

Microsoft Fabric seminar

Aarhus, August 23rd 2023



Agenda



- 08:30: Welcome, *Just*
- 08:45: The Fabric Platform, *Just*
- 09:15: Ingest and store, *Mathias*
- 10:00: Coffee break
- 10:30: Prepare, *Ásgeir*
- 11:30: Serve, *Lars*
- 12:15: Lunch in the Restaurant

Speakers



Just Blindbæk



Mathias Halkjær



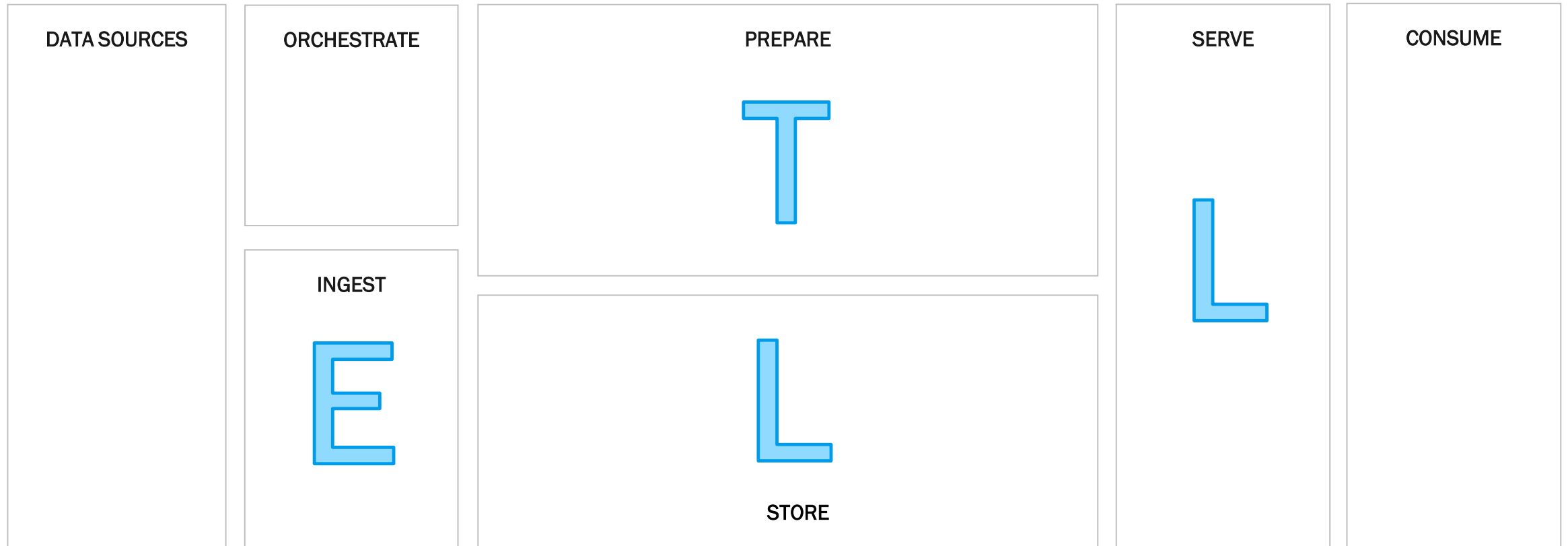
Ásgeir Gunnarsson



Lars Andersen

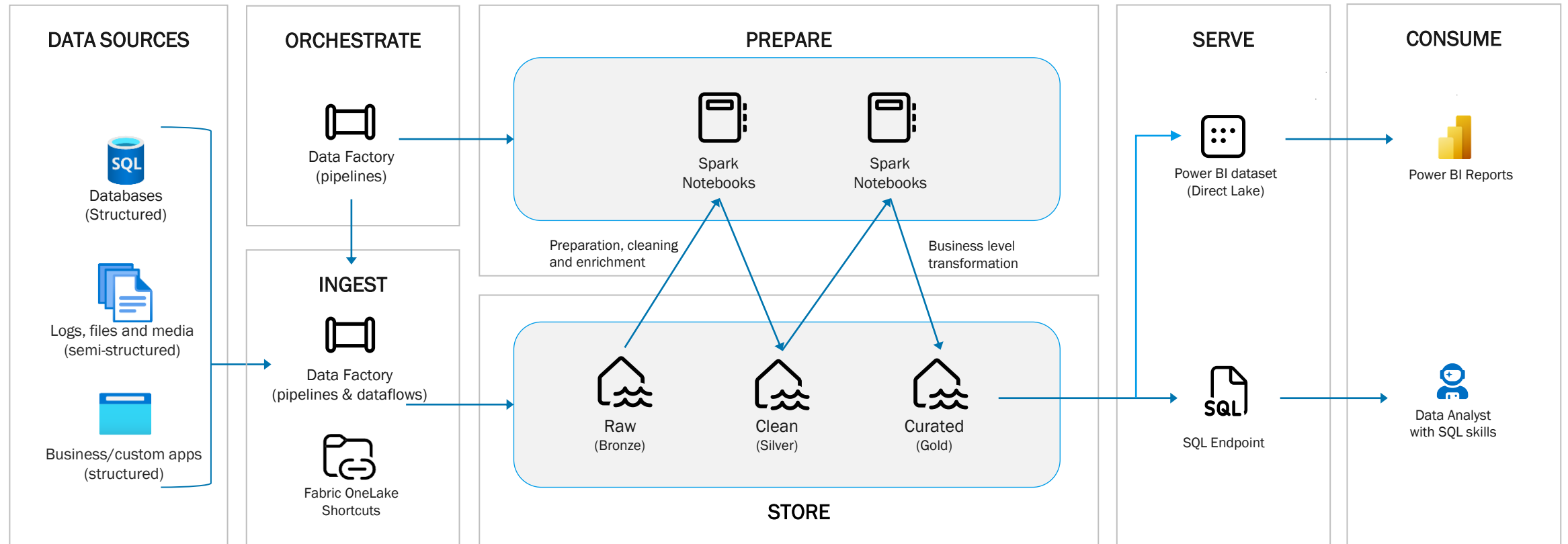
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The architecture of the case



