

How Can Microsoft Fabric Have an Impact on Your Business?

Paul Andrew
Co-Founder | Chief Technology Officer



Cloud Formations



Our Offerings

Supporting you on every level.
Providing stakeholders with transparent reviews and feedback on planning, rollout and platform architecture.

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**Monday 2nd to Friday 6th
October 2023**



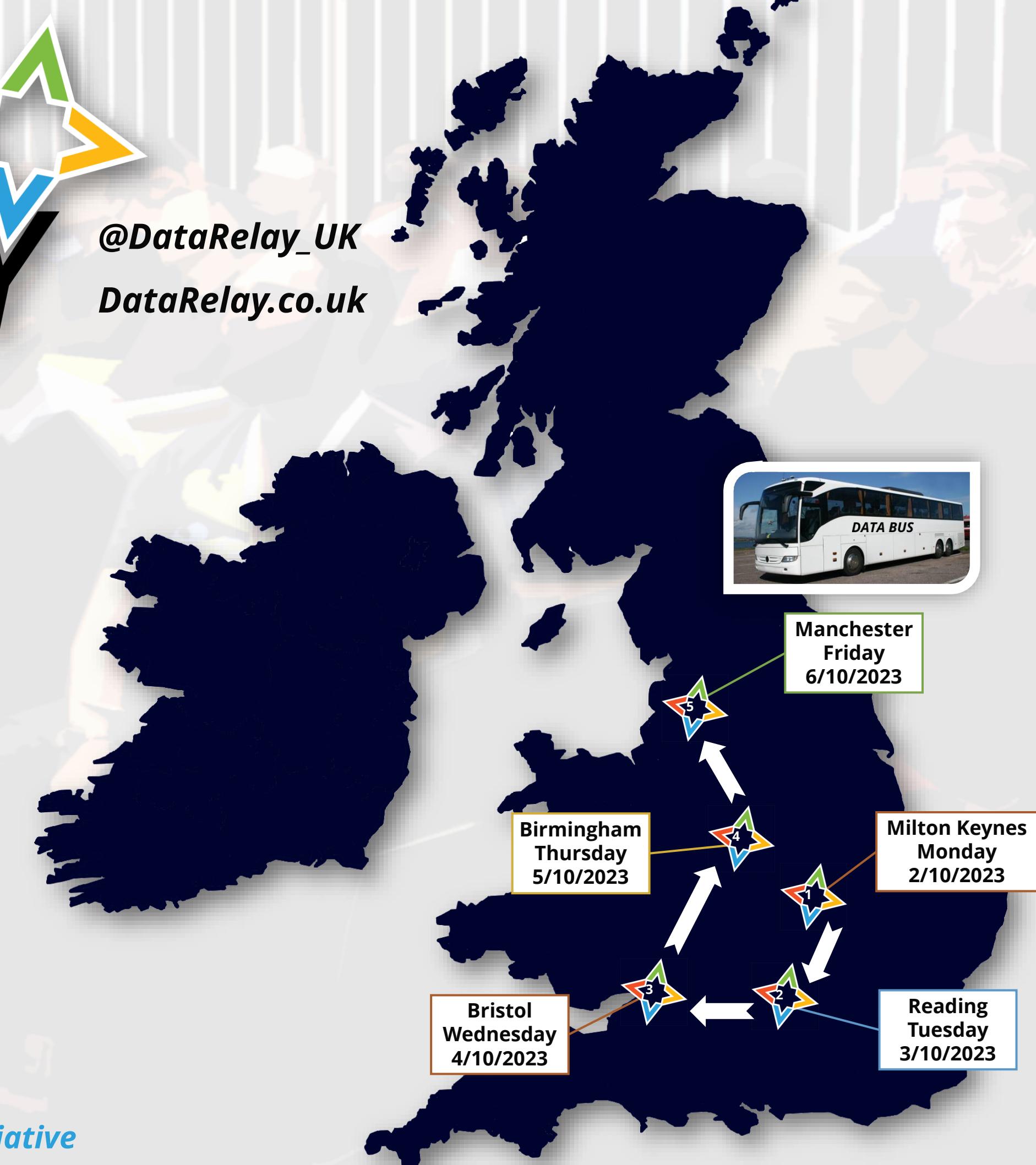
DATA RELAY

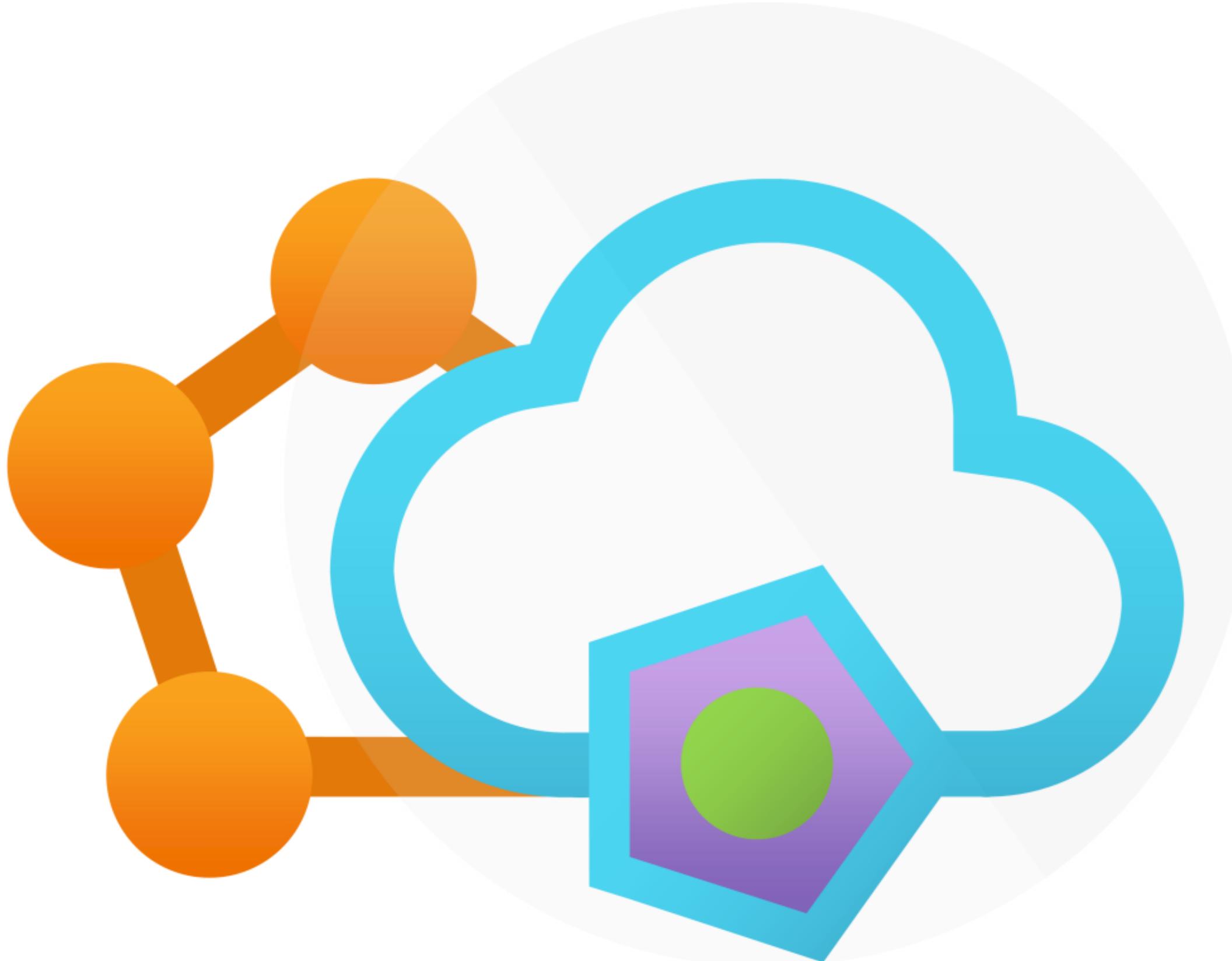
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Registration OPEN





How Can Microsoft Fabric Have an Impact on Your Business?

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Abstract

All this talk about Data-Ware-Lake-Delta-Beach-House-Lakes (or some combination of that) and Data, Yarn, Fabric integration, everything has got a bit... Meshy! Yes, my friends. The beat of the technology drum is certainly relentless. And with no limits cloud scale and huge innovations from the biggest brains. Two years, it seems, has become the benchmark for tools to live and die by. Reach three years and you almost have a mature product. That said, Microsoft Fabric, the latest offering from global software giant is no exception. But what does this mean for the real world. For the data analysts, engineers and scientists that need to continue answering everyday problems to inform business decisions. In this session we will firmly ignore the hype and focus on the reality. With the pragmatic view of an experienced architect. The problem of gaining insights from our data hasn't changed. So, what does this mean if implemented using Microsoft Fabric. What, why and how is the tooling going to change our daily deliverables in the short term, medium and long term. Join me for these answers and more as we explore the impact of Microsoft Fabric-Server, erm, Power. Resource. Thing!

Q: How Can Microsoft Fabric Have an Impact on Your Business?

A:

Q: How Can Microsoft Fabric
Have an Impact on Your
Business?

A: No
Yes

Q: How Can Microsoft Fabric
Have an Impact on Your
Business?

A:

What Does
Q: ~~How Can~~^v Microsoft Fabric
~~Have an Impact on Your~~
Mean For ~~Business?~~
Business?

A:

Why Implement
Q: ~~How Can Microsoft Fabric~~
~~Have an Impact on Your~~
As Part Of ~~Business?~~
Technology Landscape

A:

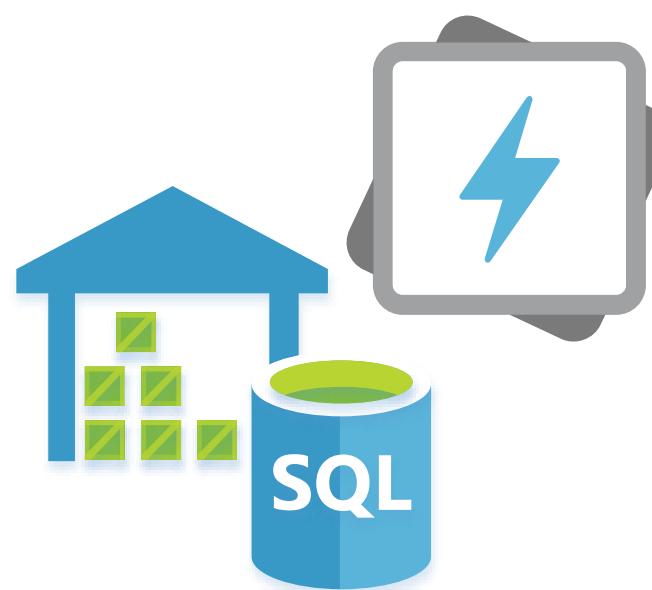
Will
Q: How Can Microsoft Fabric
Have an Impact on Your
Positive or Negative
Business?

A:



Will How Can Microsoft Fabric Have an Impact on Your *Positive or Negative* Business?

Microsoft
SQL Server 2000



2016



2018



2020

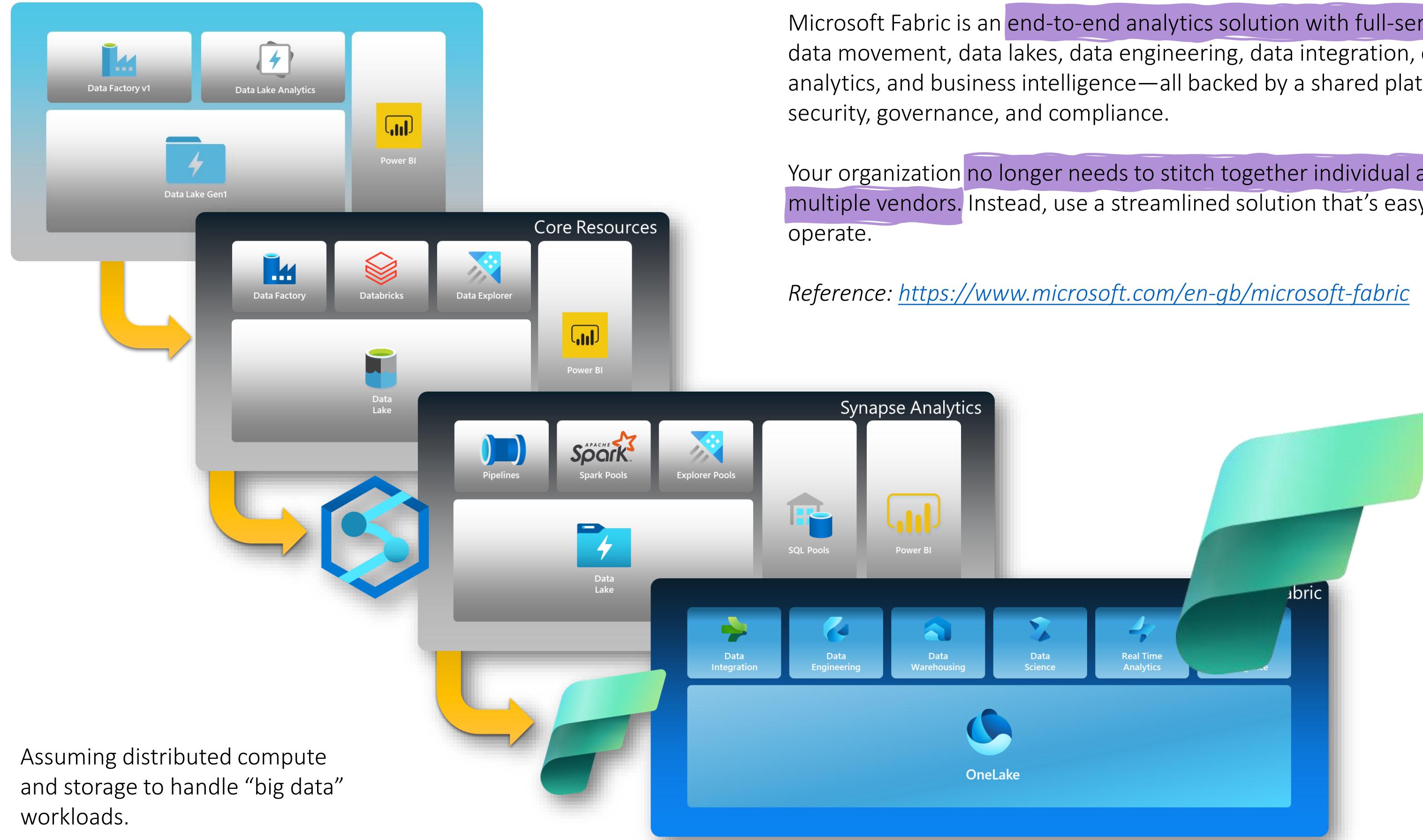


2023

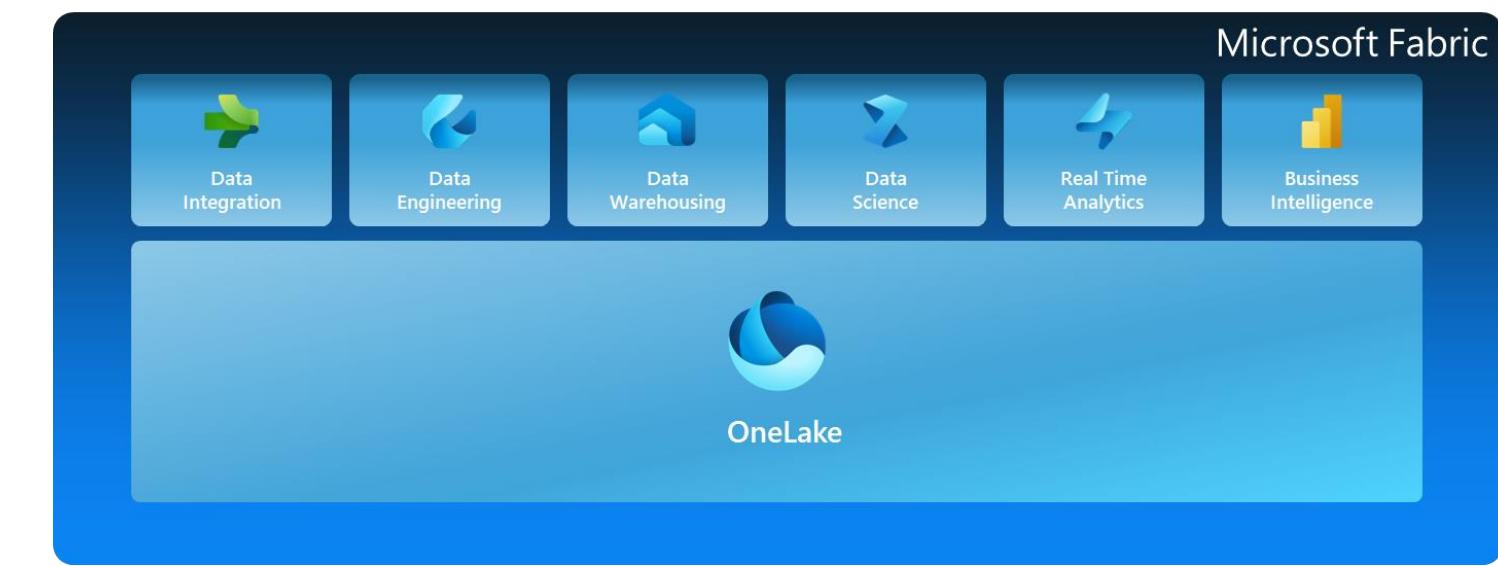


What is Microsoft Fabric? – Vision and Stack Evolution

Cloud Formations - Knowledge Transfer & Training



What is Microsoft Fabric?





