Microsoft

Unified Analytics Made Simple

Help your business get smarter data insights, faster

Contents

An introduction to unified analytics

Your company's data contains untold value; the tools you use to manage and analyse it are key to unlocking its potential.
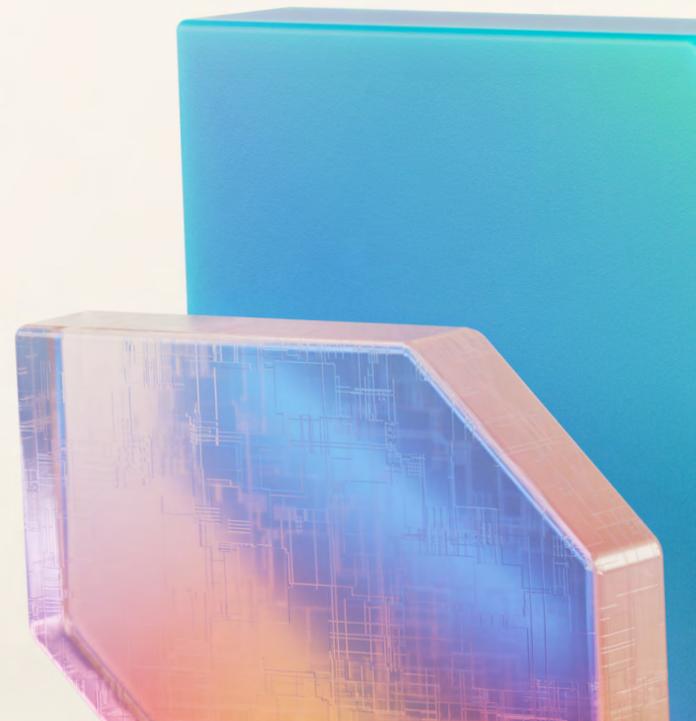
Today's business leaders want data solutions that simplify workflows across systems, eliminating silos while strengthening security and compliance. Too often, data is scattered across different sources, making it manual and time-consuming to pull insights together, with no single source of truth to guide decisions. Many companies also rely on legacy, on-premises systems that are less secure and struggle to integrate with modern Software-as-a-Service (SaaS) platforms. A unified analytics approach solves these challenges by bringing data together in one place, making it easier to generate insights, accelerate reporting and support smarter decision-making.

That's where Microsoft Fabric comes in.

Fabric is a SaaS platform that delivers an integrated, simplified experience on an open and governed foundation. It offers intuitive tools for streamlining analytics workflows and serves as a single source of truth for data integrity, compliance and integration. In this eBook, you'll build your understanding of Fabric's core capabilities and examine your unique analytics needs. You'll also learn how to help your team get more valuable insights, faster.

Every growing business has unique data challenges that tend to fall into five core categories:

1. Integrating data silos to create a connected foundation for analytics

2. Maintaining data security across your business

3. Preparing data for automated reporting and actionable insights

4. Replacing legacy systems for better integration with new and existing tools

5. Providing specific experiences for different roles

Spotlight on Microsoft Fabric

Business leaders want data solutions that allow their teams to work quickly, confidently and securely. With Fabric, you can help your teams deliver better insights and maximise the value of your data without unnecessary complexity.

Why Fabric?

Despite collecting vast amounts of data from customers, services or other business processes, many businesses struggle to turn it into actionable insights. Data analysis tools often require specialised expertise, creating bottlenecks as users must rely on experts to deliver insights.

Moreover, data silos across different teams (HR, marketing, sales, finance further complicate decision-making, leading to inefficiencies and missed opportunities.

As your business grows, managing diverse data tools becomes increasingly complex and costly, diverting resources from core priorities. This complexity calls for a streamlined approach that simplifies data management and closes the gap between teams and the insights that they need to thrive.

Adopting a unified data platform like Fabric is essential to overcoming the data challenges that hinder AI innovation and block access to valuable insights. With a data foundation built on Fabric, your company can better unlock actionable insights, accelerating critical decision-making and driving sustained growth.

