



A Women Owned/Women Led Company

Spyglass Presents: Fabric Solutions in 30 Days (FAi30)



Infrastructure Azure
Data & AI Azure
Digital & App Innovation Azure
Modern Work
Security

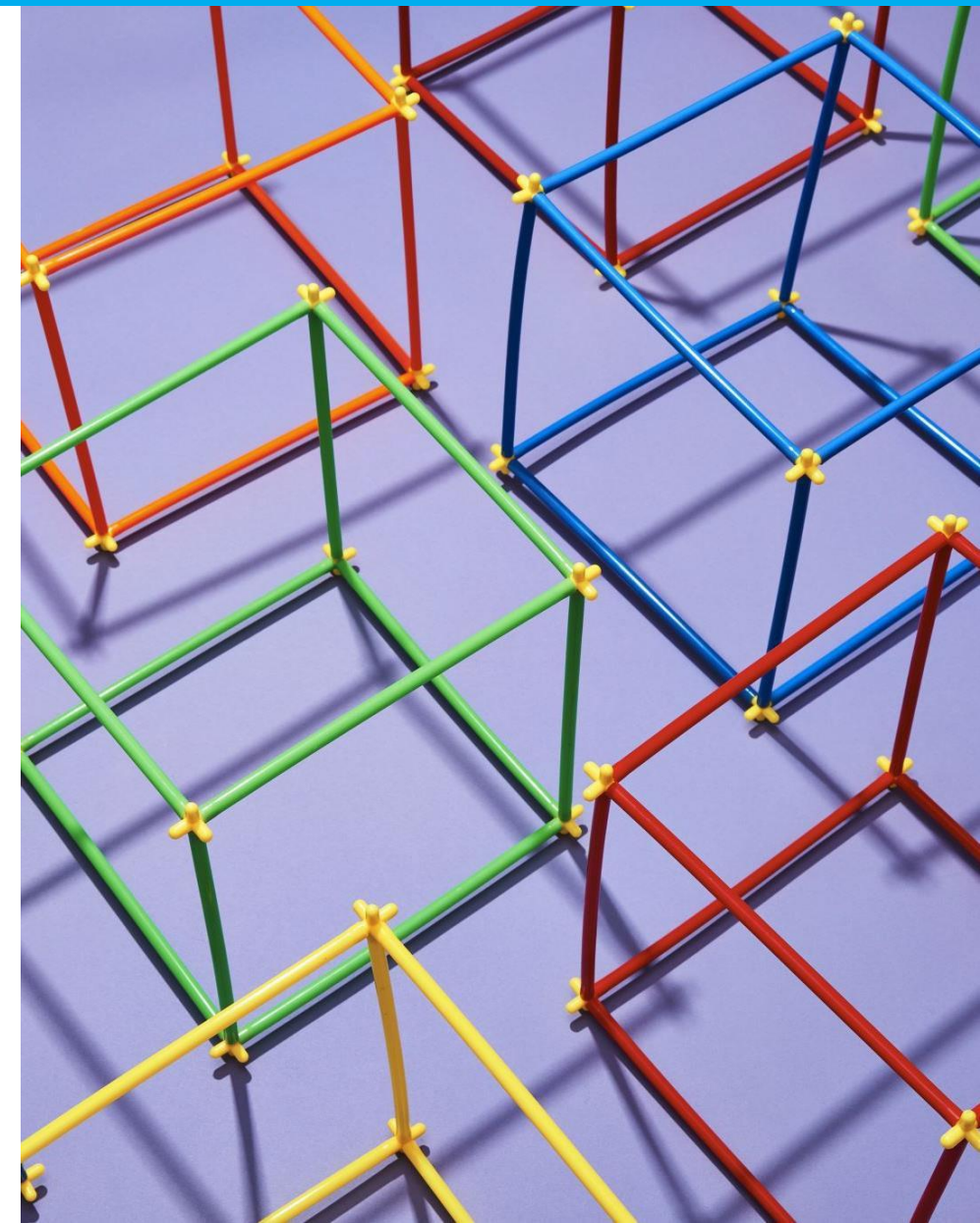
Spyglass's Fabric Solution in 30 Days (FAi30)

- **What is FAi30?**

- Fabric Solution in FAi30 is designed to help you create a Fabric Solution in Azure quickly and efficiently.
- With defined engineering approaches to support the Fabric “Lakehouse” or “Warehouse” sewing data together is quick and easy
- With dozens of prebuilt templates, adoption guidance, governance standards and development standards; your solution will be up and running before you know it

- **FAi30 will allow your business to:**

- Integrate multiple data sources to create a Lakehouse and/or Warehouse that supports your business initiatives
- Quickly integrate intelligent apps, backed by Azure's prebuilt AI capabilities into Fabric
- Gain a complete understanding of Fabric, its capabilities and best practices
- Establish an MVP governance and adoption framework to enable self-service analytics



