Microsoft Azure

Unify Data:
The Essential Guide
for Decision-Makers

Simplify, secure and scale your data strategy using Microsoft Fabric and give your teams the AI-powered tools needed for any data project

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Unify your data and accelerate AI transformation

AI is re-energising the promise of technology and changing industries faster than we thought possible. In this era of AI-powered innovation and decision-making, data is the engine of transformation – as long as the data is high-quality, accurate and up-to-date. At the leading edge, organisations translate their unique data and knowledge bases into strategic value. Retailers deliver personalised experiences for their customers. Healthcare solutions streamline diagnostics and compliance. Manufacturers automate sustainability reporting. Businesses go to market faster.

The opportunities for growth are exciting for organisations that can capitalise on their data. However, a recent survey revealed that more than half of business leaders believe their current data estate isn't reliable enough for AI.[1] They know AI is a growth factor, but 83% say their organisation's AI adoption would be faster if they had stronger data infrastructure in place.[2] Instead, they rely on disconnected systems that weren't built to work together. Despite years of effort and costly investments, they still struggle with siloed, duplicated, untrustworthy or poor-quality data.
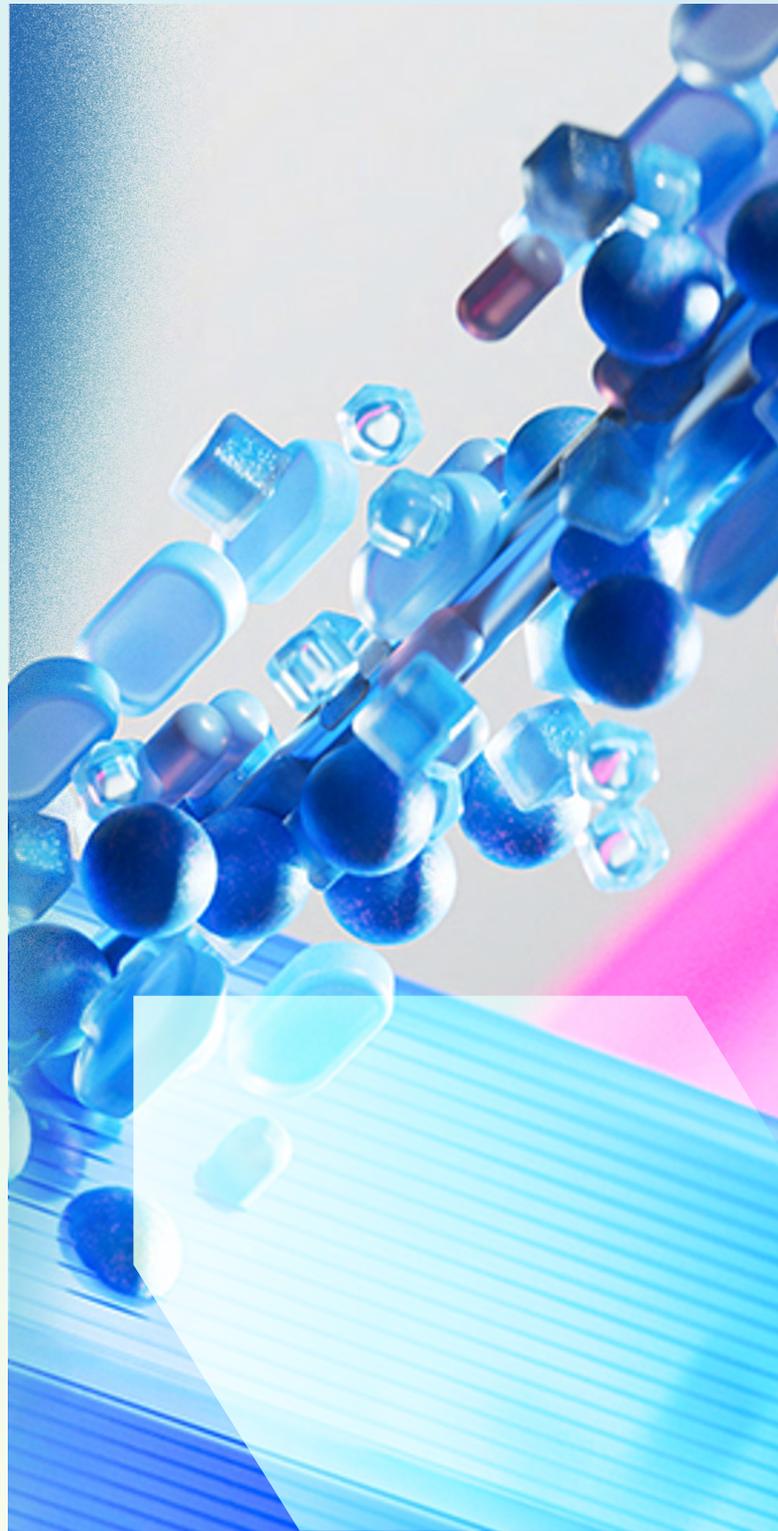
How AI changes a data strategy