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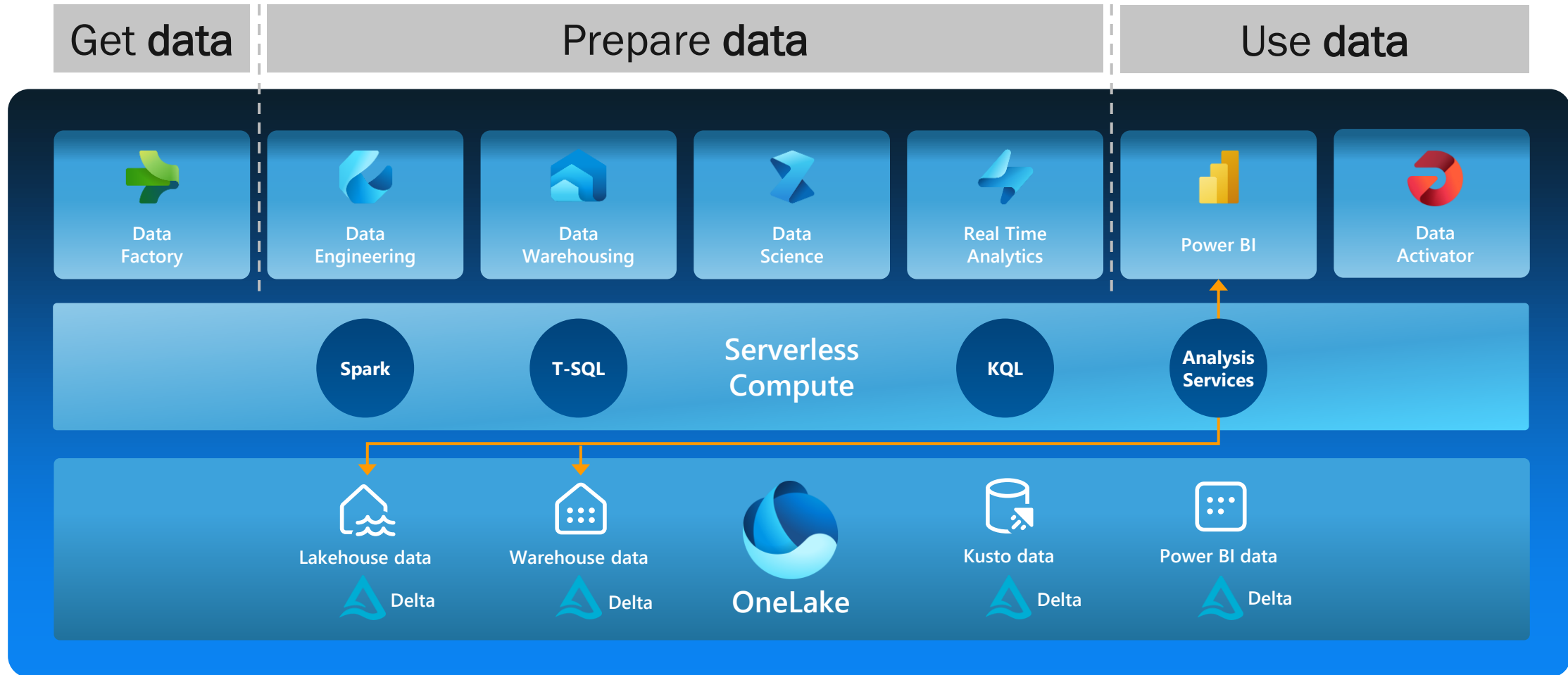




The Fabric Platform

- End-to-end analytics
- Fabric's concepts and experiences
- Enabling, licensing and cost
- Security, management and governance

End-to-end analytic platform



The 4 most Significant Features

- 1** Software as a Service
You don't have to "install" resources in Azure - all you need is just there
- 2** OneLake & Delta
All data in your company is placed in one shared data lake and one shared format
- 3** New Data Platform Items
- Lakehouse
- Warehouse
Lakehouse is much more in focus now
Warehouse is a semantic layer on top of data in the lake
- 4** Direct Lake
A new high-performant way for Power BI to read the data to visualize
(Directly from the Lake, hence "Direct Lake")