What's hindering access to insight	How Fabric helps
Data is dispersed across multiple platforms, creating silos and making it a challenge to access real-time information.	**Unify your data in Onelake.** As Fabric's open and governed data lake foundation, OneLake provides a single source of truth, ensuring everyone works with the same data. With multiple integration options, your teams can bring their data to OneLake without duplication or movement.
Teams lack sufficient data literacy and confidence to derive meaningful insights from their data.	**Empower your teams with democratised access.** Providing secure access to the right data and analytics tools at the right time empowers your teams to gain insights faster, leading to better data-driven decisions.
Managing a complex web of different data tools and suppliers increases operational costs and security risks while complicating governance.	**Integrate your solutions on an open and governed foundation.** Fabric unifies all your data, no matter where it's stored, giving your data stewards full control to manage it from start to finish, while addressing the long-standing security and compliance challenges your teams have faced for years.

The top nine analytics needs for growing businesses

Fabric addresses nine essential business requirements for managing and maximising data. Let's take a closer look at each one.

01
Simplified data

OneLake is a unified data storage solution and Fabric that acts as a central hub where data can be stored, managed and accessed effortlessly.

There are various ways to bring data into Fabric, including traditional extract, transform, load (ETL) pipelines and mirroring, meaning some methods still involve replicating data. However, using shortcuts can help reduce data duplication. OneLake supports managed and unmanaged data storage, so users can connect to various data sources without replicating the data. Through symbolic links – or shortcuts – OneLake enables access to data from different cloud providers within the same environment, removing the need to move or duplicate data.

This setup helps reduce data silos, allowing a single copy of data to be used across multiple analytics tools and workflows. For example, data engineers can create real-time analytics dashboards without duplicating data, and data scientists can train machine-learning models using the same data set without creating multiple copies. This approach saves on storage costs while also improving data consistency and integrity across the business.

A range of analytics experiences

Fabric offers a comprehensive suite of analytics experiences tailored to multiple data use cases, ensuring users can seamlessly manage, analyse and visualise their data. Each experience is designed for specific roles and enhances productivity and insights across the entire data lifecycle.
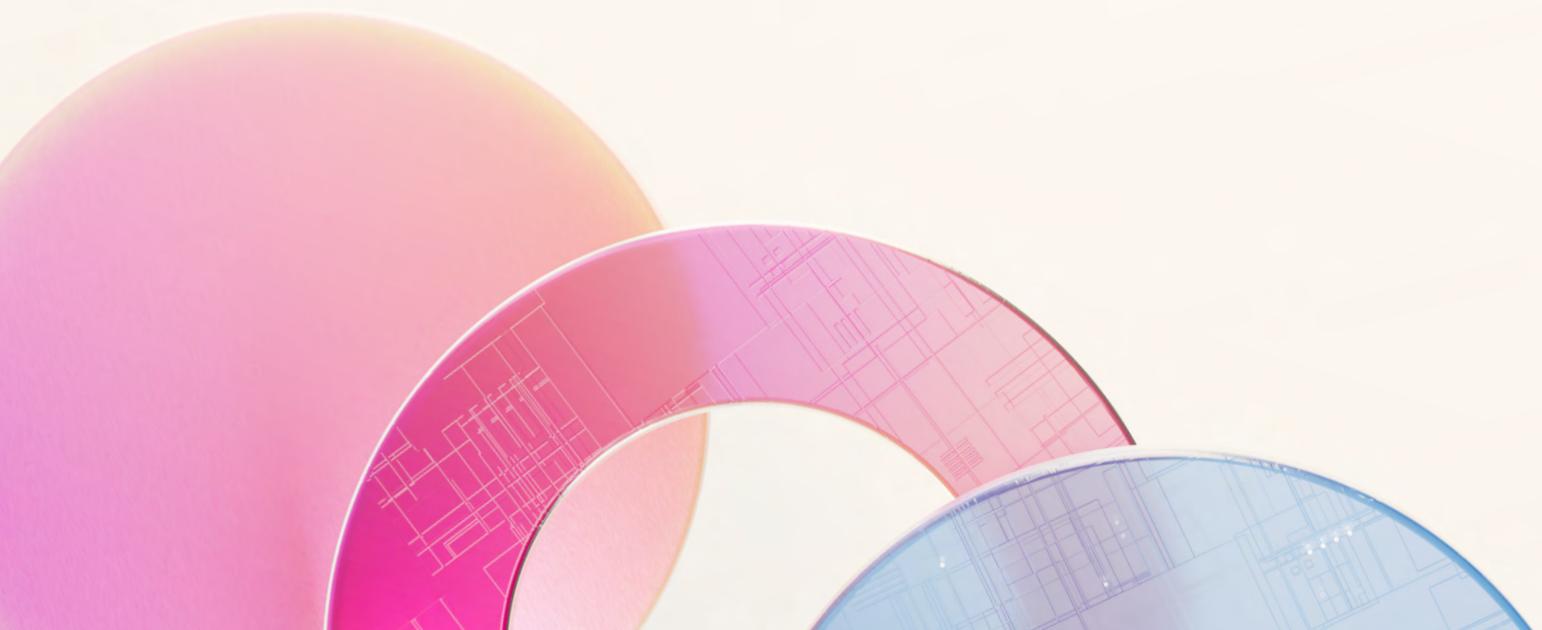
02
Streamlined data workflows

