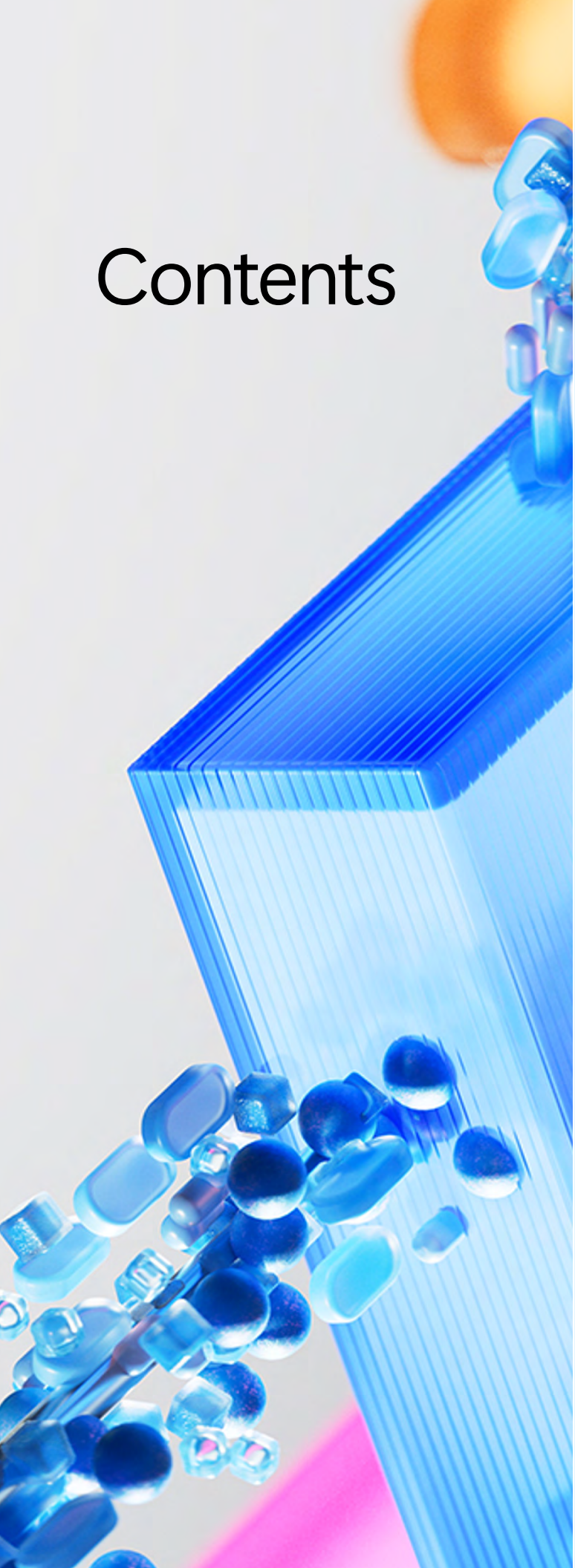
Microsoft Azure

Modern Analytics: Gain an AI Advantage with Unified, Trustworthy Data

Build an AI-ready data estate with Microsoft Fabric



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Data opportunities in the era of AI

68%

of leaders agree that unifying their data platform for analytics and AI is crucial for their enterprise data strategy.[1]

97%

of business leaders investing in AI report positive ROI.[2]

83%

of senior business leaders said their organisation's AI adoption would be faster if they had stronger data infrastructure in place.[3]

In today's AI-driven economy, the organisations seeing the biggest impact aren't always those with the most data – they're the ones with the most AI-ready data. When data is high-quality, accessible and trustworthy, it helps AI deliver unprecedented speed and intelligence.