What is Microsoft Fabric? - Experiences vs Technical Capabilities

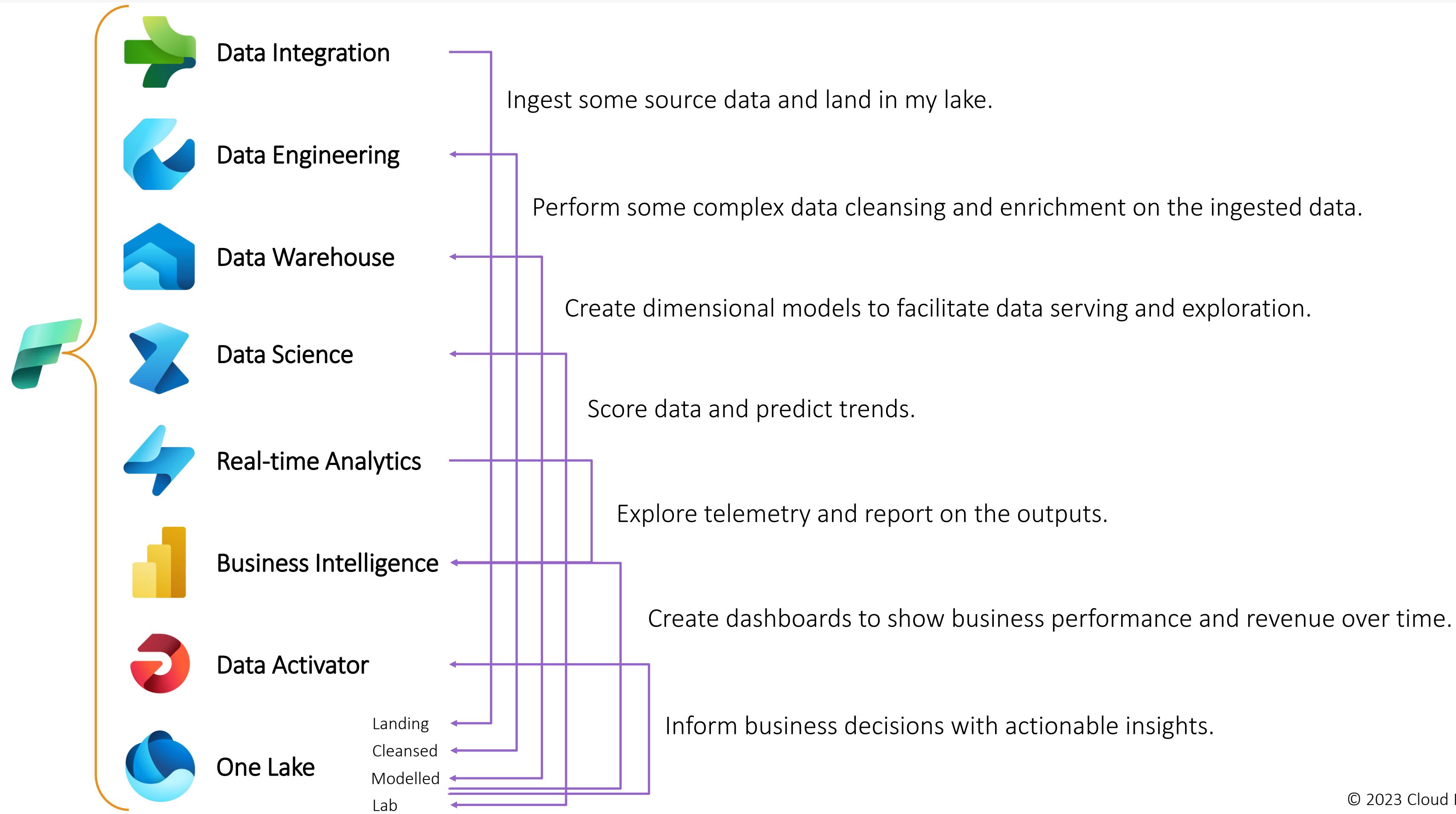
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	Data Integration	- Workload management and orchestration with dependency chain handling and scheduling. <i>Think... Azure Data Factory</i> 
	Data Engineering	- Low code and full code development in Python, Scala, R, SQL executed using Spark clusters. <i>Think... Azure Databricks</i> 
	Data Warehouse	- Schema driven relational entities coded using T-SQL covering DML and DDL functionality. <i>Think... Azure Synapse Analytics – SQL Pools.</i> 
	Data Science	- Predictive analytics and experimentation on data to expose insights and drive outcomes. <i>Think... Azure Machine Learning.</i> 
	Real-time Analytics	- Time series data exploration over inbound telemetry and messages coded using KQL . <i>Think... Azure Data Explorer.</i> 
	Business Intelligence	- Dashboards and metrics created to for the business to consume data, coded using DAX and M . <i>Think... Power BI.</i> 
	Data Activator	- Actions triggered by defined changes in modelled datasets. <i>Think... Azure Alerts</i>  * Closest equivalent capability.
	One Lake	- Distributed data storage optimised for analytics and structured as Delta Lake tables. <i>Think... Azure Data Lake Gen2</i>  

What is Microsoft Fabric? – As a “Traditional” Development Workflow



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Q: How Can Microsoft Fabric
Have an Impact on Your
Business?

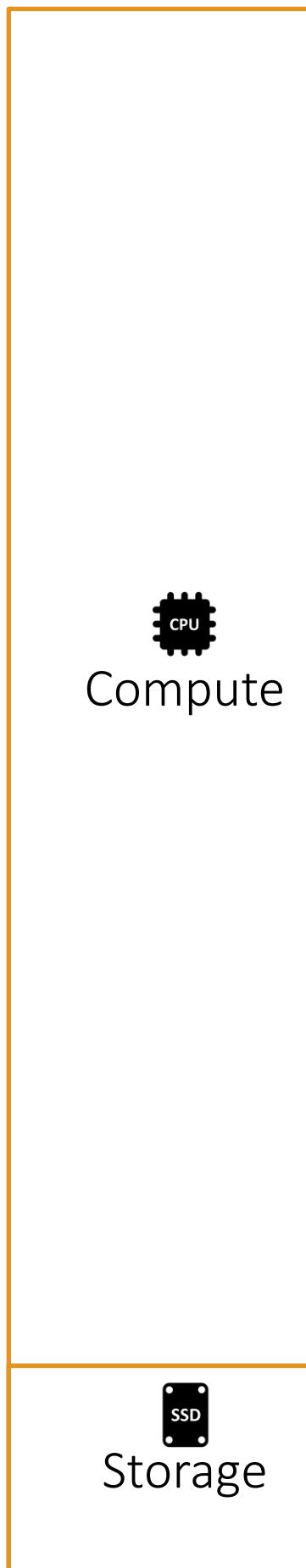
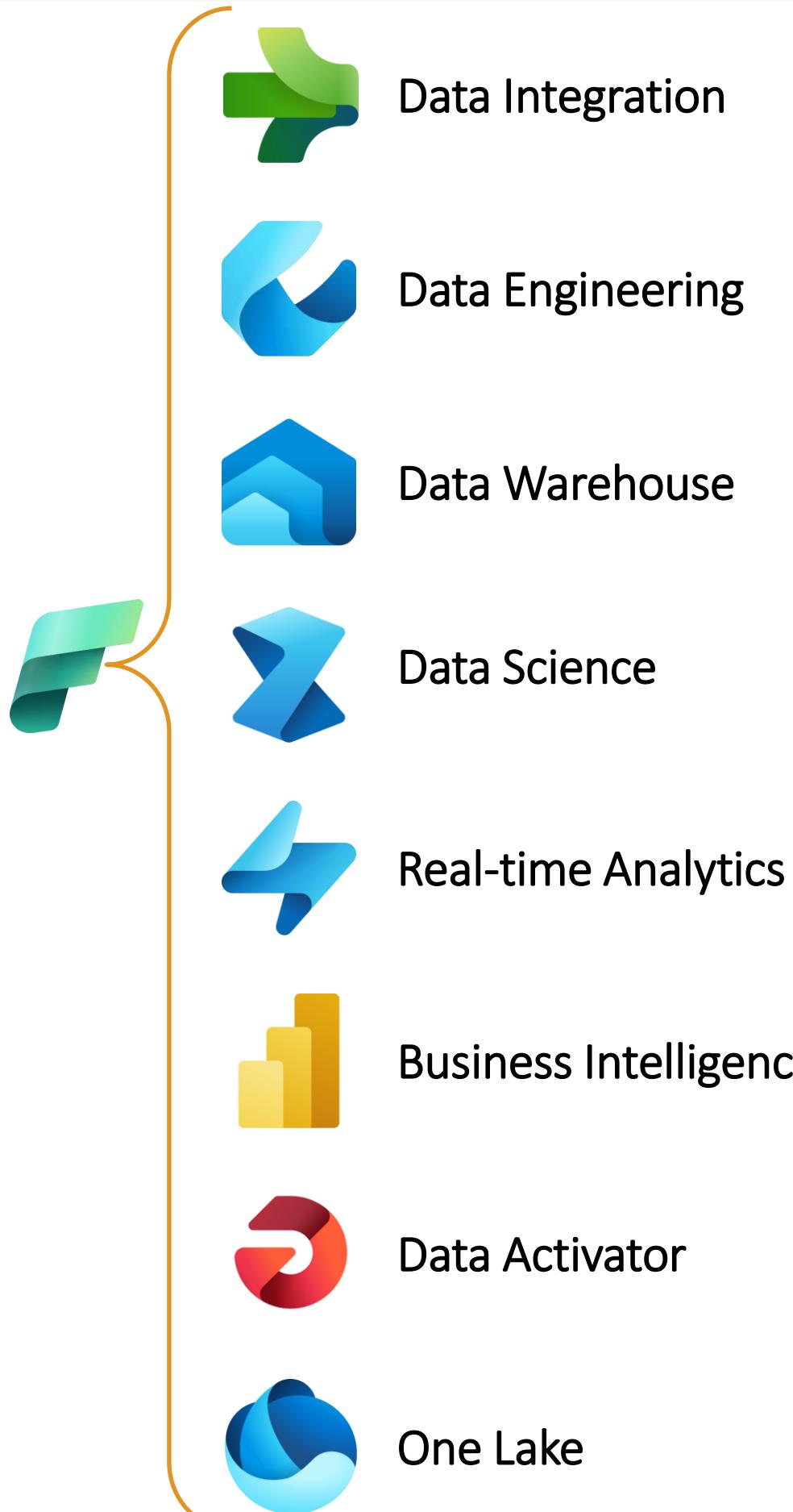
A:

1. Simplifying Compute Consumption & Running Costs

1. Simplifying Compute Consumption & Running Costs



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SKU	Capacity Units	Power BI SKU	Power BI v-cores
F2	2	-	0.25
F4	4	-	0.5
F8	8	EM/A1	1
F16	16	EM2/A2	2
F32	32	EM3/A3	4
F64	64	P1/A4	8
F128	128	P2/A5	16
F256	256	P3/A6	32
F512	512	P4/A7	64
F1024	1024	P5/A8	128
F2048	2048	-	256

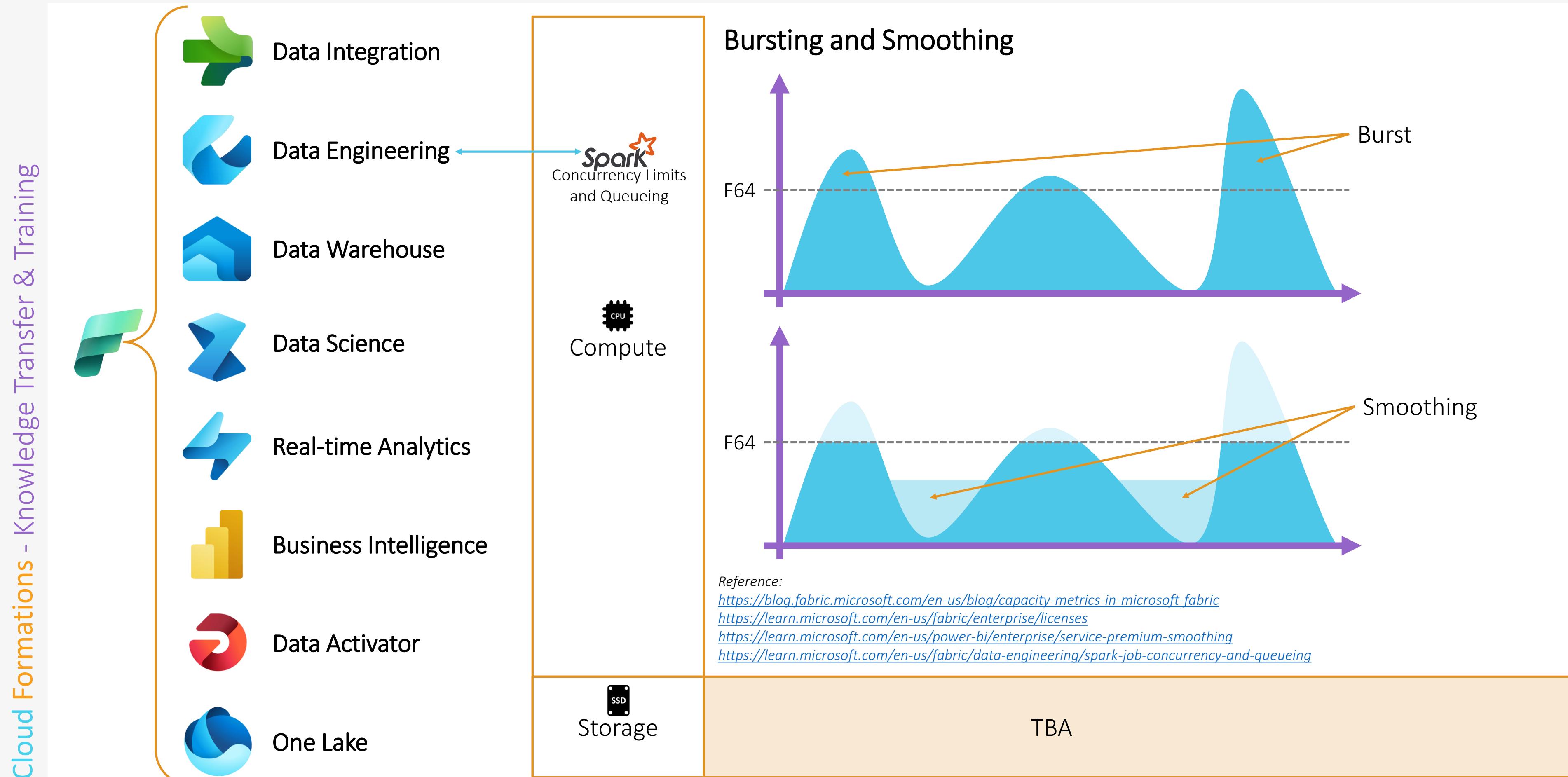
Reference:

- <https://blog.fabric.microsoft.com/en-us/blog/capacity-metrics-in-microsoft-fabric>
- <https://learn.microsoft.com/en-us/fabric/enterprise/licenses>
- <https://learn.microsoft.com/en-us/power-bi/enterprise/service-premium-smoothing>
- <https://learn.microsoft.com/en-us/fabric/data-engineering/spark-job-concurrency-and-queueing>

The screenshot shows the Azure Pricing calculator interface. It includes a digital timer at the top right showing '01134'. Below the timer are sections for 'Storage Accounts', 'Azure SQL Database', 'Azure Cosmos DB', 'Azure Kubernetes Service (AKS)', 'Azure Cognitive Services', and 'Microsoft Cost Management'. At the bottom left, there is a 'Pricing calculator' input field with placeholder text 'Calculate your estimated hourly or monthly costs for using Azure.' and buttons for 'Try Azure for free' and 'Create a pay-as-you-go account'.