Whether you're researching customer behaviour, tracking customer journeys or finding new ways to streamline operations, data workflows will always be there to make those goals possible. Fabric streamlines the setup and management of these workflows, handling the heavy lifting of tasks like data collection, storage and processing so that you don't need to have a data engineer on staff to get the most value out of your data.

Data Factory
Allows you to take advantage of data pipelines, enabling seamless ETL processes for efficient data integration.

Data Engineering
Work with a Microsoft partner to use large-scale data solutions using Apache Spark and other big data technologies to handle complex data workloads.

Data Warehouse
Leverage warehouses to get the most out of your data and make analytics that much easier.

Run your business in the cloud

With Microsoft or a Microsoft partner, you can migrate your workflows onto Azure, unlocking entirely new ways to modernise your business apps, cut out complexity and build cloud-native solutions that can respond to dynamic market conditions.

Migrate to Microsoft Fabric

Many companies are migrating their existing Synapse Spark applications and SQL Server or Synapse Dedicated Pool data warehouses to Fabric, taking advantage of faster deployment and pricing flexibility. Fabric simplifies the migration of T-SQL code, making it a robust option for teams seeking a more streamlined, scalable solution.

03
Data warehousing: Centralising and optimising data

Data warehousing is the process of collecting structured data from multiple sources and putting them into a unified repository. It's a critical factor for centralising data for analysis and reporting. Fabric enhances this process by enabling efficient migration and management.

Data Warehouse
Query and analyse large data sets – such as sales data – to identify trends and patterns.

Real-Time Intelligence
Gain access to real-time insights through up-to-the-minute data analysis.

04

Real-time data analysis: Immediate insights for critical decisions

For businesses requiring real-time data insights, Fabric offers tools that enable instant access to streaming data, empowering faster and more informed decision-making.

Real-Time Intelligence
Build real-time solutions that can ingest and analyse streaming data.

Data Activator
Automate alerts and triggers for in-motion data based on specific criteria.

Real-time analytics use cases

Point-of-sale data streaming

Retail businesses can use Fabric to stream real-time point-of-sale (POS) data from multiple stores into a centralised location. This capability allows retailers to generate real-time reports, enabling quicker, more strategic decisions.

Time series analysis of manufacturing historian data

When dealing with large volumes of device data, much of it is stored and often aggregated in a manufacturing historian. Fabric allows you to stream this data to OneLake, enabling advanced analytics like predictive maintenance, simulations and cross-site comparisons.

Governance use cases

Protect sensitive data

Using Microsoft Purview's Information Protection and Data Loss Prevention policies, businesses can automatically detect and protect sensitive data in Fabric, ensuring compliance with regulatory requirements. These tools prevent unauthorised access and restrict the export of sensitive data, safeguarding the company from potential breaches.

Learn more about governance in Fabric →

05

Data governance: Ensuring compliance and security

Governance is the cornerstone of compliance, security and growth. This practice of unifying policies, standards and roles to manage and control data has evolved from an innovative business practice to a necessary one – one that business leaders are embracing to remain secure and competitive.

Fabric's integration with **Microsoft Purview Data Governance** provides comprehensive data governance, allowing companies to classify, protect and manage their data with ease. You can classify Fabric items, configure data loss prevention and monitor user actions to identify and mitigate potential security risks.