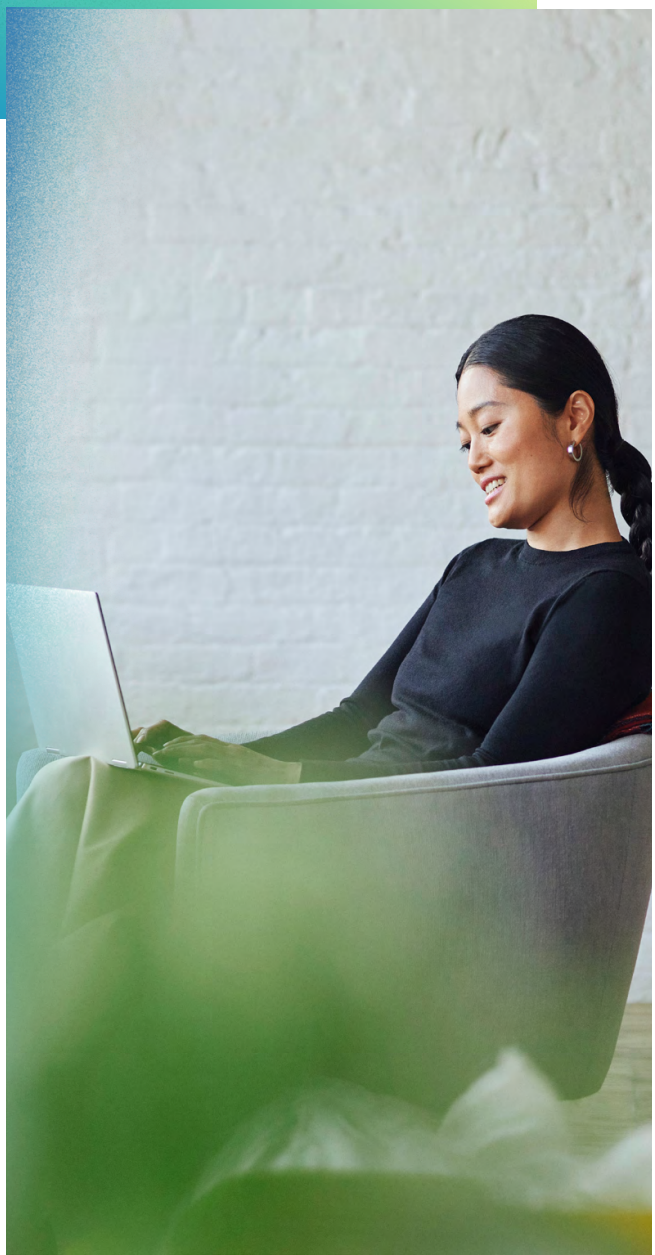
AI requires a continuous flow of well-managed data from tightly integrated analytics systems that adapt as your organisation grows. By unifying your estate, you can give decision-makers trusted data and create the foundation for AI to deliver sharper insights, increased efficiencies and personalised experiences.

That's where Microsoft Fabric can deliver value. Fabric helps provide the clean, unified data you need to use AI for a strategic advantage. In this eBook, you'll discover how Fabric, powered by OneLake, gives your teams the foundation they need to build AI applications, drive innovation and outpace the competition.

Avanade helps customers become AI-driven and future-ready

To better support its customers with AI adoption, digital innovator Avanade unified a complex data estate with Fabric to create a comprehensive learning platform. It provided customised, enhanced data analytics training to 30,000 employees, empowering them to build customised Copilot solutions, develop accelerators for monitoring and governance and lay the groundwork for customers to more easily adopt AI.

Read the full story



"We're helping our clientele reinvent their businesses with generative AI. The first step is to help them create a strong data foundation for AI solutions and other advanced technologies. We expect many customers will move to Fabric. With a strong data foundation, it becomes easier to adopt AI."[4]