TBA

1. Simplifying Compute Consumption & Running Costs



Q: How Can Microsoft Fabric
Have an Impact on Your
Business?

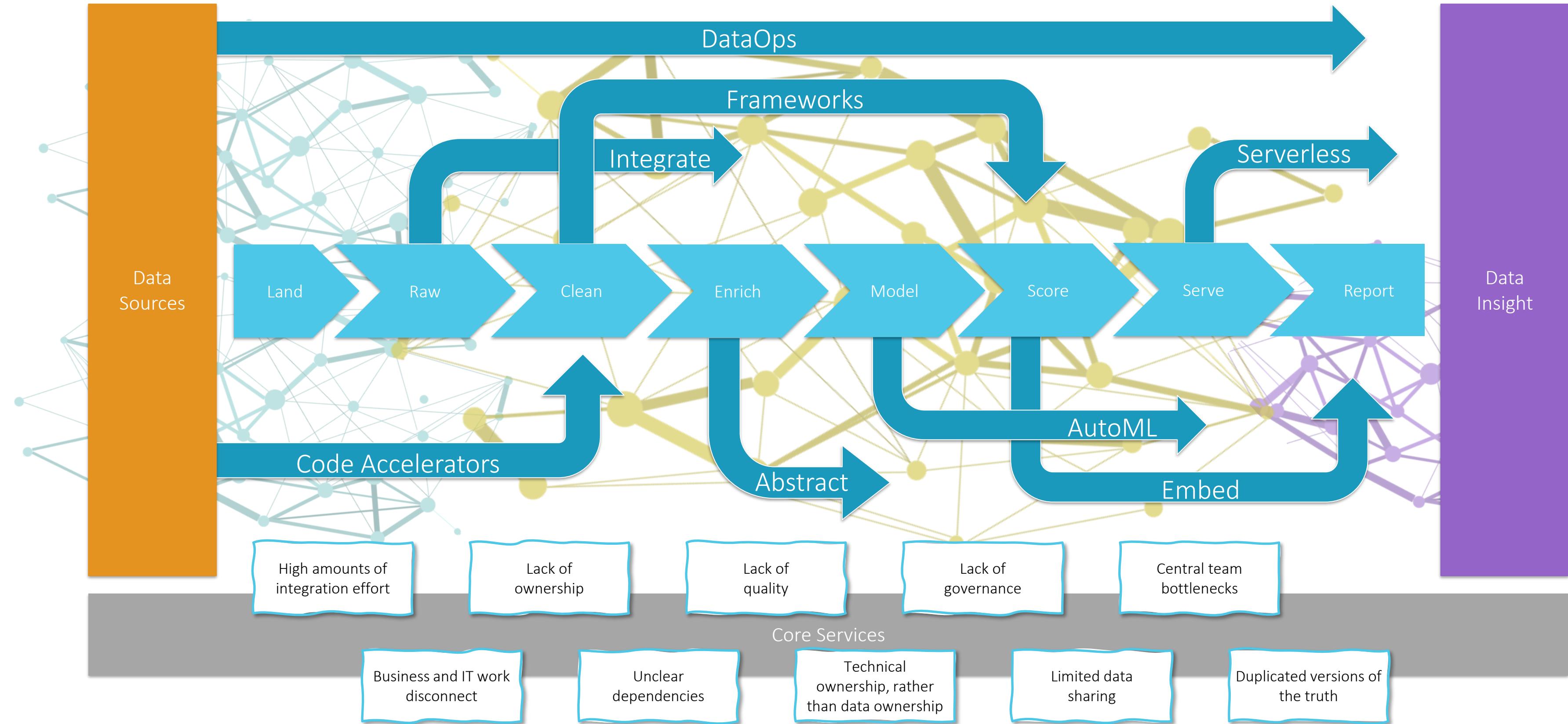
A:

