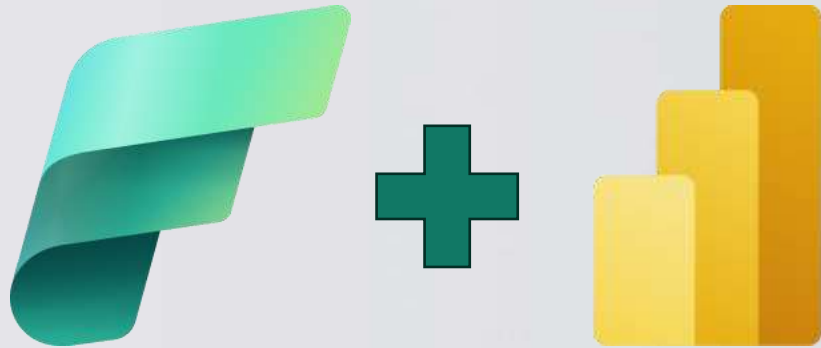


SQL Saturday Toronto 2023



Fabric for Power BI Users

Ashraf Ghonaim

Ashraf Ghonaim

Strategic Management and Analytics Consultant

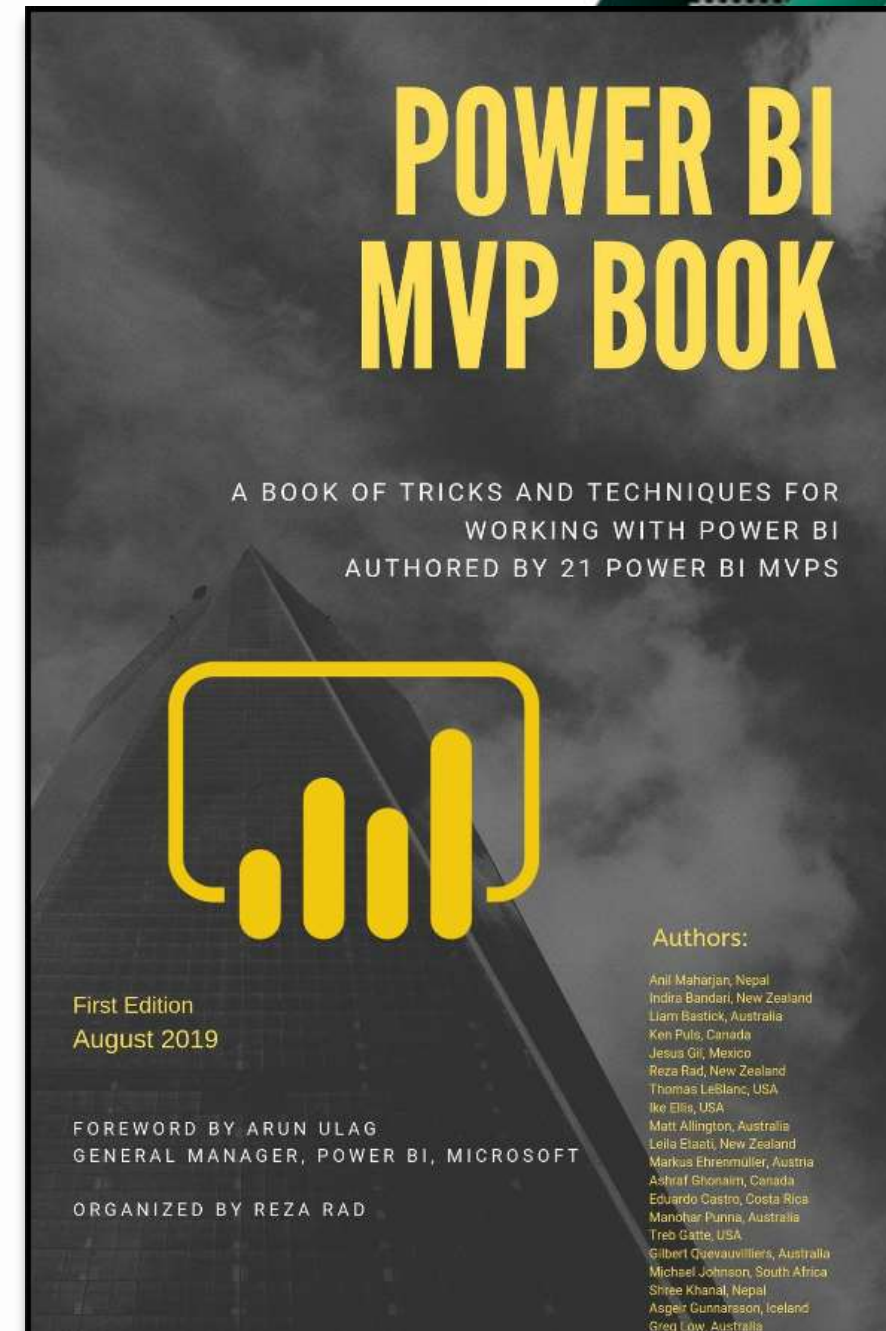
- 20+ years of in depth international and multidisciplinary experience in the areas of: Strategy Management, Performance Measurement, Process Improvement, Analytics
- BSc in Computer Engineering and Science, MBA in Strategy Management
- Certified Balanced Scorecard, Lean Six Sigma Black Belt and PMP
- Microsoft Certified Trainer (MCT)
- Leader of Toronto Power Platform User Group
- Leader of Toronto Power BI User Group
- Leader of Toronto Fabric User Group
- Microsoft Learning Expert – Power BI Learning Room
- Organizer and speaker of several conferences like: Power BI World Tour, Global Power Platform Bootcamp, Azure Bootcamp, AI Bootcamp, MS Ignite, MS Build
- Microsoft MVP - Data Platform since 2108