06

Machine learning: Scaling and automating AI solutions

AI is here, and business leaders are looking for ways to integrated it effectively and safely. Fortunately, Fabric allows you to do just that, empowering business users to take advantage of machine learning and AI, integrating tools that streamline model development, training and deployment.

Data Science
Develop and deploy machine learning models within an integrated environment.

Azure Machine Learning
Use advanced machine learning capabilities to experiment with algorithms and optimise models.

AI and machine learning use cases

Interpret data in real time

Companies with large volumes of unstructured or semi-structured text, such as e-commerce analytics or legal documents, can use Fabric's integration with Azure OpenAI to get quick and comprehensive insights. Scalable AI functions enable business users to extract complex information such as predictive graphs, transcripts, PDFs, reports and summaries.

Deliver custom generative AI experiences for your data

An AI skill in Fabric allows your users to talk to your data in OneLake from your own applications. This 'data agent' is configured as a conversational Q&A chatbot on your domain. By providing instructions and examples to guide the AI, creators can ensure the 'data agent' understands the company's data context and provides a reliable data-driven response in return.

07

Data governance: Ensuring compliance and security

Non-technical business users often require easy access to data insights. Fabric ensures that data can be visualised and shared seamlessly regardless of technical expertise – or lack of it.

Power BI
Create interactive reports and dashboards, visualise data and share insights.

Copilot for Power BI
Use natural language prompts to generate reports and insights, making data accessible to non-technical users.

Reporting and visualisation use case

Cost savings through tool consolidation

By consolidating multiple data visualisation and management tools into Fabric, companies can save on costs and reduce technical debt. Fabric's Direct Lake mode allows users to mirror data sources while feeding insights into reporting and visualisation tools like Microsoft Power BI.

08

Integrations

Your data platform needs to work with the tools your teams already use. Fabric integrates deeply with Microsoft Office, Microsoft 365, Teams and other commonly used apps to ensure that insights are easily accessible across your existing workflows.

Whether it's through Excel, Word or Power BI, you can analyse, share and collaborate on data directly within the applications your team is already comfortable using, simplifying the data process and enabling quicker decision-making.

09

Governance and security

Data stewardship and security are critical as data environments become increasingly complex. Fabric simplifies this with built-in security and governance features, minimising the effort needed to safeguard your entire analytics platform and reducing the risk of data breaches and compliance issues.

OneLake provides governance tools like data lineage, data protection, certification and catalogue integration to help streamline data management. These tools offer full visibility over your entire analytics environment, from data sources to user insights. Meanwhile, your tenant admins can easily maintain control over how your data is accessed and shared.

Fabric success stories

Consumer Goods

Avocados From Mexico and Lantern automate processes using Microsoft Fabric

Non-profit marketing organisation Avocados From Mexico makes it their mission to drive the demand for Mexican avocados in the U.S. They used Microsoft Fabric to centralise disparate data sources and create a single, trustworthy place where employees can access data for reporting and analytics. Finding it difficult to produce accurate, efficient reports due to fragmented data and manual processes, they worked with Microsoft partner Lantern to implement Fabric and create a secure, accessible source of truth. Now, they have been able to reduce weekly reporting times by up to 95%.

"

It's been inspiring to watch the momentum of everything from moving data sources to building out reporting. We're evaluating the data, verifying its trustworthiness and determining how to share reports to support the business. We make sure everyone has the information they need to make the best decisions."

Drew Cordell,
Technical Project Manager, Lantern
Learn more about Avocados from Mexico →

"

We're already saving 20% of the time we previously spent creating reports, and we anticipate reaching up to a 50% reduction in total as we add more data sources into Microsoft Fabric."

Adam Holder,
Head of Analytics, Verne
Learn more about Verne →

Automotive

Verne pioneers autonomous vehicles

Verne, a company developing a new innovative concept of urban autonomous mobility, faced a complex data landscape. Different data sources and time-consuming reporting consumed valuable time and resources.

Verne brought more than 10 data sources together with Microsoft Fabric and plans to integrate over 30 in total. It automated reporting and expanded access to Power BI reports across its departments – all with Microsoft FastTrack team's guidance.