Fabric's concepts and experiences

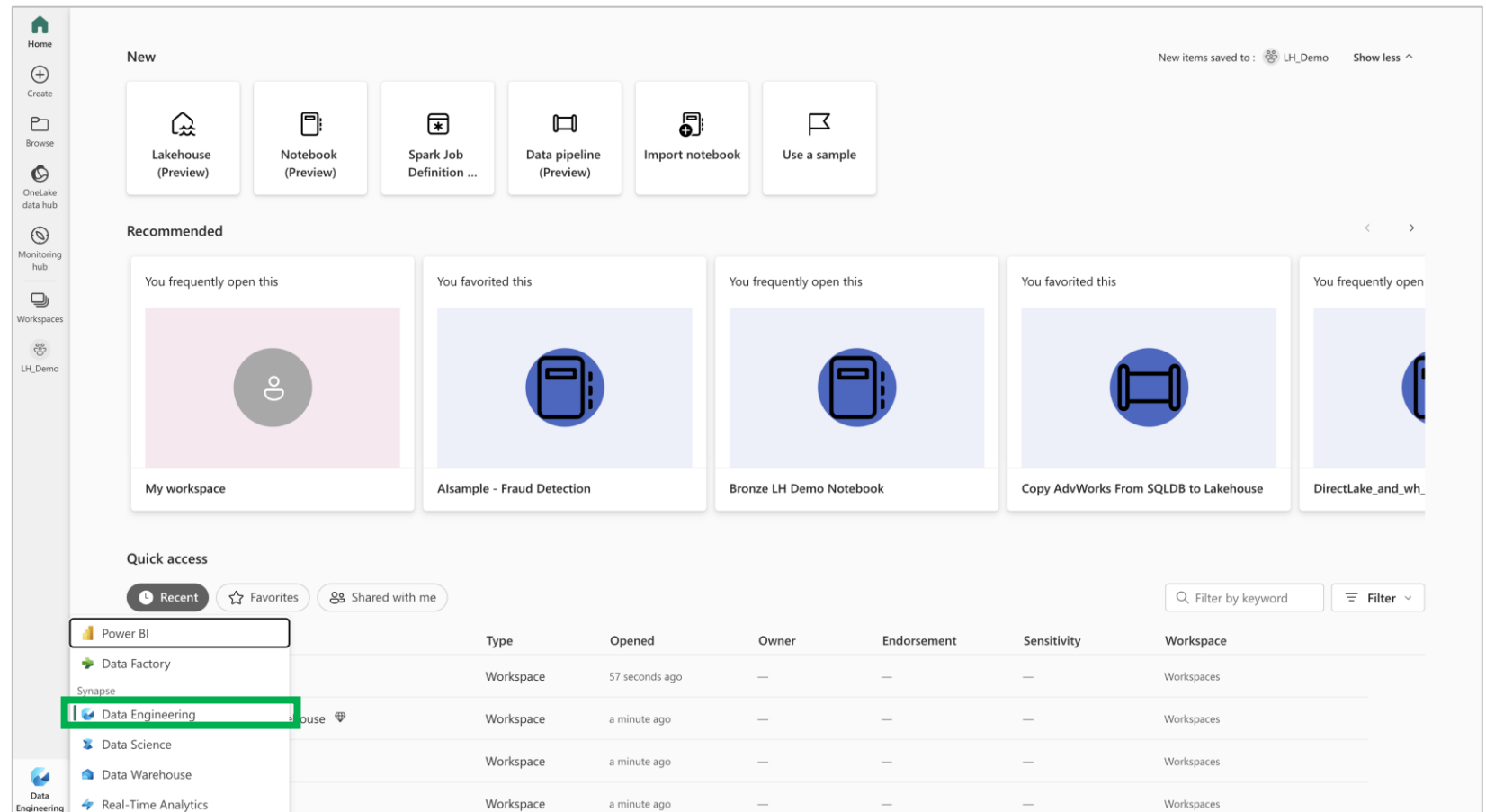
Support for 2 persona-types:

- Low-code/no-code
- Pro developer

You start from a **Workspace**

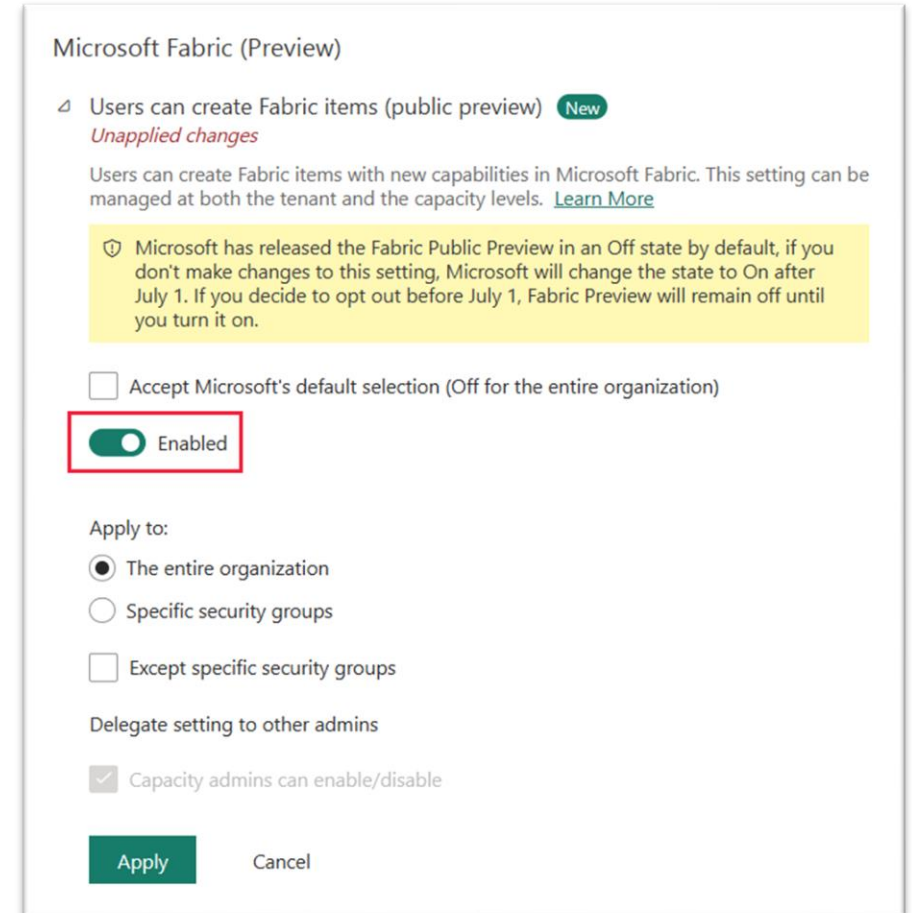
The GUI has so-called
“**experiences**” to start from:

- Data Factory
- Data Engineering
- Data Science
- Data Warehouse
- Real-Time Analytics



Enabling Fabric for your organization

- The Microsoft Fabric **tenant admin switch** lets organizations that use Power BI opt into Microsoft Fabric and be an **early adopter**.
- Microsoft Fabric becomes available for everyone in the tenant, or to a selected group of users.
- There is also a switch to enable **Fabric trials** with 60 days of paid features. The trial capacities can be shared with other users.
- Microsoft Fabric can also be enabled at the **capacity level**.