Power BI MVP Book

Co-author

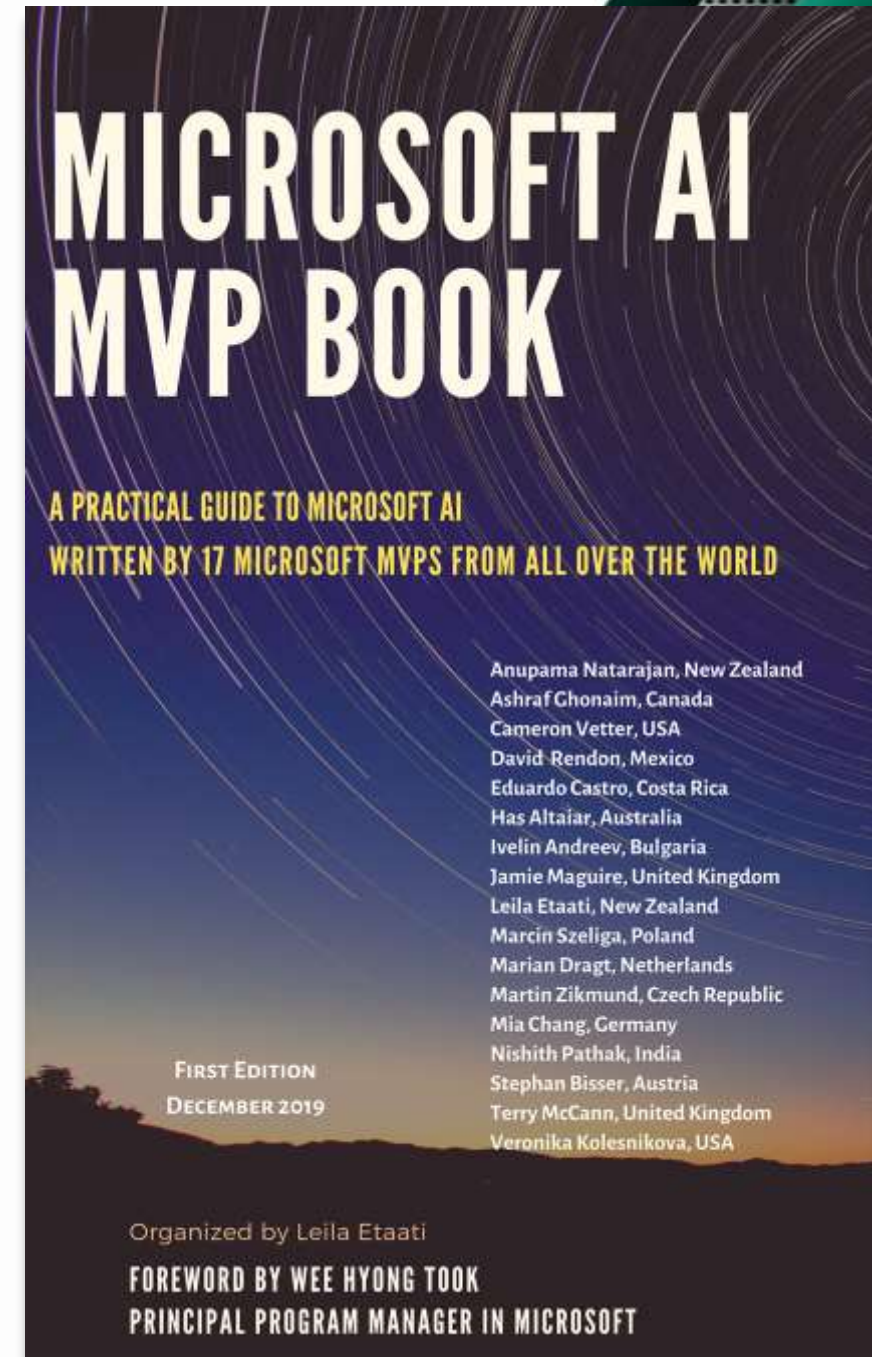
- The co-author of the first Power BI MVP Book along with another 21 Power BI MVP gurus from all over the world.
- Each author wrote a separate chapter in a specific topic. My chapter is about Automated Machine Learning (AutoML) in Power BI.
- The book was put together by the Power BI guru Reza Rad and forwarded by Arun Ulag, the General Manager of Power BI at Microsoft.
- It is available in Amazon in Paperback and Kindle formats. The revenue of the book will go to a charity. Happy reading and Happy Power BIng! :)



Microsoft AI MVP Book

Co-author

- A co-author of the first Microsoft AI MVP Book along with another 16 MVP gurus from all over the world.
- Each author wrote a separate chapter in a specific topic. My chapter is about AI and Cognitive Services in Power BI.
- The book was put together by the Power BI guru Leila Etaati and forwarded by Wee Hyong Took, the Principal AI Program Manager at Microsoft.
- It is available in Amazon in Paperback and Kindle formats. The revenue of the book will go to a charity. Happy reading and Happy Alng! :)





Go To

This group hub Search all content

Toronto Fabric User Group

Power BI User Groups are now Fabric User Groups! Read the [announcement blog](#) to learn more.

Microsoft Fabric Community > Fabric User Groups

Toronto Fabric User Group

111 members

Share group

You're a group leader

Manage group

Group info

Discussion

Members

Events

Resources

Location

Toronto Ontario

Details

Toronto Fabric User Group is a community of practice driven by the community for the community around the Microsoft Fabric platform, which includes: Data Factory, Synapse Data Engineering, Synapse Data Science, Synapse Data Warehousing, Synapse Real Time Analytics, Power BI, and Data Activator.

This user group is to bring the local community together where we can share knowledge, experiences, and best practices and learn from each other's experiences.

The engagement will happen through a hybrid of in-person and online monthly events that will also include networking and social connections.

1 group leaders



[aghoraim](#)
MVP

Message leaders

111 members



[RodDev](#)
New Member



[willhardsica00](#)
New Member

[View all](#)

Invite people



Toronto Fabric User Group

Toronto Fabric User Group 🇨🇦

IT System Data Services

Toronto, Ontario · 285 followers

Microsoft Fabric User Group in Toronto

Follow

About us

Toronto Fabric User Group is a community of practice driven by the community for the community around Microsoft Fabric platform which includes: Data Factory, Synapse Data Engineering, Synapse Data Science, Synapse Data Warehousing, Synapse Real Time Analytics, Power BI, Data Activator.

This user group is to bring the local community together where we can share knowledge, experiences and best practises and learn from each others' experiences.

The engagement will happen through a hybrid in-person and online monthly events that will include also networking and social connections.

Website

<https://community.fabric.microsoft.com/t5/Toronto-Fabric-User-Group/gh-p/TorontoFabricUserGroup>



[Change photo](#)

 Part of **The Global AI Community** - 42 groups

Toronto Fabric User Group



Toronto, ON, Canada

26 members · Public group

 Organized by **Ashraf Ghonaim**
[Edit group info](#)

Share:

[About](#) [Events](#) [Members](#) [Photos](#) [Discussions](#) [More](#)
[Schedule](#)
[Manage group](#)

What we're about

Toronto Fabric User Group is a community of practice driven by the community for the community around the Microsoft Fabric platform, which

[Read more](#)

Upcoming events (1)

[See all](#)

WED, OCT 11, 2023, 5:00 PM EDT

TFUG Oct event: Fabric Overview + Data Activator Demo + Networking

Microsoft Canadian Headquarters (Suite 4400), Toronto, ON

Hello our fabulous TFUG enthusiasts! We are happy to have our Oct in-person event. The agenda details and to register is here: [TFUG Oct event: Fabric Overview + Data Activator D...](#)



14 attendees

[Manage](#)

You're going!



Organizer


Ashraf Ghonaim
[Message](#)

Members (26)

[See all](#)


Sponsors

[See all](#)


About our members



26 members recently joined



Complete your profile to see what interests you share with other members

[Update Profile](#)

Microsoft Learn - Learning Rooms Directory



[M365 Modern Work](#)

This Learning Room will focus on M365 and everything you need for the modern workplace, including M365 and Office, Power Platform,

📍 Global

🗄 Modern Work

🌐 English

Learning Experts



[Power BI - Ashraf Ghonaim Learning Expert](#)

This room is to build an online community of practice where all the Power BI learners and experts from all over the world meet to learn from each others'

📍 Canada

🗄 Data and AI

🌐 English, Arabic

Learning Experts



[Power Platform and Dynamics 365 with Nadeeja](#)

Welcome to the Power Platform and Dynamics 365 room! Whether you want to seek expert advice, discuss ideas, or explore new possibilities for your

📍 Australia

🗄 Business Applications

🌐 English, Sinhalese

Learning Experts



Introducing Microsoft Fabric

Microsoft Fabric enables you to manage your data in one place with a suite of analytics experiences that work together seamlessly, including:

- Data Factory
- Synapse Data Engineering
- Synapse Data Warehouse
- Synapse Data Science
- Synapse Real-Time Analytics
- Power BI
- Data Activator

