfaction through real-time personalization.

Reduced stockouts and improved inventory turnover.

Unified platform reduces operational complexity.

Healthcare: Improving Patient Outcomes

Scenario:

A healthcare provider needs to analyze structured patient data to identify high-risk individuals and allocate resources efficiently. Current systems **are siloed**, delaying insights.



How SQL Database in Fabric Solves It:

SQL Database integrates patient records with operational data in a compliant and secure environment. Data scientists can use familiar SQL to run ad hoc queries and identify at-risk patients while respecting HIPAA and GDPR regulations.

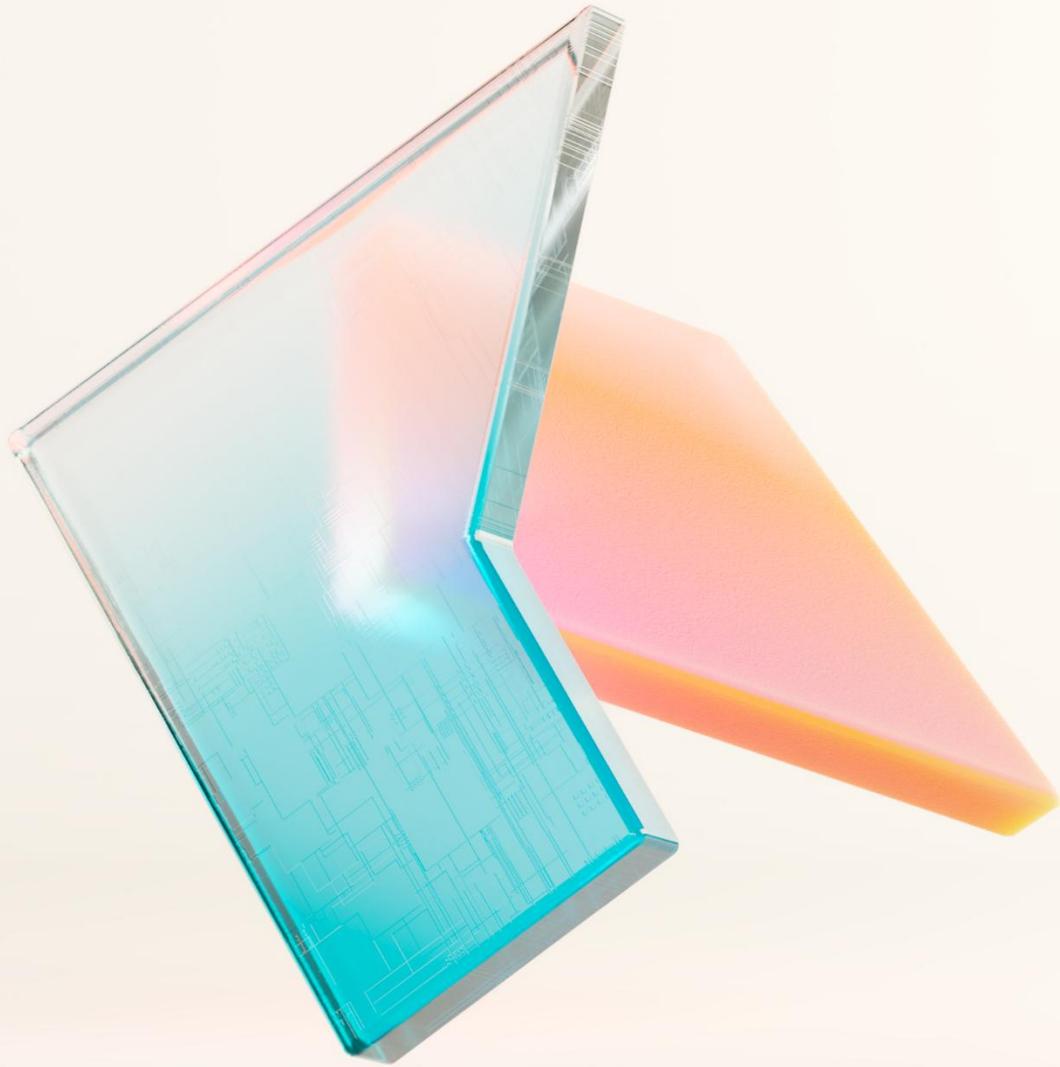


Outcome:

Proactive identification of high-risk patients.

Efficient allocation of healthcare resources.

