



Analytics Redefined: Exploring Microsoft Fabric's Data Magic!

Syed Fahad Ali Hashmi



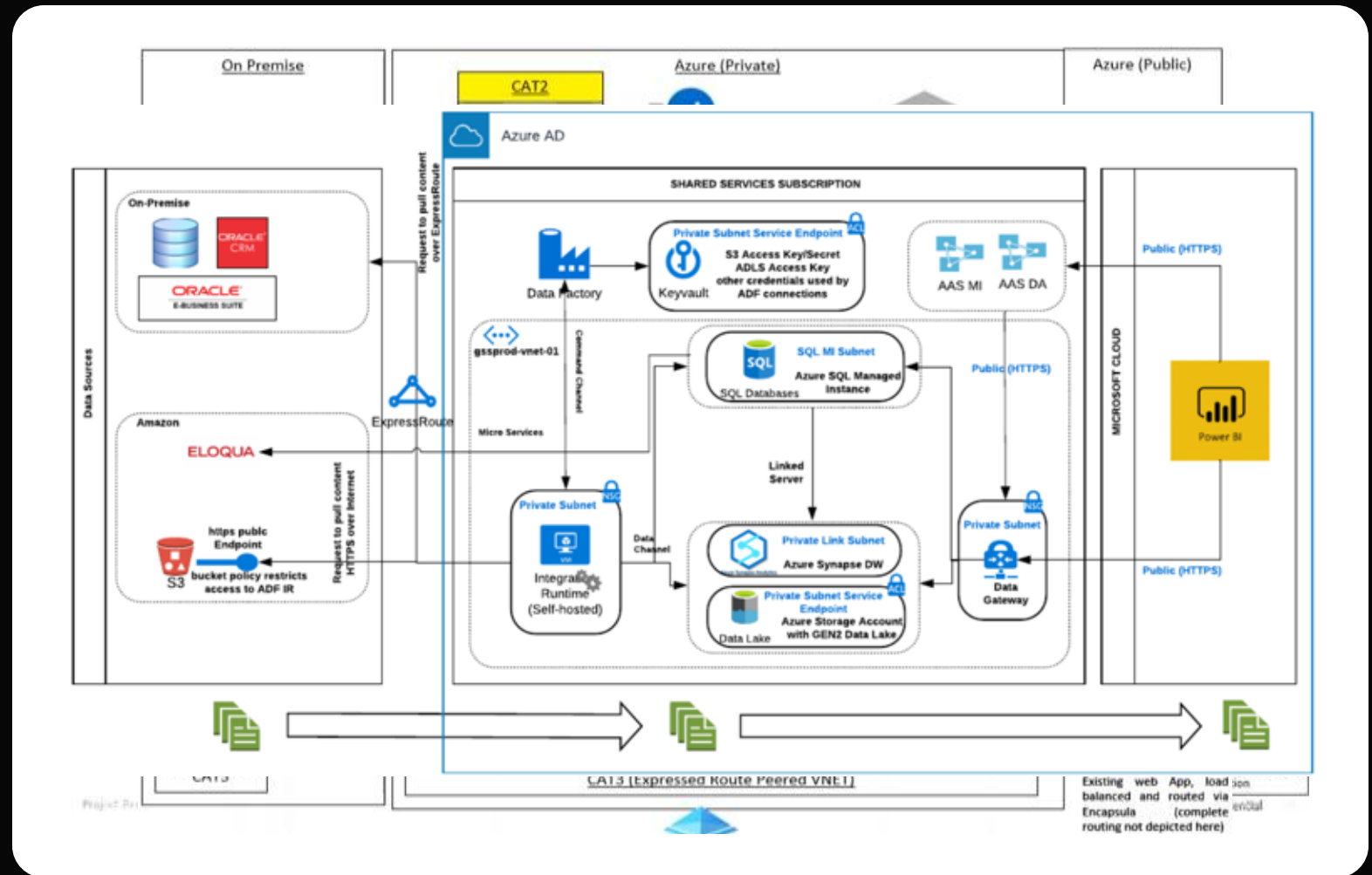
Analytics is Complex and Fragmented

Every project has many subsystems

Every subsystem need a different class of product

Products often comes from multiple vendors

Integration is complex, fragile and expensive



// Simplify,

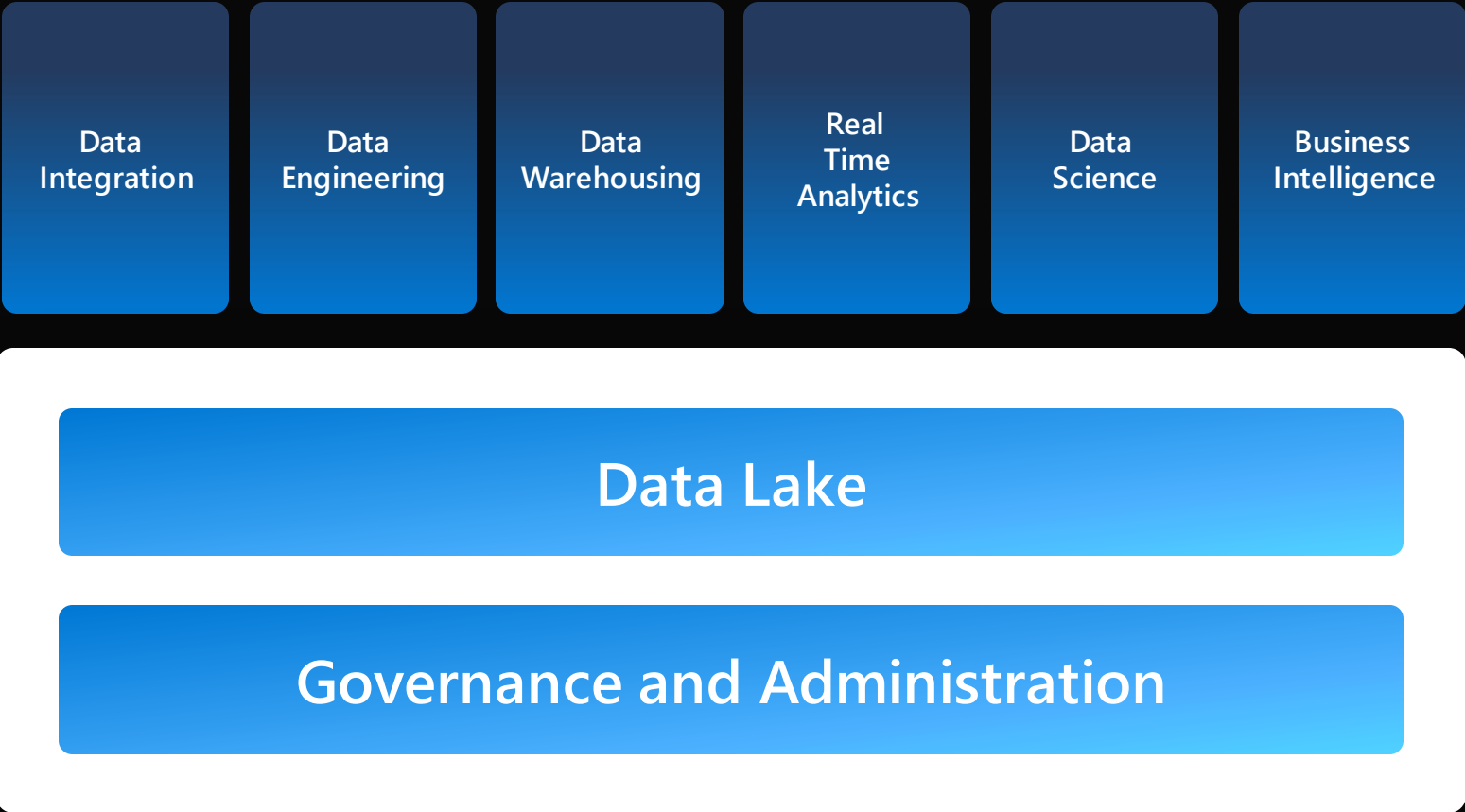
I am the Chief Data Officer
and don't want to be the
Chief Integration Officer."

Every CDO, Every Enterprise

A Silver Lining?