Microsoft Fabric

End-to-end analytics data fabric
From the data lake to the business user

Complete Analytics Platform

Best of Breed

Unified SaaS Solution

Low Code Plus Pro Dev

Lake-centric and Open

OneLake

One Copy

Always Synced

Empower Every Office User

Familiar and Intuitive

Built Into Office

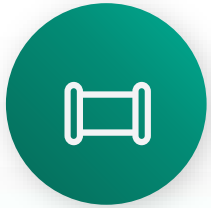
Insight to Action

Persistent Security and Governance

End-to-End Visibility

Always Governed

Secure by Default



Complete Analytics Platform

Microsoft Fabric



Data
Integration



Data
Lake



Spark
Engines



Data
Warehouse



Real Time
Analytics



Data
Science



Business
Intelligence

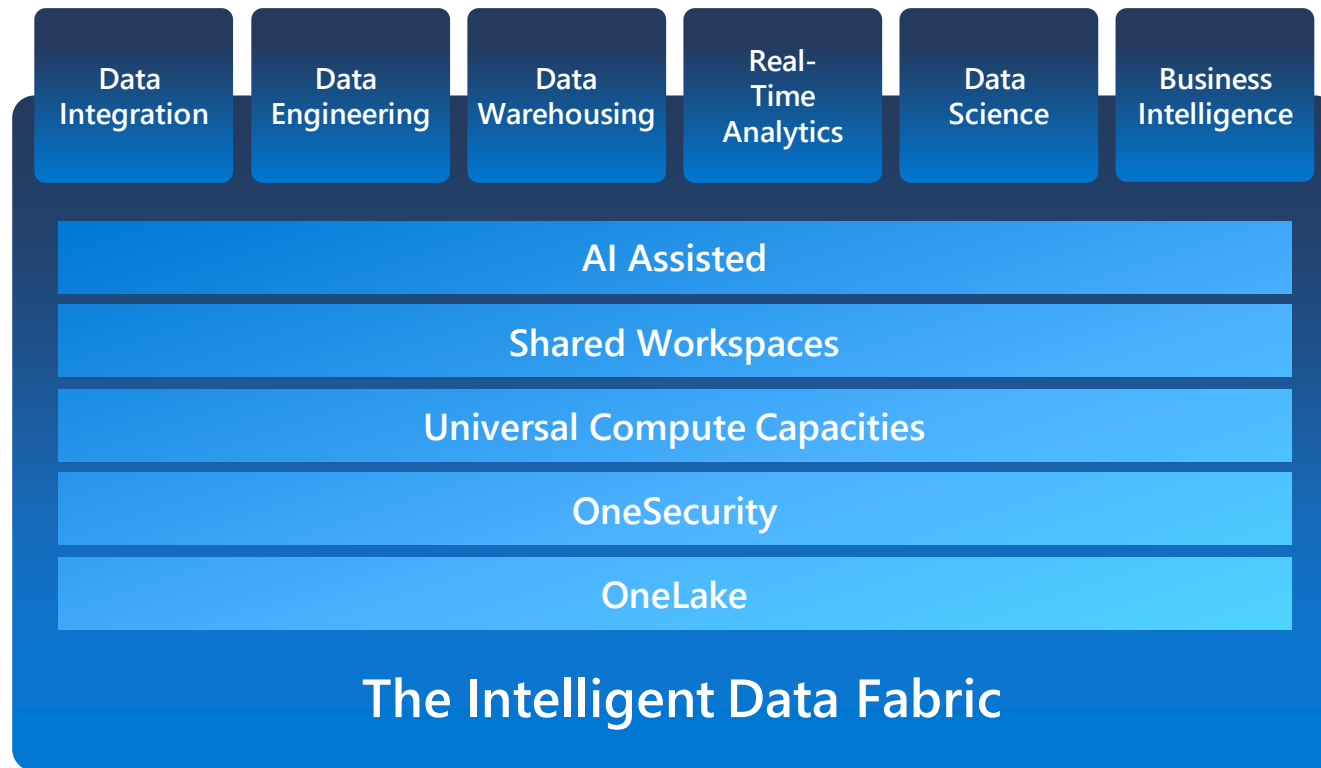


Governance

Unified analytics fabric

End-to-end analytics data fabric
From the data lake to the business user

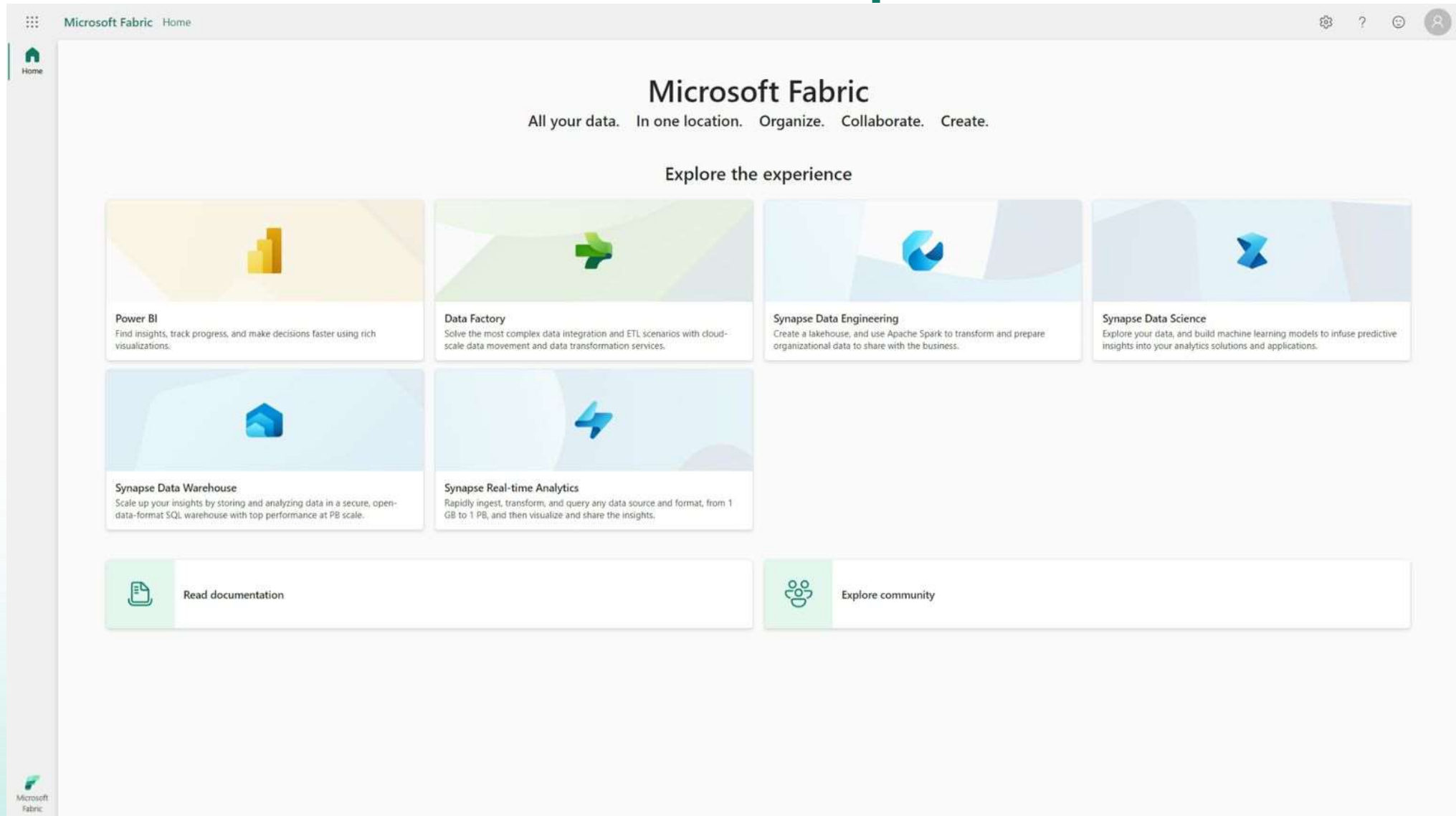
Microsoft Fabric

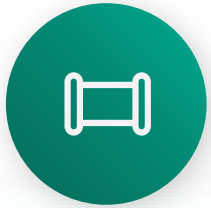


Single...