1. Simplifying Compute Consumption & Running Costs
2. Accelerating Time to Insight

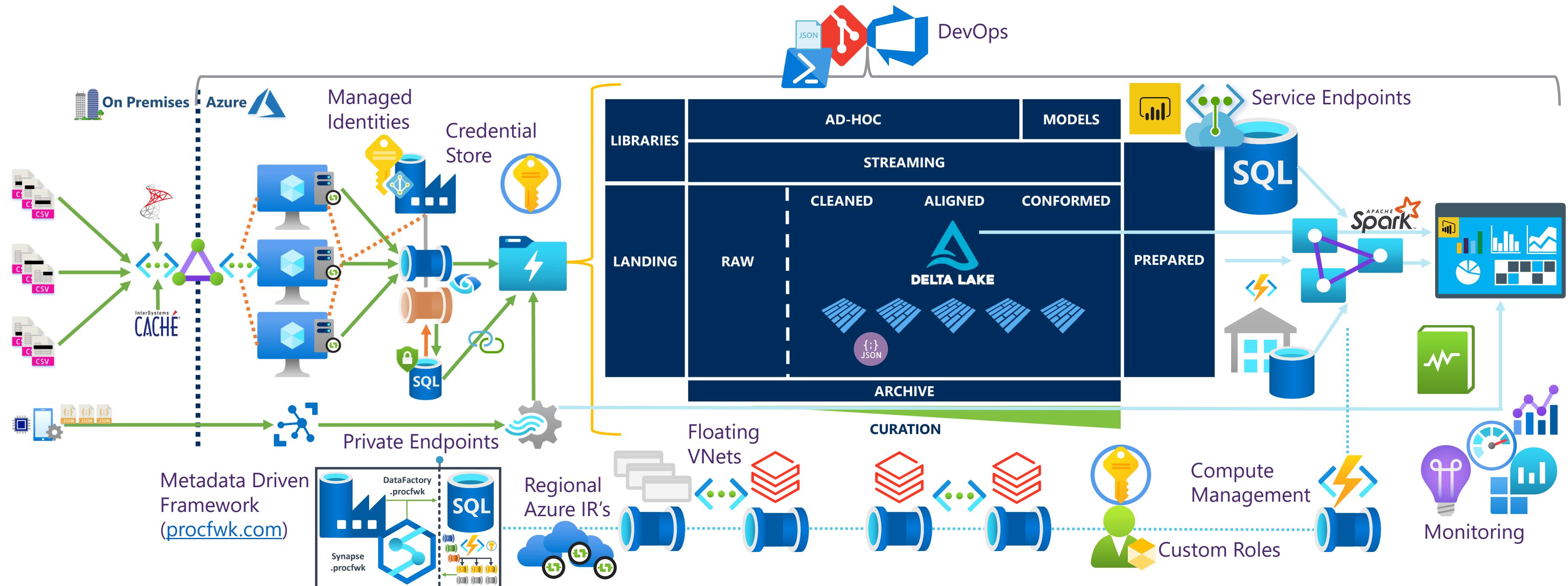
2. Accelerating Time to Insight



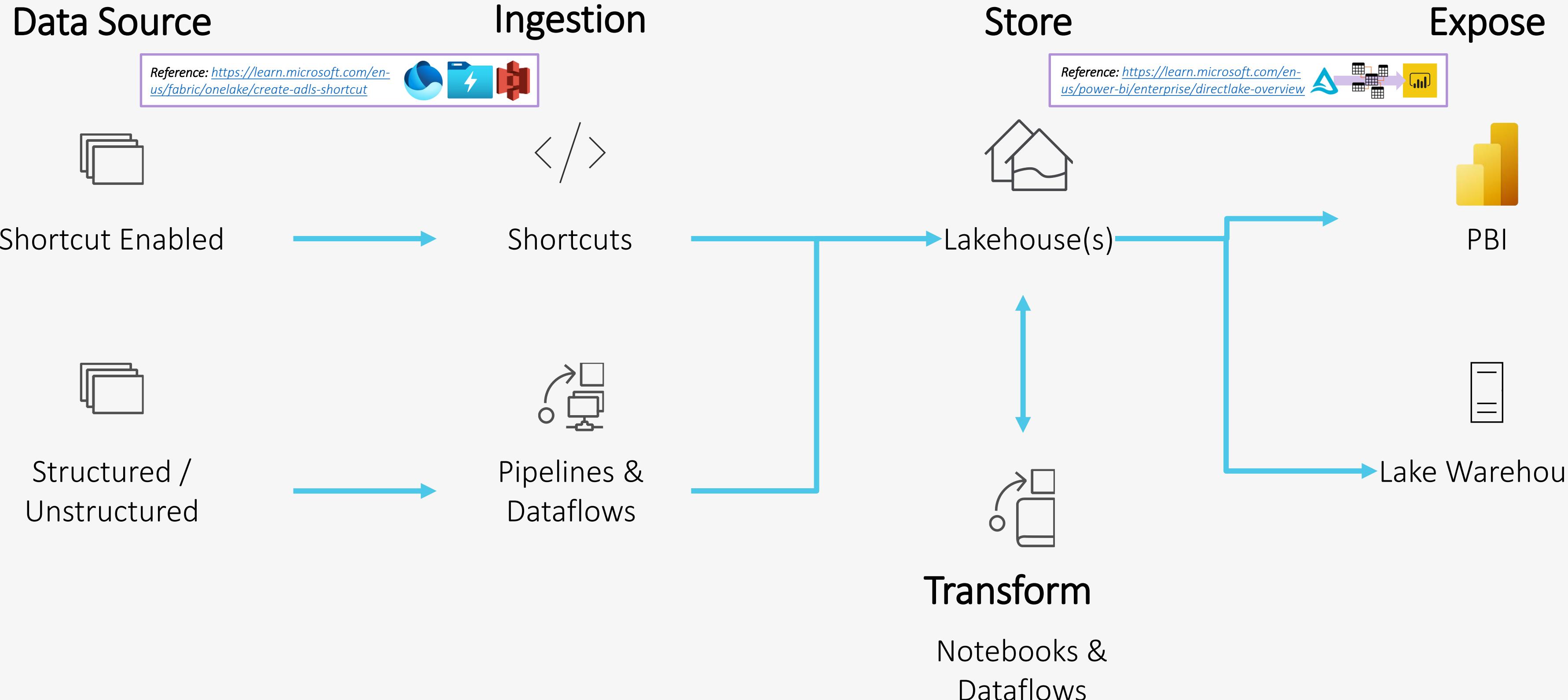
2. Accelerating Time to Insight



2. Accelerating Time to Insight



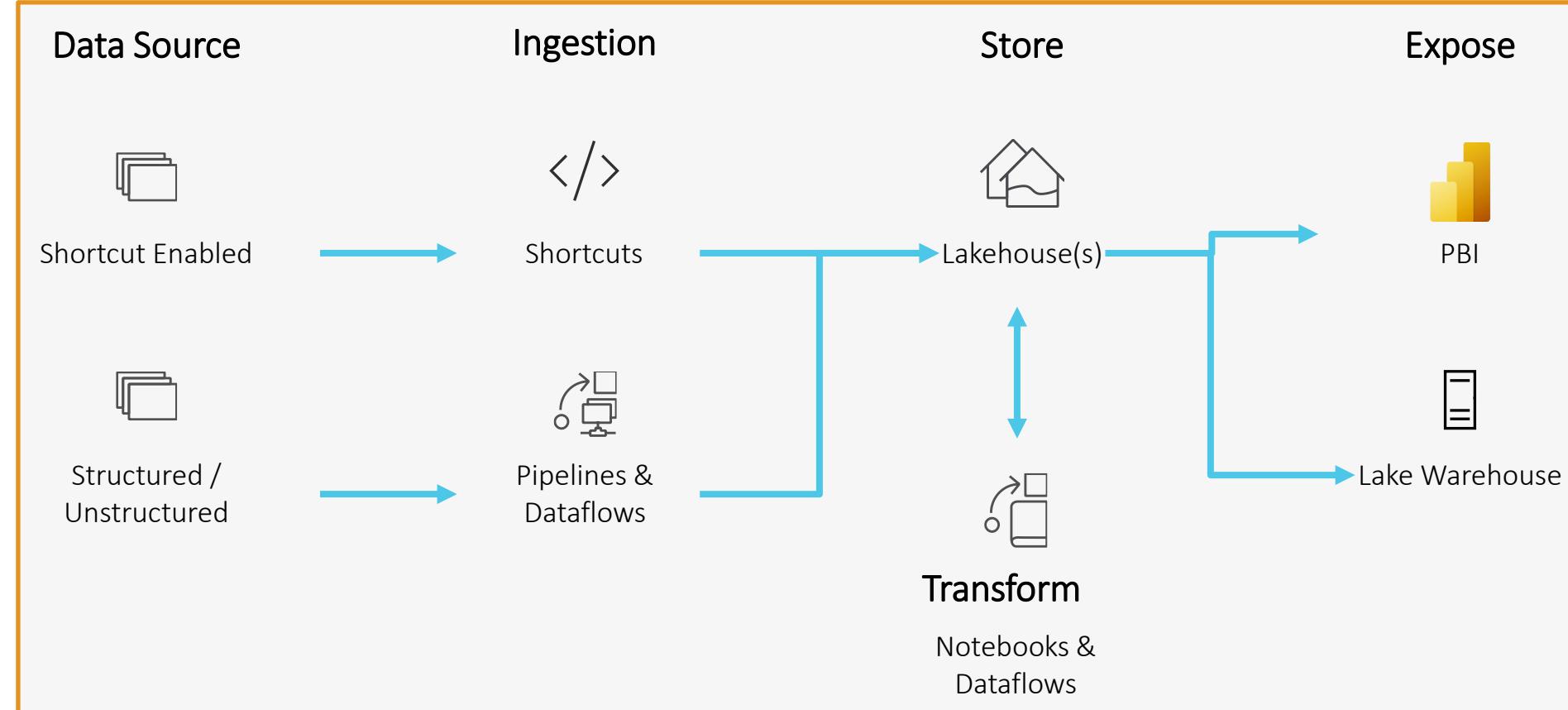
2. Accelerating Time to Insight



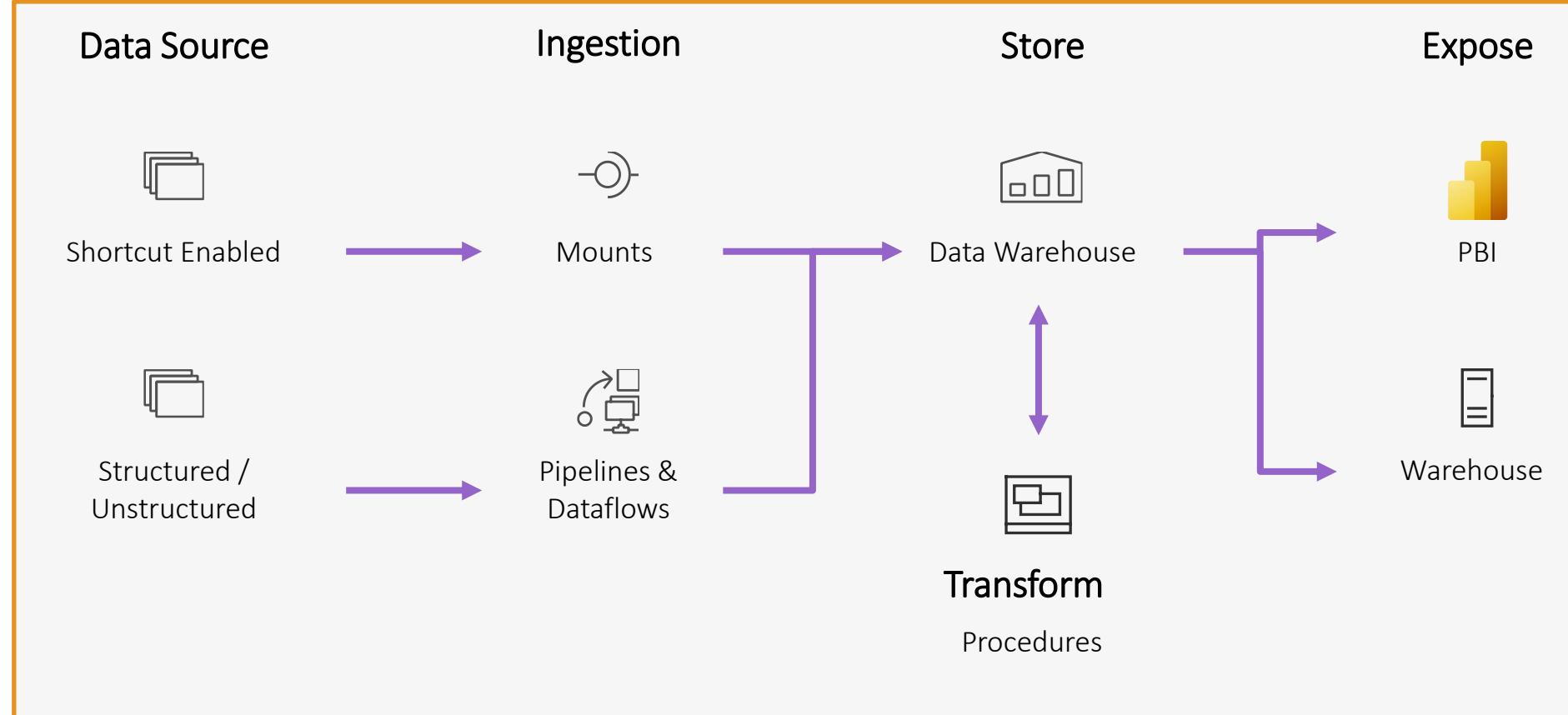


Microsoft Fabric – ‘Happy Paths’ (Patterns)

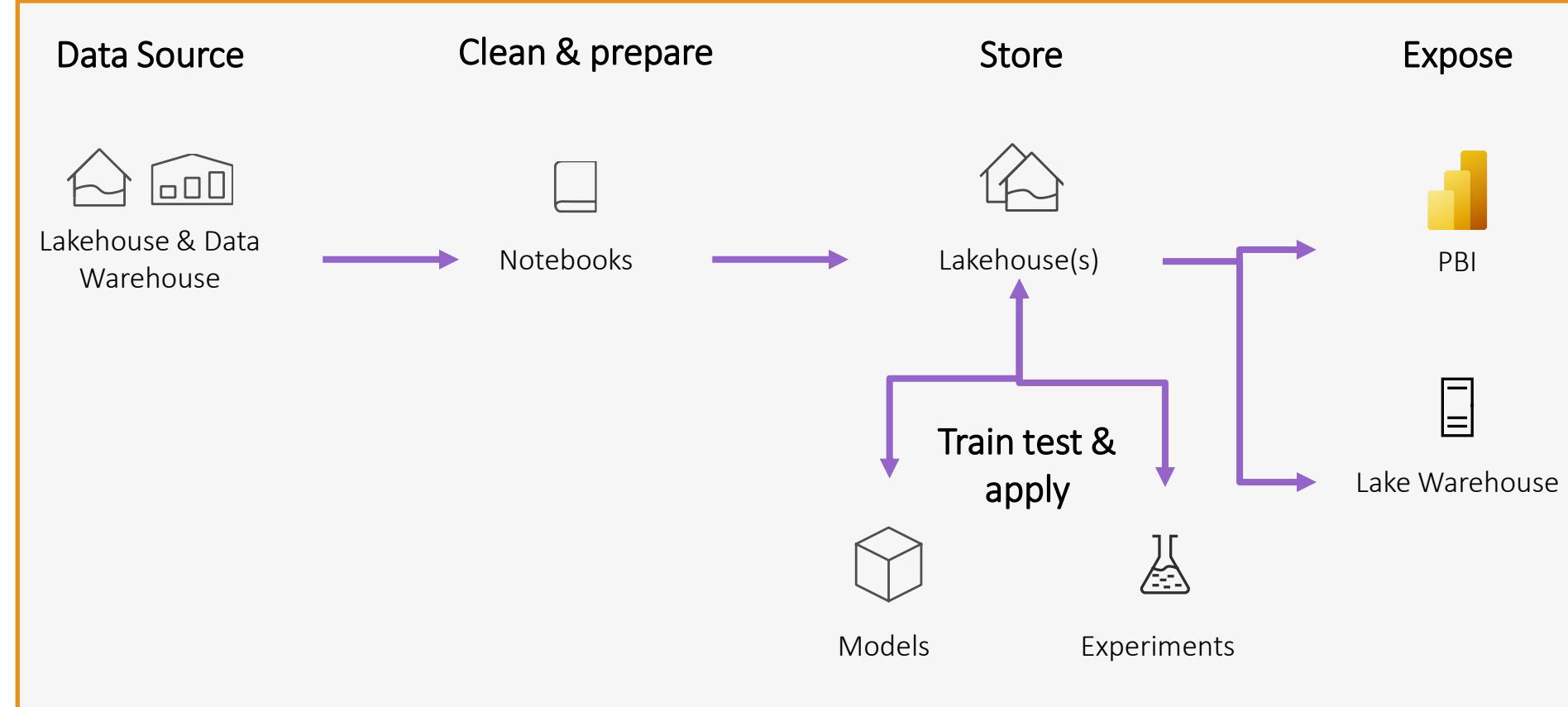
Lakehouse



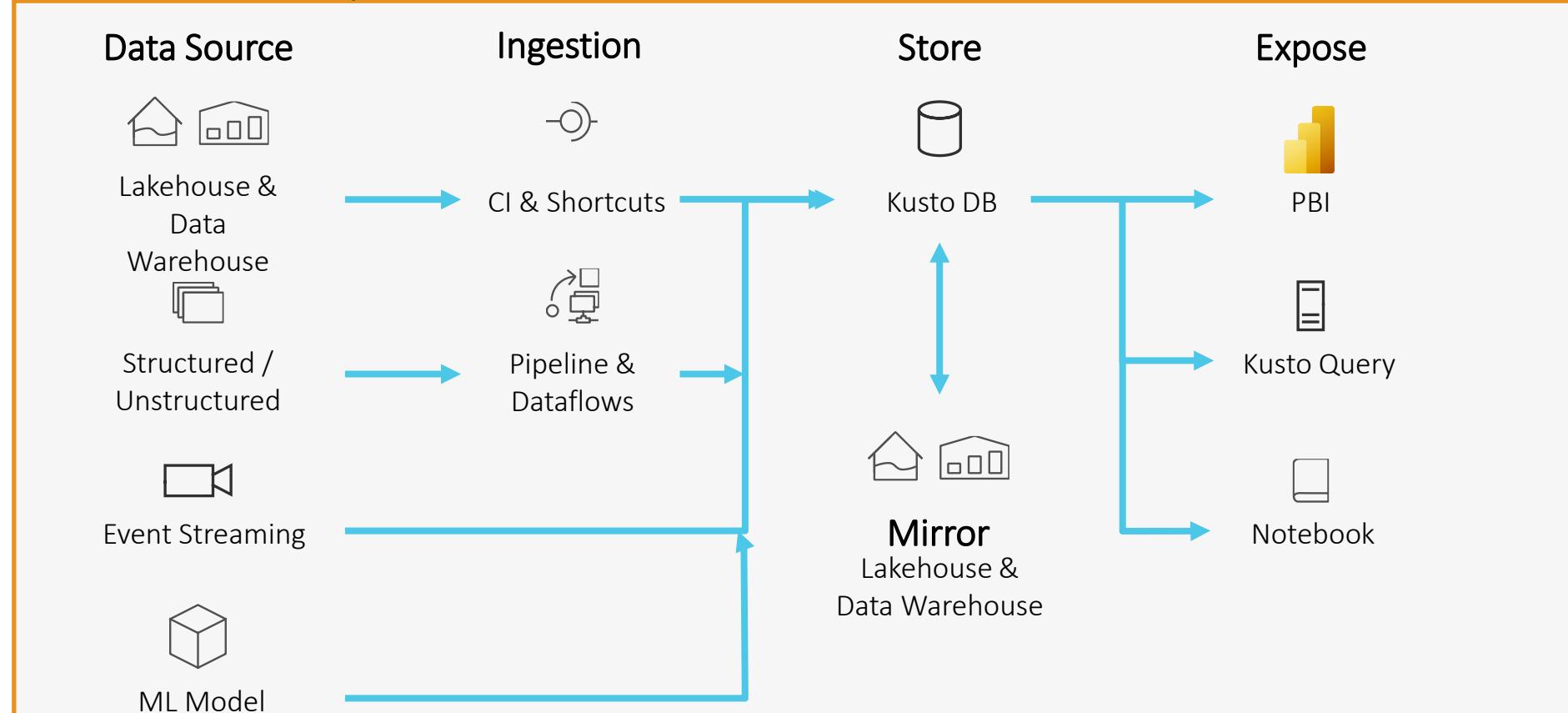
Data Warehouse



Data Science



Real-Time Analytics

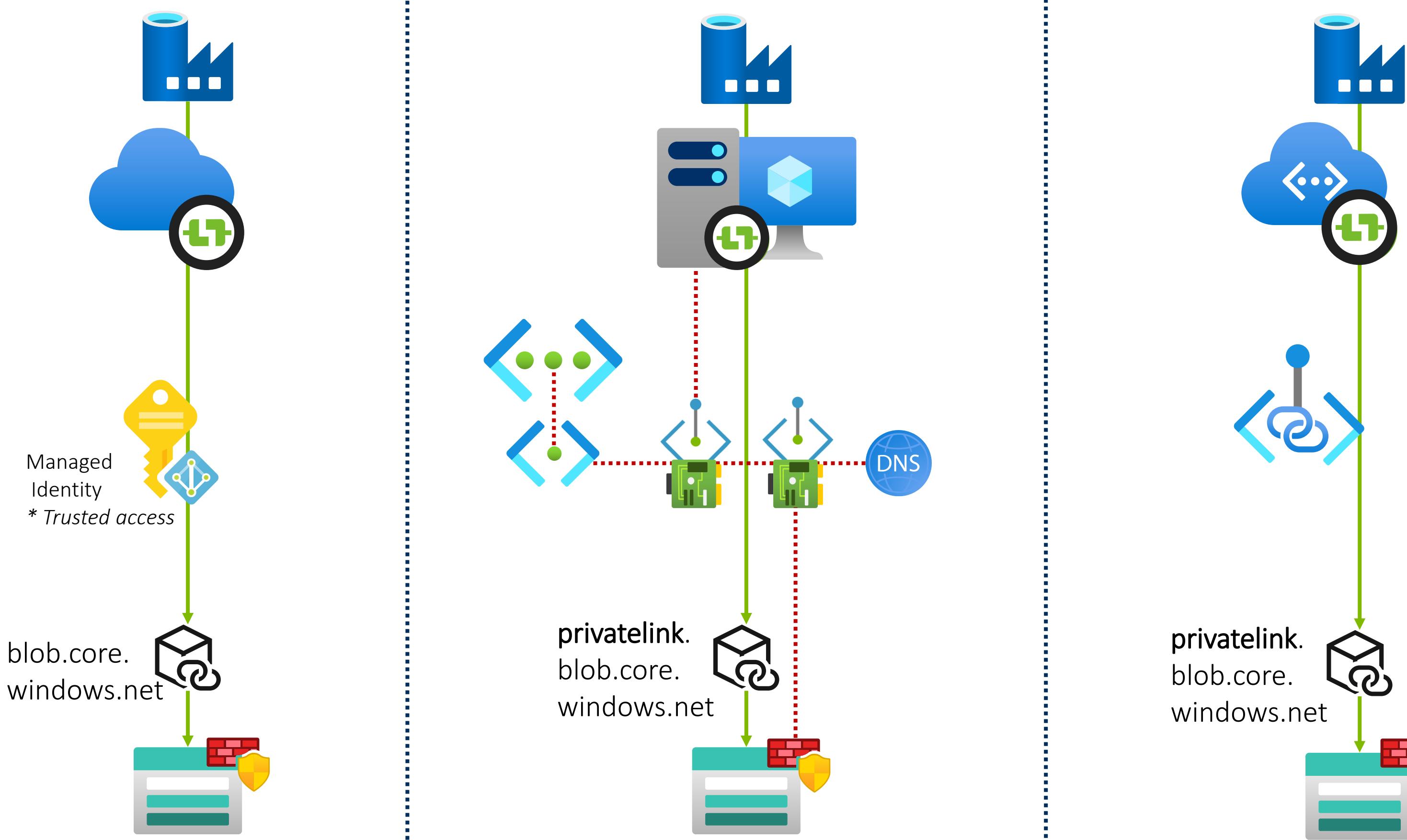


Q: How Can Microsoft Fabric
Have an Impact on Your
Business?