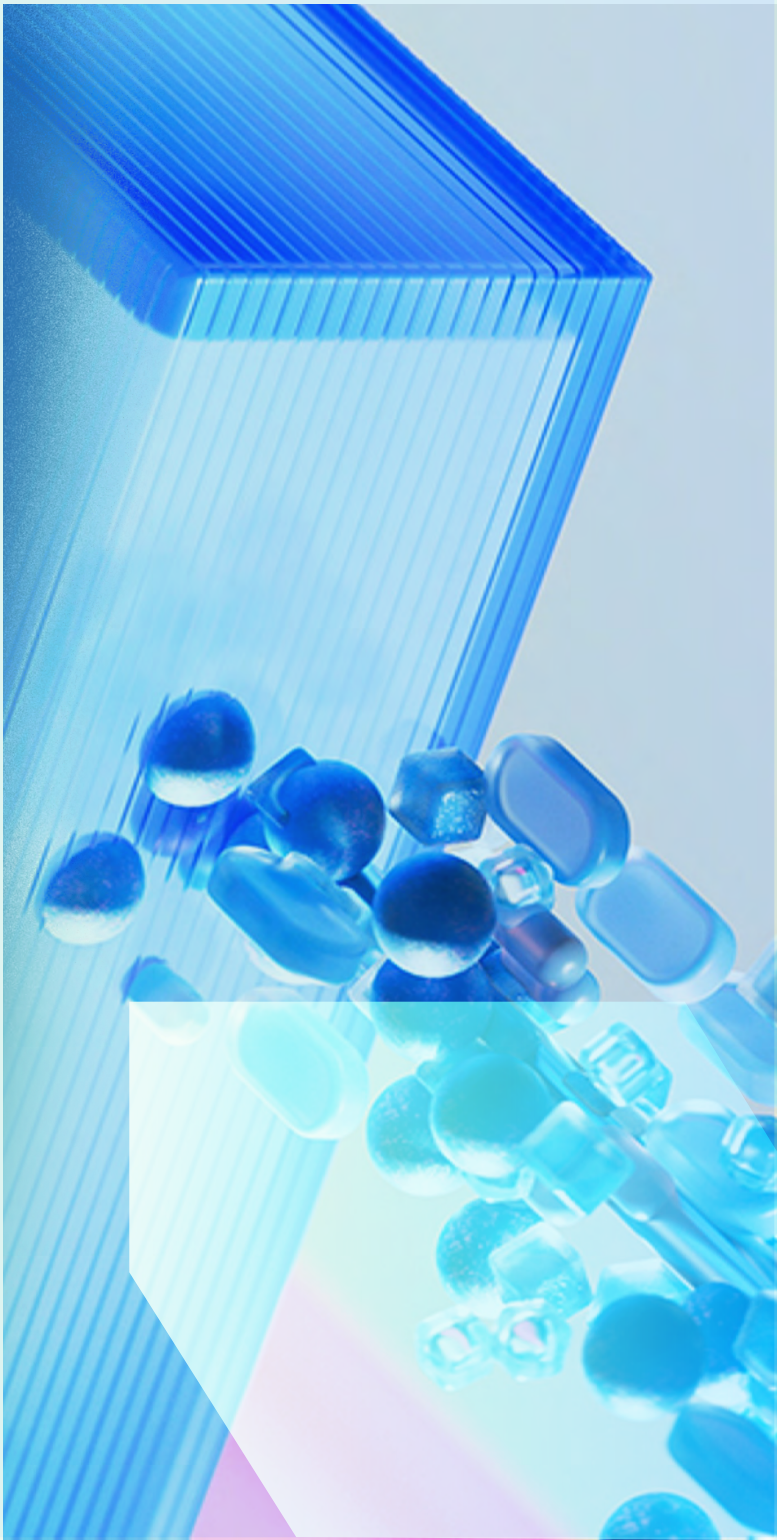
Sailaja Bhagavatula
Advanced Technology Centres Global Lead, Avanade

Building a foundation for AI

64%

of organisations still struggle to change the way they operate, lagging behind on building a robust data foundation to support AI.[5]

Putting AI to work at scale depends on more than just having the right data, algorithms and models. It's about having data that's accurate, well-structured and accessible to the people who need it – when they need it. But common blockers get in the way, such as disconnected systems, overlapping tools and inconsistent processes.



Fabric helps you address the following common barriers, so you can realise AI's full potential:

Data sprawl and integration barriers. The challenge isn't just the explosion of data – it's the fragmentation across systems and formats. Multiple dashboards and disconnected analytics tools add to the complexity, slowing decisions and stalling AI initiatives. Unified data turns this sprawl into a single, trusted, cohesive data ecosystem.

Governance and compliance gaps. Regulations and risk management are becoming more complex, and governance tools don't always connect across systems. Establishing clear access controls and ensuring full data transparency can give you confidence in meeting today's – and tomorrow's – requirements.

Resource and scalability constraints. Preparing, integrating and analysing data takes time. Building a foundation of clean, reliable data frees up your teams and makes it easier to scale AI initiatives.