Spyglass' Fabric for Education in 30 Days

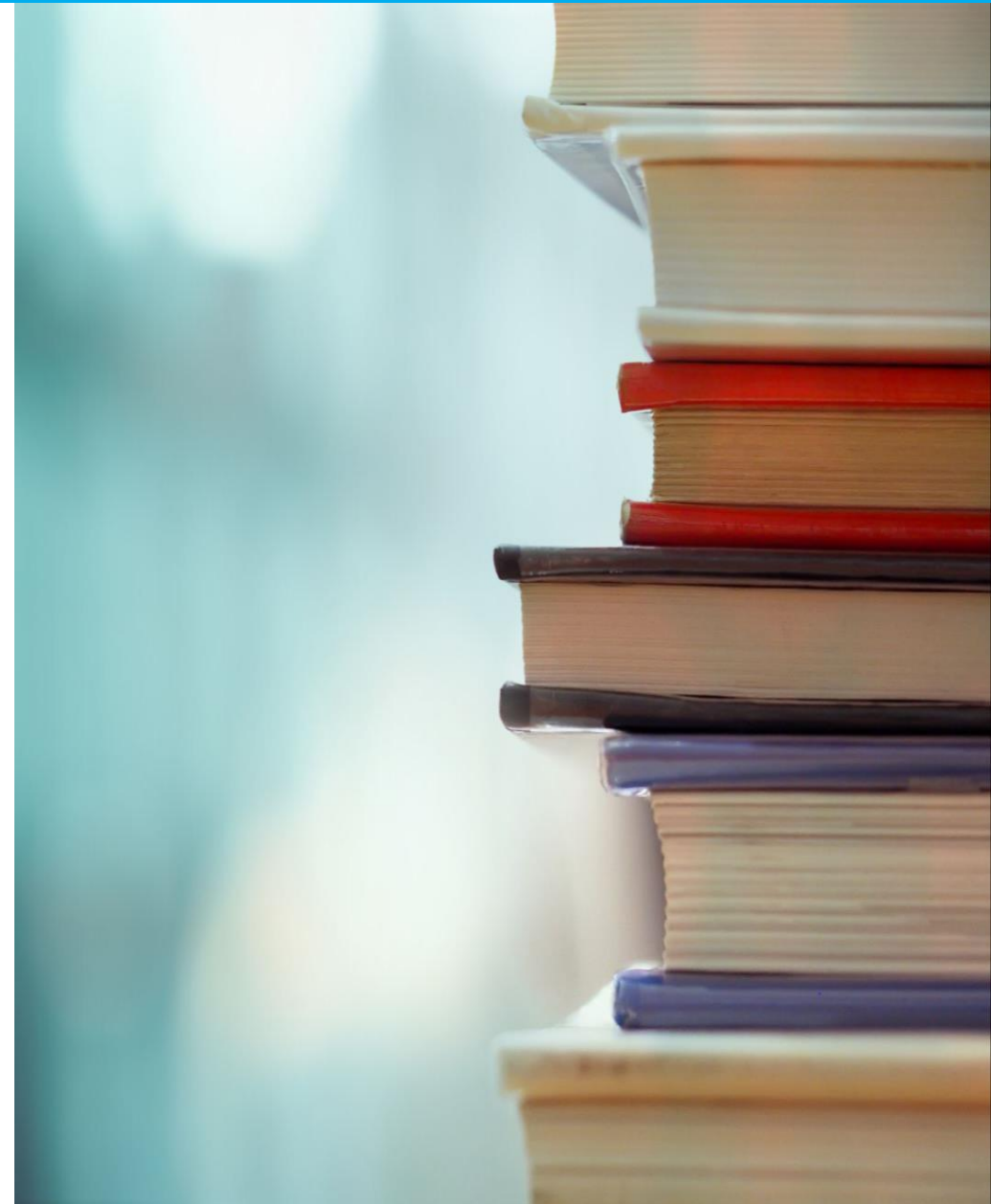
(FAi30 for EDU)

- **The problem?**

- As a data solutions provider, we understand the challenges to meet the needs of accreditation, understand student and instructor engagement patterns, analyze student retention and attrition, or simply report student progress towards a program. Oftentimes the struggle is driven by the lack of availability, understanding, and/or access to capabilities which help solve these use-cases.

- **What is FAi30 for EDU?**

- Spyglass' Fabric for Education uses our proven approach for implementing a Fabric data solution quickly and refines it specifically for Education (EDU).
- We leverage the practices, lessons learned, solution accelerators and techniques we apply for enterprise customers and focus on building data and AI solutions within an EDU ecosystem. Through collaboration with Microsoft and other Education systems we aim to implement a framework for Data Standards, Responsible Data and AI practices, and common EDU use cases.



FAi3o for EDU Use Cases

- Data Consolidation and Management
 - **Student Information Systems:** Centralize student records from admissions to graduation, facilitating better tracking of academic progress.
 - **Research Data Repository:** Create a unified data repository for research projects, making it easier to manage, share, and collaborate on academic research.
 - **Alumni Engagement:** Merge alumni contact information, donation records, and event participation to enhance engagement strategies.
- Advanced Analytics and Business Intelligence
 - **Enrollment Analytics:** Analyze application trends and enrollment data to optimize recruitment strategies.
 - **Course Success Metrics:** Evaluate course completion rates and student feedback to improve curriculum design.
 - **Resource Allocation:** Use predictive analytics to optimize budgeting for campus resources and services.
- Intelligent Application Development
 - **Personalized Learning Platforms:** Develop apps that adapt learning content to individual student's progress and performance.
 - **Campus Navigation Apps:** Integrate AI to provide real-time campus guidance and information services for students and visitors.
 - **Automated Administrative Services:** Create AI-powered chatbots to assist with student inquiries and administrative tasks.
- Data Democratization
 - **Student Performance:** Universities can enable faculty and administrative staff to access and analyze student performance data, enrollment trends, and research outputs to improve educational offerings and institutional management.
 - **Faculty Research Access:** Enable faculty to access and analyze institutional data for grant writing and research purposes.
 - **Student Access to Learning Analytics:** Provide students with insights into their learning habits and academic performance.
 - **Administrative Decision-Making:** Empower administrative staff to utilize data in operational decision-making processes.
- Scalable Data Architectures
 - **Online Learning Platforms:** Scale online course offerings to accommodate remote learning needs for a growing student population.
 - **Library Digital Archives:** Expand digital archives with scalable storage solutions for historical documents and multimedia resources.
 - **Campus Security Systems:** Enhance campus safety with scalable security systems that can adapt to growing campus footprints.