Transportation

Melbourne Airport democratises data-driven decision making

Melbourne Airport, the second busiest in Australia, is a key connector for the country's travel and transportation. The operational team needed to upgrade its data analytics capabilities to improve operational efficiency and passenger experience. Seeking to democratise data across its various departments, the airport found its solution in Microsoft Fabric.

Since Fabric adoption, non-technical users can engage directly with the data, and the airport has gained 30% increased performance efficiency across data-related operations.

> Microsoft approached us with Fabric at the perfect time. It promised to integrate our data analytics into a user-friendly platform that even our non-technical staff could navigate with ease."

Irfan Khan,

Head of Data & Analytics, Melbourne Airport
Learn more about Melbourne Airport →

> Collaborating with Cloud Services to integrate Microsoft Fabric has exceeded our expectations. We have been able to reduce infrastructure costs by 60% while enhancing our analytical capabilities, which is a testament to the effectiveness of this partnership."

Konstantin Vaganov,
Chief Technology Officer, Revenue Grid
Learn more about Revenue Grid →

Technology

Revenue Grid saved 60% for its customers

By providing tools for sales process optimisation, analytics and integration, Revenue Grid aims to scale revenue growth and improve overall sales performance for its customers. By entrusting Microsoft Fabric's capabilities, Revenue Grid is transforming how sales teams generate revenue. Successful implementation has positioned Revenue Grid for future growth and innovation.

Professional services

PZ Cussons transforms data analytics

PZ Cussons employees were heavily reliant on manual processes and offline reports and data silos were common. The company sought to unify its data and offer a comprehensive analytics solution to enhance operational efficiency. The Microsoft-based solution provides a single source of truth for data, improving decision-making and increasing efficiency. Employees are adopting the solution enthusiastically because of its ease of use and extensive benefits.
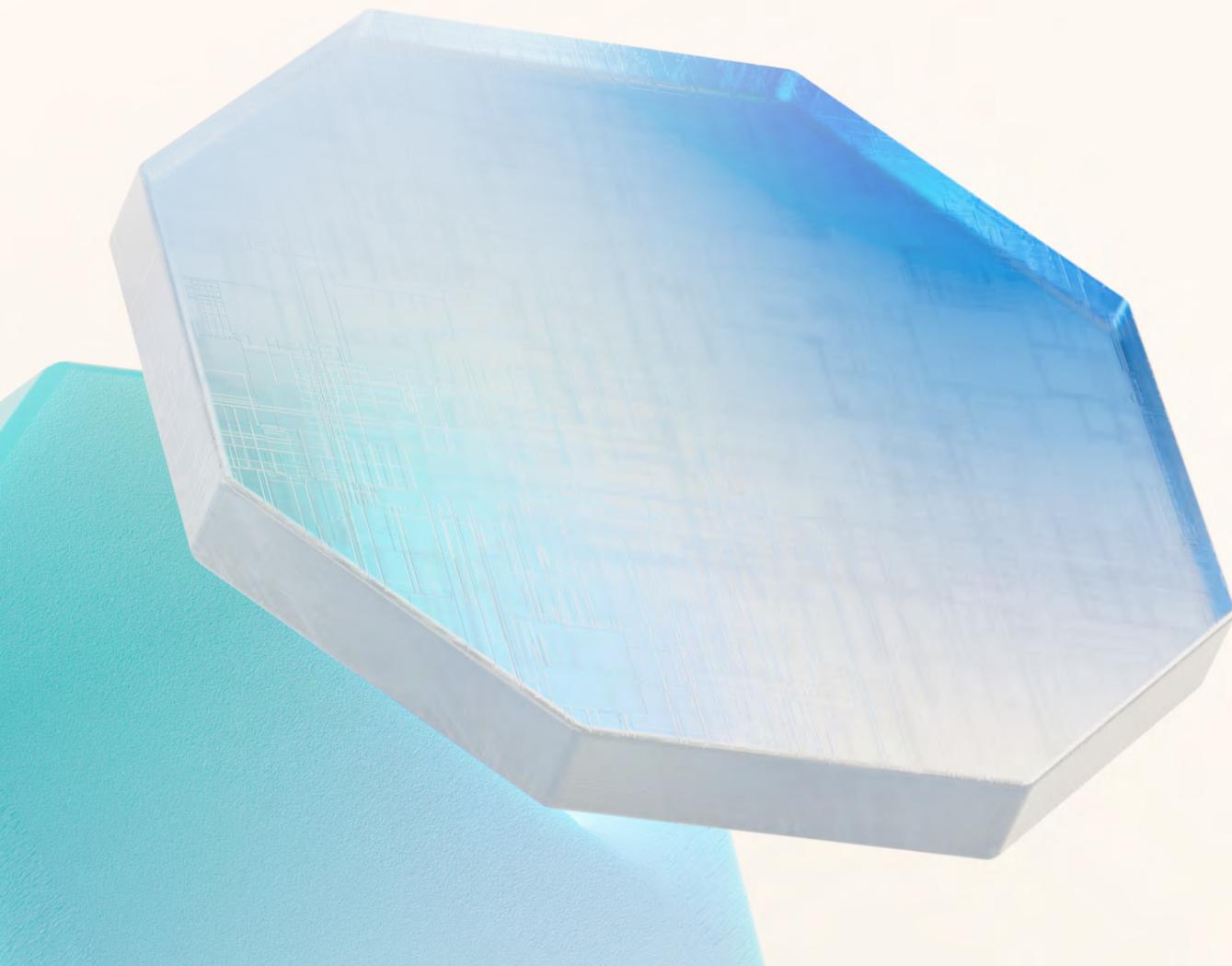
"