Gaps in insights and decision-making. Having data isn't the same as having answers. By making data easier to find and analyse, you empower your people to act quickly and uncover new opportunities.

IWG gains real-time insights and drives innovation

IWG, a global leader in flexible workspace solutions, helps over eight million people worldwide work the hybrid way. However, existing systems didn't provide real-time insights, hindering the company's ability to make quick data-driven decisions about marketing and sales. IWG built a solution based on Fabric Real-Time Intelligence, along with Azure Databricks and Microsoft Power Platform. Today, real-time insights enable IWG to update marketing campaigns on the fly and drive continuous innovation.

Read the full story

"Microsoft Fabric was a game-changer because of its ability to create shortcuts without physically moving data from one place to another. Before, if I had to incorporate three sources, I had to create pipelines to bring in the data. That pipeline had a cost. The data movement had a cost. With Fabric, it's two clicks and that's it."[6]

José Viegas
Senior Data Architect, IWG

Powering your AI transformation with Microsoft Fabric

Microsoft Fabric unifies data engineering, data science, real-time analytics and business intelligence (BI) on a single analytics platform based on cost-effective Software-as-a-Service (SaaS).

With Fabric, you can access and manage data across multicloud and on-premises environments from one trusted foundation, ensuring analytics and AI solutions are built on consistent, governed data. Insights flow seamlessly into Microsoft 365 apps and Copilot, enabling users to act quickly – without switching tools or duplicating effort.

The ROI of Microsoft Fabric[7]

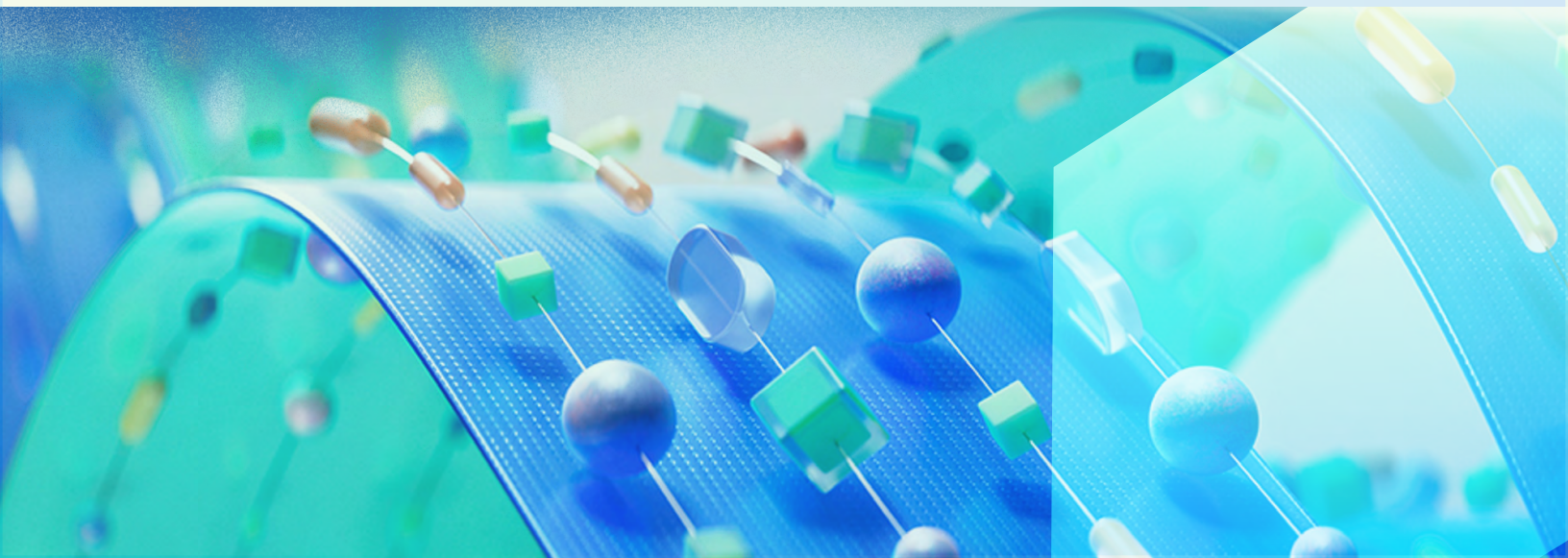
379%
return on investment

25%
increase in data engineer productivity

USD 3.6M
in increased profits due to better insights

8%
reduction in attrition, suggesting Fabric contributes to employee satisfaction

USD 779K
saved by consolidating technologies and eliminating outdated infrastructure



AI-powered data platform

Give your teams all the AI-powered tools they need for data projects in an optimised SaaS environment.