Spyglass FAi3o Approach

1. Strategy & Plan: Governance, Analytics and Architecture Workshops

- Identify the who, what, when, and why including inventory review.
- Envision the role of Fabric solutions in your organization
- Identification of Advanced Analytical Scenarios
- Analyze the customer data estate, infrastructure, applications, workloads, and data scenarios to scope the transition requirement
- Analyze the compliance, security, and governance implications of Fabric

2. Ready & Govern: Implement Fabric Governance & Security

- Implement the MVP Fabric framework for data governance
- Implement the MVP security framework for workspace and data asset management
- Establish connectivity for the data solution

3. Design & Innovate: Model the data (decide how the data you need and create will be organized, accessed, and stored) and sketch out the app or report screens.

- Design your Fabric data solution to host your data
- Design new Business Intelligence insights
- Design ongoing Fabric and data governance
- Review additional scenarios and develop roadmap to an optimized environment based on business goals
- Build and Implement the Fabric solution

4. Transition: Get your solution into the hands of users, get feedback, and decide what to change or add.

- Training and hand-off throughout the project lifecycle





FAi3o Toolkit

- Governance First Adoption Framework
- Solution Design Template
- Planning and Delivery Checklists
- Documented Development Practices
- Documented Architecture Design Patterns
- Capacity Assessment and Planning Tools
- Security and Compliance Checklists
- Performance Management Checklist
- Experienced Deployment Engineers
- Fabric Solution Delivery Templates

Next Steps



Scoping Session to understand client's data landscape



Process paperwork



Start building solution!

Spyglass FSi30 Benefits

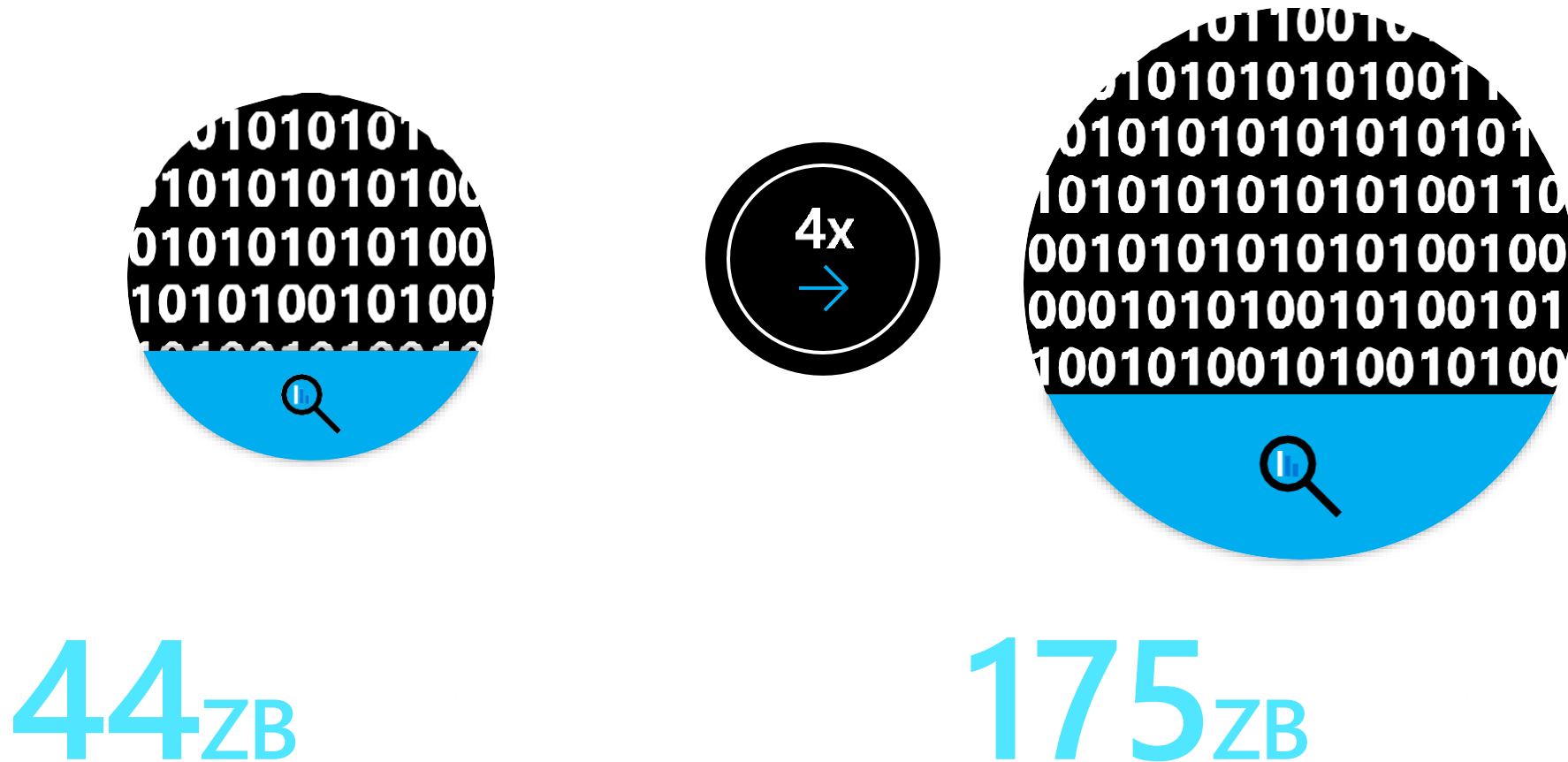
- Spyglass FAi30 provides the following benefits:
 - **Governance** – establish a governance framework the right way; before it gets out of hand!
 - **Time to Market** – faster and more accurate insights and predictions 2-10x faster development ROI
 - **Flexibility** – Works with your current data sources to get the most from existing investments and grows with your business
 - **Repeatability** – Spyglass's proven methodology and templates provides repeatable process and accelerators to speed the development of your solution