- Onboarding and trials
- Sign-on
- Navigation model
- UX model
- Workspace organization
- Collaboration experience
- Data Lake
- Storage format
- Data copy for all engines
- Security model
- CI/CD
- Monitoring hub
- Data Hub
- Governance & compliance

Persona Centric Experiences

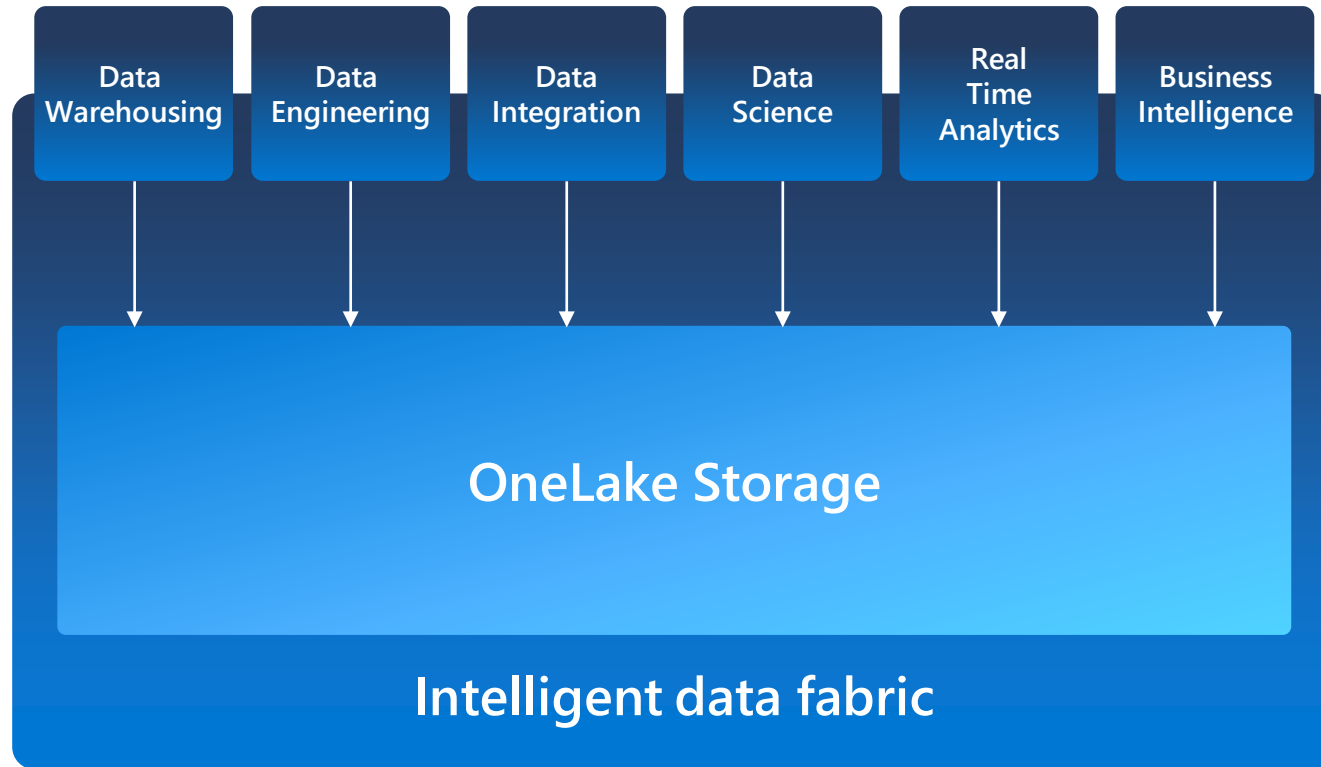




Lake-centric and open architecture

OneLake for all Data

"The OneDrive for Data"



A single SaaS lake for the whole organization

Provisioned automatically with the tenant

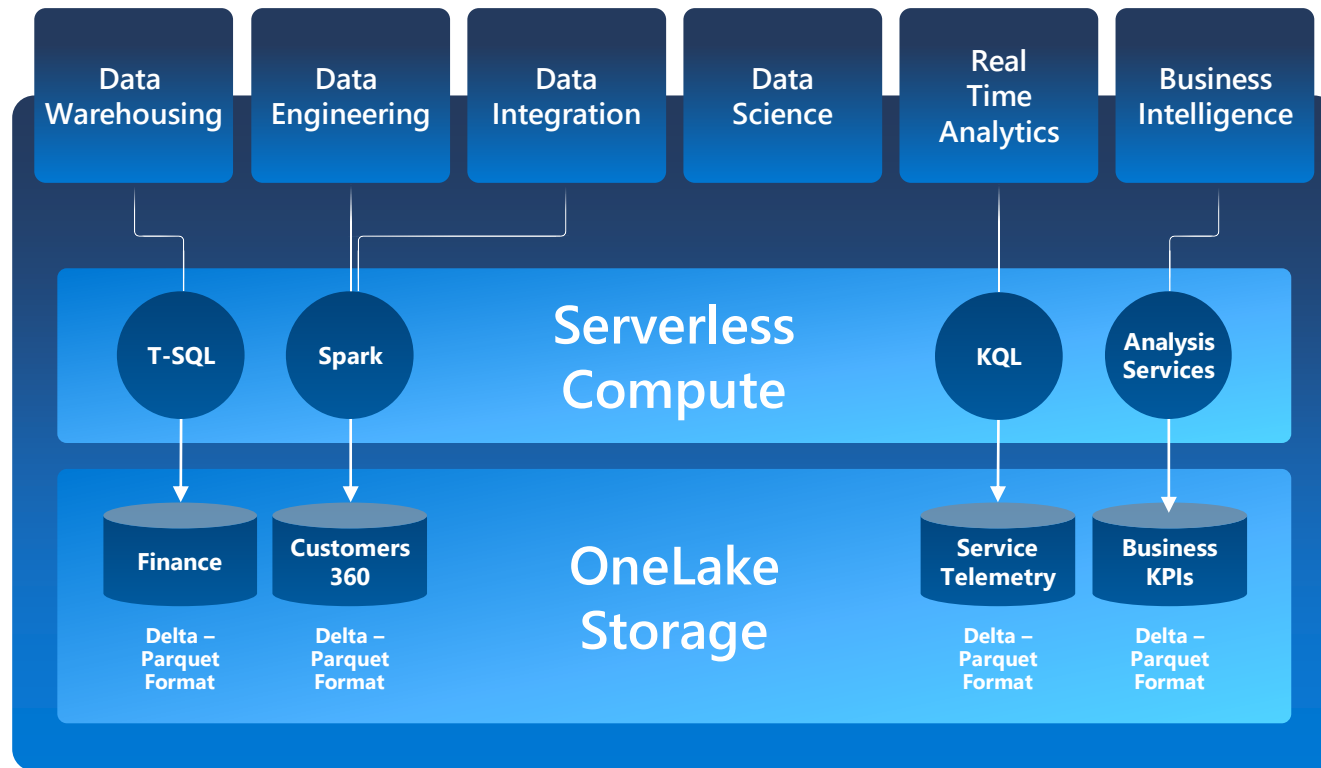
All workloads automatically store their data in the OneLake workspace folders