A:

1. Simplifying Compute Consumption & Running Costs
2. Accelerating Time to Insight
3. Unified Tooling – Avoiding Complex Infrastructure

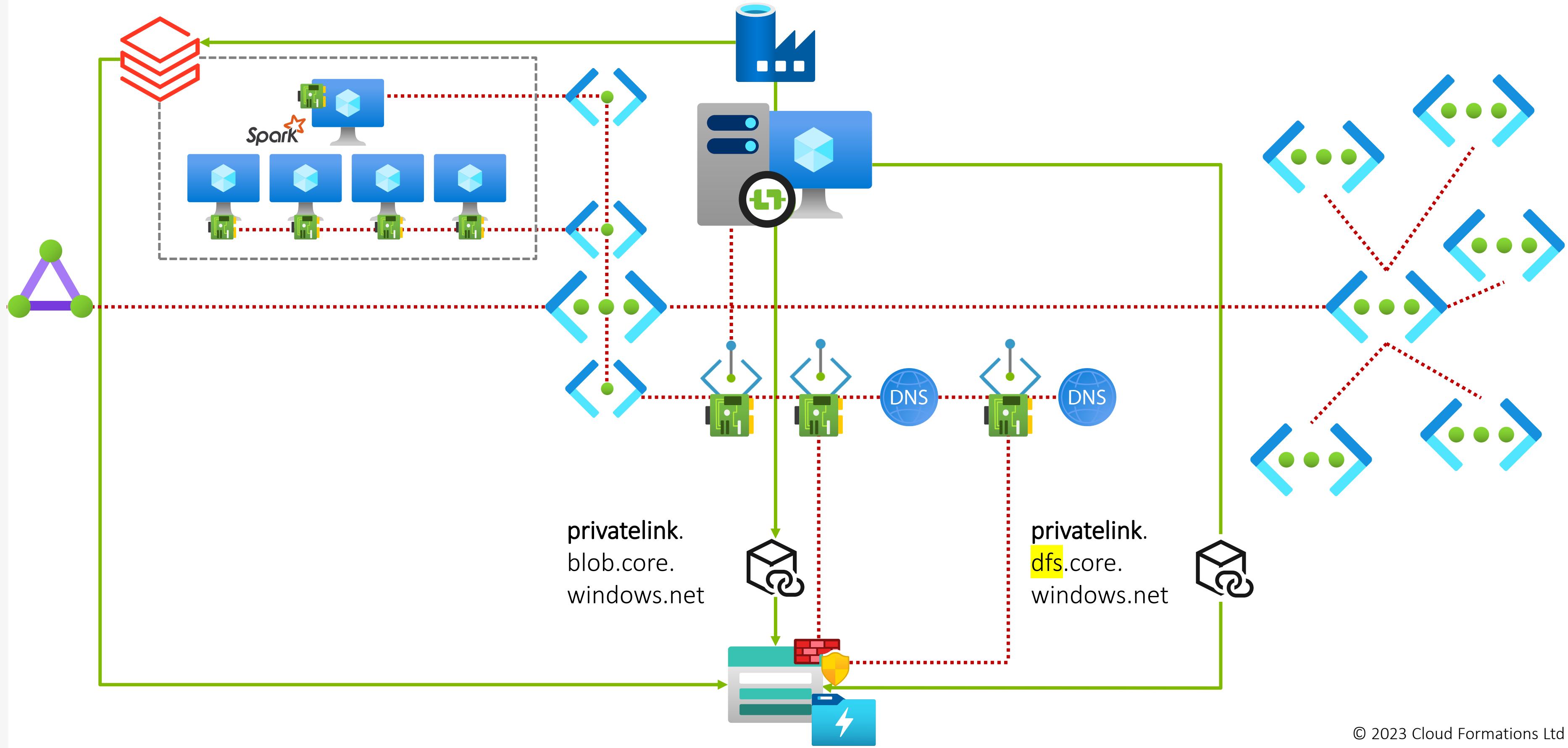
3. Unified Tooling – Avoiding Complex Infrastructure



3. Unified Tooling – Avoiding Complex Infrastructure



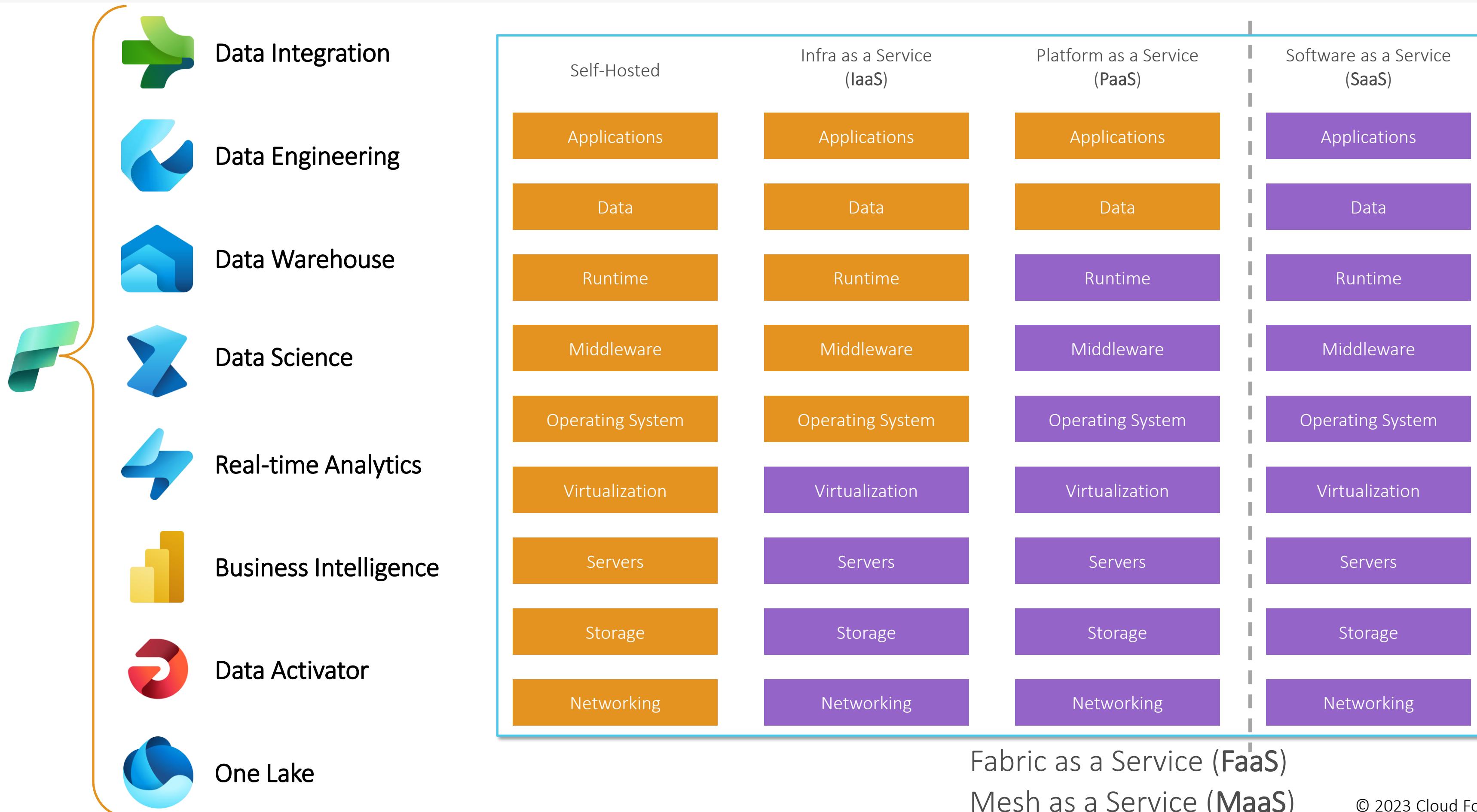
Cloud Formations - Knowledge Transfer & Training





3. Unified Tooling – Avoiding Complex Infrastructure

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Q: How Can Microsoft Fabric
Have an Impact on Your
Business?

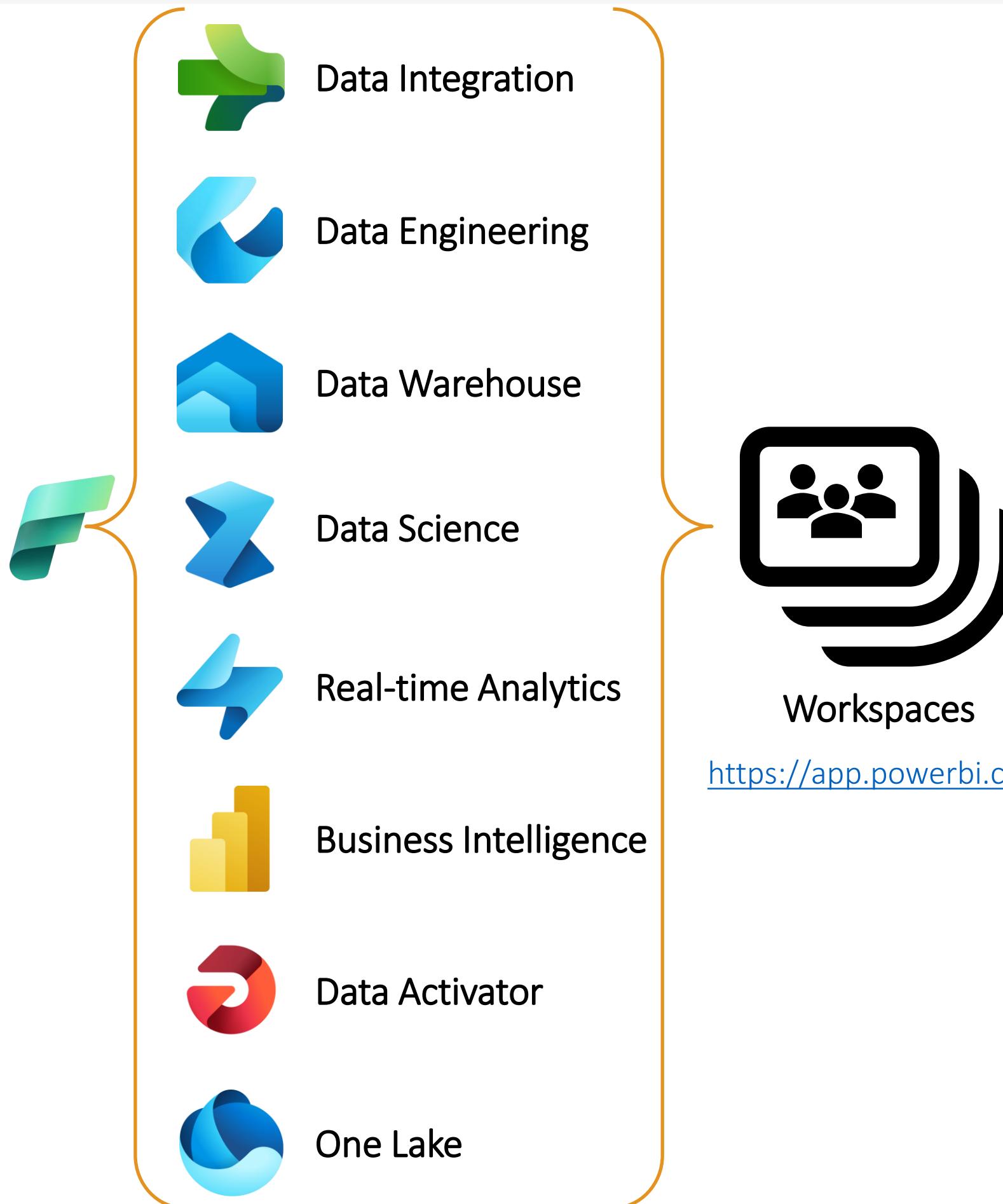
A:

1. Simplifying Compute Consumption & Running Costs
2. Accelerating Time to Insight
3. Unified Tooling – Avoiding Complex Infrastructure
4. Empowering Business Users



4. Empowering Business Users

Cloud Formations - Knowledge Transfer & Training



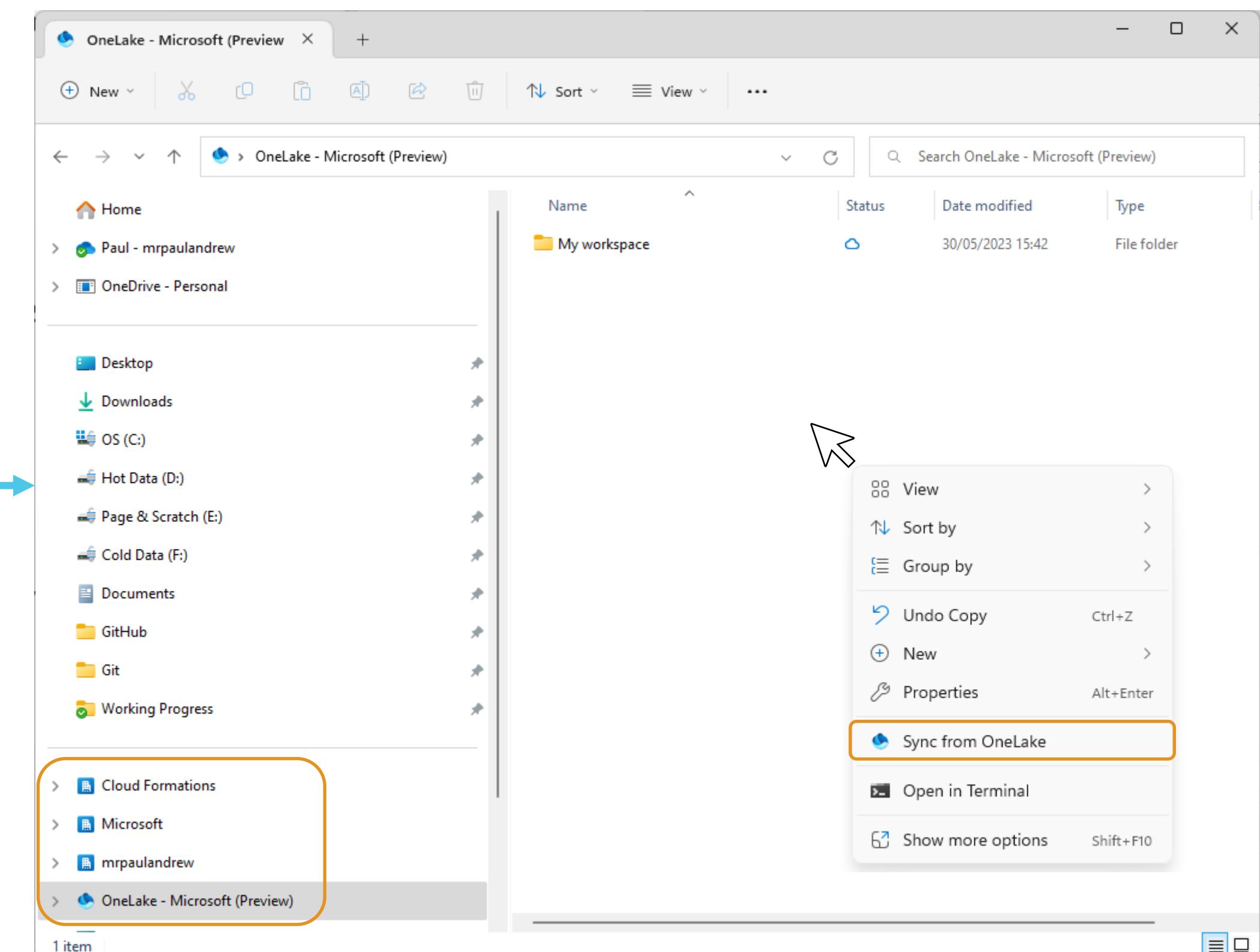
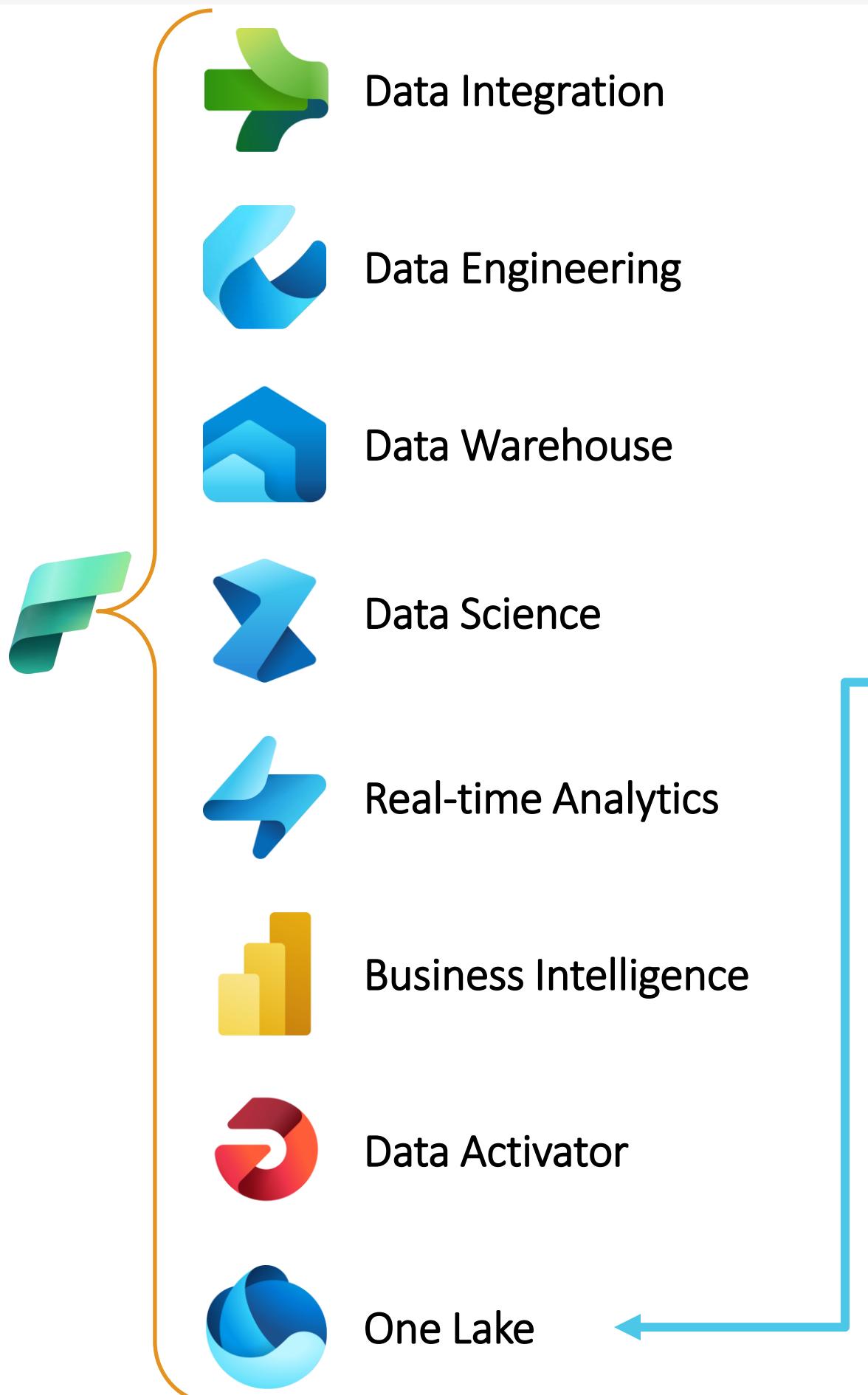
Before
Fabric