Analytics have very predictable patterns

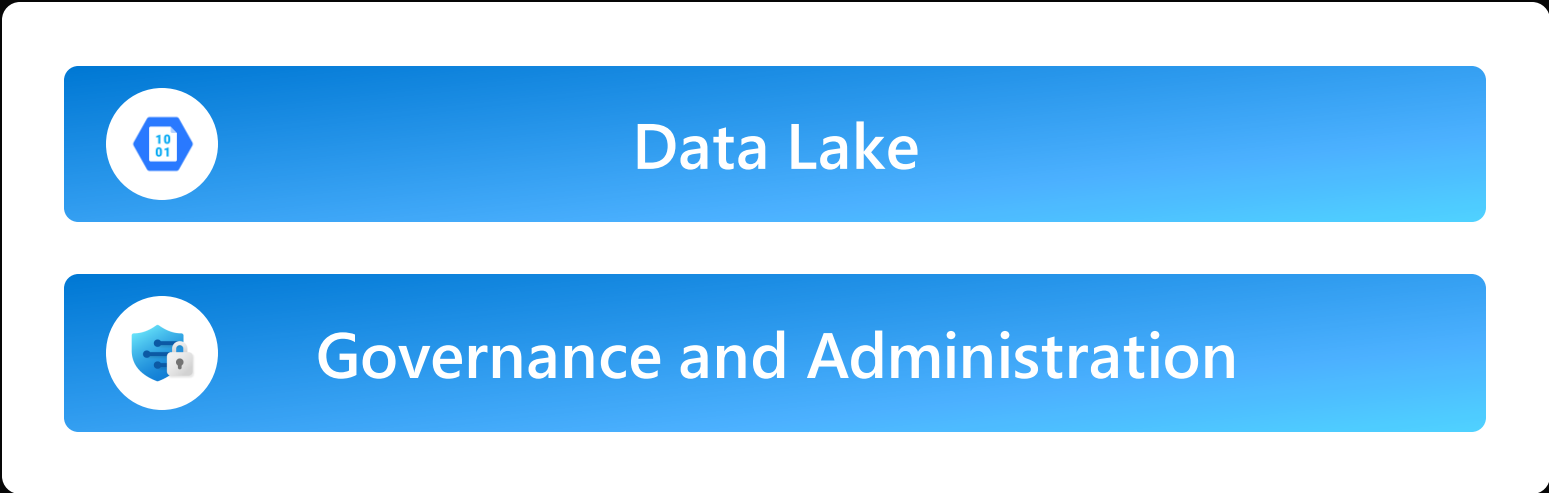
Microsoft has all the products with the right scale needed to build a complete analytics system



A Silver Lining?

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Still Far Too Complex

Many Products

Different Experiences

Proprietary and Open

Dedicated and Serverless

PaaS and SaaS

Different Business Models

Steep Learning Curves

Deep Expertise Needed

High Integration Effort



Purview



Power BI



Kusto



Data Factory



Azure AI



Synapse DW



Synapse Spark

Here comes



Microsoft Fabric

The data platform for the era of AI



Microsoft Fabric

The data platform for the era of AI

Complete Analytics Platform



Microsoft Fabric

The data platform for the era of AI

Complete
Analytics
Platform

Lake Centric
and Open



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Empower Every
Business User



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AI
Powered



Microsoft Fabric

The data platform for the era of AI

Complete Analytics Platform

Everything, unified

SaaS-ified

Secured and governed

Lake centric and open

OneLake

One Copy

Open at every tier

Empower Every Business User

Familiar and intuitive

Built into Microsoft 365

Insight to action

AI Powered

Copilot accelerated

ChatGPT on your data

AI driven insights



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veraqor
unveiling data. unleashing potential.



Microsoft Fabric

The data 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



OneLake



veraQor
unveiling data. unleashing potential



Microsoft Fabric



AI Assisted

Shared Workspaces

Universal Compute Capacities

OneSecurity

 OneLake

Intelligent data foundation

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



SaaS

"It just works"