Accelerate time to value with a SaaS experience that requires minimal set-up, is automatically optimised and integrated and has a single pool of capacity to power your most demanding workloads.

Unite operational and analytical data in a complete data platform with SaaS databases and powerful analytics services.

Empower data engineers, data scientists, analysts and business users with autonomous, AI-powered tools that help them get more done in less time.

Open and AI-ready data lake

Access your entire multicloud data estate from a single data lake and help ensure your data is ready to power AI innovation.

Unify your multicloud and on-premises data with OneLake, enabling a single source to power multiple analytics engines while helping to reduce duplication and data movement.

Ingest structured and unstructured data of any format into OneLake's open Delta Parquet format and even access third-party tools via native connectors.

Help ensure everyone has access to the right data with a central data lake that spans your entire organisation. Easily find the information you need with intuitive data management and discovery tools.

AI-enabled business users

Empower teams to better understand data with AI-enhanced experiences and visuals embedded in the apps they use every day.

Help analysts save time and get up-to-date insights with tools like Copilot in Microsoft Fabric and Direct Lake, a storage mode option for tables in Power BI.

Empower business users to quickly find answers and understand the most critical insights from reports and models by simply asking Copilot and Fabric data agents.

Foster a data-driven culture by seamlessly and securely embedding data into Microsoft 365 tools, including Teams, Excel, PowerPoint and Outlook, via a native integration with Copilot Studio.

Lumen unifies data, gains near real-time insights and saves 10,000 hours

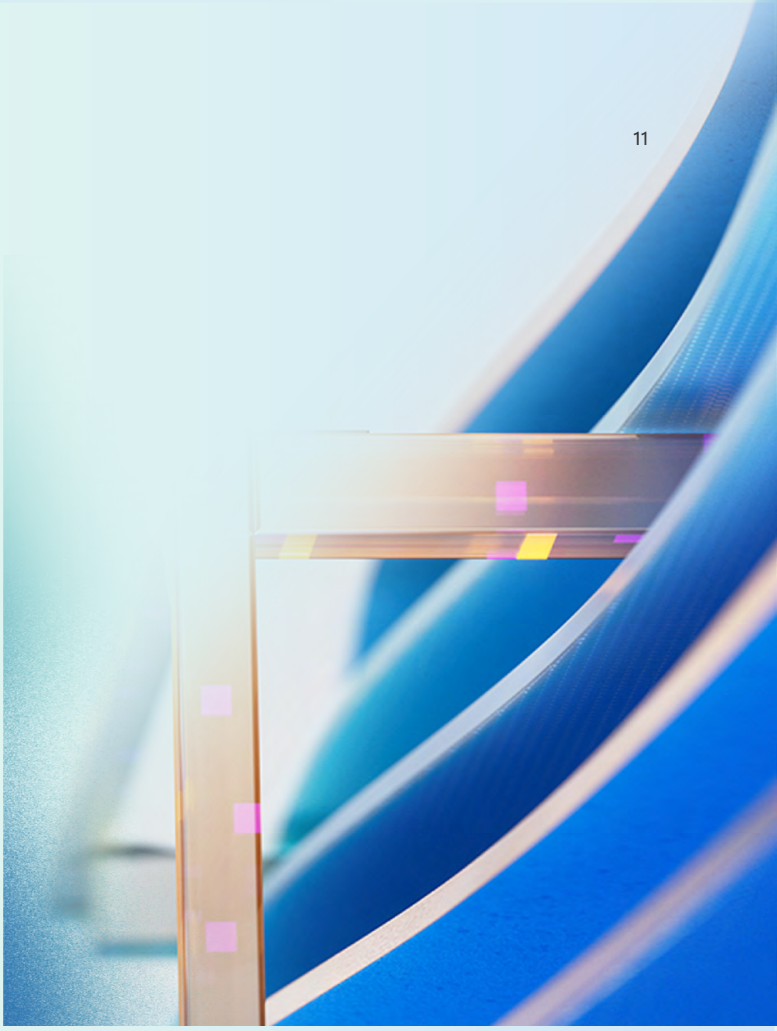
Lumen's ageing systems created data silos, duplication and inconsistent metrics that slowed marketing and sales teams. Using Fabric OneLake, Spark notebooks, Direct Lake and Power BI, the team unified ingestion, storage and analytics in one governed platform – cutting 10,000 hours of manual effort. Lead targeting has improved, infrastructure costs are lower, and real-time analytics power smarter decisions.