After
Fabric



4. Empowering Business Users

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Reference: <https://learn.microsoft.com/en-us/fabric/onelake/onelake-file-explorer>

Q: How Can Microsoft Fabric
Have an Impact on Your
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A:

1. Simplifying Compute Consumption & Running Costs
2. Accelerating Time to Insight
3. Unified Tooling – Avoiding Complex Infrastructure
4. Empowering Business Users
5. Driving Innovation



5. Driving Innovation – Improving Productivity

-  Data Integration
-  Data Engineering
-  Data Warehouse
-  Data Science
-  Real-time Analytics
-  Business Intelligence
-  Data Activator
-  One Lake

“Show me the top 10 most profitable products sold in the last 6 months by category and region.”

“Give me a summary of my meetings today.”

“Draft an announcement ready for my next event.”

“Write a SQL script to aggregate my sales data.”

“Create a DAX measure for the average numbers of customers that subscribe to my website per week.”

“Build a dashboard for all sales this month with visuals showing a breakdown by product owner.”



Microsoft 365 Copilot

Article Talk

From Wikipedia, the free encyclopedia

Microsoft 365 Copilot is an [artificial intelligence](#) assistant feature for [Microsoft 365](#) applications and services.^{[1][2][3]} Announced by Microsoft on March 16, 2023, the tool builds on [OpenAI's](#) advanced [GPT-4](#) large language models (LLMs) and incorporates [Microsoft Graph](#) in order to convert user text input into content in Microsoft 365 apps, such as [Word](#), [Excel](#), [PowerPoint](#), [Outlook](#), and [Teams](#).^[1] Copilot is being marketed with a focus on productivity for its users, with 20 initial testers as of March 16, 2023.^{[1][4]} In May 2023, Microsoft expanded access to 600 customers willing to pay for early access, with the office apps^[5] and services getting new Copilot features.^[6] Although there are public concerns about the chatbot, including [hallucinations](#) and racial or gender bias, experts believe that Copilot may change the way that Microsoft users work and collaborate.^[7] Microsoft announced during the Build 2023 conference that it is adding the AI assistant Copilot to Windows 11. The Windows Copilot service is directly integrated with Windows 11 and users can access it through the taskbar.^[8]

Reference: <https://powerbi.microsoft.com/en-us/blog/introducing-microsoft-fabric-and-copilot-in-microsoft-power-bi/>

https://en.wikipedia.org/wiki/Microsoft_365_Copilot

<https://blogs.microsoft.com/blog/2023/03/16/introducing-microsoft-365-copilot-your-copilot-for-work/>



@BenniDeJagere

Senior Program Manager Fabric CAT



Create account Log in ...

10 languages

Read Edit View history Tools

Microsoft 365 Copilot



Developer(s)

Microsoft

Type

Chatbot

License

Proprietary

Q: How Can Microsoft Fabric
Have an Impact on Your
Business?

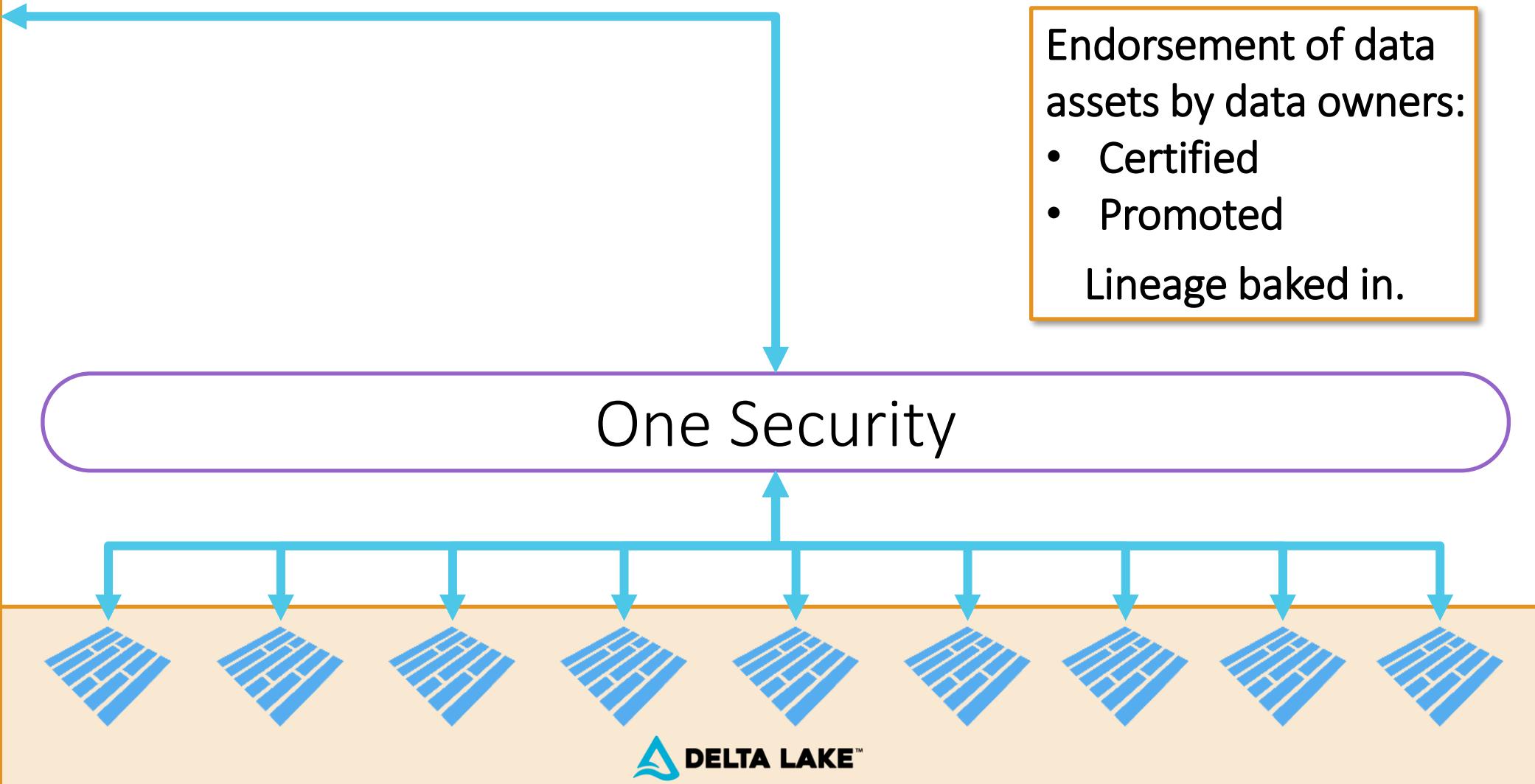
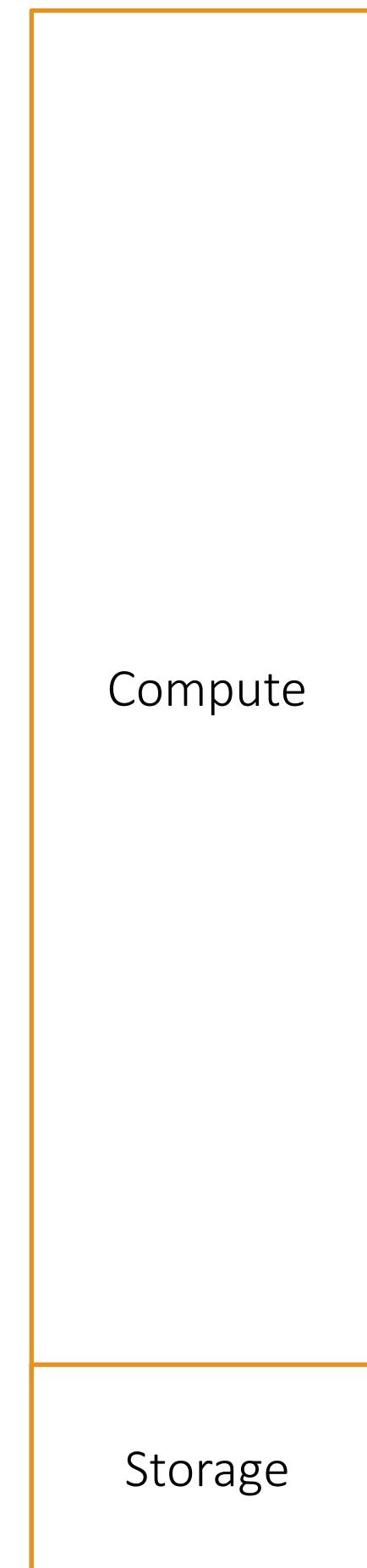
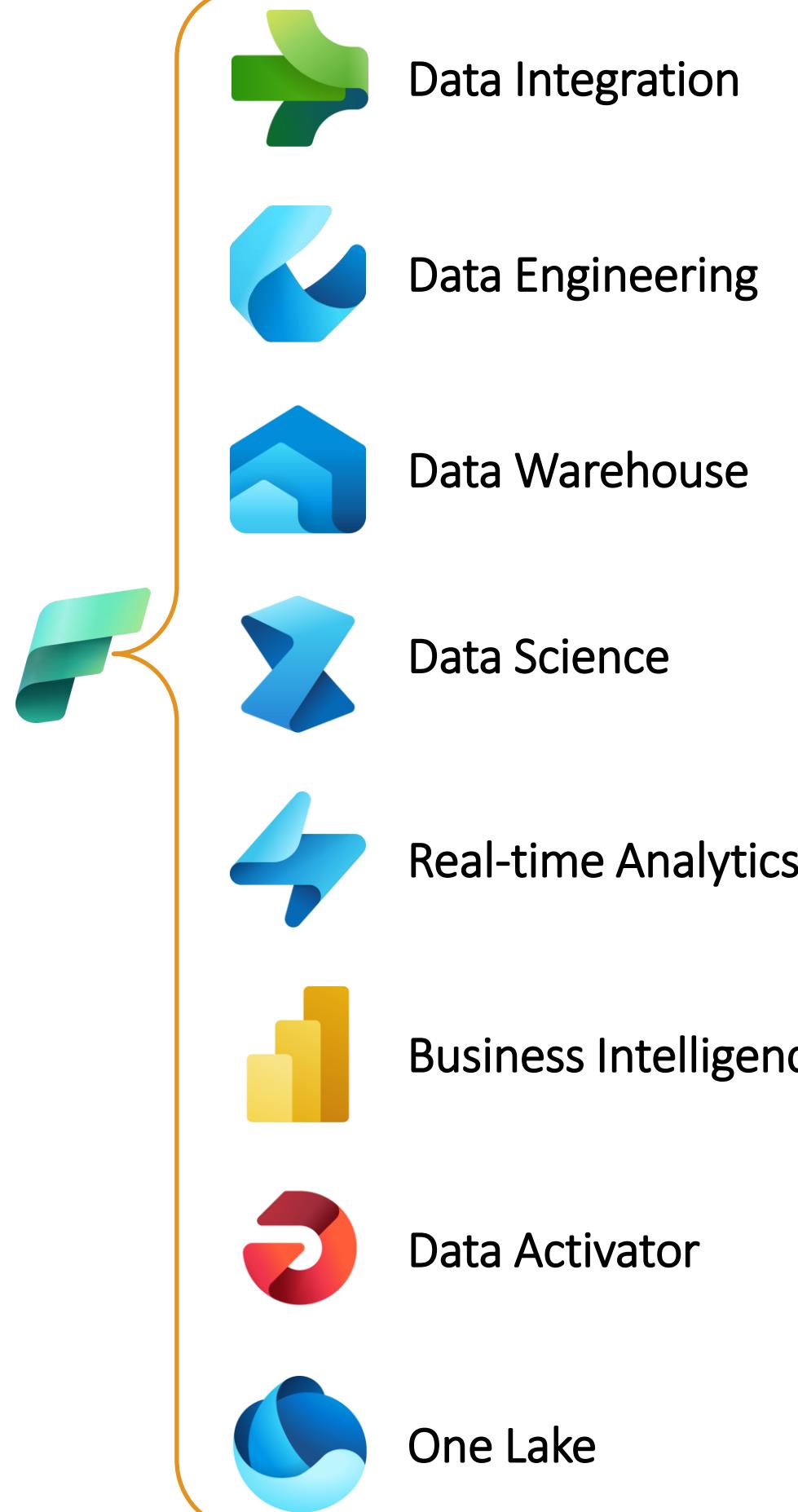
A:

1. Simplifying Compute Consumption & Running Costs
2. Accelerating Time to Insight
3. Unified Tooling – Avoiding Complex Infrastructure
4. Empowering Business Users
5. Driving Innovation
6. Improving Governance