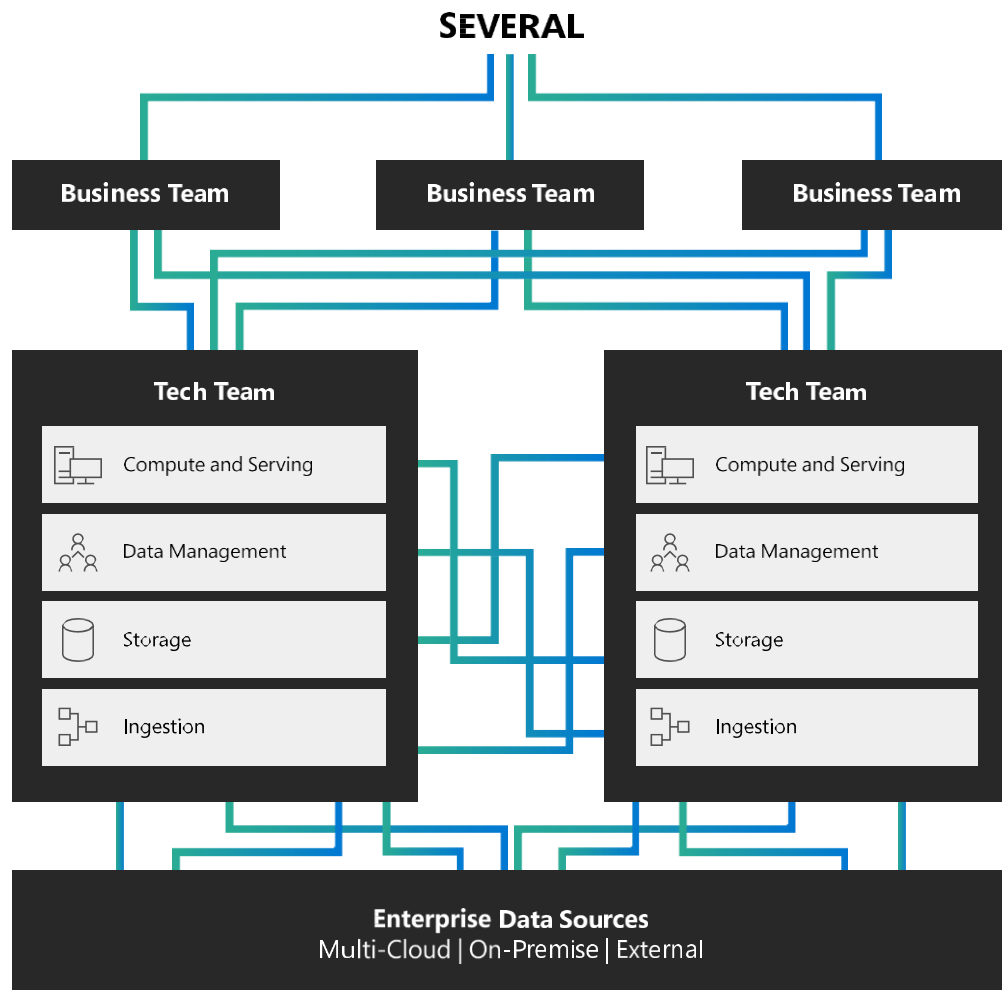




Thank You

While data grows 400%, less than 30% gets analyzed





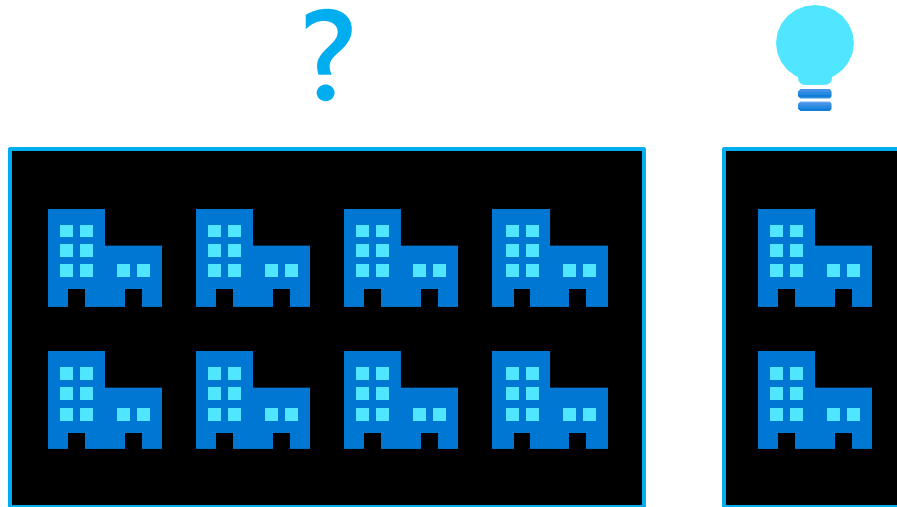
An organically evolved data estate?

The most common challenge in enterprise data estates is that data has organically evolved. Companies have data estates with a ton of data and infrastructure redundancy. There are often multiple teams operating silos of data that are not truly connected. The platforms required to transform data into actionable insights are inherently very technical and fragmented. Usually, teams of engineers and developers are needed to deploy and manage these platforms. Organizations have many siloed cloud or

on-premises data sources from different vendors in different formats that hold critical information. It is very difficult to find deep and accurate insights without a single source of truth. Stitching together the unique analytics tools organizations need is complicated. Costs associated with procuring and managing these capabilities can be exorbitant. And there is a significant risk associated with the lack of governance.