Read the full story

"In Fabric, we just open a notebook and start working. We don't need a separate environment: it's all integrated."[8]

Chad Hollingsworth
Cloud Architect, Lumen

Creating a unified, AI-ready data foundation



A modern architecture enables data to flow seamlessly across your organisation. OneLake is the unified, SaaS-based data lake in Fabric that provides a single logical view of your organisation's entire data estate – across multicloud, on-premises, operational, analytical and AI data. Your teams get powerful, real-time analytics based on trustworthy data, so they can act on information the moment it's created.

Unifies your entire data estate

OneLake eliminates data silos by storing Fabric-native data in Delta Parquet format and using shortcuts to reference external data without duplication – reducing risky data movement and simplifying governance. You can:

Unify data in near real time using shortcuts, mirroring and more than 180 built-in connectors – including Oracle, Azure Cosmos DB, Azure SQL Database, MongoDB, Snowflake and Azure Databricks.

Process massive volumes of data efficiently with industry-leading performance. Scale up and down on demand, with no limits on data size.

Define domains and subdomains to better organise, manage and govern your data mesh.

Open at every level

OneLake gives you flexibility to integrate with other tools and platforms. This openness helps you build scalable, future-proof analytics solutions without duplicating data.

Connect to your existing stack through APIs, SDKs and integrations with Azure services like Azure Synapse Analytics, Azure Databricks and Microsoft 365.

Reduce the risk of supplier lock-in at the data layer by using open formats, such as Delta Parquet and Iceberg. Simply load data into OneLake once and reuse it in Fabric or in external tools, like Snowflake.

Help fuel AI initiatives with curated data from OneLake. Native integrations to Azure AI Foundry and Microsoft Copilot Studio make it easy to create custom generative AI experiences.

Built-in governance

Make your data discoverable with OneLake's built-in catalogue, which organises data intuitively across domains and workspaces. Industry-leading security and governance ensure data quality and that only the right people have access.

Empower users with intuitive data discovery through a central OneLake catalogue embedded in familiar apps like Microsoft Teams and Excel.

Manage permissions centrally with OneLake security, enforced consistently across all Fabric engines.

Govern effectively with integrated data management tools and governance insights, plus seamless integration with Microsoft Purview for enterprise compliance.

Designed for everyone – not just data engineers

With OneLake, your teams work from a single logical data lake that unifies structured, semi-structured and even unstructured content – such as images, media and IoT data – without unnecessary duplication.

Data scientists can build and train machine learning models directly on curated lakehouse data using familiar tools like Spark and Python.

Developers can accelerate AI-ready applications by unifying data from Azure Databases, Fabric Databases, Snowflake and Azure Databricks.

Analysts and business users can visualise data in Power BI and Excel through native OneLake integrations.

IT and data governance leaders can centrally manage access, enforce policies and track lineage across all domains using OneLake's built-in catalogue and Microsoft Purview integration.

Valamar Riviera drives call centre sales up by €20 million with Fabric

Fragmented data, manual processes and unreliable systems were slowing responses for Valamar Riviera, a leading tourism company for the Adriatic coast. Valamar implemented Fabric to centralise data, automate operations and deliver highly secure, scalable real-time insights. The company improved efficiency and reduced costs, boosting call centre sales by €20 million.