Microsoft Fabric (Preview)

Users can create Fabric items (public preview) New
Unapplied changes

Users can create Fabric items with new capabilities in Microsoft Fabric. This setting can be managed at both the tenant and the capacity levels. [Learn More](#)

Microsoft has released the Fabric Public Preview in an Off state by default, if you don't make changes to this setting, Microsoft will change the state to On after July 1. If you decide to opt out before July 1, Fabric Preview will remain off until you turn it on.

☐ Accept Microsoft's default selection (Off for the entire organization)

☒ Enabled

Apply to:

☒ The entire organization

☐ Specific security groups

☐ Except specific security groups

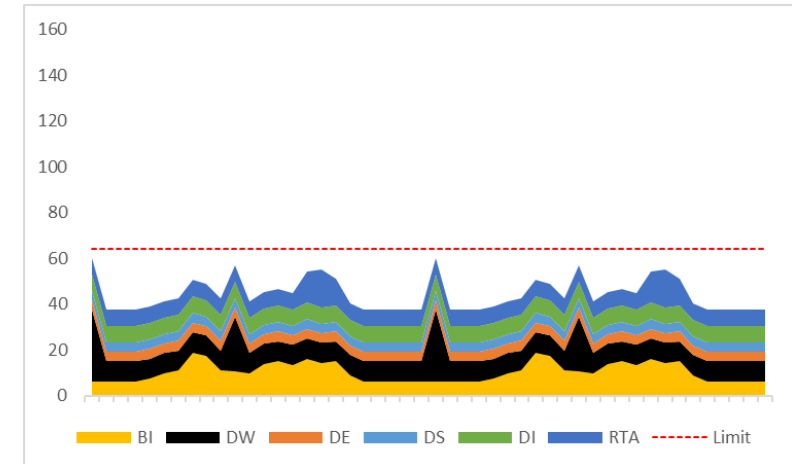
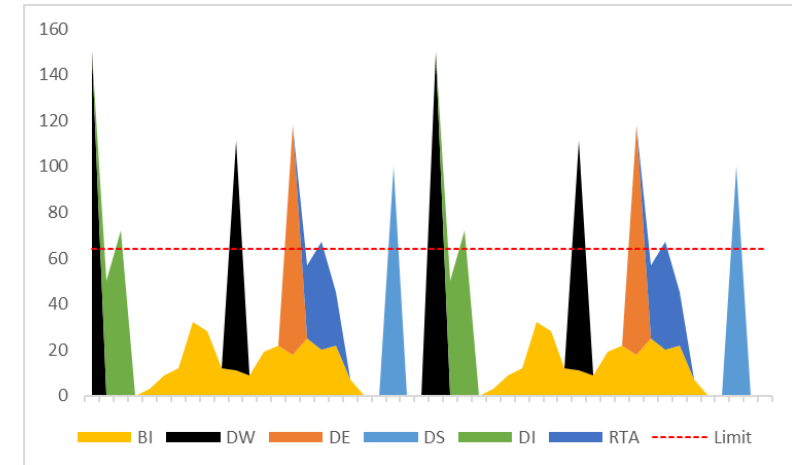
Delegate setting to other admins

☒ Capacity admins can enable/disable

Apply Cancel

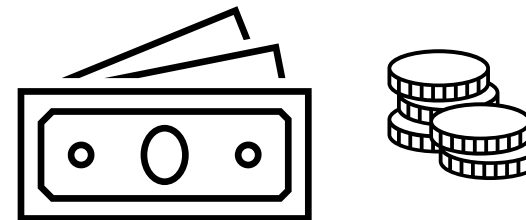
Capacity management

- Capacities are to Fabric what CPUs are to PCs
- Each capacity resides in a **specific region** of the buyers' choice where both the data & compute reside
- **Bursting** will automatically allocate resources as needed to execute at maximum performance
- Load **smoothing** helps capacities self-stabilize by flattening large spikey loads into a smooth load profile, eliminating temporal spikes
- **Capacity Metrics** gives tenant wide visibility into capacity usage for all Fabric workloads in one place



twoday capacity

What does it cost?



– The official pricelist is available

– Reserved instances coming before GA

– But how much “juice” does it take to...