5x5

Frictionless onboarding

Instant Provisioning

Quick results w/ Intuitive UX

Success by Default

Minimal knobs

Auto optimized

Auto Integrated

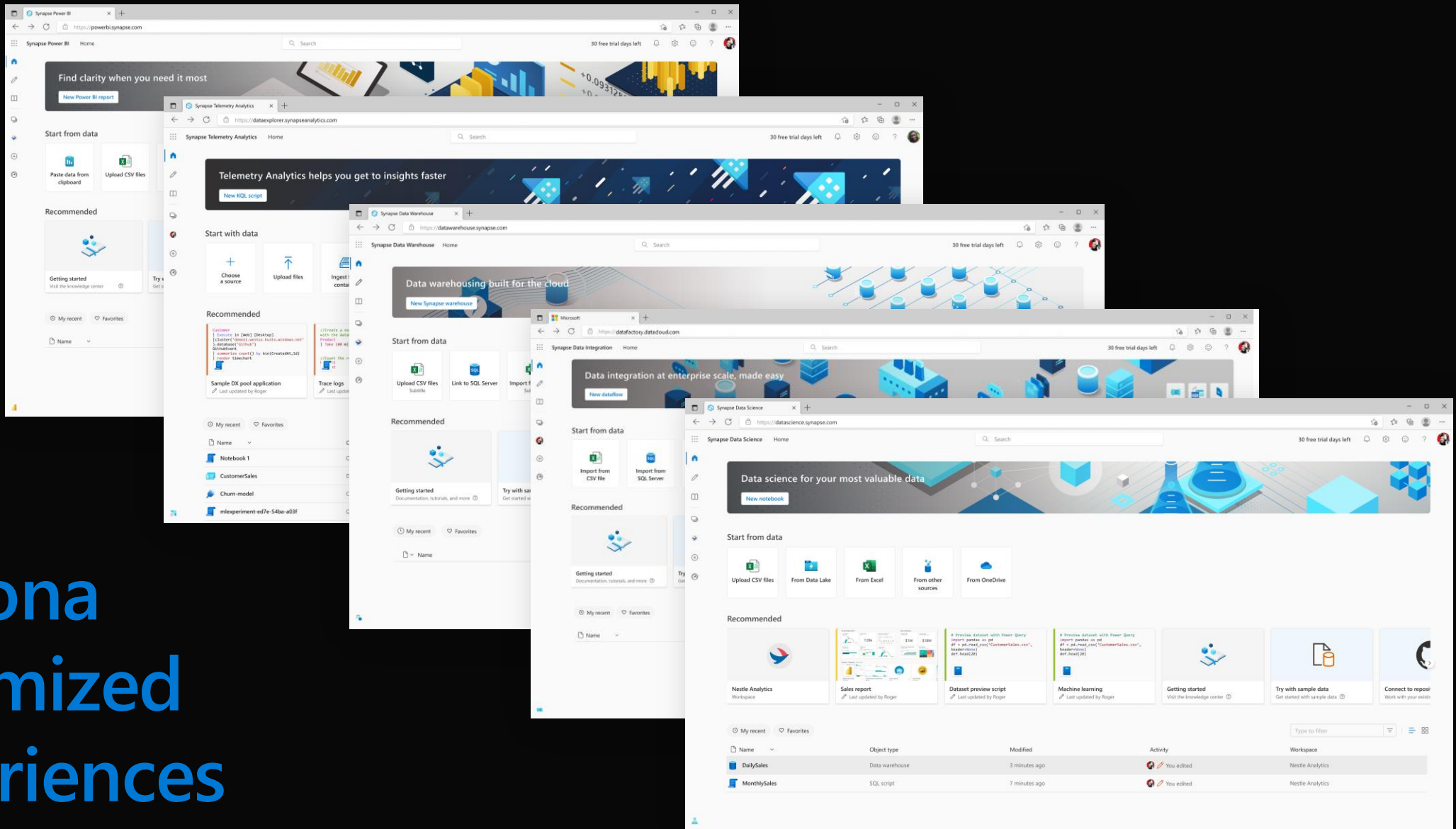
Centralized Administration

Tenant-wide governance

Centralized
security management

Compliance built-in

Persona Optimized Experiences





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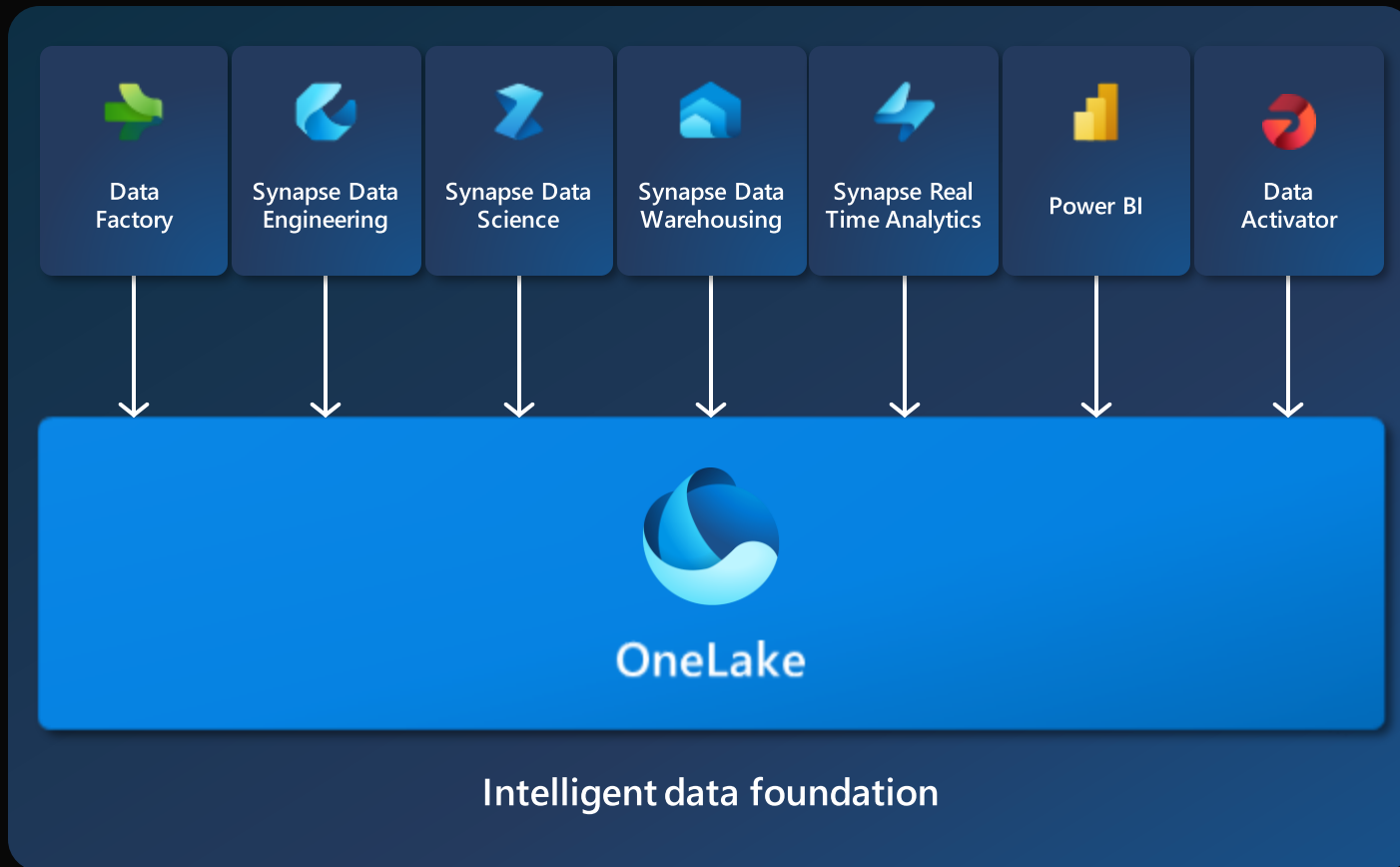
AI driven insights



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OneLake for all Data

"The OneDrive for Data"



A single SaaS lake for the whole organization

Provisioned automatically with the tenant

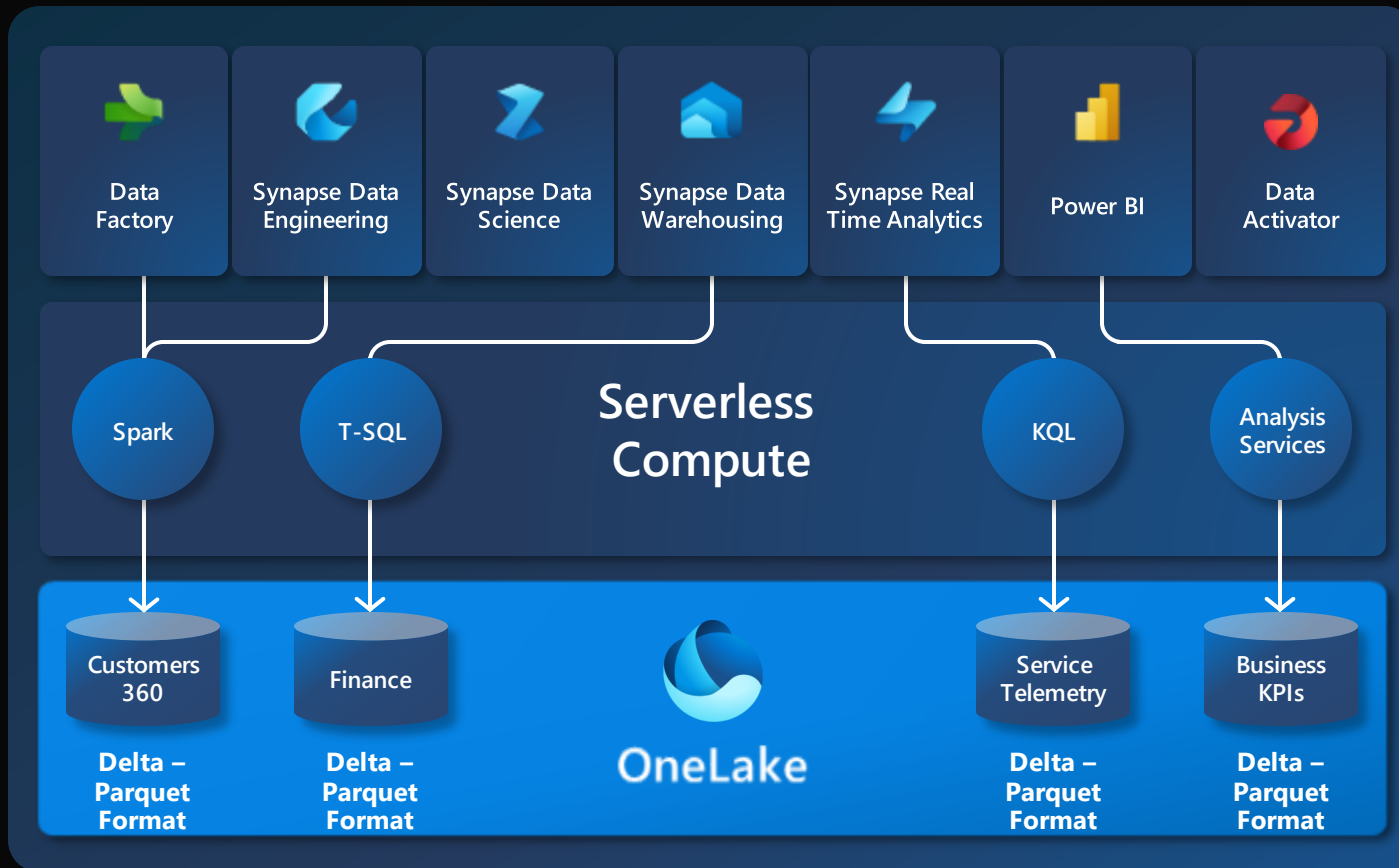
All workloads automatically store their data in the OneLake workspace folders