- **Every analytics project has many subsystems**
- **Every subsystem needs a different class of product**
- **Products often come from multiple vendors**
- **Integration across products is complex, fragile and expensive**

Analytics & AI is the #1 investment for business leaders, however they struggle to maximize ROI



80%



55%

More analytics solutions lead to more silos



Data

Structured
Unstructured
Streaming
Big data
Cloud
On-premises
IoT/edge



Technologies

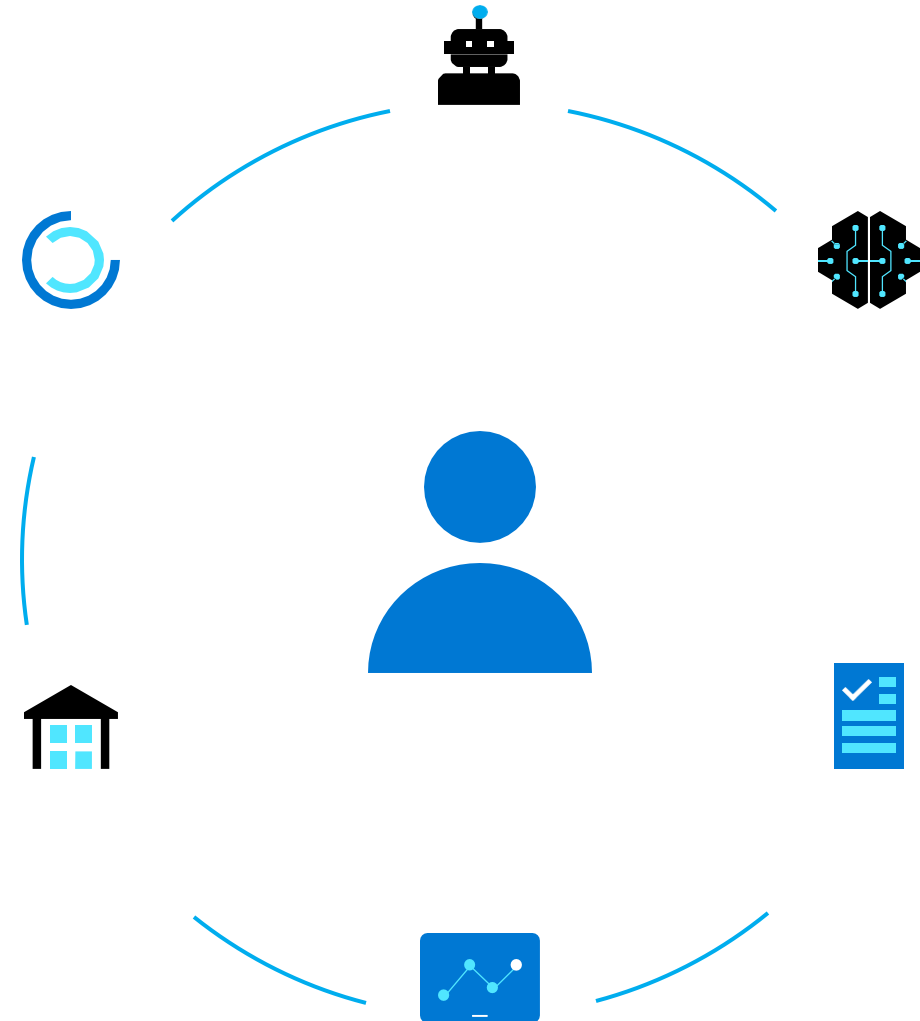
Map Reduce
Open source projects
Data mart
Data warehouse
Data lake
Spreadsheets
RDMS
Data visualization tools
ML models
AI services



Skills

SQL
Python
Java
R
Industry Schemas
Data modeling
Data cleaning
Data integrations

Analytics should seamlessly be part of the way users work—rather than a factor for creating more siloes



Microsoft Fabric

**Analytics Platform as a Service
with unmatched time to insight**

Data Mesh, Data Fabric, Data Hub

There are three data estate architectures and concepts that organizations are applying to the modernization of their data estate. The data mesh, data fabric, and data hub.