 Get tons of data through with Pipelines

 Run notebooks with the Spark engine

 Execute Stored Procedures in the Warehouse

 Running Power BI queries to OneLake

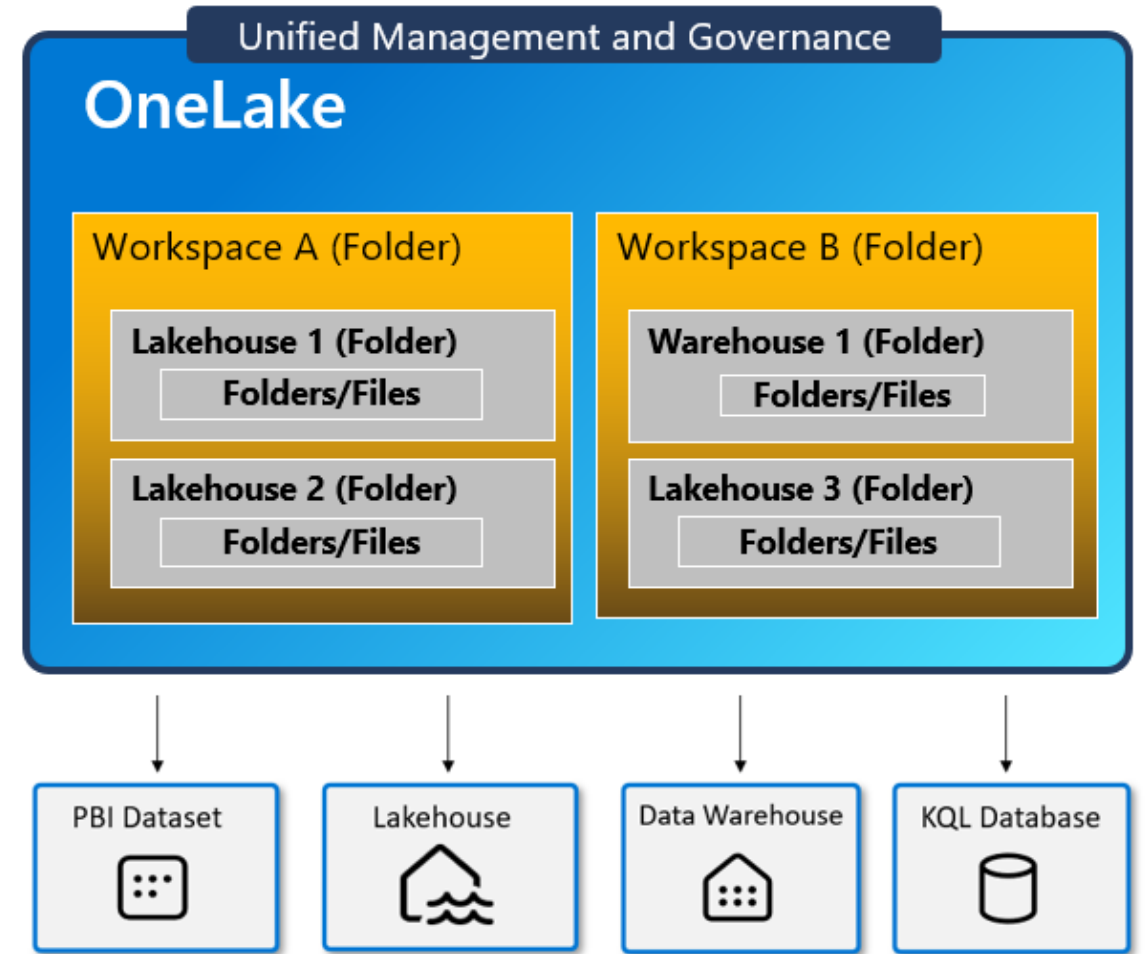
SKU	Capacity Units	Pay-as-you-go (hourly)	Pay-as-you-go (monthly)	Reserved (monthly)
F2	2	3	2.244	1.308
F4	4	6	4.488	2.617
F8	8	12	8.976	5.234
F16	16	25	17.952	10.467
F32	32	49	35.904	20.935
F64 (P1)	64	98	71.808	41.869
F128 (P2)	128	197	143.616	83.738
F256 (P3)	256	393	287.232	167.477
F512 (P4)	512	787	574.464	334.954
F1024 (P5)	1024	1.574	1.148.928	669.907
F2048	2048	3.148	2.297.856	1.339.814

SKU pricing in DKK at West Europe. Reserved monthly is a best guess.

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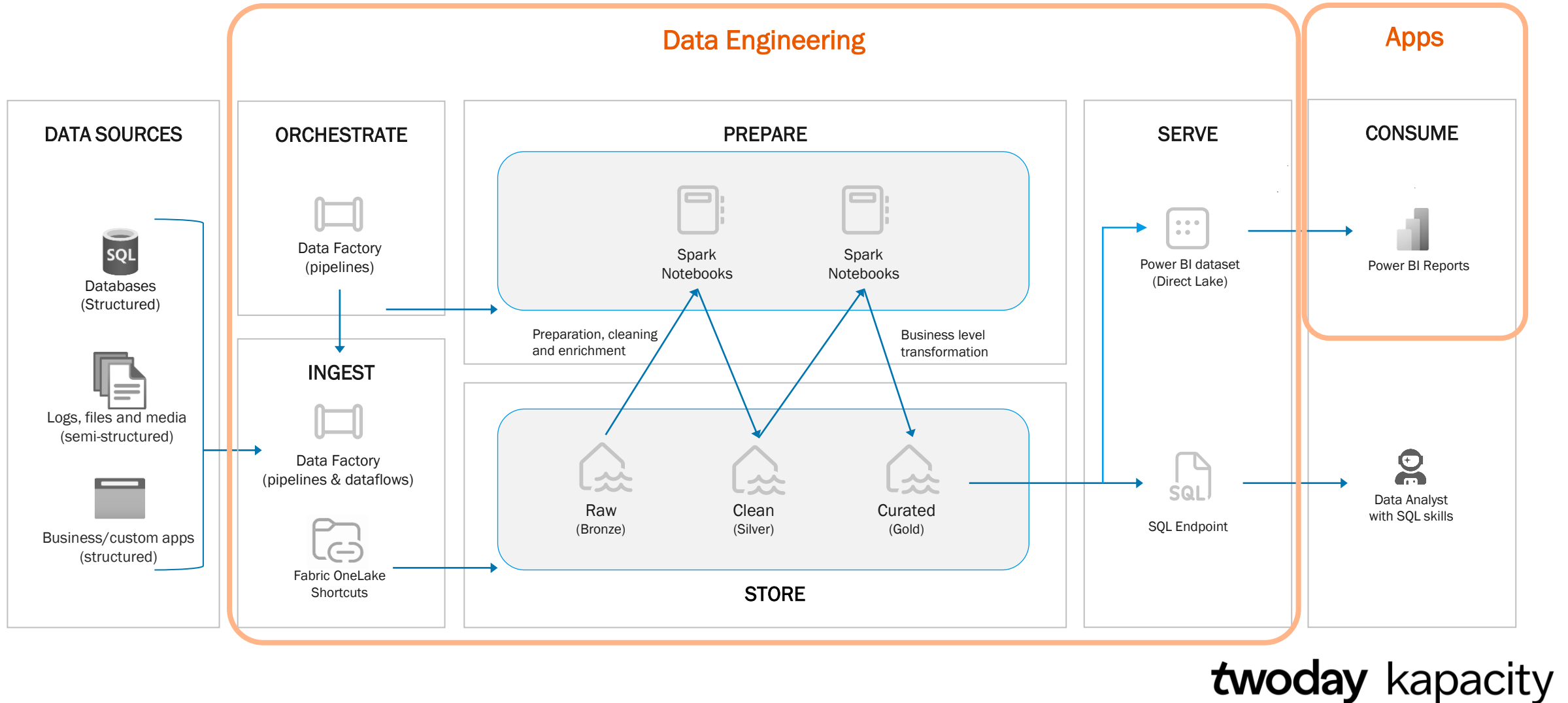
Governance: OneLake and workspace security