AI requires a unified approach that spans storage, governance, analytics, integration and teams. When you unify your data on one, AI-optimised platform, your organisation can capture the right data, trust its quality and quickly harness the business intelligence (BI) within it. Your teams get the AI *and* BI tools they need to uncover hidden opportunities as your organisation transforms both employee and customer experiences.

This eBook helps you transform the value of your data through a unified strategy based on Microsoft Fabric, the data platform for the AI era. For four years in a row, Microsoft has been recognised as a leader in the Gartner Magic Quadrant™ for Data Integration Tools.[3] As the core of the Microsoft data integration strategy, Fabric provides a Software-as-a-Service (SaaS) platform built to navigate the complexities of modern data ecosystems. You can safely unlock the full potential of your data and teams on a foundation with built-in security, governance and compliance. Copilot and other generative AI tools help streamline work for your teams – from data scientists and engineers to analysts and business user – all within a single, end-to-end environment.
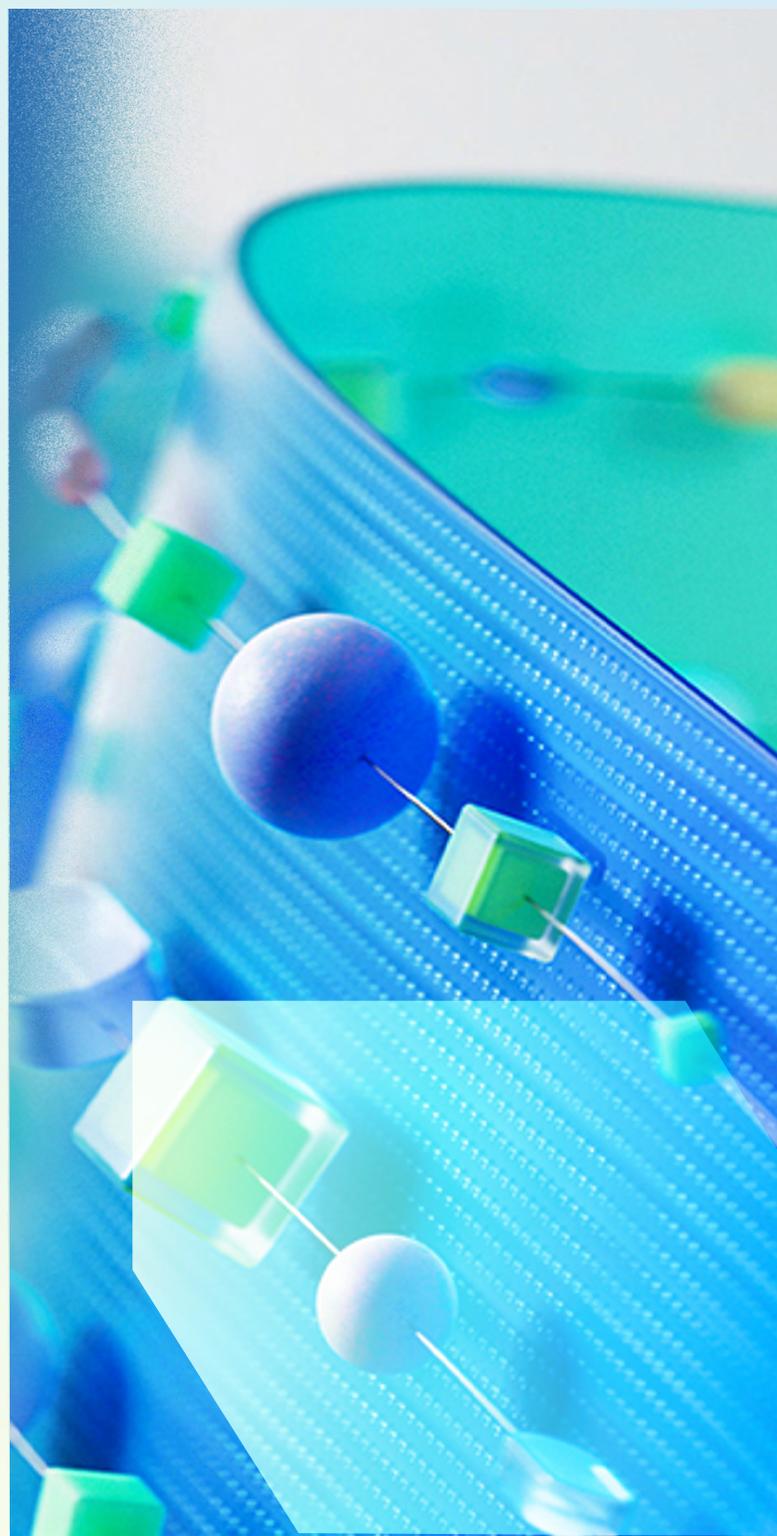
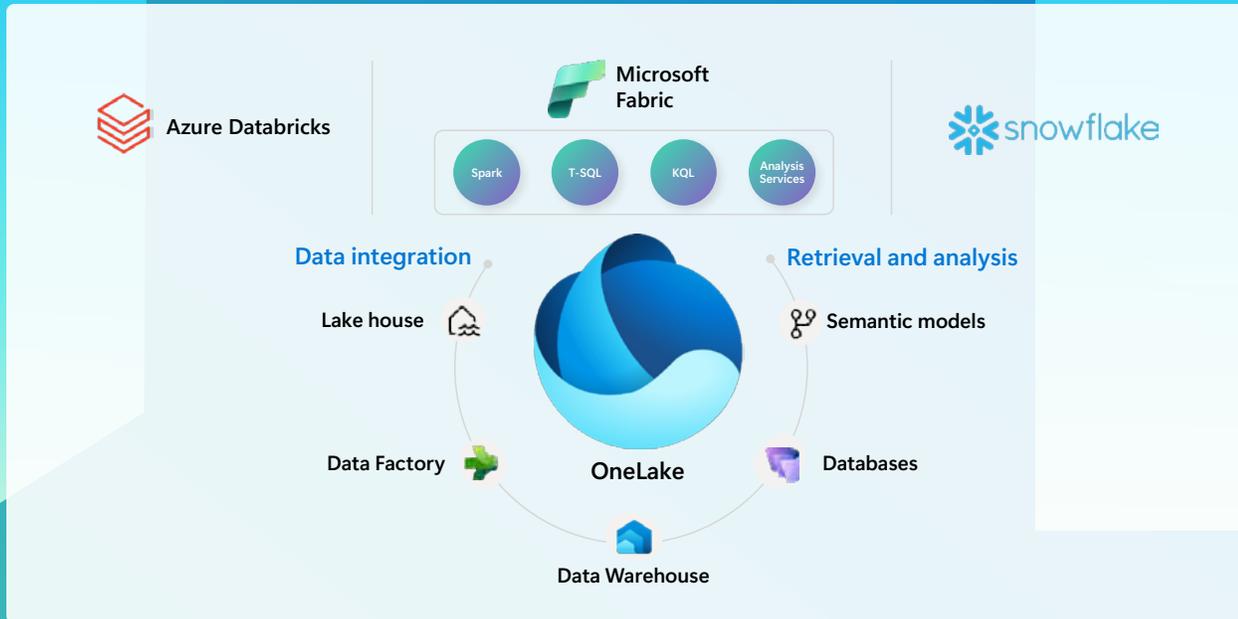# Break down silos and unlock value across the organisation

Before your organisation can realise the full value of AI or BI, you need to step back and think holistically about how to unify, simplify and govern your data estate. When your environment has evolved organically over time, the landscape may be littered with disparate apps and disconnected tools. If legacy systems continue to run critical services, key data may be out of reach. Adding more raw storage or piecemeal solutions only adds to the sprawl and makes it harder for teams to share data.