Data Mesh

A series of domains assigned to individual LOBs that enables access to the data they need with maximum autonomy by upholding the four principles of a data mesh.

Data Fabric

A system for automating data management tasks, such as unifying and cleaning disparate sources as well as authorizing data access, that helps a business make the most of its existing data sources without needing to migrate them.

Data Hub

An open and governed lakehouse platform that provides the storage foundation for serving data to multiple domains efficiently, so domain users can easily consume it.

Data Landing Zones

Data landing zone architecture illustrates the layers, their resource groups, and services each resource group contains. The architecture also provides an overview of all groups and roles associated with your data landing zone, plus the extent of their access to your control and data planes.

Data Management

The data management landing zone is a management function and is central to cloud-scale analytics. It's responsible for the governance of your analytics platform.

Data Integration

Each data landing zone has several layers that enable agility for the service data integrations and data products it contains. You can deploy a new data landing zone with a standard set of services that let the data landing zone begin ingesting and analyzing data.

Data Products

Data products are data served as product and computed, saved, and served by polyglot persistence services, which can be required by certain use cases. The process of creating and serving a data product can require services and technologies that aren't included in the data landing zone core services.

Next Gen: Microsoft Fabric

A unified analytics solution for the era of AI

Enabling the art of the possible, exceeding customer expectations, and delivering transformative business value just got easier with the introduction of Microsoft Fabric.

Microsoft Fabric brings together **the best parts of data mesh, data fabric, and data hub** to provide **a one-stop-shop for data integration, data engineering, real-time analytics, data science, and business intelligence** needs without compromising the privacy and security of your data. By joining top companies using Microsoft Fabric, you will enable teams to experience an end-to-end, highly integrated, single solution that is easy to understand, onboard, create, and operate.

With this new solution, you will establish a **unified source of truth** by bringing together all analytics workloads in a lake-first foundation. Teams will also be able to reduce the time and effort it takes to uncover impactful insights through **democratized access** to data. And this can be done confidently through a secure, **governed solution**.



Data Integration

This solution offers comprehensive data migration and integration to enable a lake-first pattern. Azure Data Factory connectors enable data integration, while Azure SynapseLink connectors enable “no code” and “always synchronized” data integration for operational databases.



OneLake

All data is ingested into a data lake on Azure Data Storage Gen— a cost- and performance-optimized data lake storage service— for the most demanding business intelligence, machine learning, and artificial intelligence workloads.



Analytics

Data scientists can bring their preferred compute frameworks, languages, runtimes, and tools into the data lakehouse and further enhance the data through feature engineering and statistical techniques.



Business Intelligence

Best-in-class integrated solutions to responsibly democratize business intelligence with self-serve tools and experiences for data analysts and data citizens.



Governance

Microsoft Purview then provides a single pane governance solution to help effectively scan and manage your data estate—even as it grows and scales.

A unified SaaS-based solution that stores all organizational data where analytics workloads operate

Microsoft Fabric combines Data Factory, Synapse Analytics, Data Explorer, and Power BI into a single, unified experience, on the cloud. The open and governed data lakehouse foundation is a cost- effective and performance-optimized fabric for business intelligence, machine learning, and AI workloads at any scale.