6. Improving Governance – One Security & Admin



Cloud Formations - Knowledge Transfer & Training

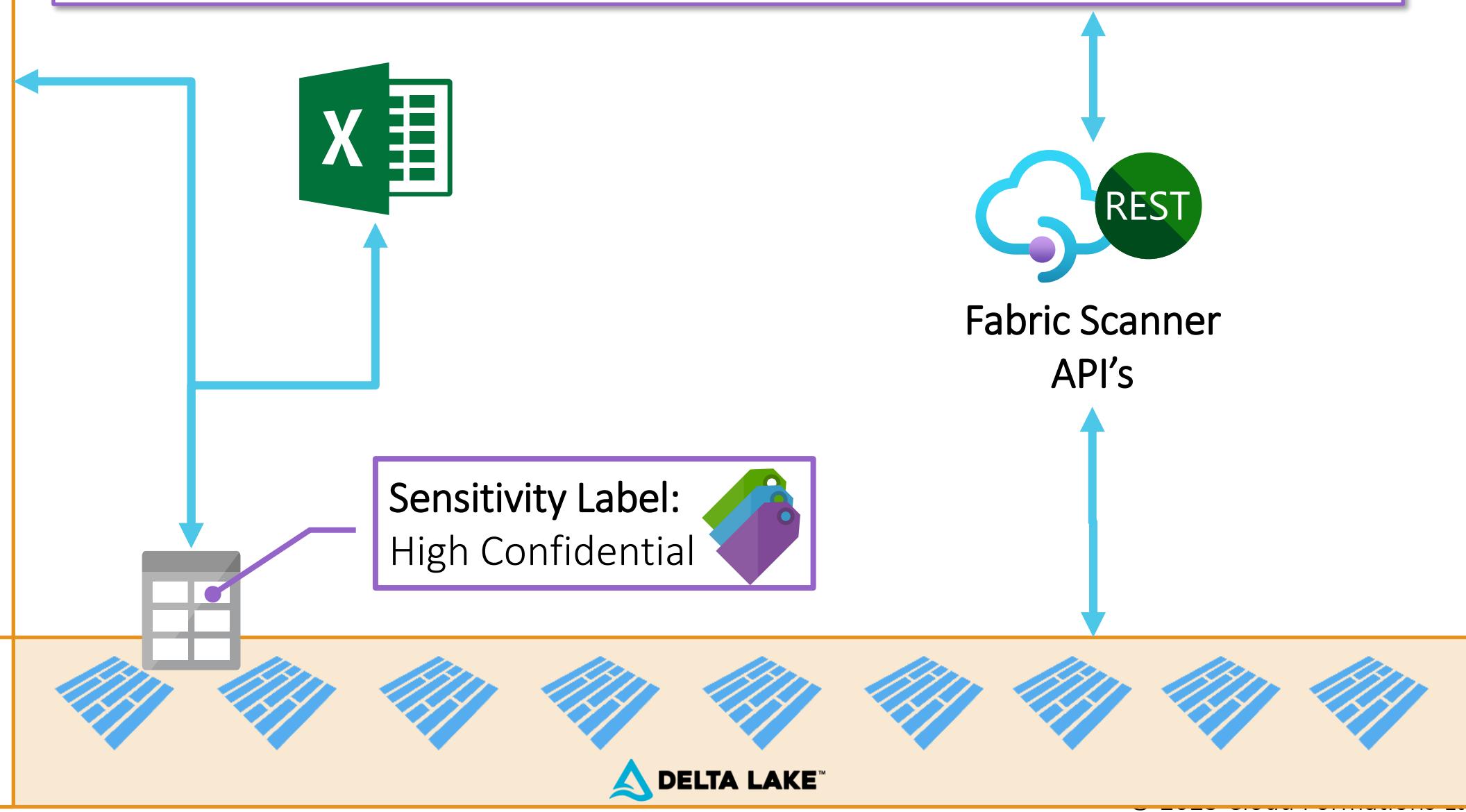
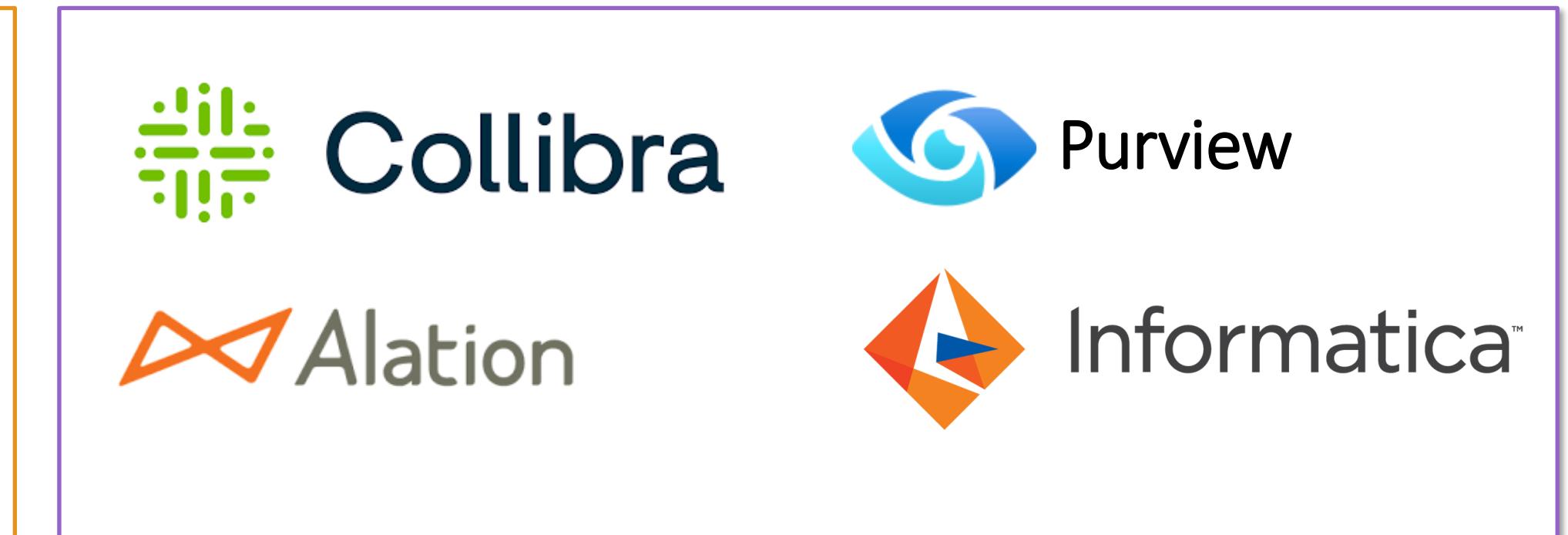
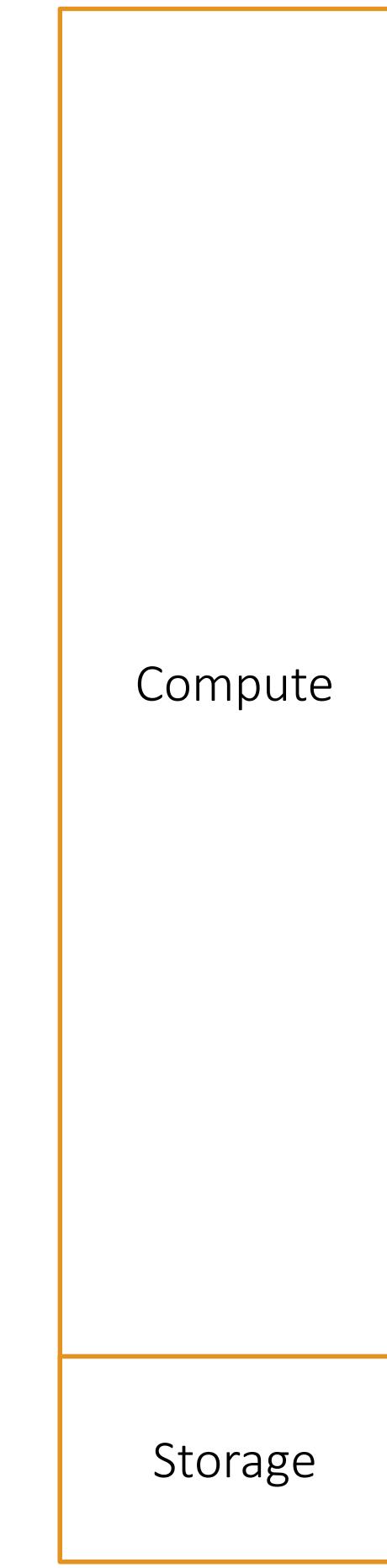


6. Improving Governance – Sensitivity & Tooling



Cloud Formations - Knowledge Transfer & Training

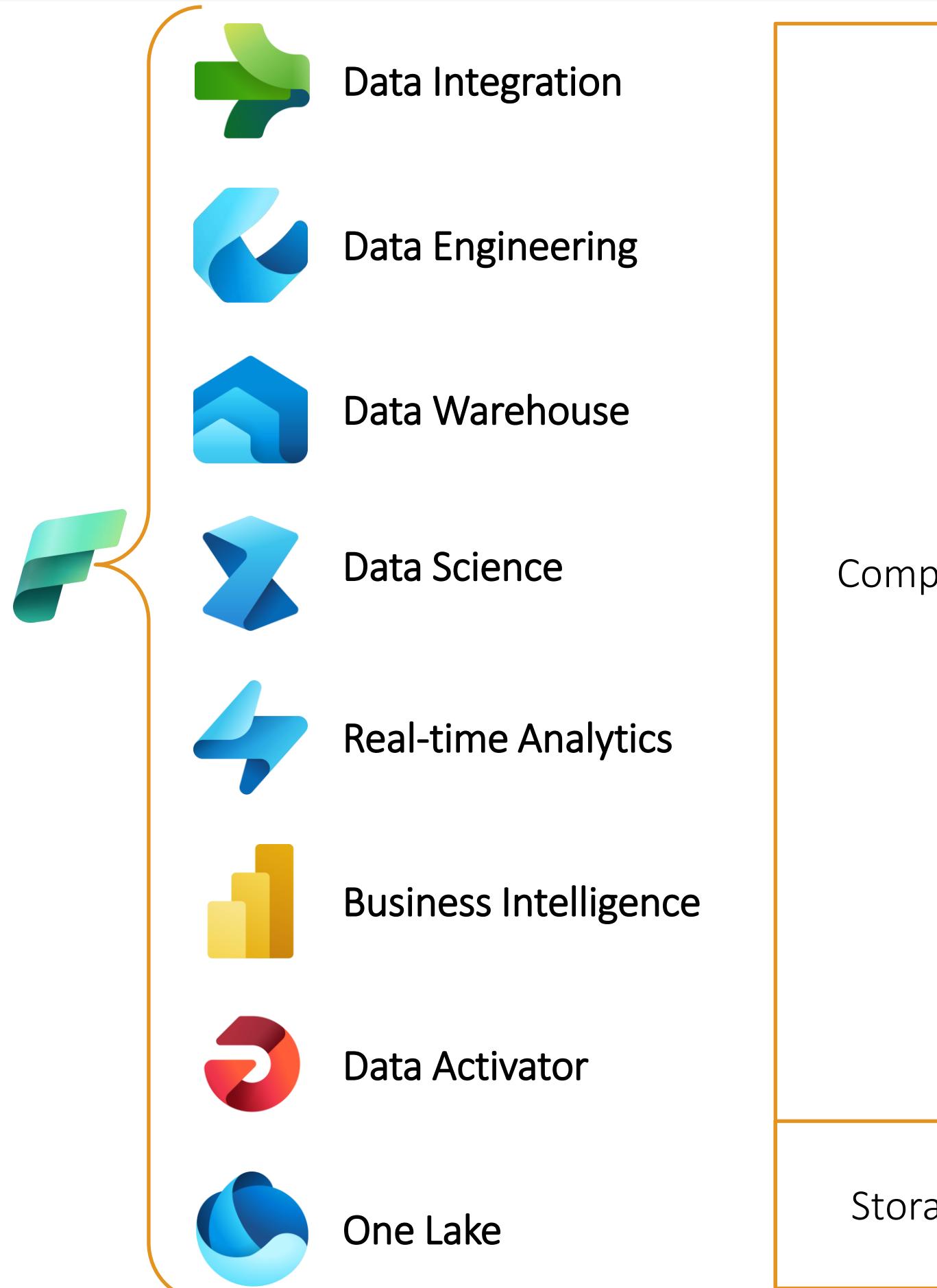
- Data Integration
- Data Engineering
- Data Warehouse
- Data Science
- Real-time Analytics
- Business Intelligence
- Data Activator
- One Lake





6. Improving Governance – Domains

Cloud Formations - Knowledge Transfer & Training



Compute

Storage



.... To meet this challenge, organizations are shifting from traditional IT centric data architectures, where the data is governed and managed centrally, to more federated models organized according to business needs. This federated data architecture is called data mesh. A data mesh is a decentralized data architecture that organizes data by specific business domains, such as marketing, sales, human resources, etc.

What are Fabric domains?

In Fabric, a domain is a way of logically grouping together all the data in an organization that is relevant to a particular area or field.

Reference: <https://learn.microsoft.com/en-us/fabric/governance/domains>

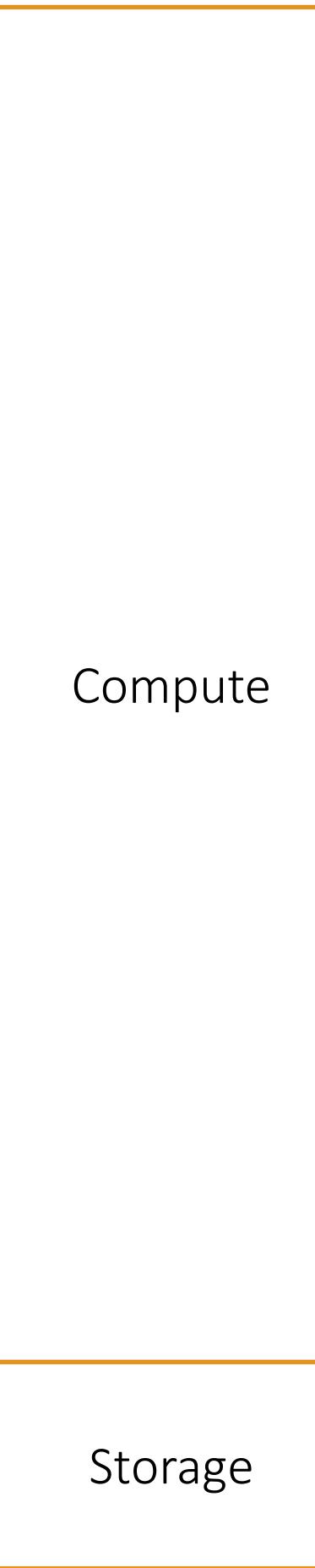
DELTA LAKE™



6. Improving Governance – Domains

Cloud Formations - Knowledge Transfer & Training

- Data Integration
- Data Engineering
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- Real-time Analytics
- Business Intelligence
- Data Activator
- One Lake

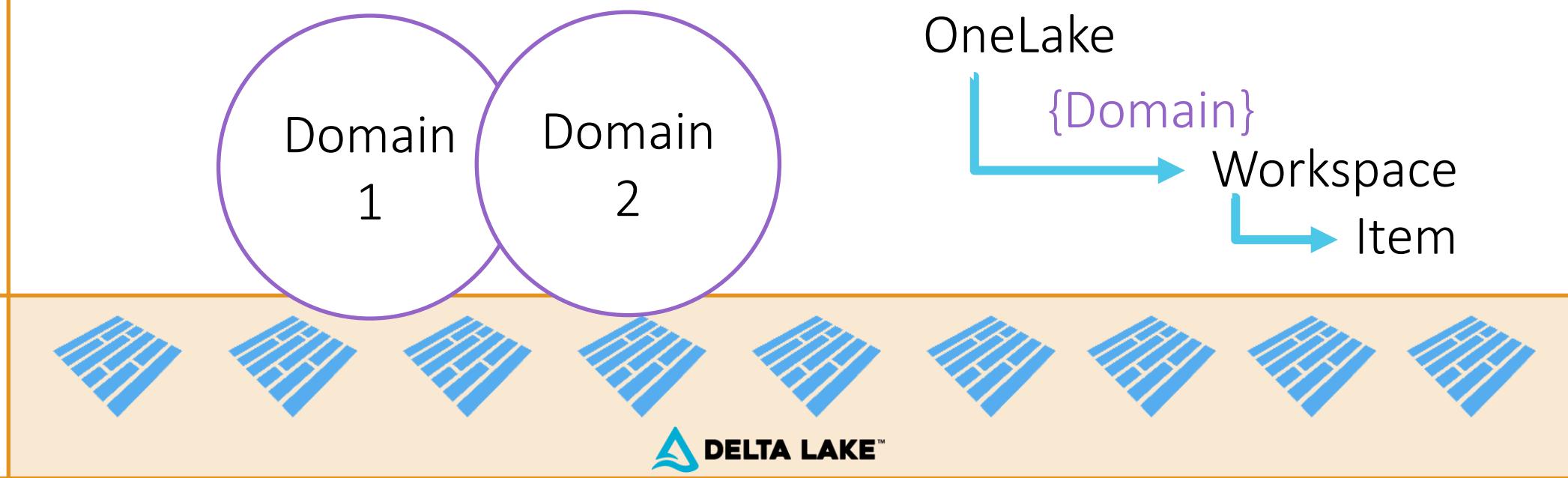


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Business?