- Workspaces is the primary security boundary for data within OneLake
- Each workspace represents a single domain or project area where teams can collaborate on data
- The Admin, Member and Contributor role can view and write files in OneLake
- Create workspaces with focus on the collaboration and responsibility of items in Fabric.

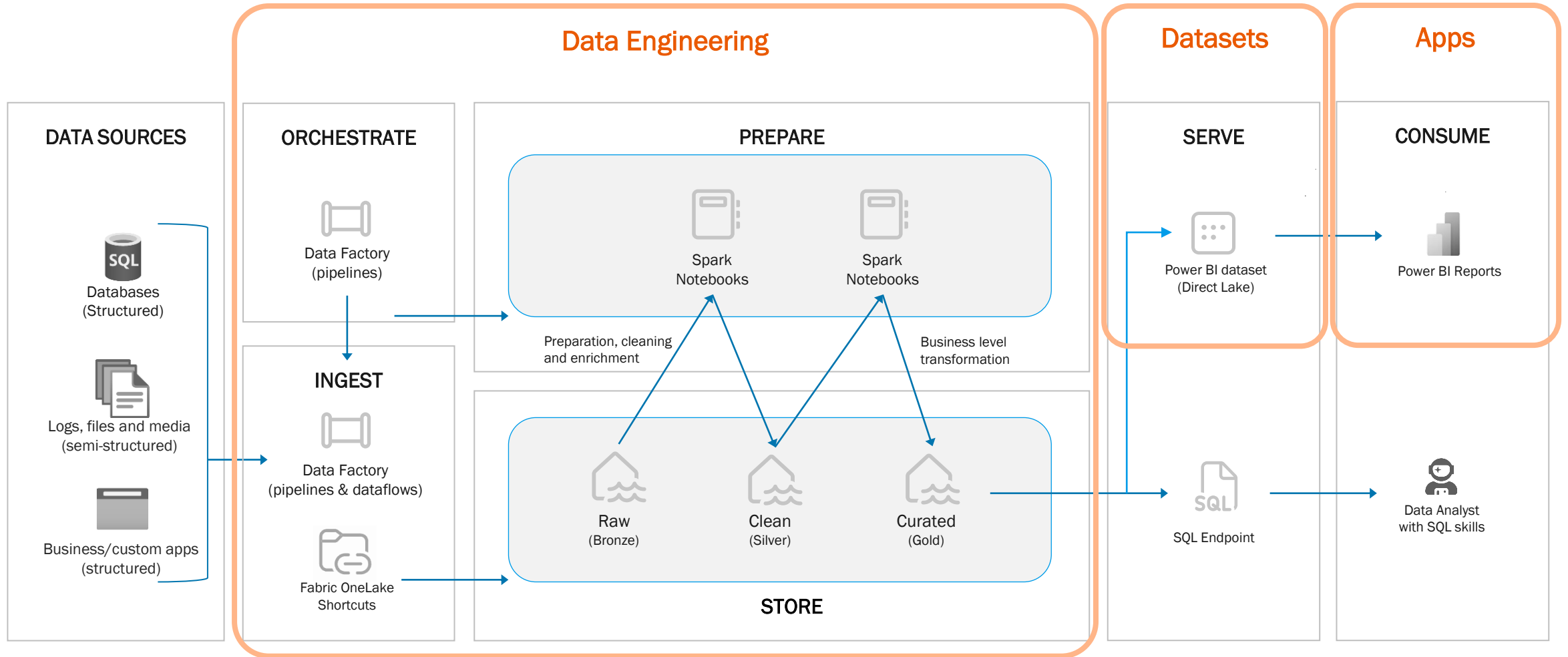


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Governance: Workspace management