Improved patient care and reduced costs.

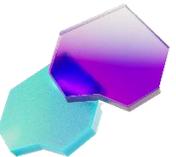


Fabric Databases
Featured Partner

Fabric DB Featured Partners

Drive Partner Success in first few Fabric DB implementations

- Work with a small group of Analytics partners on their first few Fabric DB Implementations
- Provide partners with all the resources they need to get enabled, pitch, pilot, and implement successfully
- Capture feedback, learning and best practices from those implementations
- Feature the Partners in Winwires, Livewires, on AppSource and at Microsoft key events



Fabric Databases: Partner gives and gets

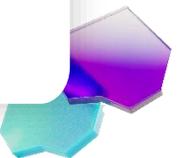
Partner gets

- Partner enablement:
 - Access to early training material
 - Priority spots in training bootcamps and workshops
- Sales collateral: Pitch decks, demos and demo videos
- Pre-sales and post-sales funding through Azure Innovate and AMM *
- Joint account team planning
- **A dedicated Microsoft's Partner Solution Architect(PSA)** with direct access to engineering who can provide:
 - Validation of key assumptions
 - Access to engineering support for the first few implementations
 - A direct line to ask questions and report bugs during the first few implementations
- Bi-Weekly connect to review status and unblock any blockers
- Getting featured following first successful implementation

Partner gives

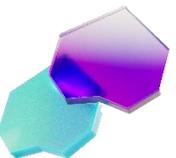
- **Identify a champ to work with Microsoft**
 - Someone who is not only deep technically but also a community leader in their org, so they can land the information they receive broadly and funnel questions from their community to Microsoft's PSA
- Commit to train x consultants using Microsoft learn modules and workshops (to become available in early 2025)
- Identify a list of at least 5 qualified customers to jointly target
- **Attend bi-weekly meetings** and provide status updates
 - Progress per customer (Connect with MS Account team → Deliver SQL Database in Fabric Pitch → Identify Executive Sponsor → Select project for Pilot → Execute Pilot → Deploy SQL Database in Fabric in production → Create and publish success story)
 - Feedback on engagement with Microsoft account teams
 - Feedback on pre-sales content
 - Feedback on product

* Azure Innovate and AMM funding is dependent on fulfilling offering requirements



Requirements for Fabric Databases Featured Partner

- Analytics Specialization
 - Analytics on Azure (and/or)
 - Infra and Database Migration
- 5+ individuals completing Fabric Databases Learn Module (https://learn.microsoft.com/en-us/training/paths/implement-operational-databases-in-microsoft-fabric/?ocid=fabricdb_prodanna_blog_azdata)
- 1+ verifiable customer implementation on Fabric Databases on paid SKUs



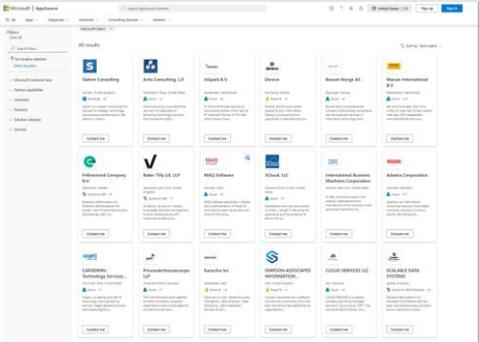
Benefits of Fabric Databases Featured Partner



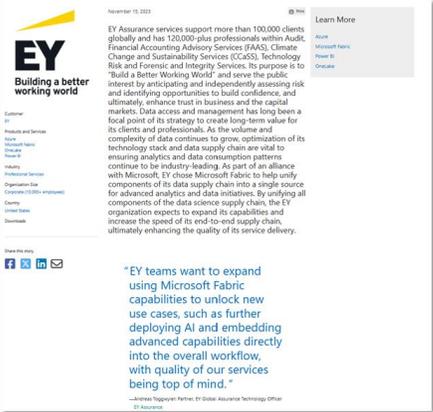
Partner promotion at major Microsoft events



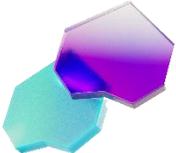
Win emails sent across Microsoft sellers



Partner profile showcase in Microsoft AppSource



Nominate for public facing case studies





MGM GRAND, Las Vegas, NV

**March 31 -
April 2, 2025**

Workshops: March 29, 30, and April 3
Partner Pre-Day: March 30th

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