Read the full story

"What's most beneficial about Fabric is that it's an all-in-one platform. You have connectors to bring in the data, and you have databases, real-time analytics and AI. For companies like ours that don't have a deep R&D or development focus, what's most relevant is that we can do more work much faster – with fewer people to maintain it all."[9]

Roberto Gobo
Director of Digitalisation, Valamar Riviera

Developing powerful, insight-driven apps at scale

Cloud professionals can complete AI application development tasks up to **71%** faster and **83%** more confidently with SQL database in Fabric.[10]

Mirroring gives you a simple way to bring operational data into Fabric for analytics without heavy extract, transform and load (ETL) processes. If you're building new apps, you can quickly provision SQL or NoSQL databases within Fabric that automatically sync to OneLake for unified analytics. And if you already use Azure Databases, you can mirror them directly into Fabric to unlock analytics without disrupting your existing operational systems.

Get started fast and simplify OLTP with Fabric Databases

Within the Fabric environment, you can instantly provision new AI-optimised Cosmos DB NoSQL databases or Azure SQL-based transactional databases. These options are part of the Fabric Databases workload, a custom environment that gives you a single place to access, organise and use trustworthy data that's automatically mirrored in OneLake and ready to go with zero ETL.

A unified platform accelerates development. You can discover and use trusted data, build pipelines and enforce governance policies without stitching together multiple tools. Tight integration with Microsoft Purview and Azure services ensures compliance and enables analytics and AI solutions at scale – without heavy custom code.

Fabric Databases are ideal when you need:

Faster starts. You can instantly provision databases with built-in serverless scaling, high availability and disaster recovery – going from idea to a live database in seconds without managing infrastructure. Backups and resilience are handled automatically and because these databases are natively integrated into the Fabric platform, they connect seamlessly to analytics, governance and security services.

A modern developer experience. You can work with familiar tools like Visual Studio Code, SQL Server Management Studio and GitHub. In Fabric, you can expose data through GraphQL APIs for flexible app integration, and use Copilot to generate and optimise SQL queries, explain code and assist with schema changes – all while integrating with CI/CD workflows for faster, more reliable development.

AI-ready databases. Fabric SQL and NoSQL databases support vector storage and similarity search, enabling patterns like retrieval-augmented generation (RAG) when combined with other services like Azure AI services. You can generate embeddings, query vectors with T-SQL and integrate with Azure OpenAI for intelligent applications – all without heavy ETL or leaving the Fabric environment.

Keep your workloads, mirror your data with Azure Databases

If you're running workloads on Azure SQL Database, Azure Cosmos DB or Azure Database for PostgreSQL, mirroring creates a near real-time copy in Fabric – so you can analyse operational data without impacting source systems. Once mirrored into OneLake, your Azure data can be unified with other structured, semi-structured and unstructured sources without duplication.

Azure Databases are ideal when you want to:

Build a single, governed data foundation for advanced analytics, real-time insights and AI-driven applications across your organisation.

Extend the value of your existing investments without migration.

Make your operational data available for analytics and AI workloads within Fabric.

AP Pension revolutionises its data governance and analytics

AP Pension, a customer-owned company in Denmark, had decades worth of line-of-business to data from disparate sources and connections. As part of the company's cloud journey, it used Fabric to reduce data silos and technical debt. Bringing this data together with Fabric gives actuarial teams, advanced users and citizen developers enhanced analytics capabilities. Now they're co-creating and prototyping products in a secure, collaborative environment, accelerating the development of innovative solutions tailored to the firm's needs.

Read the full story

"The architecture of Microsoft Fabric was more than an upgrade for us. Its ability to bring compute to data, rather than the other way around, means we can process information more rapidly and with greater precision. We were finally able to see the future of data-driven decision making."[11]

Jacob Rønnow Jensen
Head of Data Platform, AP Pension

Accelerating productivity with Copilot in Fabric

Copilot in Microsoft Fabric brings AI-powered assistance directly into everyday analytics workflows. It helps users generate and optimise SQL queries, build data pipelines, create data analysis expressions (DAX) and explain code – all in natural language. By reducing complexity, Copilot makes advanced analytics accessible to everyone, from experienced data professionals to team members who have never written a query.

Here's how Copilot can empower your organisation:

Familiar and intuitive. Built into every Fabric workload, Copilot helps your teams create data pipelines, build models, write queries and generate insights using natural language. Copilot integration with Power BI, Teams, Excel and other Microsoft 365 apps means teams have access AI-powered assistance where they work, accelerating analytics and decision-making without switching tools.