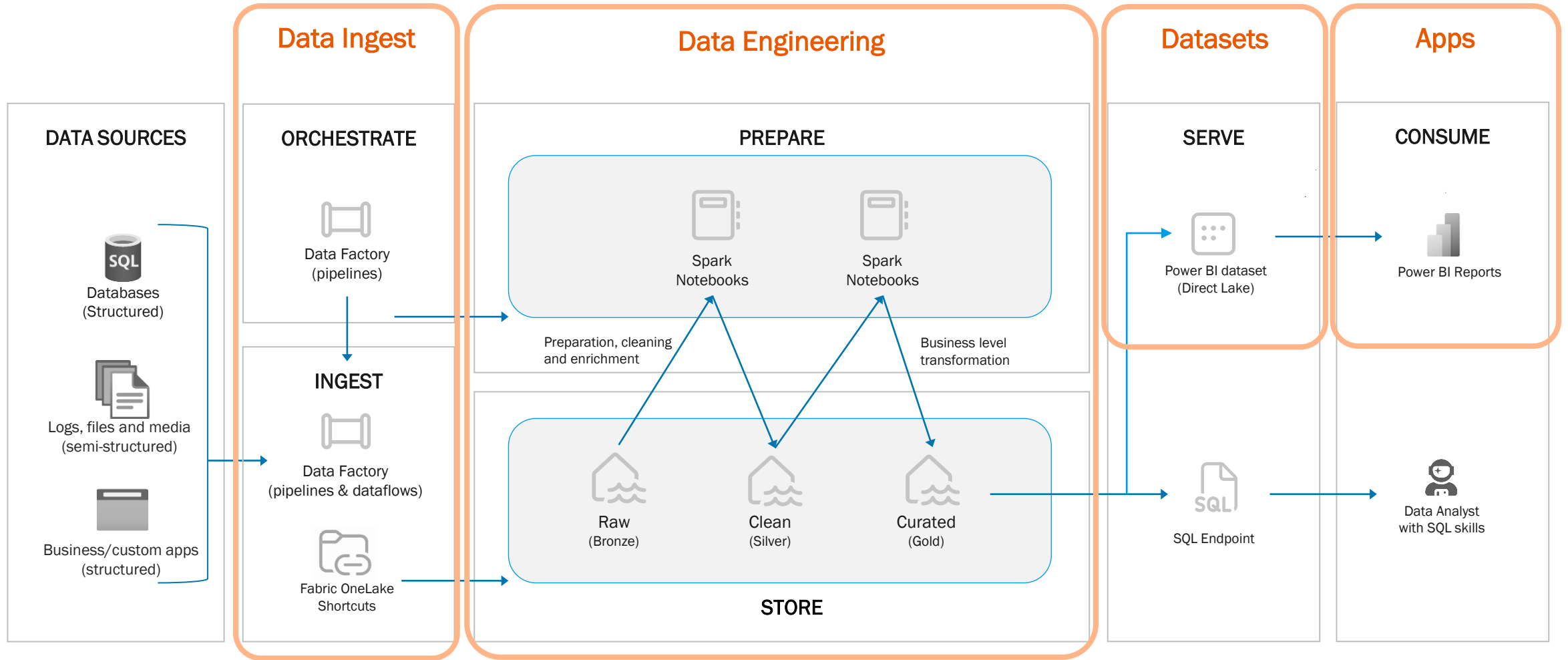


Governance: Workspace management



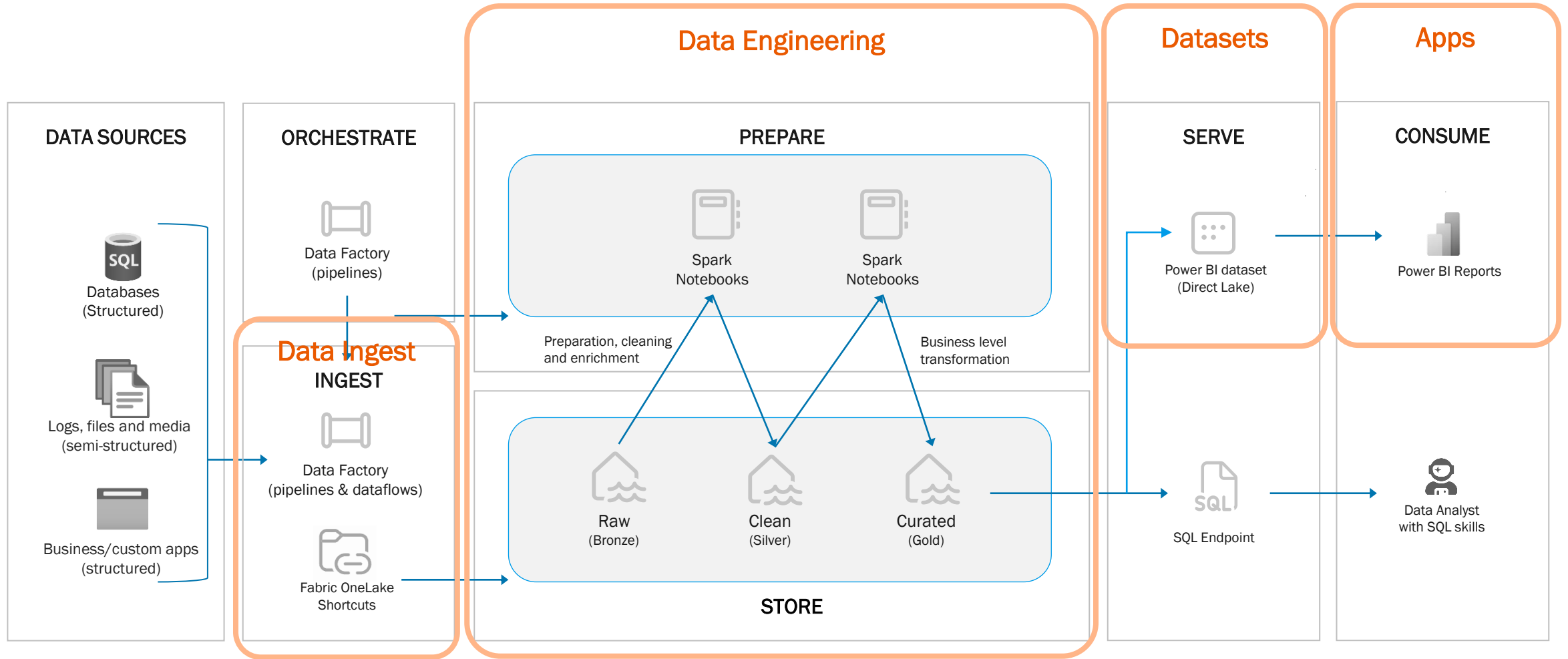
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Governance: Workspace management