All the data is organized in an intuitive hierarchical namespace

The data in OneLake is automatically indexed for discovery, MIP labels, lineage, PII scans, sharing, governance and compliance

One Copy for all computes

Real separation of compute and storage



All the compute engines store their data automatically in OneLake

The data is stored in a single common format

Delta – Parquet, an open standards format, is the storage format for all tabular data in Fabric

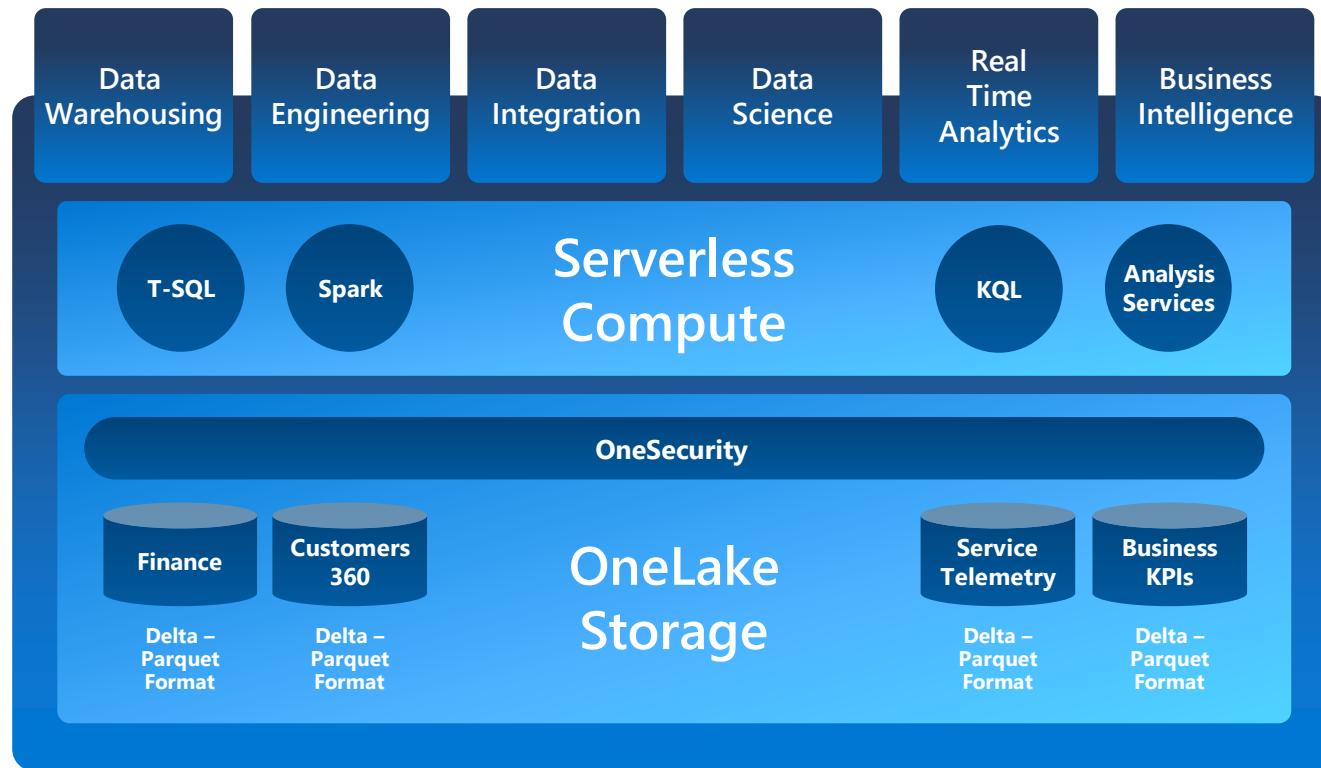
Once data is stored in the lake, it is directly accessible by all the engines without needing any import/export

All the compute engines have been fully optimized to work with Delta Parquet as their native format

Shared universal security model is enforced across all the engines

One Copy for all computes

Universal security makes it real



All the compute engines store their data automatically in OneLake

The data is stored in a single common format

[Delta – Parquet](#), an open standards format, is the storage format for all tabular data in Fabric

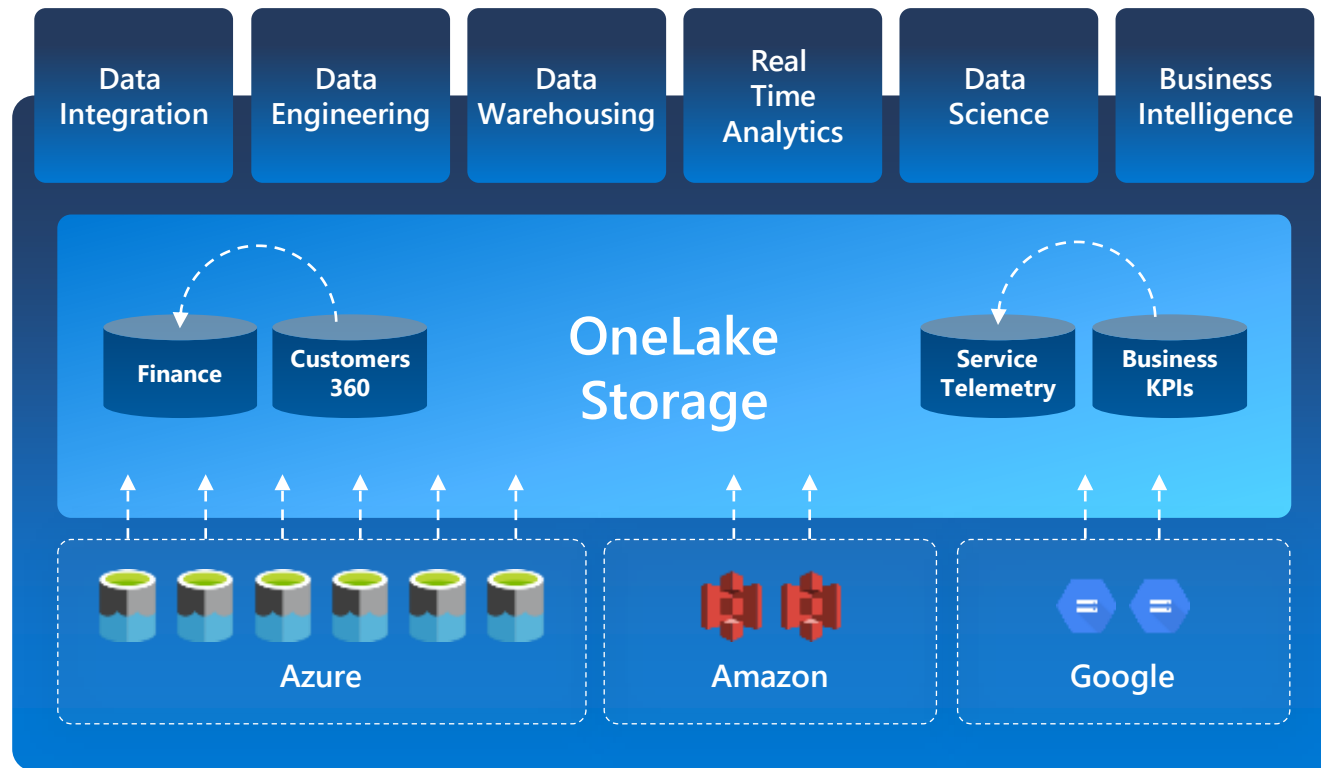
Once data is stored in the lake, it is directly accessible by all the engines without needing any import/export