With Fabric, we have easy-to-use tools that eliminate data silos and let teams focus on impactful work rather than data processing."

Gurpreet Bhinder,
Global Revenue Growth
Management Director, PZ Cussons
Learn more about PZ Cussons →

Steps to get started with Microsoft Fabric

Ready to see how unified analytics can help your growing business? A proof of concept is your opportunity to see how having a unified platform can transform the way your business manages and activates data.

By running a small, focused trial, you'll be able to determine whether Fabric fits your environment, test integrations with your existing systems and uncover the kinds of insights your teams could be delivering every day. More importantly, it's a chance to prove value quickly and build momentum for larger adoption.

Follow these basic steps to see how your business can realistically create and execute a proof of concept for Fabric.

1. Identify sponsors and potential blockers

To ensure your trial proceeds smoothly, secure the necessary support and identify any roadblocks early on.

→ Identify any restrictions or guidelines that would make moving data to the cloud more difficult.

→ Get everyone on the same page, and make sure you don't have important stakeholders resisting migration.

→ Ensure that Fabric is suitable for your workload.

2. Set a timeline

Adoption should be a time-bound exercise with specific, measurable goals. Based on best practices, it's recommended that you timebox your trial to about two weeks. This will provide enough time for you to see meaningful results while limiting complexity.

Suggested timeline:

→ **Data loading:** Three days or less

→ **Querying:** Five days or less

→ **Additional tests:** Two days or less

The key is to set realistic goals and work with Fabric partners and experts to help you get up to speed for adoption and testing.

3. Define the components you need

Design a high-level idea of what kind of system you need, what components you can leave out and what will support your goals in the longer term:

→ Decide which components will be part of the trial and exclude those that aren't immediately necessary.

→ Identify existing resources (like Azure) that will support your trial run.

→ Choose an **appropriate region** and subscription for non-production use.

→ Ensure your network infrastructure can handle the proof-of-concept workload without impacting production systems.

When considering migration scenarios from a legacy data warehouse, it is essential to evaluate your approach. Are you aiming to make minimal changes to your existing ETL processes, or are you open to making significant improvements during the migration?

Alternatively, you might be building an entirely new environment, known as a greenfield project, from scratch. Each scenario requires careful planning to ensure a smooth transition.

4. Identify current pain points and set goals

Your trial period should address specific pain points or gaps in your current system.

Consider the following questions:

> What gaps do you expect Fabric to fill?

> What new business needs are emerging?

> What service-level agreements (SLAs) must be met?

> What types of jobs, like analytics or reporting, will the proof of concept focus on?

After you've identified your pain points, the next step is to define the goals of your trial clearly:

→ Ensure that query performance meets new SLAs.

→ Assess system responsiveness for end users.

→ Evaluate if current ETL processes work well with Fabric.

→ Ensure robust governance and security compliance.