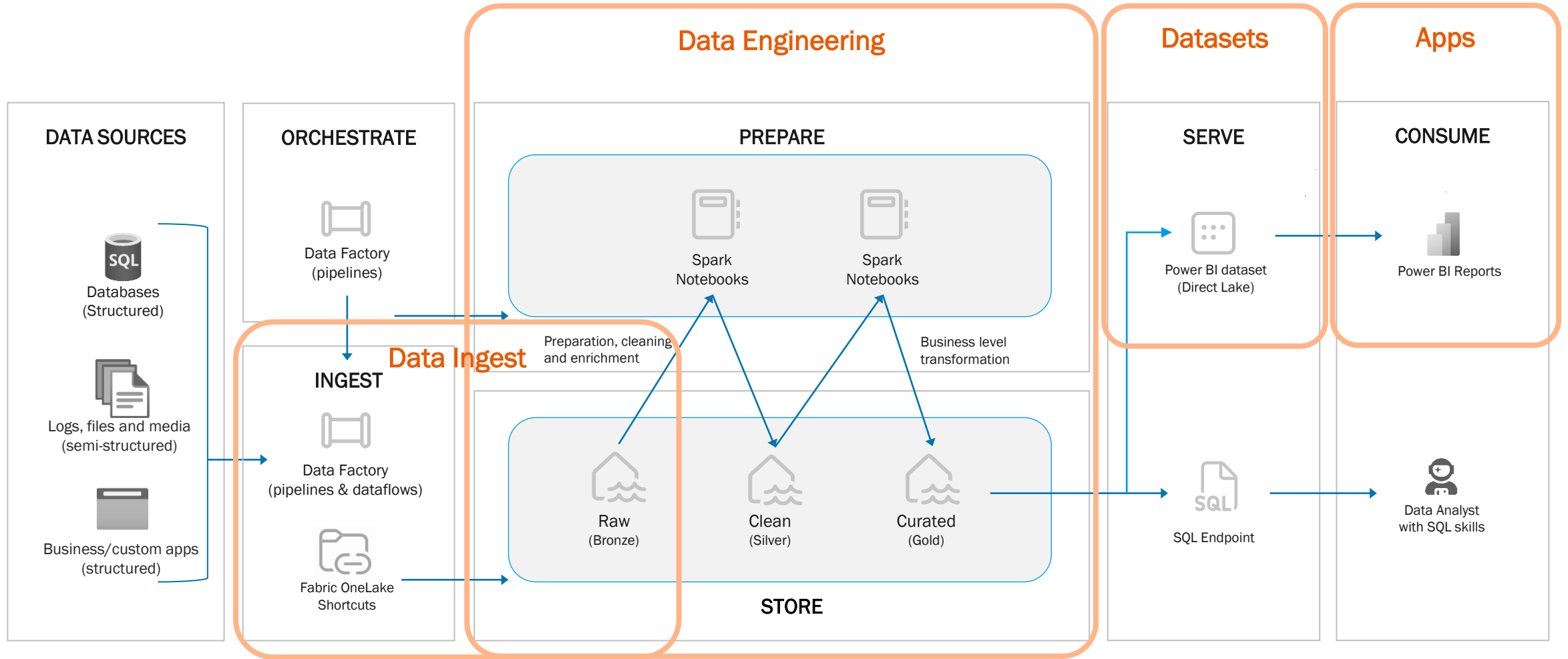
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Governance: Workspace management



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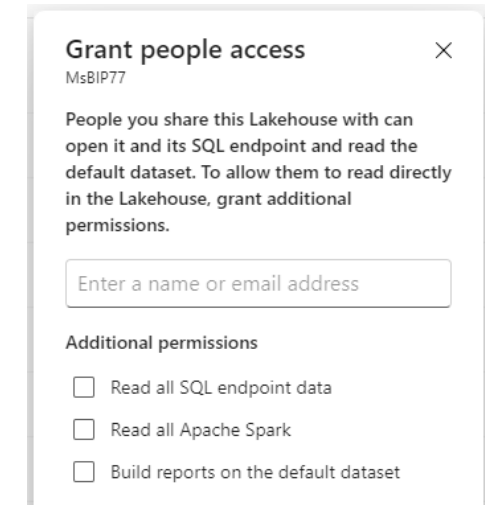
Governance: Workspace management



Governance: Item and compute-specific security

- In the current preview, data in OneLake is secured at the item or workspace level. A user will either have access or not.

Permission Name	Sharing text	Can view files in OneLake?	Can write files in OneLake?	Can read data through SQL endpoint?
Read	<i>No share boxes selected</i>	No	No	No
ReadData	Read all SQL endpoint data	No	No	Yes
ReadAll	Read all Apache Spark	Yes	No	No
Write	<i>N/A, only available through workspace roles</i>	Yes	Yes	Yes



Grant people access ×

MsBIP77

People you share this Lakehouse with can open it and its SQL endpoint and read the default dataset. To allow them to read directly in the Lakehouse, grant additional permissions.

Additional permissions

- ☐ Read all SQL endpoint data
- ☐ Read all Apache Spark
- ☐ Build reports on the default dataset

- Additional specific security can be defined in the T-SQL engine. Analysis Services engine can leverage the security defined in the T-SQL engine in Direct Query mode only.
- Coming up is **OneSecurity**, that will bring us data security (table, column, and row levels) across different data engines. It's a universal security model enabling to define security definitions just once.

Questions



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