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 Analytics vNext

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



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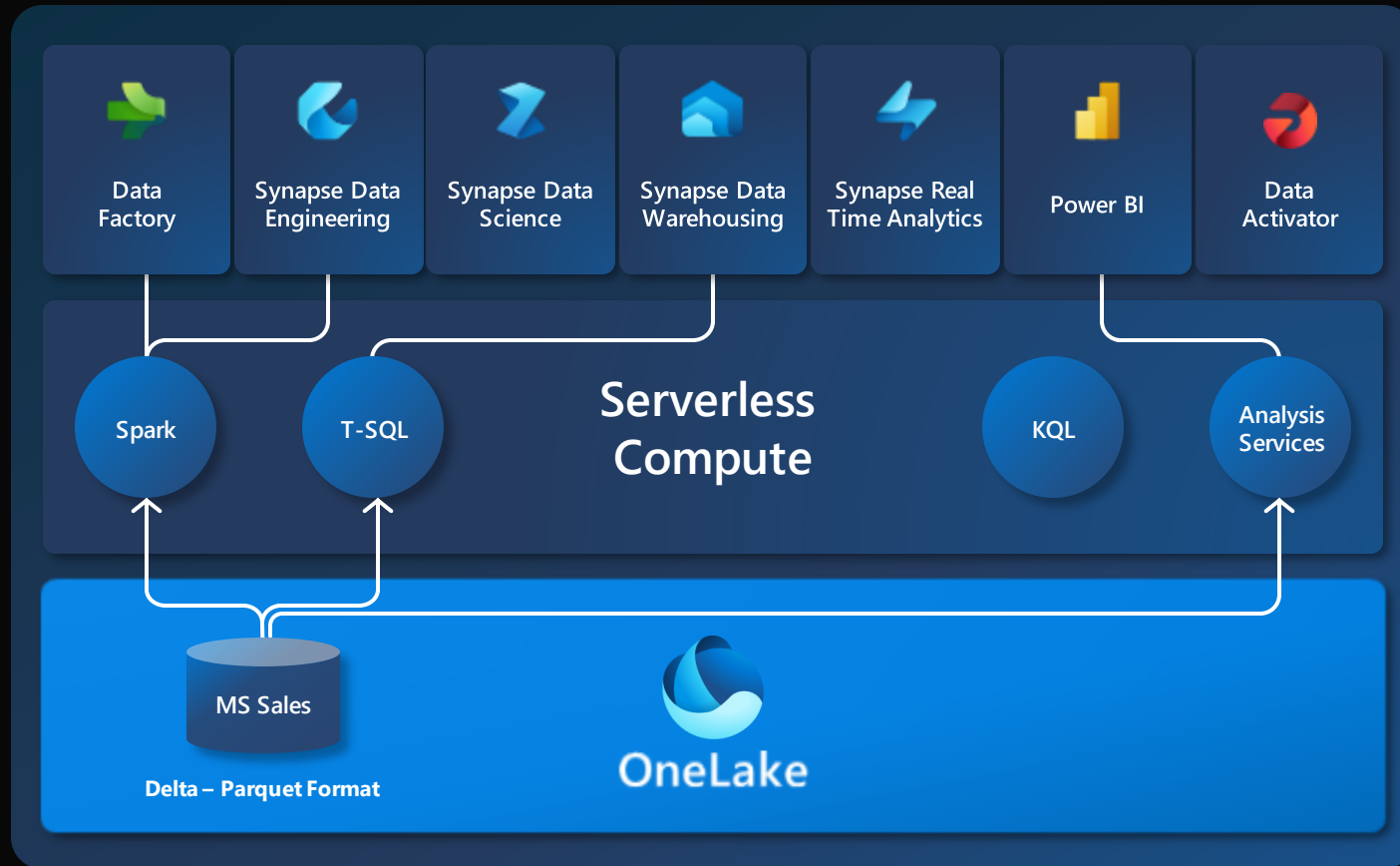
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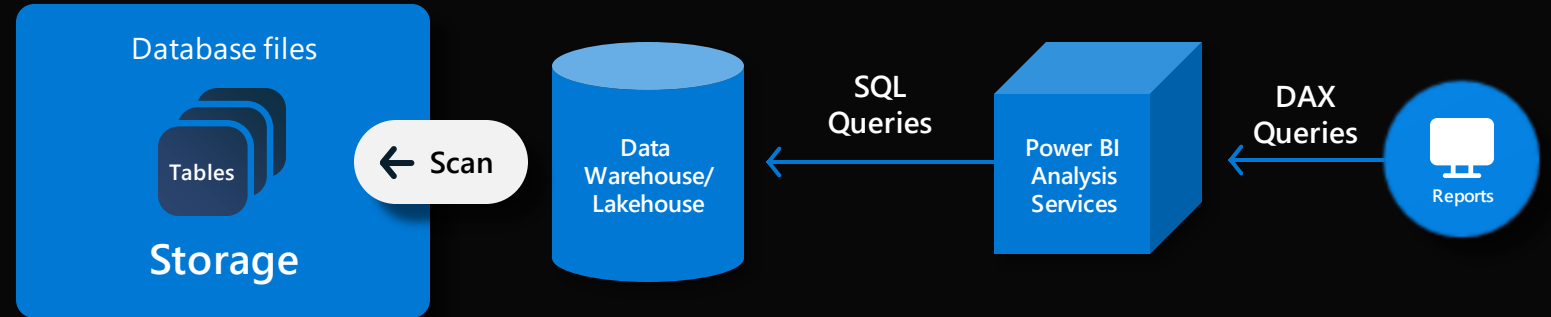
One Copy for all computes

Using the Lakehouse



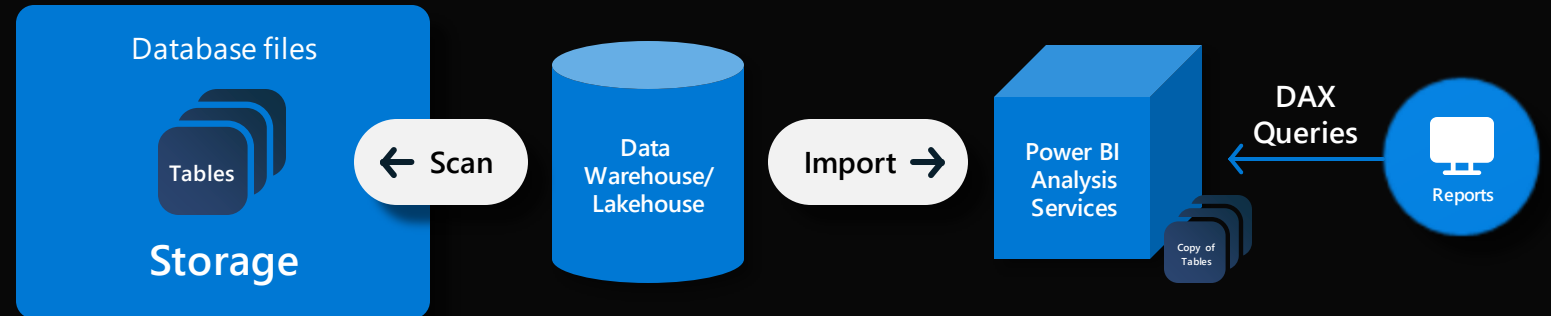
"Direct Query Mode"

Slow, but real time



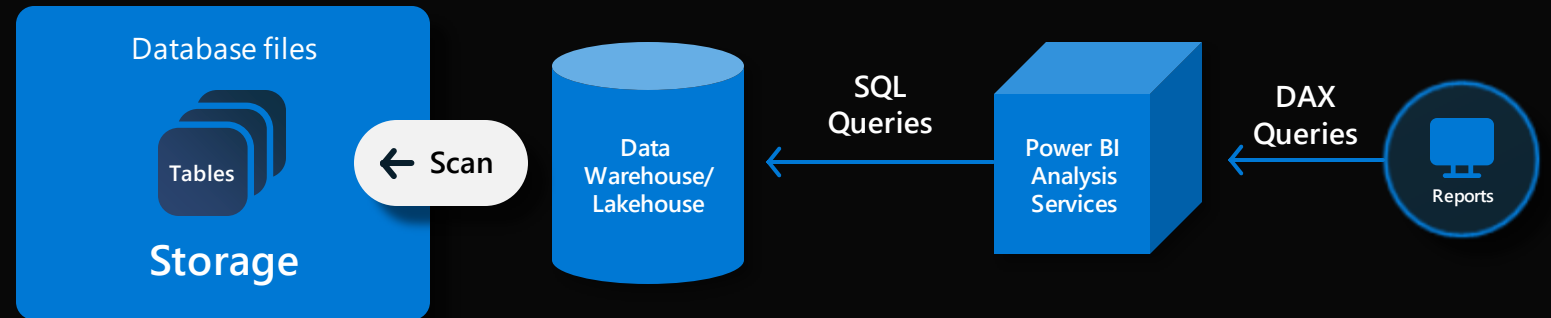
"Import Mode"