5. Create a test plan

Based on your established goals, design specific tests to validate the performance and capabilities of Fabric. If you aren't as seasoned with Fabric or building IT and infrastructure tests, work with partners in Microsoft Azure services and Fabric to help you develop this plan and how to work through it.

6. Identify and validate the proof of concept dataset

From the tests you've planned, identify the data required in Fabric to execute them effectively.

Take some time to review this dataset with the following considerations:

→ Ensure that the dataset accurately represents the future processing on Fabric in terms of content, complexity and scale.

→ Avoid using a dataset smaller than 1 TB, as it may not provide representative performance, and avoid overly large datasets, unless the proof of concept is specifically testing processing capacity.

→ Determine the appropriate distribution pattern and indexing option for each table. If there are any uncertainties regarding distribution, indexing or partitioning, include tests in your proof of concept to address those questions.

Here are some examples of Fabric trial goals and how they can be tested:

> **Goal: Ensure that query performance meets new SLAs.**

Test complex queries under varying loads to verify they can handle the expected data volume and complexity within the required timeframes.

> **Goal: Assess system responsiveness for end users.**

Measure latency and throughput of queries executed by users to ensure a smooth, efficient experience.

> **Goal: Evaluate if current ETL processes work well with Microsoft Fabric.**

Analyse ETL workflows for compatibility and opportunities for improvement, focusing on transformation logic and data loading processes.

> **Goal: Ensure robust governance and security compliance.**

Test data access controls, encryption and compliance with regulatory standards to ensure that the platform meets organisational security policies and industry regulations.

7. Assemble your team

Ensuring that the right people are involved in the experimental period is critical to its success, as each role uniquely guides the project from planning to execution.

A diverse team brings together the necessary skills and expertise to tackle both technical and business challenges:

→ A project manager to lead the effort.

→ A business representative to oversee requirements and results.

→ A data expert familiar with sourcing the data for the proof of concept.

→ A Fabric specialist and potentially an expert advisor to optimise tests are needed.

→ Other specialists, such as network or Azure administrators, for specific components of the trial.

Since you are evaluating a new platform, consider engaging a **Microsoft partner** or consultant with expertise in Fabric to assist with the proof of concept.

8. Run key workflows

Test the essential workflows that are part of your trial:

→ Data engineers should test data integration methods and transformations – for example, as in medallion architectures.

→ Data scientists can train machine learning models using the same dataset to ensure team efficiency.

→ Business analysts can use generated reports and insights, testing ease of use, customisation options and the ability to drill down into their data for deeper analysis.

→ IT and security teams should test role-based access controls and data masking features to ensure data access permissions are correctly configured.

→ End users should interact with dashboards and reports to test their usability and accessibility, taking note of the ease of navigation and clarity of information.

9. Measure results

To measure the results of your trial, track key metrics such as data processing speed, capacity levels and workflow efficiency. These metrics will provide valuable insights into how well Fabric performs in your environment. Focus on identifying improvements in operational efficiency, cost savings and data consistency – especially the advantages of unifying all your disparate data to one central data lake.

By assessing these factors, you'll be able to determine how effectively the platform streamlines processes and reduces the complexity and costs associated with data management.

10. Evaluate results

Once your trial is complete, review the outcomes against the initial goals:

→ Have the goals been met?

→ Were the expected outputs achieved?

→ Identify areas where further testing or evaluation may be required and document any new questions raised during the experimental period.

This structured approach to a Fabric proof of concept will ensure a clear validation of the platform's capabilities in addressing your company's specific challenges and goals.

Take the next step

Now that you understand what Microsoft Fabric is and how it helps companies like yours get more value from their data, it's time to take the next step – testing your Fabric proof of concept.

Whether you're facing issues like data silos, bottlenecks in decision-making or high operational costs due to complex data systems, Fabric has the tools to overcome these hurdles.

→ **Establish a single source of truth** for your data to break down silos.

→ **Democratise data access** and empower teams to make data-driven decisions.

→ **Connect and govern your data foundation** to reduce complexity and ensure security and compliance.

Ready to unlock your data's potential?

Find a trusted Microsoft partner ›

Explore how Azure Accelerate helps fuel transformation with Microsoft experts and investments ›

Learn more about Azure solutions ›