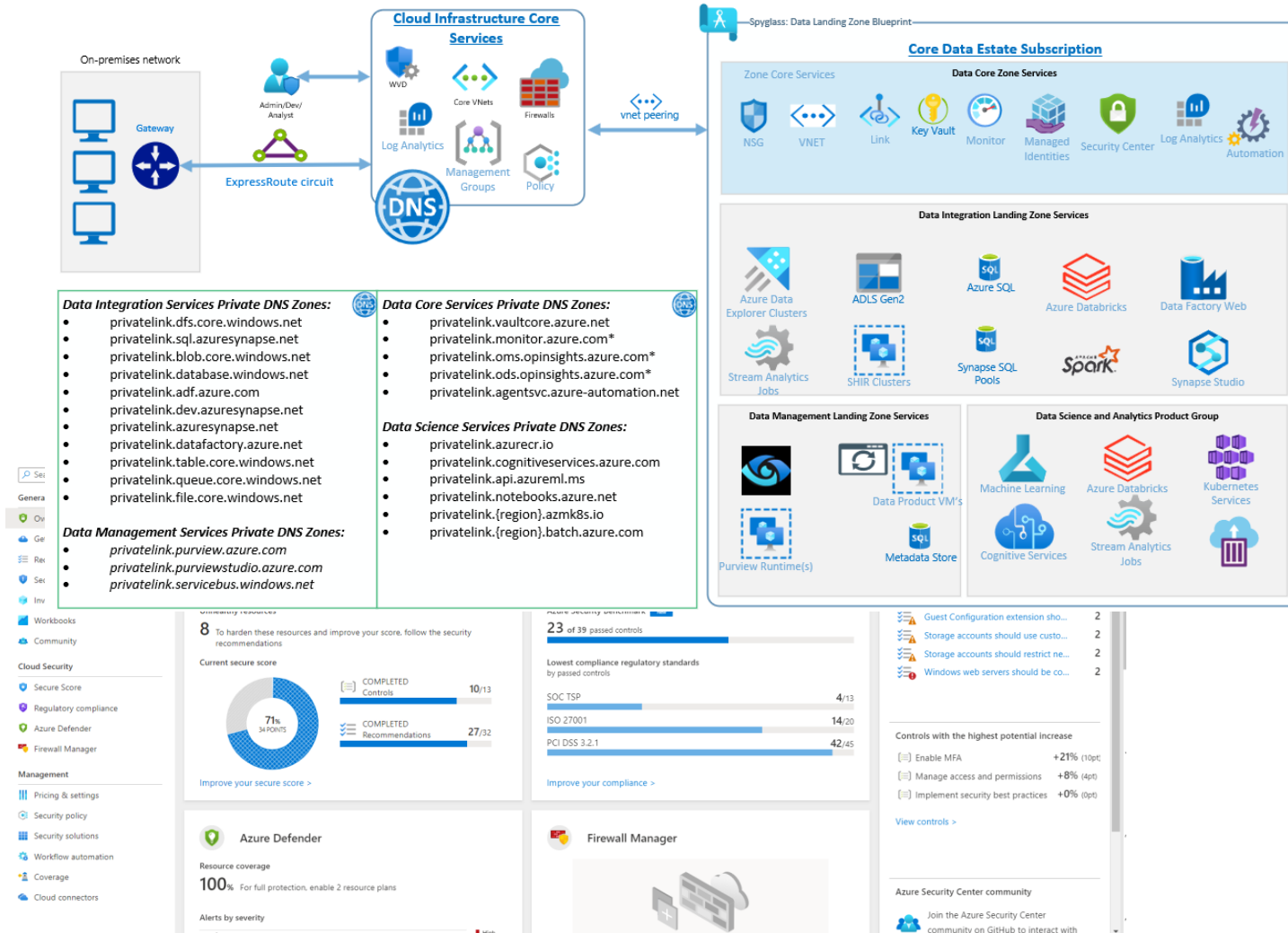
It is the foundation for migrating and modernizing existing analytics solutions, whether this be data dataliances or traditional data warehouses.

By establishing connectivity and integration, organizations can transform their unstructured and siloed data into a valuable strategic asset through:

- Data modernization backed by the Microsoft Azure Cloud
- Cloud native applications at any scale
- Responsible, powerful AI to make more informed decision-making
- Analytics and insights at a faster rate
- Responsible machine learning and artificial intelligence
- Governance backed by Microsoft Purview



Fabric is the SaaS Data Landing Zone



Layer

Core services

SaaS Fabric Capacity

- Network
- Monitoring
- Shared integration runtimes
- CI/CD Agents
- Security Agents

Core Data services

- Metastore for Data Services
- Data Lake Services
- Data Storage
- Integration runtimes
- Apache Spark
- Synapse Analytics

Data Applications

- Machine Learning
- Open AI
- Cognitive Services
- Data Share
- Stream Analytics