Latent & duplicative but fast



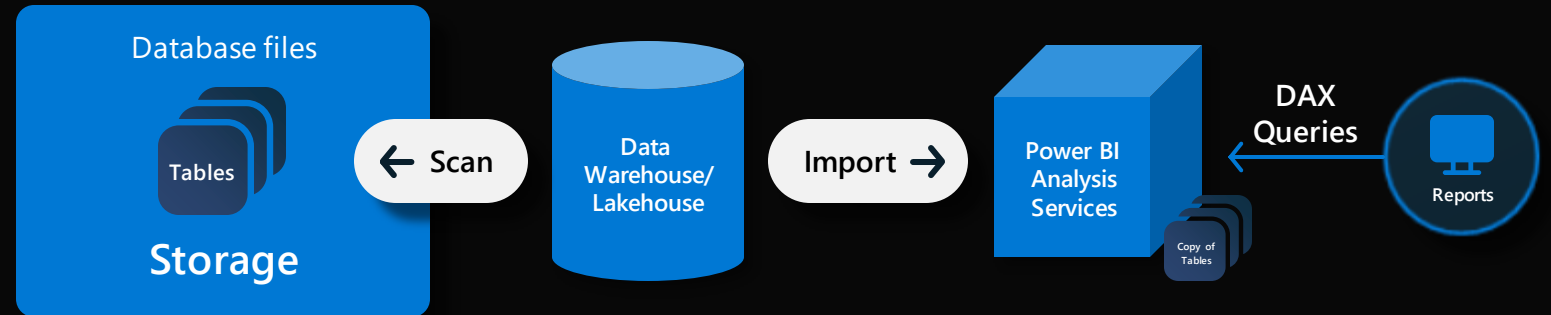
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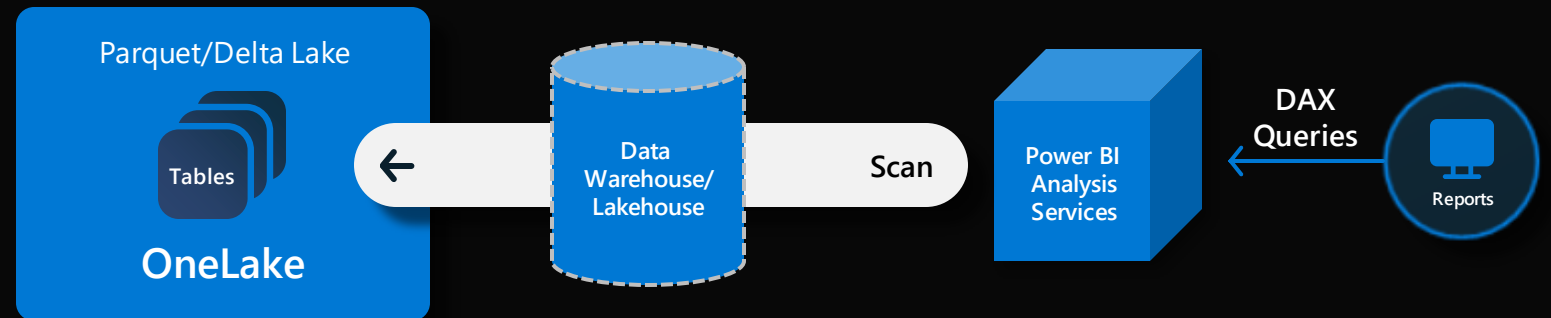
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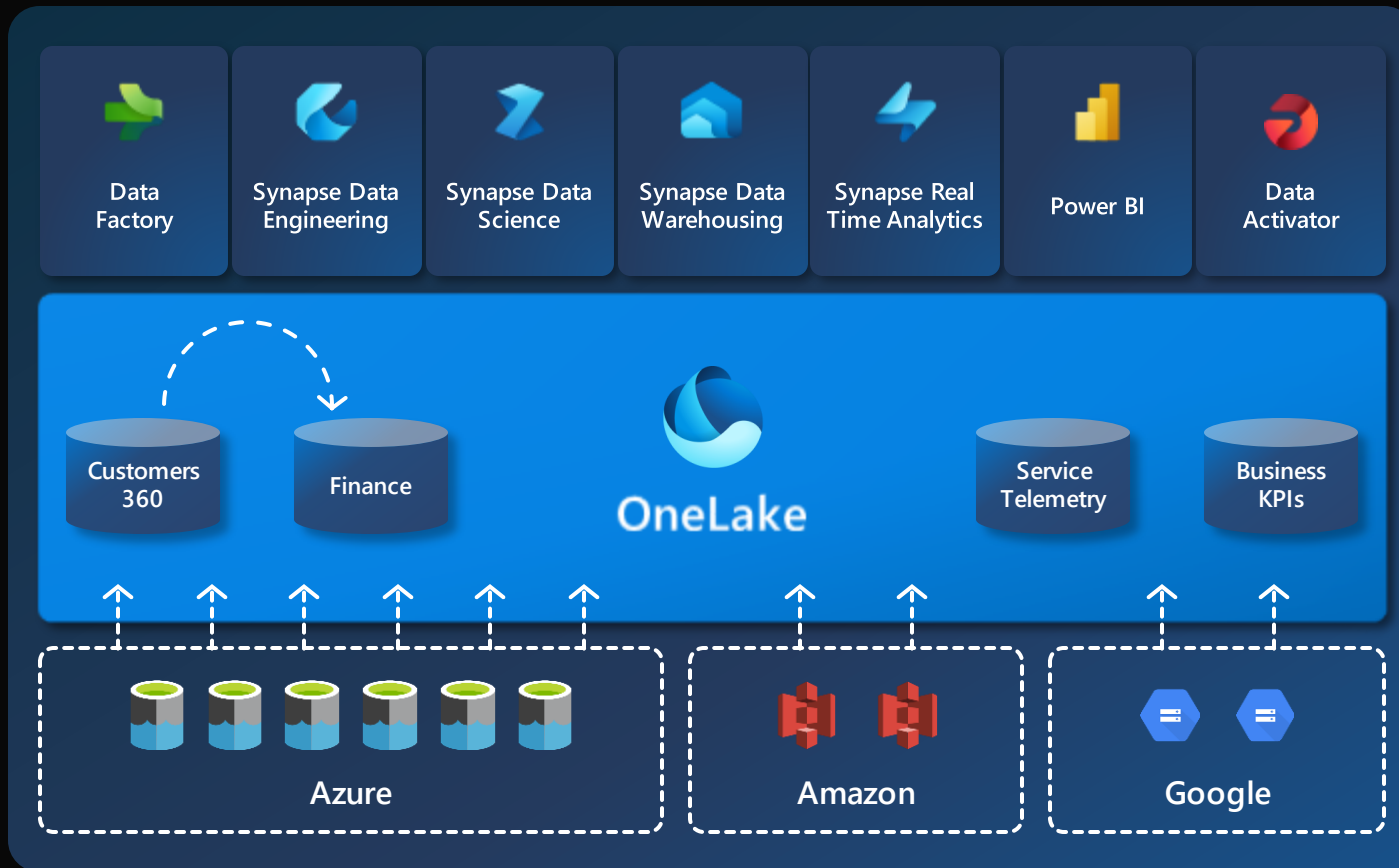
"Direct Lake Mode"

Perfect!



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

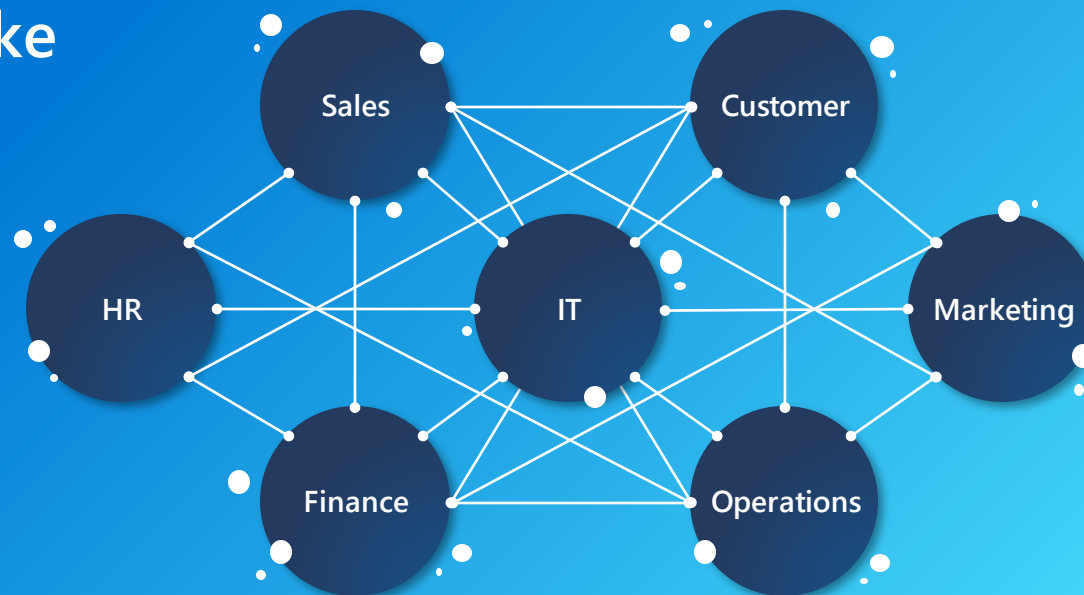
Shortcuts also allow instant linking of data already existing in Azure and in other clouds, without any data duplication and movement, making [OneLake the first multi-cloud data lake](#)

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

OneLake for all domains

A true **hub & spoke data mesh** across organizational data domains.

OneLake



Workspaces and artifacts for different data domains, contribute to building the same data lake.

Without data movement, data from different domains can be analyzed, blended and transformed together.

Data is secured and governed in one place while remaining easily discoverable and accessible to all who should have access across the organization.

Data can be certified by domain experts to enabling trust for data which is discovered.