All the compute engines have been fully optimized to work with Delta Parquet as their native format

Shared universal security model is enforced across all the engines

Taking One Copy to the next level

Shortcuts



Sharing data in OneLake is as easy as sharing files in OneDrive, removing the needs for data duplication

With **shortcuts**, data throughout OneLake can be composed together without any data movement

Shortcuts also allow instant linking of data already existing in Azure and in other clouds, without any data duplication and movement, making **OneLake the first multi-cloud data lake**

With support for industry standard APIs, OneLake data can be directly accessed by any application or service

Microsoft Fabric

End-to-end analytics data fabric
From the data lake to the business user

Complete Analytics Platform

Best of Breed

Unified SaaS Solution

Low Code Plus Pro Dev

Lake-centric and Open

OneLake

One Copy

Always Synced

Empower Every Office User

Familiar and Intuitive

Built Into Office

Insight to Action

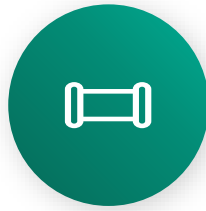
Persistent Security and Governance

End-to-End Visibility

Always Governed

Secure by Default

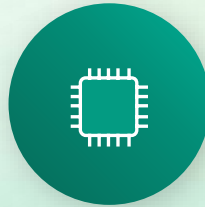
What does it mean to power BI ?



- Microsoft Fabric Workloads



- Direct Lake



- AI in Power BI

Hi, I'm

Power BI 

Unified Analytics Fabric



Synapse +



Power BI



Synapse

+



Power BI



Data
Integration



Data
Lake



Spark
Engines



Data
Warehouse



Observational
Analytics



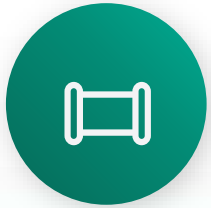
Data
Science



Business
Intelligence



Governance



Microsoft Fabric persona

MicrosoftPower BIHome

Search


Good afternoon, Amir

Find and share actionable insights to make data-driven decisions

+ New report


Recommended

Getting started with Power BI




Try out an interactive report

You frequently open this




Power BI

You favorited this




36k points

Will Thompson (HE/HM) featured this




COVID Bakeoff

Josh Caplan opened this



Intelligence Platform LT Dashboard

You frequently open this



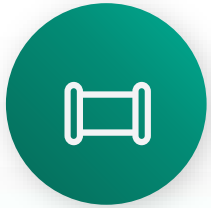
Microsoft Combined

RecentFavoritesMy appsFrom external orgs

Filter by keyword

Filter

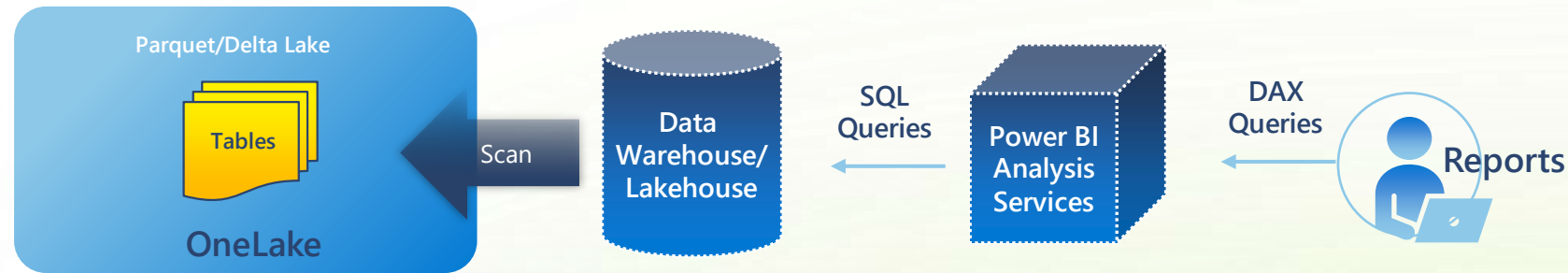
Name	Type	Opened	Location	Endorsement	Sensitivity
Hawaii Tourism Demo	Workspace	a minute ago	Workspaces	—	—
Power BI	App	17 hours ago	App	Certified	—
DatamartTenantSettingUsage_FTHs	Report	13 days ago	—	—	Confidential/Microsoft Extended
Microsoft Combined Analytics Scorecard	App	10 days ago	App	—	—
Hawaii Tourism Analysis	Dataset	28 days ago	Hawaii Tourism Demo	—	Confidential/Microsoft Extended
Trident private preview reporting	App	a month ago	App	—	—
ScannerUsage	Report	a month ago	Power BI SRA	—	Confidential/Any User (for Prot...
Goals usage - Synapse	Report	a month ago	—	Promoted	Confidential/Microsoft FTE
My workspace	Workspace	a month ago	Workspaces	—	—
Synapse SQL Product Analytics	App	2 months ago	App	—	—



Direct Lake

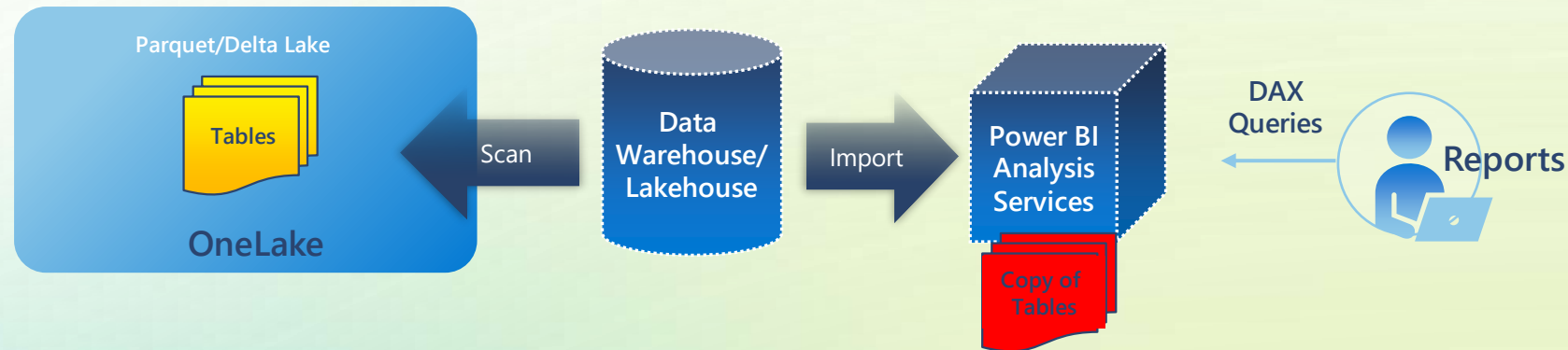
“Direct Query Mode”