Visualization

- Power BI
- Data Flows

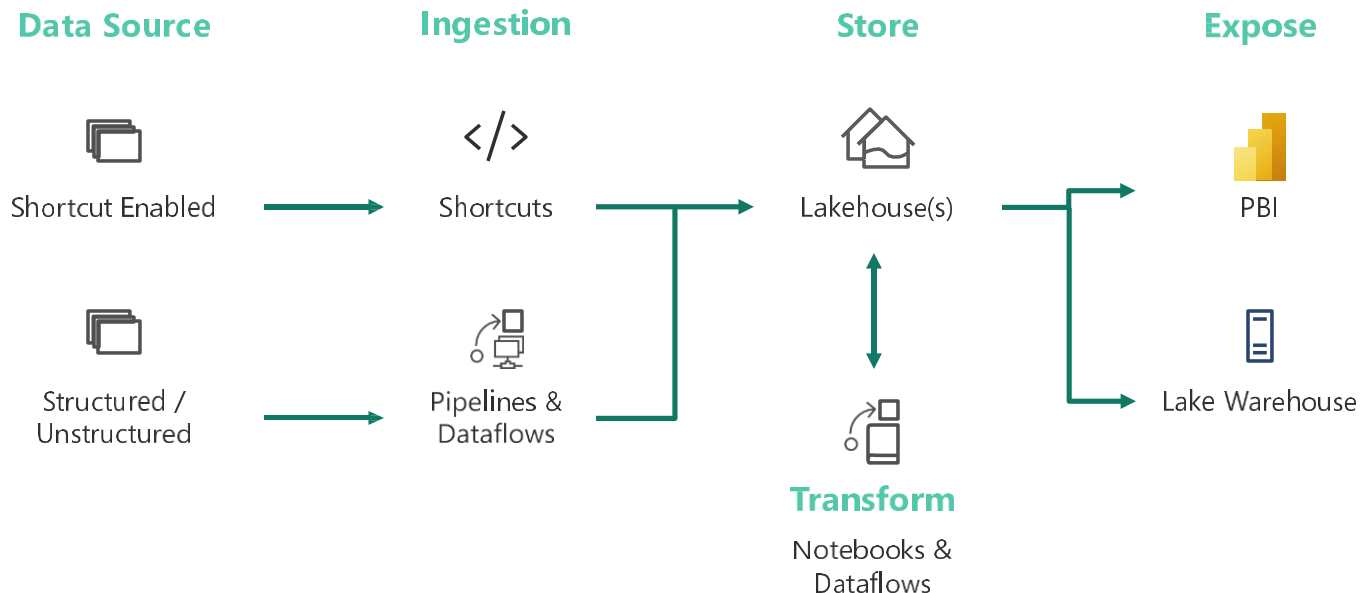
Lakehouse

The Microsoft Fabric Lakehouse analytics scenario makes it so that data can be ingested into OneLake with shortcuts to other clouds repositories, pipelines, and dataflows in order to allow end-users to leverage other data.

Once that data has been pulled into Microsoft Fabric, users can leverage notebooks to transform that data in OneLake and then store them in lakehouses with medallion structure.

From there, users can begin to analyze and visualize that data with Power BI using the see-through mode or SQL endpoints.

The Data Lakehouse scenario



Build and implement an end-to-end lakehouse for **your organization**:

1. Create a Microsoft Fabric workspace
2. Quickly create a lakehouse – an optional module to implement medallion architecture (Bronze, Silver, and Gold)
3. Ingest, transform and load data into the lakehouse – bronze, silver and gold zones as delta lake tables for medallion architecture
4. Explore OneLake, OneCopy of your data across lake mode and warehouse mode
5. Connect to your lakehouse using TDS/SQL endpoint
6. Create Power BI reports using DirectLake – to analyze sales data across different dimensions
7. Orchestrate and schedule data ingestion and transformation flow with Pipeline
8. Cleanup resources by deleting the workspace and other items



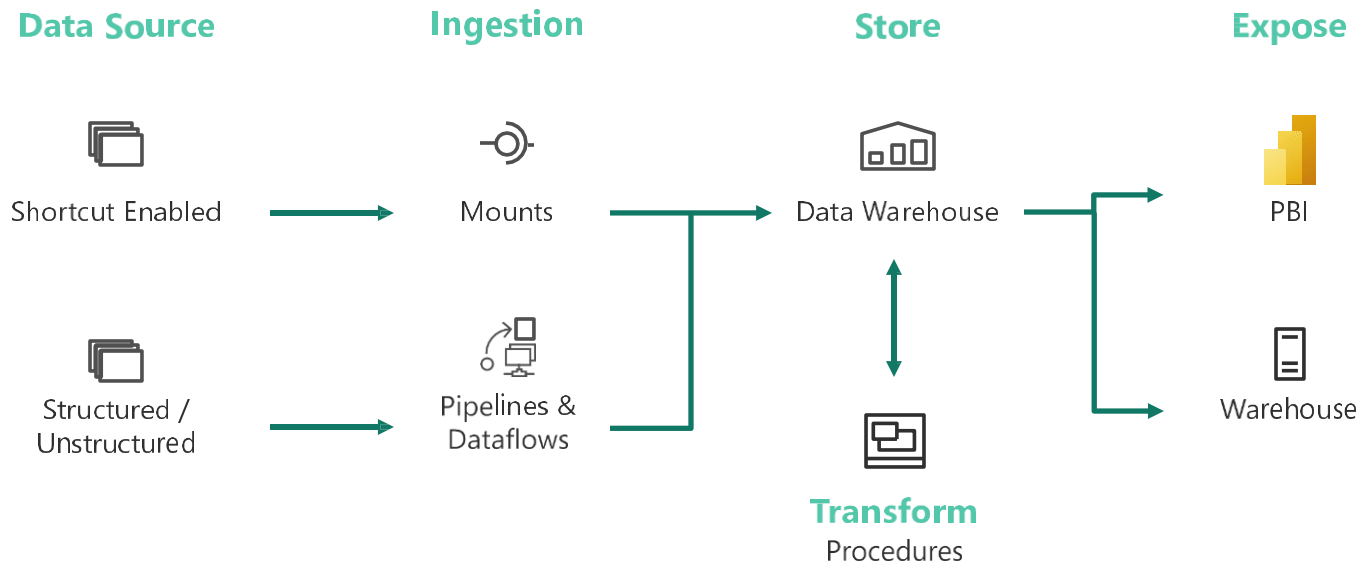
Data Warehouse

The Data Warehouse analytics scenario takes existing sources that are mounted, while pipelines and dataflows can bring in all other data that is needed.

IT teams can then define and store procedures to transform the data, which is stored as Parquet/Delta Lake files in OneLake.

From there, business users can analyze and visualize data with Power BI, again using the see-through mode or SQL endpoints.

The Data Warehouse scenario



Build and implement an end-to-end data warehouse for your organization:

1. Enable Microsoft Fabric in your tenant
2. Create a Fabric workspace
3. Quickly create a data warehouse
4. Ingest data from source to the data warehouse dimensional model
5. Transform the data to create aggregated datasets using T-SQL
6. Perform orchestration, data ingestion, and data transformation with pipelines
7. Query the data warehouse using T-SQL and a visual query editor
8. Create Power BI report using DirectLake mode to analyze the data in place
9. Cleanup resources by deleting the workspace and other items