Microsoft Fabric

The data platform for the era of AI

Complete Analytics Platform

Everything, unified

SaaS-ified

Secured and governed

Lake centric and open

OneLake

One Copy

Open at every tier

Empower Every Business User

Familiar and intuitive

Built into Microsoft 365

Insight to action

AI Powered

Copilot accelerated

ChatGPT on your data

AI driven insights



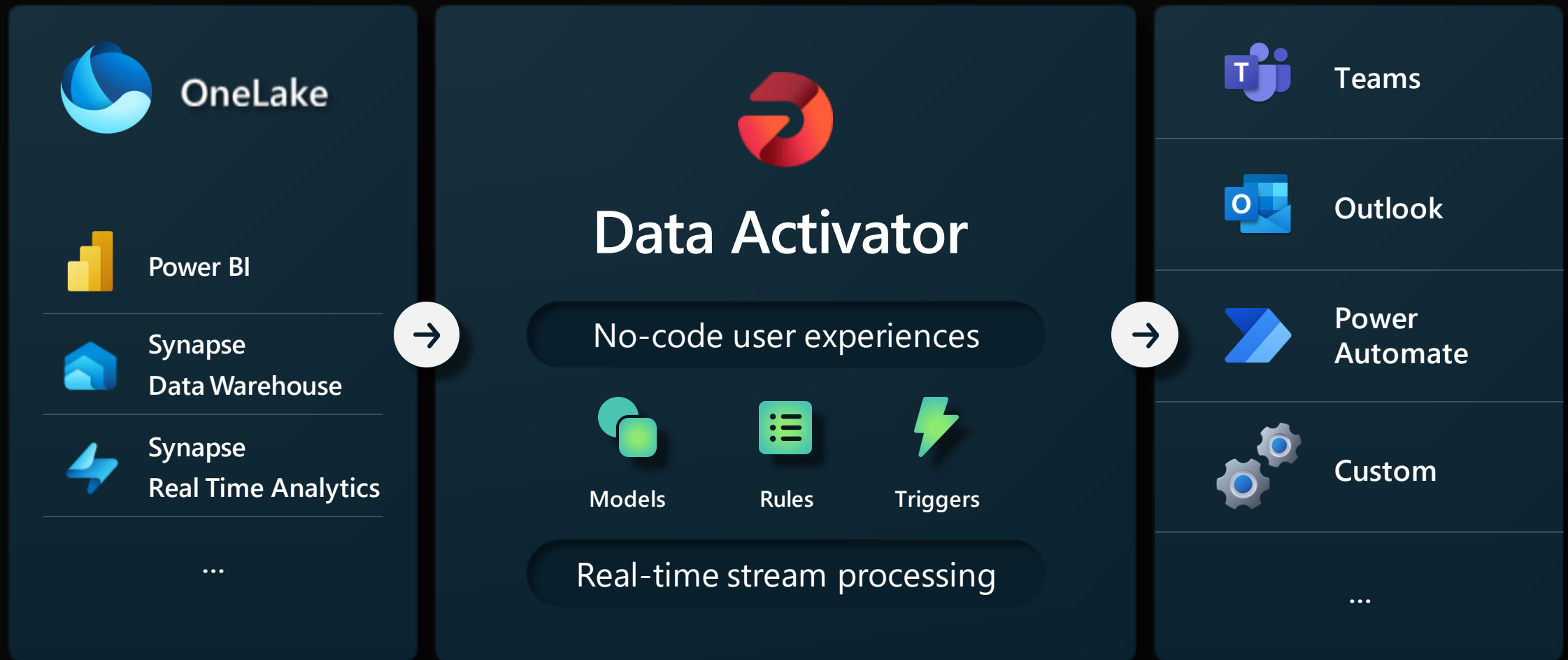
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Fabric includes:

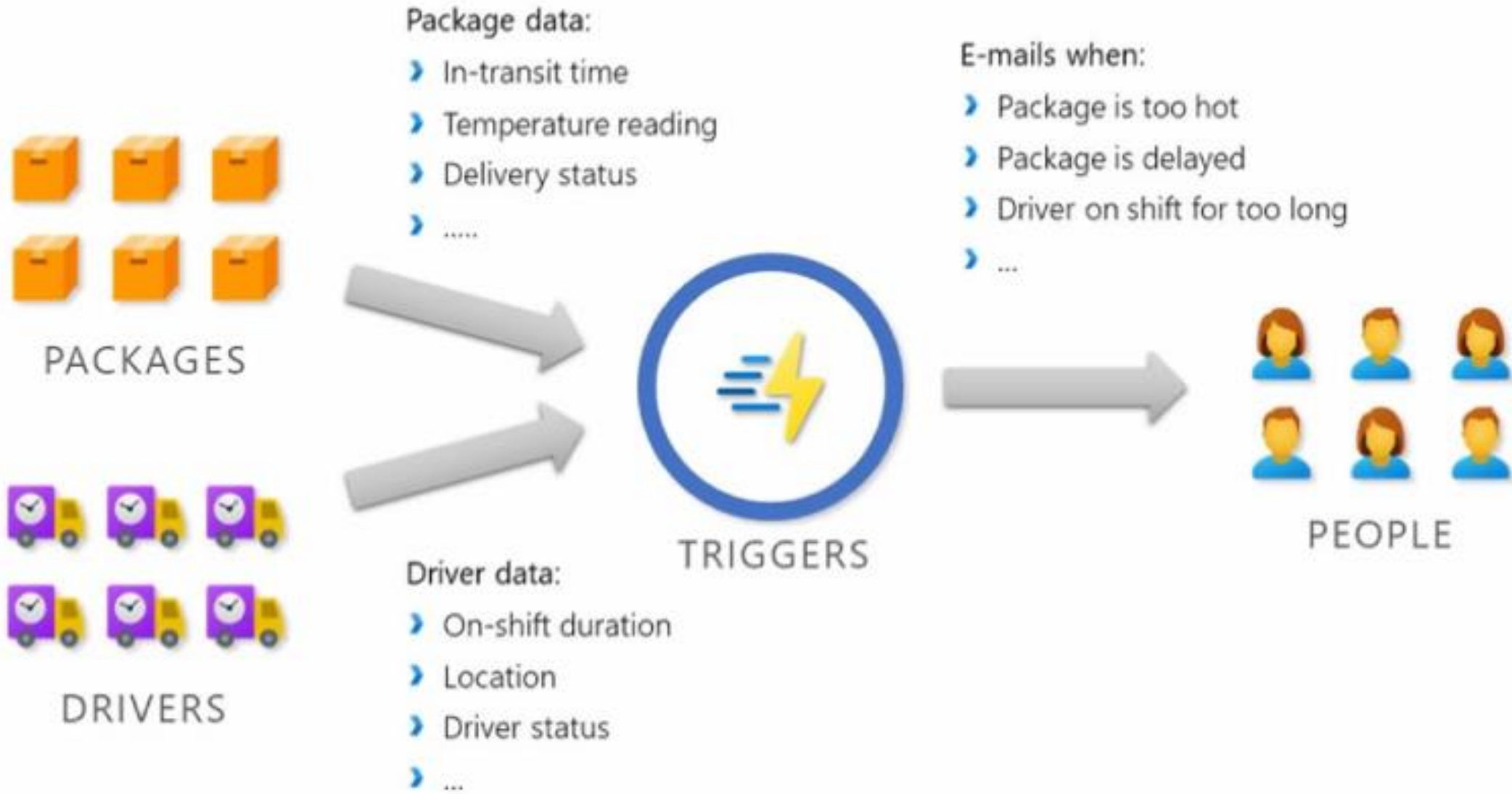


Data Activator

Introducing Data Activator



Demo scenario – delivery logistics





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Customer Profile

Property Visited: All
 Customer Source: All

Total Customers
 45,195

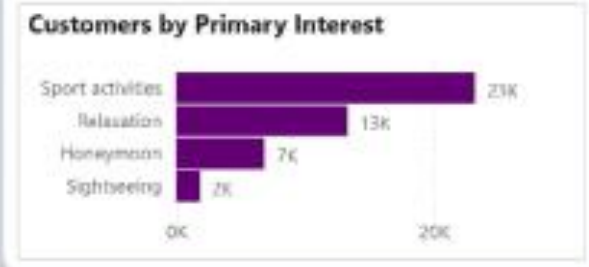
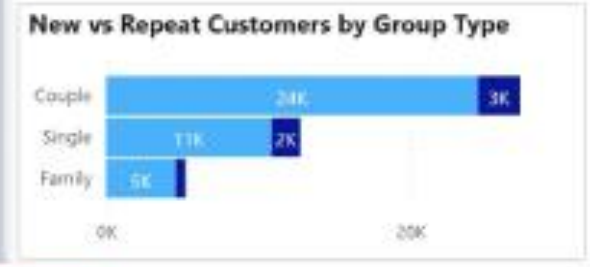
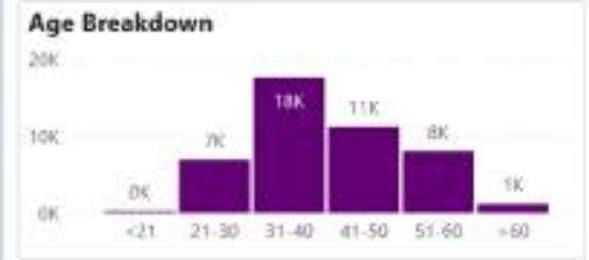
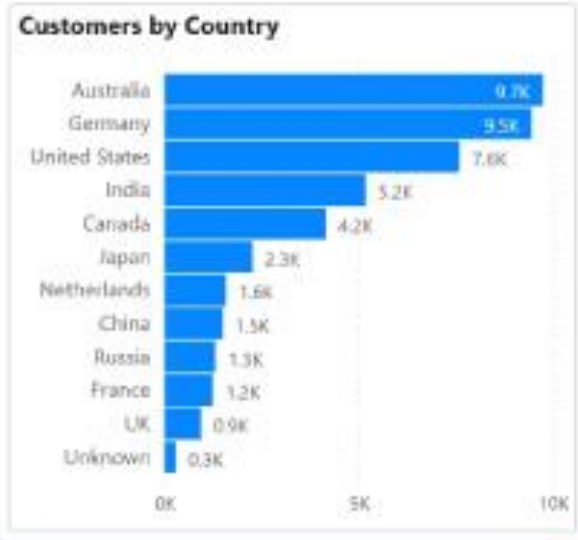
Return Rate
 11.7%

New Customers
 39,906

Repeat Customers
 5,289

Average Days Booked
 3.9

Average Customer Age
 56.0



Copilot Preview

Create a report with Copilot

Describe the report you want, in your own words, and Copilot will create it quickly.