Slow, but real time



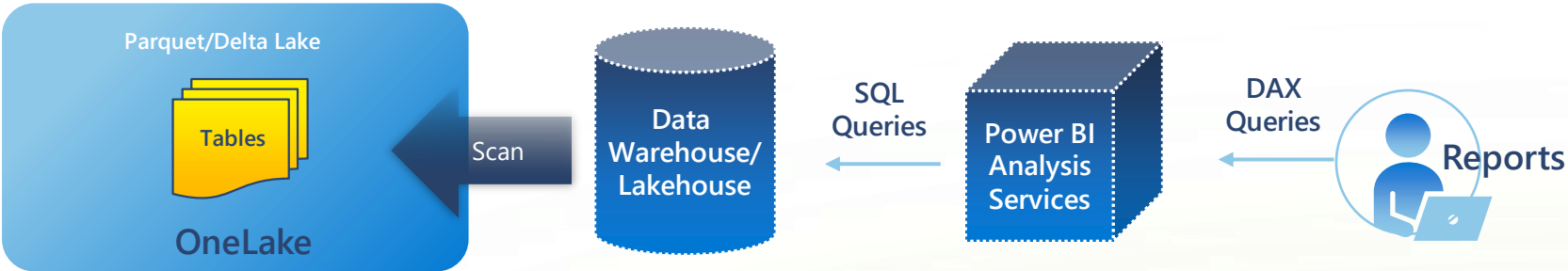
“Import Mode”

Latent & duplicative but fast



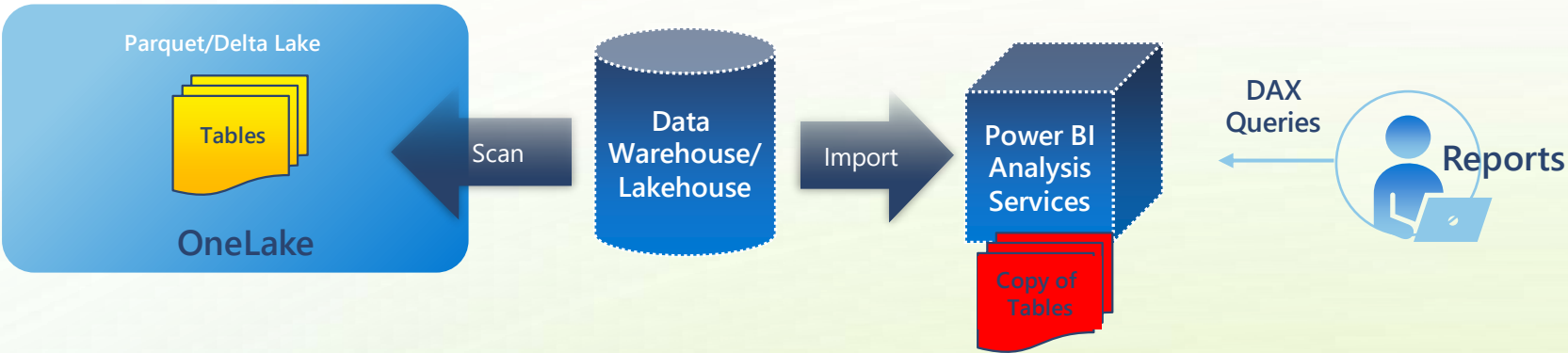
“Direct Query Mode”

Slow, but real time



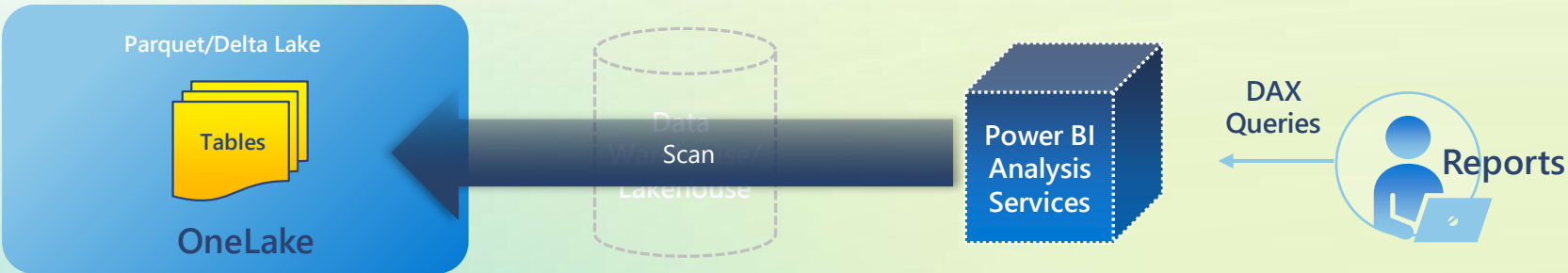
“Import Mode”

Latent & duplicative but fast



“See-through Mode”

Perfect!



pipelineDemoLakehouse

Confidential\Microsoft ...

Search

3

Home

Get data

Open notebook

New dataset

Home

Create

Browse

Data hub

Monitoring hub

Metrics

Apps

Workspaces

TridentTestingForMerca...

pipelineDe
moLakeho...

More...