Insights to actions. Teams can move from questions to decisions quickly, using Copilot to generate queries, create and edit Power BI reports and even assist with predictive analytics. Fabric data agents can further automate workflows and orchestrate tasks, reducing manual effort and complexity.

Built into Microsoft 365. Help foster a data-driven culture by embedding insights into Teams, Excel, PowerPoint and Outlook through Power BI and Copilot. For advanced customisation, you can extend these experiences using Copilot Studio.

"We're not just building for today; we're building for what's next. By structuring our data and adding the right metadata in Microsoft Fabric, we're preparing for a future fuelled by Microsoft Copilot agents that will generate reports, surface insights and recommend actions automatically. That's the agility and intelligence we're aiming for with Microsoft tools."[12]

Iaian Sherwell
Global Head of AI Operations, IFS

Next steps

With Fabric, you can transform your data into your AI advantage. With workloads and tools for every user, Fabric empowers your entire team to make the most of your data.

Discover how a unified data platform helps Microsoft Fabric customers drive innovation with trustworthy AI.
Get the eBook

Explore how Fabric helps you get AI-ready.
Start your 60-day free trial

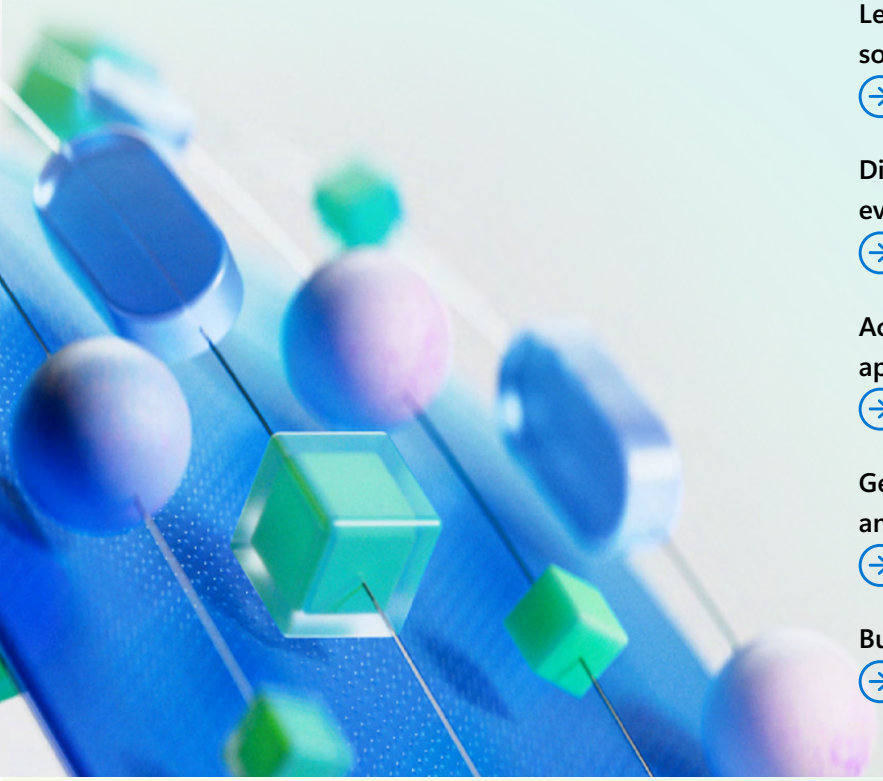
Learn how to use Fabric to build AI-ready analytics solutions in just 60 minutes.
Watch the webinar

Discover how Fabric and Purview help you meet evolving AI and data regulations.
Listen to the post

Accelerate innovation using Fabric with Azure AI apps and agents.
Watch the demo

Get expert guidance and funding across the cloud and AI journey.
Azure Accelerate

Build your Fabric skills on Microsoft Learn.
Get started on Microsoft Learn



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[6] IWG gains real-time insights and boosts fraud detection with Microsoft Fabric. Microsoft. 2025.
[7] Total Economic Impact study: Microsoft Fabric delivers 379% ROI over three years. Forrester Research Inc. 2024.
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[10] Build AI apps faster and easier with SQL database in Fabric – now Public Preview! Microsoft. 2024.
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