Help me build a report summarizing the profile of customers who visited our resort properties in the last 12 months. I want it to include the following:

- Summary of new vs returning customers and their demographics
- Where customers visit from and how long they stayed
- Types of customers and why they visited

'Customer Profile' page added

Summarize data and insights from the report

Add another page to the report

Ask a question or request, or type '/' for suggestions

Common analytics scenarios addressed by Microsoft Fabric



Common Analytics Scenarios

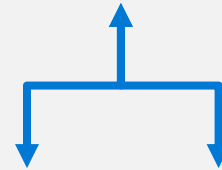
Lakehouse



Data Warehouse



Data Science



Real Time Analytics





Lakehouse

Data Source



Shortcut Enabled



Structured /
Unstructured



Ingestion



Shortcuts



Pipelines &
Dataflows



Store



Lakehouse(s)



Transform

Notebooks &
Dataflows



Expose



PBI



Lake Warehouse



Data Warehouse

Data Source



Shortcut Enabled



Structured /
Unstructured



Ingestion



Mounts



Pipelines &
Dataflows



Store



Data Warehouse



Transform

Procedures

Expose



PBI



Warehouse





Data Science

Data Source



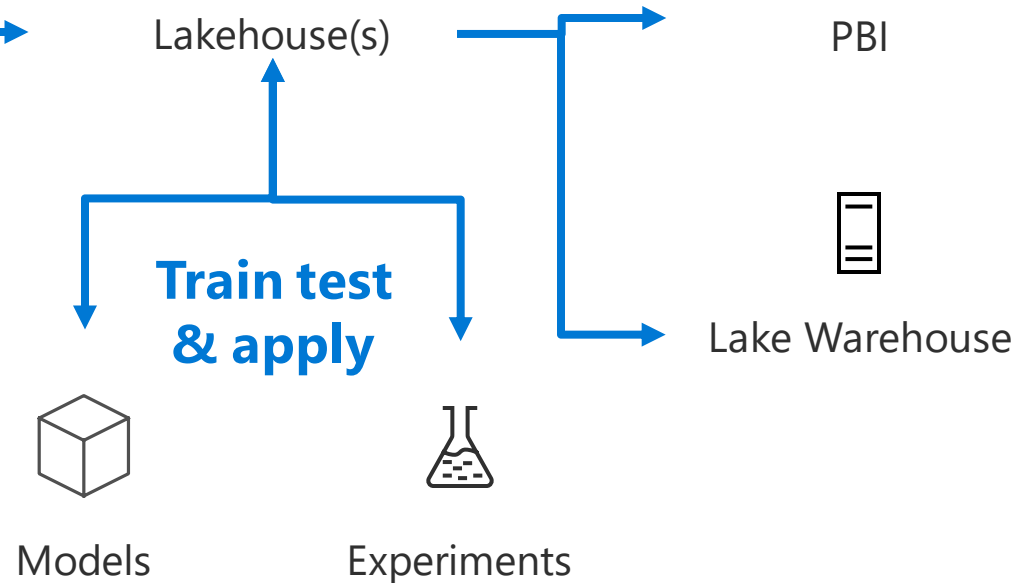
Clean & prepare



Store



Expose





The business value you
can expect

Get more done and accelerate time to insights with Copilot in Microsoft Fabric

- Turn your words into dataflows and data pipelines so you can intelligently integrate data from anywhere
- Get suggestions for code and entire functions in real-time
- Get a guided machine learning model creation experience to unlock more insights in your data.
- Create and tailor Power BI reports in seconds, generate DAX calculations, create narrative summaries, and ask questions about your data
- Even create your own conversational experiences that combine Azure Open AI models and your organization's data and publish as plug-ins.
- Most importantly, Microsoft Cloud runs on trust which means your data always remains your data



Future-proof your business by doing more with less



Flexible, transparent pricing model

Optimize cost management
and pricing

Ease of deployment and management

Spend less time with
maintenance, and more
time uncovering insights



Secure, self-service data and analytics

Enable teams to self-serve
data and analytics while
maintaining security and
compliance



Use cases and Customer stories

Reimagining healthcare with the Microsoft Fabric



HEALTHCARE

Data Challenges

- No comprehensive source for all aggregated data
- Securely providing care teams access to the data they need
- Slow time to insights

How Microsoft Fabric can help

- Leverage OneLake to aggregate all data into a single source of truth
- Empower health team collaboration through democratized insights
- Analyze massive amounts of data at an accelerated pace, using built-in security and governance policies

Key Outcomes

- Enable decision-making backed by data to reshape care and insights
- Improve the patient experience by creating an accessible, holistic view across healthcare professionals
- Deliver secure, real-time clinical and operational insights using Event Hub, IoT Hub, Kafta, and more

Reimagining public sector with Microsoft Fabric



PUBLIC SECTOR

Data Challenges

- Security and governance of sensitive data
- Cross-agency analytics work
- Deeper understanding of Public Health, utilities demand, and urban innovation

How Microsoft Fabric can help

- Store data in a single source of truth with built-in security and compliance
- Unify data across all government agencies in OneLake
- Collect real-time data from consumers and develop models to identify larger insights, forecast demand, and inform planning

Key Outcomes

- Maximize protection of critical data with conditional access policies, as well as object and row-level security
- Empower analysts to collaborate on data analysis to drive more collaborative, effective outcomes
- Improve agility by quickly collecting and assessing research and real-time data with analytics

Reimagining retail with Microsoft Fabric



Data Challenges

- Siloed, incomplete data with complex architecture
- Using data to personalize customer experiences
- Meeting data regulations in areas where your organization does business

How Microsoft Fabric can help

- Unify data from numerous sources such as purchase orders, inventory, and manufacturing all in a OneLake
- Gain a 360-degree view of all customers by collecting and analyzing site, digital, and smart store behavior
- Leverage built-in security and governance to help protect collected customer data

Key Outcomes

- Inform merchandising and supply chain strategy with real-time analysis and analytics
- Develop content, copy, and products tailored to your customers' specific tastes and interests
- Be rest assured that in-store and eCommerce transaction data is secure

Let's Engage for Deeper Value

Complimentary Offers for Customers

Business Outcome Strategy Workshop & Roadmap

Understanding the complexities and best practices to get you where you want to be. A complimentary 2-hour advisory session to assess your current state and provide the guidance you need.

Deeper Solution Session & Briefing

See what Veraqor can do for you! An hour-long envisioning workshop explores the impact of digital transformation and innovation to help customers with vision-setting, strategy, roadmaps, and organizational alignment.

Architectural Design Sessions

This custom 2-hour session focuses on your technical solution objectives and aligns them with specific components of solutions to help you not only meet your goals but also capitalize on them.

Industry Best Practices, Tools & Frameworks

This custom 1-hour session focuses on guidance of best practices working directly with our specialized architects on innovative new capabilities and well-architected framework.

Cloud Scale Analytics with MS Fabric – Solution Briefing

Discover how we can accelerate your business with our Microsoft Fabric solution, a cutting-edge platform that seamlessly integrates with Azure. Drive efficiency, scalability, and innovation with our comprehensive offering designed to optimize your operations and elevate your digital transformation journey.

Business Outcomes



Strategic Alignment Gain a strategic understanding of how Microsoft Fabric aligns with your business goals, ensuring clarity on its role in your digital transformation journey.



Operational Efficiency Boost: Discover how Microsoft Fabric enhances operational efficiency, fostering agile processes and scalable solutions to meet dynamic business needs.



Seamless Integration Insight Understand the seamless integration of Microsoft Fabric with Azure services, unlocking a powerful combination for streamlined and efficient operations.

Investment
\$FREE
Duration 1 Hr.

What you can expect

1 Agenda

- Introduction (10 mins):** Overview of Microsoft Fabric and its significance in modernizing business operations.
- Key Features and Benefits (15 mins):** Dive into the core features that differentiate Microsoft Fabric and the tangible benefits for your organization.
- Live Demo (20 mins):** Showcase the platform in action, highlighting its ease of use and real-world applications.
- Customer Success Stories (10 mins):** Share compelling case studies that demonstrate the positive impact of Microsoft Fabric on businesses.
- Custom strategy discussion (15 mins):** Discussion of your organization's strategy and how Fabric eases this roadmap
- Q&A and Next Steps (10 mins):** discussing the next steps for implementing Microsoft Fabric in your environments.

2 Briefing areas:

- Architecture and Technology Stack:** Provide an in-depth understanding of the underlying architecture and technology stack of Microsoft Fabric.
- Security and Compliance:** Highlight the robust security measures in place and how Microsoft Fabric ensures compliance with industry standards.
- Scalability and Performance:** Showcase the platform's ability to scale horizontally and vertically while maintaining optimal performance.
- Implementation and Onboarding:** Guide users through the implementation process, emphasizing a smooth onboarding experience.
- Support and Training:** Detail the support and training options available to users, ensuring a successful and sustainable deployment.