Power BI

Lakehouse explorer

pipelineDemoLakehouse

Tables

Accounts

CustomerLicenses

DistributionChannel

123 DistributionChannelId

abc DistributionChannelCo

abc DistributionChannelNa

FiscalCalendar

Geography

ManagementReporting

Orders

ProductFamily

ProductMaster

ProductMasterFamily

123 ProductID

abc PartNumber

abc ItemName

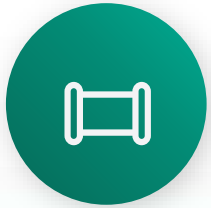
Load data in your lakehouse

New Dataflow Gen2

New data pipeline

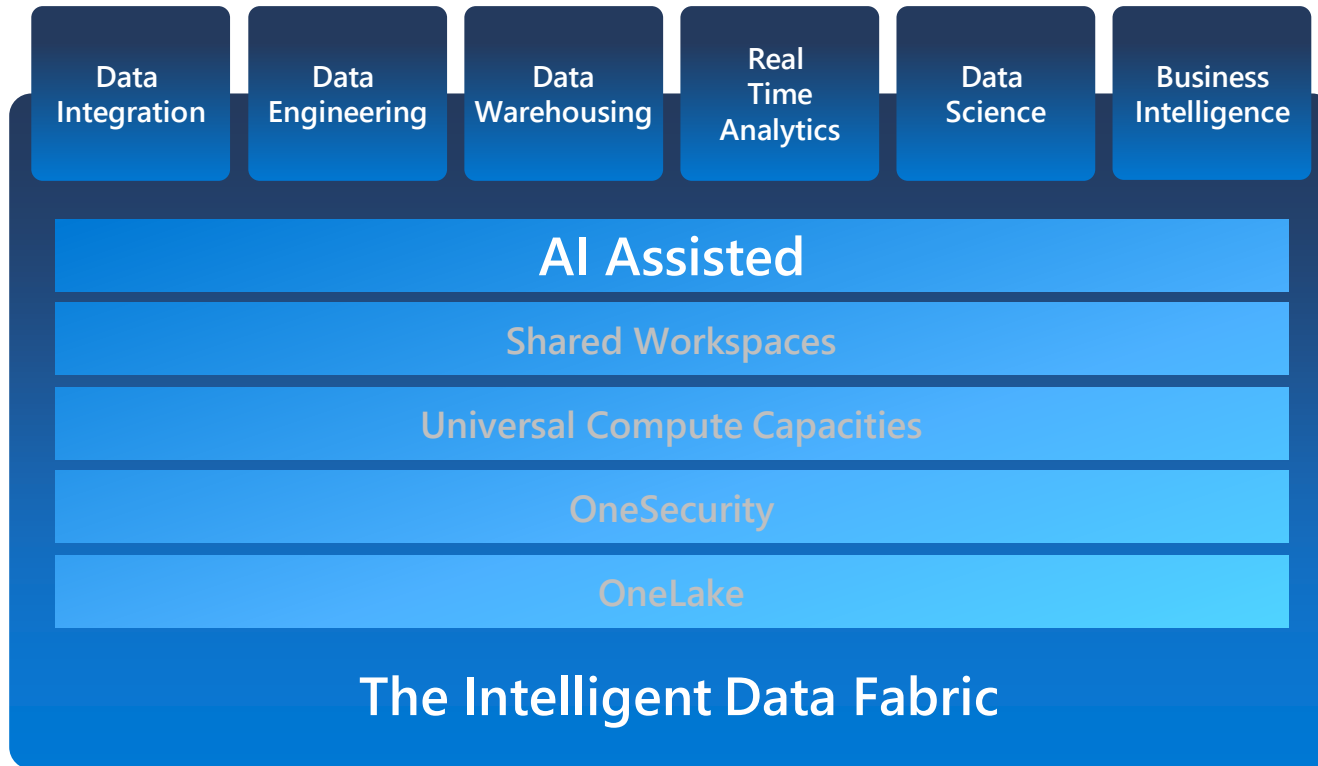
Open notebook

New shortcut



AI in Power BI

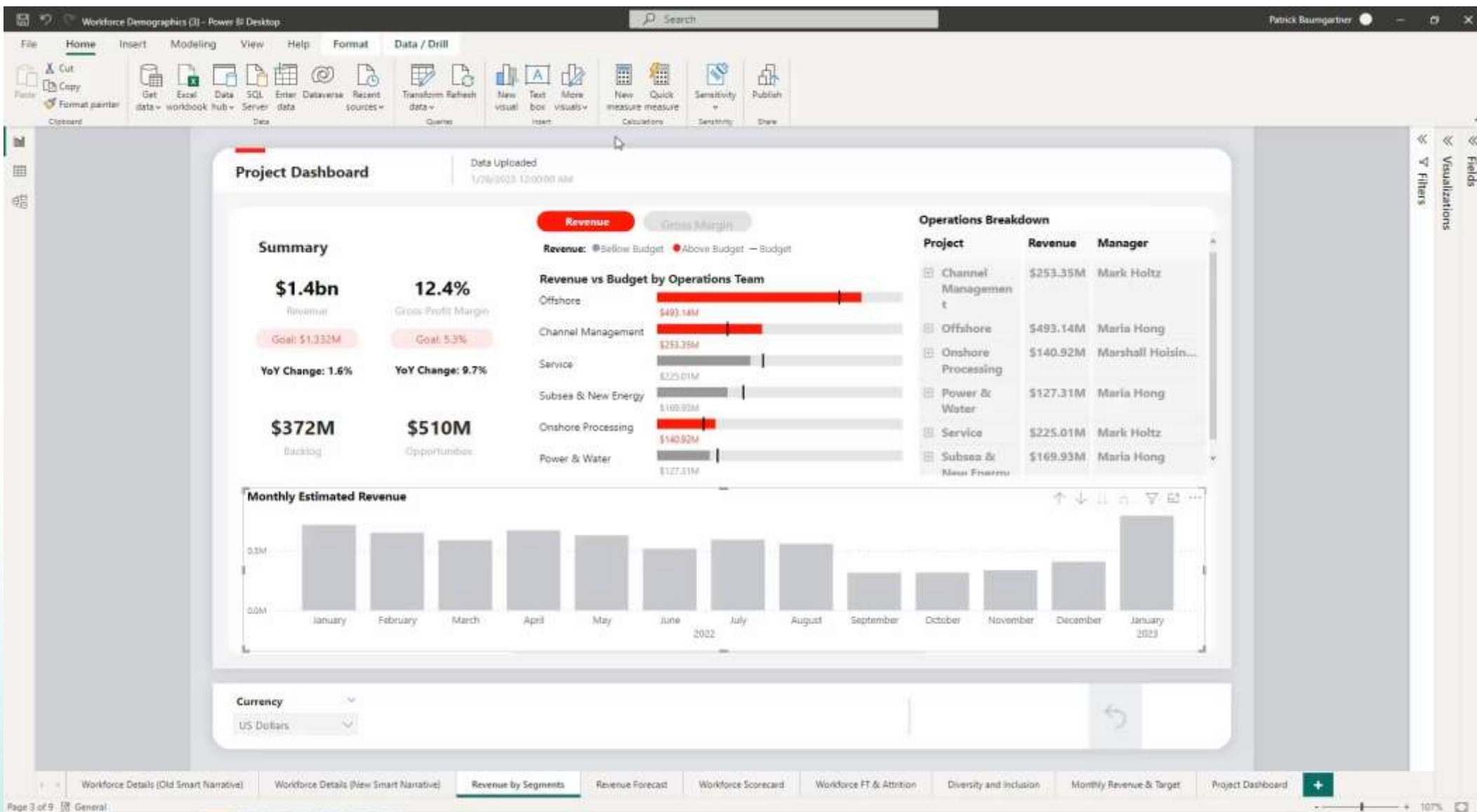
AI Assisted Creation in Microsoft Fabric

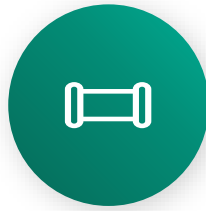


The Fabric platform includes built-in generative AI capabilities in the form of intelligent assistants we call Copilots.

The first GPT-based feature is already shipping in Power BI - NL2DAX – DAX calculation creation based on natural language prompts.

Ongoing major ramp-up for pervasive AOAI based product-wide AI assistance.

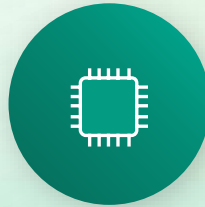




- Microsoft Fabric Workloads



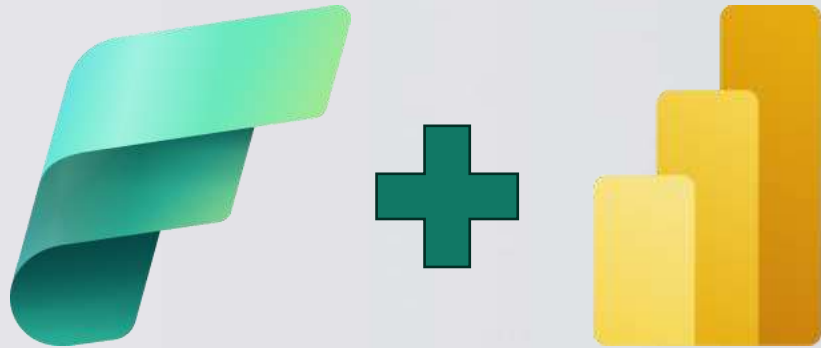
- Direct Lake



- AI in Power BI

- Try for Free
fabric.microsoft.com
- Learn more
Microsoft.com/fabric

SQL Saturday Toronto 2023



Thank You!