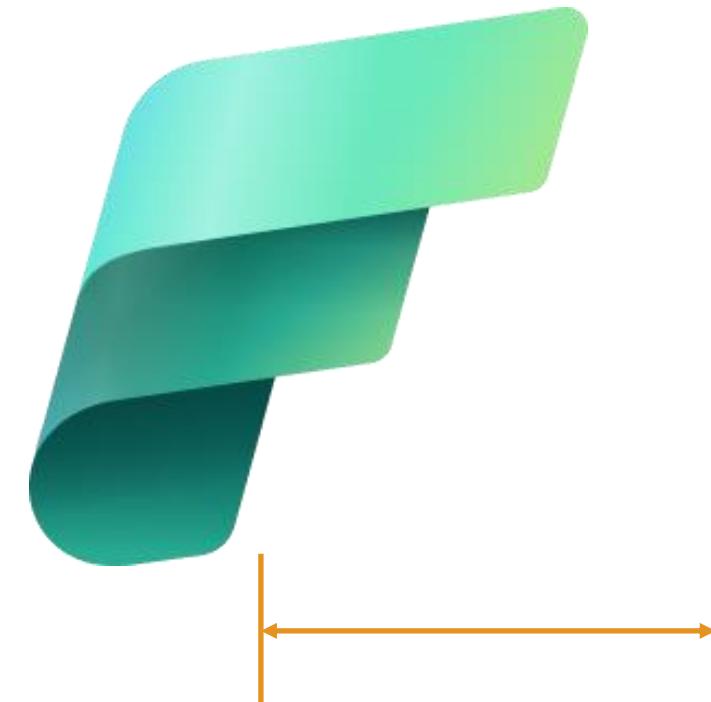
In Summary

But: Full Source Control.
Private Network Connectivity.
Key Vault Integration.
A New URL.
One Security.
Comprehensive Monitoring.

A:

1. Simplifying Compute Consumption & Running Costs
2. Accelerating Time to Insight
3. Unified Tooling – Avoiding Complex Infrastructure
4. Empowering Business Users
5. Driving Innovation
6. Improving Governance

Q: How Can Microsoft Fabric Have an Impact on Your Business?



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Thought leadership and technical content informed by decades of industry experience. Digested as sharable single page views.



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Reach out to us [here](#).

How Can Microsoft Fabric Have An Impact On Your Business

Answer: Simplified Running Costs. Accelerated Time to Insight. Unified Tooling- Avoiding Complex Infrastructure Builds. Empowered Business Users. Driving Innovation. Improved Governance.

[Download File](#)

An Evolution of Cloud Technology to Microsoft Fabric

Having an understanding of how Microsoft has evolved its data product offerings over the last decade can greatly inform the technical direction and implementation of these resources for your business.

[Download File](#)

PDF

How Can Microsoft Fabric Have An Impact On Your Business?

For a detailed assessment of Fabric applied to your business [contact us](#).

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Simplified Running Costs

The Azure Price Calculator is a complex tool for many Resources with a vast array of abstract levers and knobs to tweak, before getting close to understanding cloud running costs. Now with Microsoft Fabric the metrics have been simplified to compute and storage.

Compute defined as 'capacities' with a simple size and number of units, resulting in a monthly cost, but charged per min. In the future (as with all compute) Microsoft plan to offer discounts for reserved instances. While keeping the default pay-as-you-go options in place.

Note: From a Power BI Premium perspective, a P1 SKU is equivalent to a Fabric F64 SKU.

Reference: <https://blog.fabric.microsoft.com>

Accelerated Time to Insight

Getting from source data to insight is the goal for all businesses, to understand trends and stay ahead of the competition. In Microsoft Fabric, data can be landed in One Lake and accessed directly through Power BI and other tools. This reduces delivery friction and avoids long running/nightly processing jobs. The trade-off being, business users are exposed to the raw datasets, not yet curated. But this trade could be acceptable in 60% of cases where the demand for data is high across the business.

Once initial demand is met, [data curation processes](#) can execute to support complex outputs and regular performance reporting.



Unified Tooling - Avoiding Complex Infrastructure Builds

With a complete software suite including, all required data handling capabilities, the need to frontload complex platform builds and infrastructure deployments is mitigated. Resources are fully integrated across the Microsoft Fabric Experiences avoiding brittle service to service configuration. This, including reduced data movements with a common storage plane provided by One Lake.

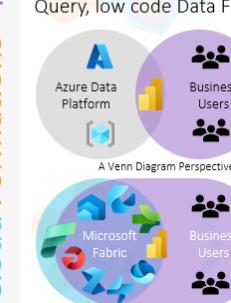
SaaS
PaaS
IaaS
Experiences
Storage
Fully Managed Infrastructure

Reference: <https://azure.microsoft.com>

Empowered Business Users

Self-service data analytics is a long-standing aspiration for all businesses. An aspiration that often-required large amounts of data transformation and a comprehensive semantic layer for serving. Now with Microsoft Fabric, unified Power Platform tooling, such as Power Query, low code Data Flows and Power BI, users can manipulate datasets and ingest new sources to perform ad-hoc querying.

Empowered to self-serve on all data available to them. This is achieved by the familiarity of the online Microsoft Fabric Workspace, previously used for Power BI, meaning business users can explore all capabilities offered, while working within the guard rails of the Workspace Experiences.



Reference: <https://blogs.microsoft.com>

Driving Innovation

The Microsoft Fabric unified tooling coupled with offerings like Microsoft Copilot means an explosion in creativity. Full code and citizen developers have the ability to shortcut the fundamentals and deliver innovative solutions at speed. Solutions that could drive business automation and deliver insights at scale, through natural language.



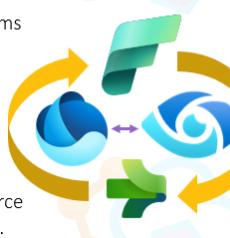
It should be the ambition of all technical professionals in the IT industry to automate themselves out of a role. Not to mean the role is obsolete. But, to mean an evolution in tasks that free up time for professionals to focus on the next wave of complex projects.

Reference: <https://learn.microsoft.com>

Improved Governance

Disparate, poorly integrated systems has always been the nemesis of good data governance. Now with Microsoft Fabric and its single One Lake storage layer for all compute Resources, integration, classification, cataloguing and lineage, tracking can be delivered with ease.

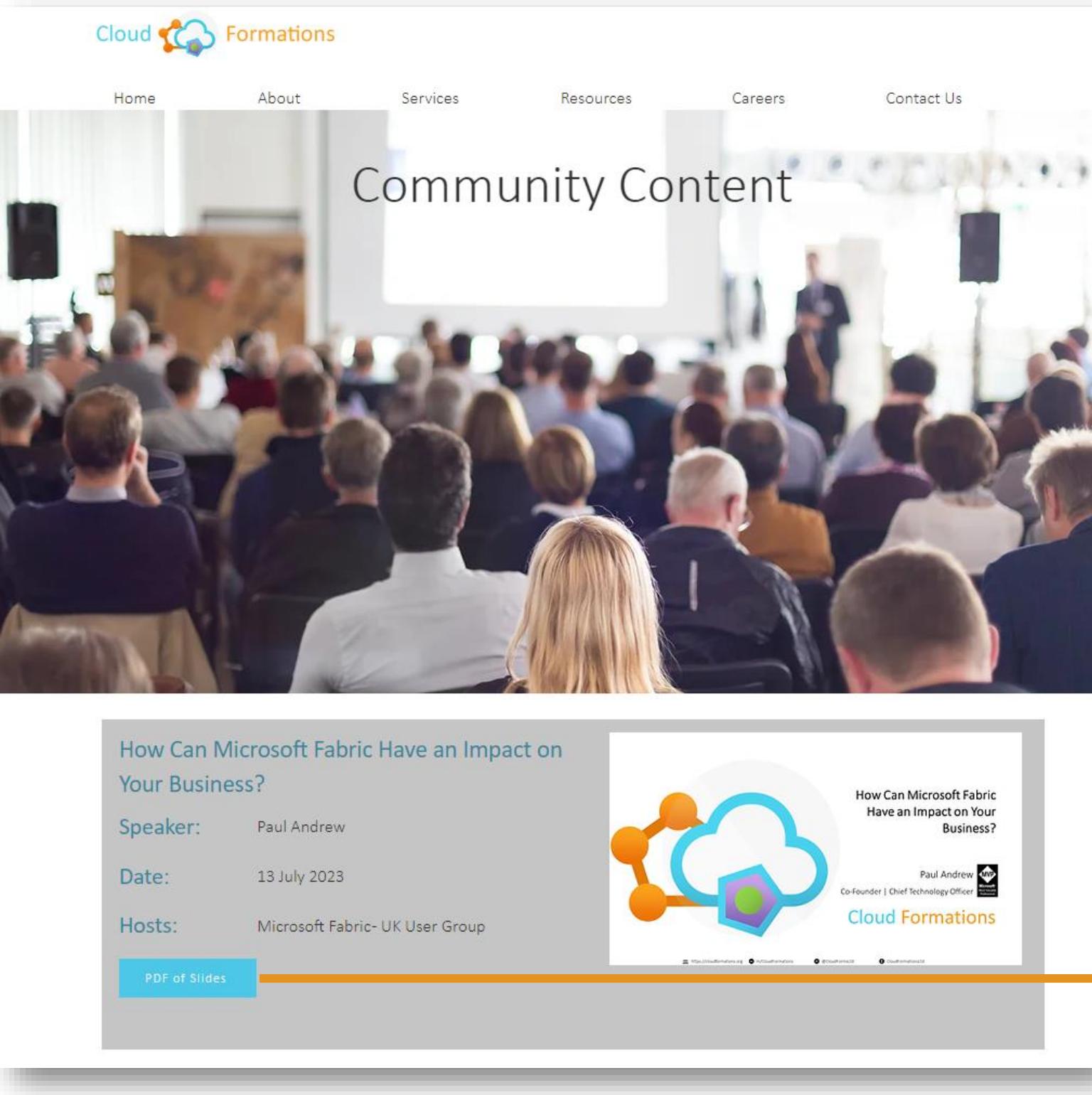
This offers the ability for data and IT teams to control dataflows in one location. Assured that sensitive attribute classifications can be applied once and propagated to all Experiences within Microsoft Fabric. Then as the offering matures the expectation is that a comprehensive security model will enforce such data handling for users end-to-end.



Reference: <https://learn.microsoft.com>

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CloudFormations.org/Community-Content

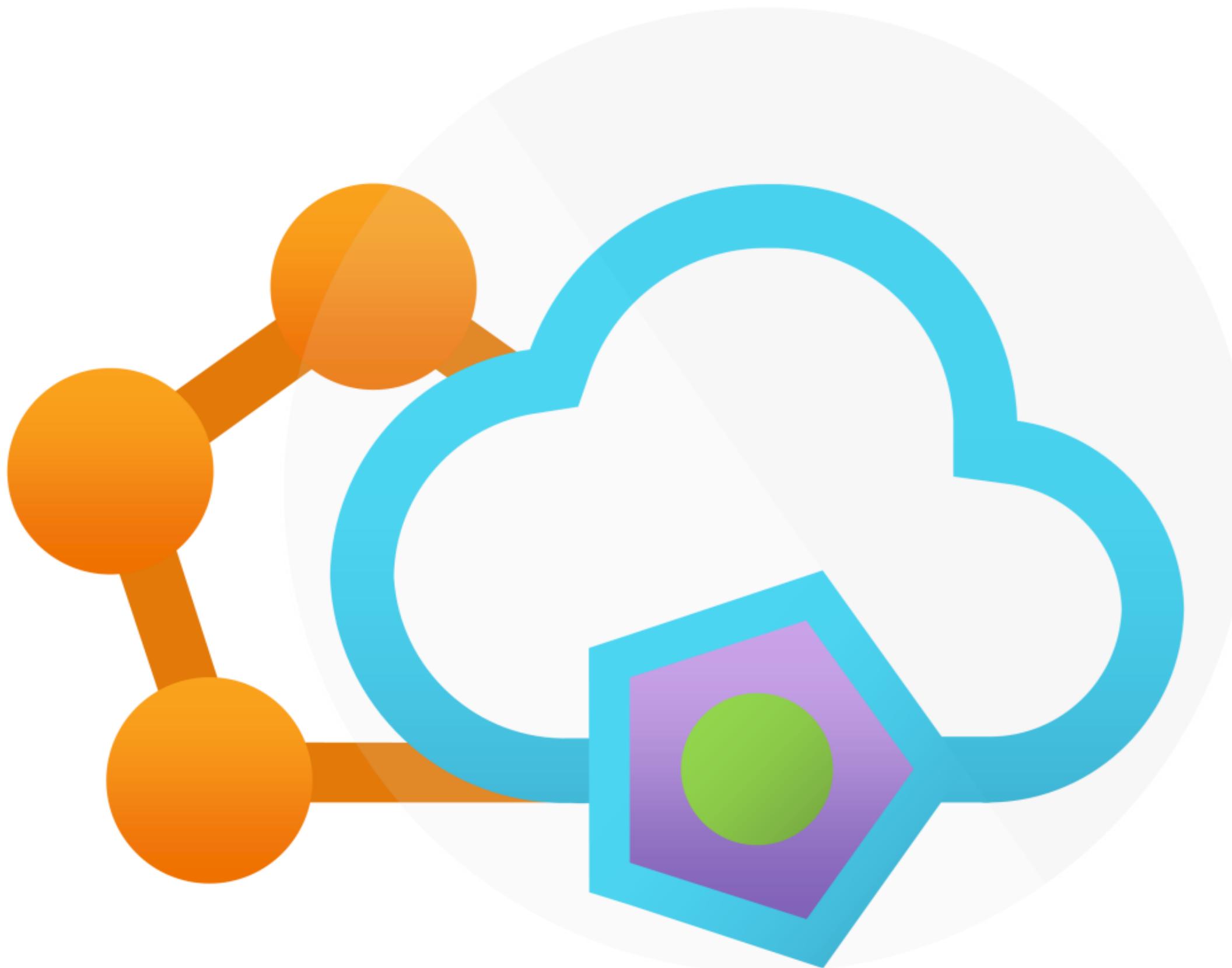


The screenshot shows a presentation slide titled "How Can Microsoft Fabric Have an Impact on Your Business?" by Paul Andrew, Co-Founder | Chief Technology Officer of Cloud Formations. The slide features a blue and orange cloud icon with network nodes. The presentation is hosted by the Microsoft Fabric- UK User Group on 13 July 2023. A "PDF of Slides" button is visible at the bottom left.



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Thank You



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