This session is led by seasoned experts specializing in Azure and Microsoft Fabric, guaranteeing a thorough exploration of insights and hands-on expertise. Seize the chance to acquire an in-depth comprehension of Microsoft Fabric and its applicative potential for your applications and services. Whether you're a newcomer to Fabric or aiming to enhance your current understanding, this workshop is tailored to cater to your specific requirements.

Up to 1 Hour

Why Veraqor?

Innovative engagement with Microsoft Certified Professionals that add values into your business

- Playbook Automation
- Speedy Delivery
- Future envisioning with AI/ML
- Agile Delivery

Cloud Scale Analytics with MS Fabric Assessment

Crafted for organizations aiming to refine their operational landscape, this fabric assessment extends a thorough examination of your data infrastructure. Unlock insights and recommendations to seamlessly transition into cloud-scale analytics with Microsoft Fabric. Elevate your analytics capabilities, ensuring a sophisticated, efficient, and data-driven approach to meet evolving business demands.

Customer profile

This offering is tailored for large enterprises and IT decision-makers seeking a comprehensive assessment to optimize data infrastructure and leverage cloud-scale analytics with Microsoft Fabric for strategic decision-making and operational efficiency.

Investment
\$12,000
Duration:
3 Weeks

Scope & approach



Week 1: Discovery

- **Understand Goals and Requirements:**
 - Define organizational goals and document existing regulatory scenarios.
- **Azure Environment Examination:**
 - Evaluate the current Azure environment and infrastructure.
- **Formulate Assessment Plan:**
 - Collaboratively develop a tailored assessment plan.
 - We'll collaboratively pick up 1-2 use cases



Week 1 -2: Data Platform, Data Model, Cost, and ROI Assessment

- **Assess Data Platform Maturity:**
 - Evaluate the maturity of the existing data platform.
- **Evaluate Data Model Maturity:**
 - Analyze the maturity of the data model.
- **Identify Risks, Challenges, and Gaps:**
 - Conduct a thorough analysis to identify key risks, challenges, and potential gaps.
- **Calculate Cost & ROI:**
 - Perform a high-level cost and ROI analysis.

Week 3: Recommendations and Key Takeaways

- **Generate Maturity Report:**
 - Develop a report describing the maturity of the data platform and data model.
- **Detailed Assessment Report:**
 - Produce a comprehensive assessment report.
- **ROI and Costing Report:**
 - Deliver a high-level ROI and costing report.
- **Actionable Recommendations:**
 - Provide actionable recommendations for improvement.

Deliverables



1.Scope Document: Defines assessment scope, goals, and timeline.

2.Insights Compilation: Comprehensive document summarizing findings and strategic recommendations.

3.Platform Maturity Analysis: In-depth report on the current state of the data platform.

4.Strategic Assessment Report: Detailed document providing insights and actionable recommendations.

5.Financial Impact Analysis: High-level report on financial implications, ROI, and costing.

6.Results Presentation: Clear presentation summarizing key outcomes and recommendations.

- Optional outcomes
 - Pilot workload deployment



Partner profile: Veraqor is a Microsoft Gold Partner with 10+ years of experience of market-leading capabilities in Cloud, Data and AI.

Cloud Scale Analytics with MS Fabric Proof of Concept (POC)

Revolutionize your analytics infrastructure through our Microsoft Fabric Proof of Concept (POC) for unparalleled cloud-scale operations. This POC meticulously integrates Microsoft Fabric, delivering a highly scalable analytics platform that optimizes performance for in-depth insights and ensures an intuitive user experience. Our solution is meticulously designed to meet the diverse needs of your organization, providing a robust foundation for advanced data processing and analytics.

Customer profile

Tailored for forward-thinking enterprises and small to medium-sized businesses (SMBs) aspiring to elevate their analytics capabilities. Ideal for organizations seeking to harness the power of cloud-scale operations with MS Fabric.

Investment
\$20,000
Duration:
3 - 4 Weeks

Scope



Infrastructure Setup:

- Deployment of Microsoft Fabric on Azure infrastructure.
- Configuration of necessary networking components, including Virtual Networks, Subnets, and Security Groups.



Data Integration:

- Seamless integration with One Lake Storage and Azure SQL Database.
- Implementation of data pipelines for smooth data ingestion.

Scalable Processing:

- Leveraging Microsoft Fabric's distributed computing capabilities for efficient parallel data processing.
- Optimization for scalability and performance without delving into complex machine learning models.

Advanced Analytics:

- Implementation of fundamental analytics algorithms to extract valuable insights from the data.
- Utilizing standard statistical methods for analysis.

Visualization and Reporting:

- Development of a user-friendly dashboard using Power BI for real-time visualization of analytics results.
- Configuration of automated reporting mechanisms for stakeholders.



- One Business Use Case (one to two fact tables / 3 – 5 Dimension)
- One Dashboards / Two Reports
- ~5 KPIs

Comprehensive Approach



Approach:

Discovery Phase:

- Collaborative sessions to understand your business requirements and analytics goals.
- Assessment of existing data sources and formats.

Design and Architecture:

- Designing a scalable architecture based on Microsoft Fabric and Azure services.
- Defining data models and relationships.

Development:

- Implementing infrastructure setup and data integration components.
- Developing scalable data processing modules using Microsoft Fabric.

Testing:

- Rigorous testing of data pipelines, processing algorithms, and analytics modules.
- Performance testing for scalability and reliability.



Deployment and Optimization:

- Deploying the solution on Azure and ensuring seamless integration.
- Fine-tuning for optimal performance and resource utilization.

Stakeholders:

- Executive Sponsor
- Business Unit Leads
- Technology Leads

Deliverables



Technical Documentation:

- Comprehensive documentation covering architecture, data models, and deployment procedures.

Working POC Environment:

- Fully functional cloud-scale analytics platform leveraging Microsoft FABRIC.

Training:

- Training sessions for your team on managing and operating the implemented solution.

Support and Optimization Recommendations:

- Ongoing support for a defined period after deployment.
- Recommendations for optimizing and scaling the solution based on usage patterns.

Roadmap for full implementation:

- Formulate a comprehensive plan for seamlessly incorporating Microsoft Fabric into your data and AI infrastructure

Partner profile: Veraqor is a Microsoft Gold Partner with 10+ years of experience of market-leading capabilities in Cloud, Data and AI.

Cloud Scale Analytics with MS Fabric Implementation

Enhance the efficiency and sustainability of your infrastructure projects with our integrated data and analytics solutions built on Microsoft Fabric. From data integration to real-time analytics, we offer a comprehensive suite of services tailored for the unique needs of infrastructure builders

Business Outcomes

- Improved project visibility and decision-making through real-time analytics.
- Enhanced resource allocation and project scheduling with predictive analytics.
- Efficient data workflows for streamlined collaboration across departments.

Investment
\$60,000
15- 20 Weeks

Scope



Data Integration:

- Connect and integrate data from various sources, including IoT devices, sensors, and project management systems.
- Ensure seamless data flow across departments for a unified view of project information.



Data Engineering:

- Design and implement scalable data pipelines to process, transform, and store large volumes of project-related data.
- Optimize data workflows for performance and reliability.

Data Warehousing:

- Establish a centralized data warehouse for storing and analyzing historical and real-time project data.
- Enable efficient reporting and analytics with a structured and organized data repository.

Real-Time Analytics:

- Implement real-time analytics solutions to monitor project progress, resource utilization, and key performance indicators.
- Provide instant insights for better decision-making during the construction and maintenance phases.

Data Science:

- Apply advanced analytics and machine learning models to predict and mitigate potential risks in infrastructure projects.



Business Intelligence:

- Develop interactive dashboards and reports
- Empower decision-makers with actionable insights derived from project data.

Comprehensive Approach



Approach:

- **Requirements Analysis:**
 - Collaborate with stakeholders to understand specific data needs and project goals.
 - Identify key data sources and integration points.
- **Solution Design:**
 - Design a scalable and tailored data architecture aligned with project requirements.
 - Develop a roadmap for implementing data and analytics solutions.
- **Implementation and Integration:**
 - Deploy and configure Azure services for data integration, engineering, warehousing, and analytics.
 - Ensure seamless integration with existing systems and data sources.
- **Training and Knowledge Transfer:**
 - Provide training sessions to enable your teams to effectively use and manage the implemented data solutions.
 - Transfer knowledge for ongoing support and maintenance.



Stakeholders:

- Executive Sponsor
- Business Unit Leads
- Technology Leads

Deliverables



1. **Integrated Data and Analytics Architecture**
2. **Deployed and Configured Azure Services**
3. **Data Integration Workflows**
4. **Centralized Data Warehouse**
5. **Real-Time Analytics Solutions**
6. **Business Intelligence Dashboards and Reports**
7. **Training Materials and Documentation**

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Thank you