That's why breaking down data silos is a crucial step. Silos can cost your organisation as much as 30% of its annual revenue from missed opportunities, inefficiency and poor decision-making.[4]

A holistic strategy for data and governance remedies siloed systems as much as silo mentality – the mindset that can develop when teams work in isolation. The strategy relies on a unified architecture. In Fabric, the underlying OneLake architecture provides a single, organisation-wide, logical data lake that gives all your teams a consistent source of data to discover and explore, whether they train machine learning models, build AI apps or visualise real-time analytics.

There's no infrastructure to manage. OneLake stores one copy of data in an open format for use in all your data projects, no matter the supplier or service – and data is governed by default. Embedded AI capabilities help you efficiently transform raw data into actionable insights.

Azure Databricks

Microsoft Fabric

| Spark | T-SQL | KQL | Analysis Services |

snowflake

Data integration

Lake house

Data Factory

OneLake

Data Warehouse

Retrieval and analysis

Semantic models

Databases

OneLake is the centre of a unified data strategy. Teams can store, share and build upon different types of data, no matter where it's hosted. OneLake mirroring replicates a snapshot of popular data sources like Azure Databricks and Snowflake – and keeps data in sync in near real time.

Silo-busting essentials

Rethink your data strategy and bring all your data and analysis tools into a single experience:

✓ **Reduce costs and complexity with an AI-powered data platform.**

When you unify your data platform, your teams can capitalise on new value streams powered by AI, with less chaos and risk. Fabric combines data engineering, data science and BI in one AI-powered ecosystem that gives all your teams the tools they need for their data projects.

✓ **Unify data into a compliant, actionable source of truth.**

A unified data lake supports all business units and stakeholders with their decision-making, easing management and promoting collaboration across the organisation. Fabric provides several ways to bring data in based on the level of control you need, while OneLake makes that data available in open formats for role-specific access.

✓ **Set up all your workers for success with AI-powered tools.**

Generative AI experiences help technical and nontechnical workers find new ways to transform and analyse data. For example, Copilot in Fabric helps all your teams instantly uncover answers and get up-to-date insights.

✓ **Operate on a mission-critical foundation.**

AI readiness also means simplifying data access to systems for online transaction processing (OLTP) and online analytical processing (OLAP). OneLake creates a foundation where AI models, agents and copilots can act on data more directly and efficiently.

Spotlight on manufacturing:
IFS boosts analytics, insights and data access 325% with Fabric

IFS faced high costs and complexity from a fragmented data architecture with multiple reporting tools and overlapping services IFS chose Fabric as the foundation for its next-generation data platform. The unified, enterprise-ready analytics capabilities in Fabric promised to simplify IFS's sprawling architecture, centralise data management and facilitate seamless collaboration across the business.[5]

>87%
more analytics delivery

10×
more data refresh

75%
consolidation of analytics platforms

Read the full story →

"With Fabric, our access to critical data has increased dramatically. Where our teams once worked with just 20% of the information they needed, they now have 85% to 90% at their fingertips. This leap has fundamentally changed how we operate, enabling faster, more informed decisions and driving real business transformation."

Iaian Sherwell
Global Head of AI Operations, IFS

Empower everyone with self-service AI and copilot tools

A unified data platform supports data democratisation – the idea that data should be accessible to everyone in an organisation, regardless of their technical expertise. However, analytics environments keep getting more complex, and many teams lack the culture or tools to consistently act on data. Some organisations have solved this problem by centralising analytics roles, but too often, the demand for these services outpaces the ability to deliver.

Self-service analytics tools empower every employee in your organisation to turn insight into action. But the real transformation happens when analytics and AI are brought together into one integrated experience. When generative AI is infused directly into analytics workflows – and connected tightly to your data layer – you can start delivering smarter, faster decisions across every team.

Fabric enables all your teams to manage and analyse data more effectively. A recent study showed that data engineers using Fabric are 25% more productive, while access and output for business analysts improve by 20%. Numbers like this translate into millions of dollars in savings for your organisation.[6]

Self-service essentials

Empower everyone with analytics and insights at all stages of their journey:

✓ **Make data-driven insights available to everyone.**

Natural language chats, data agents and AI-generated code supply targeted answers for all skill levels. Fabric provides workload-specific AI assistance, industry-leading tools and integration with the everyday apps your teams already use, like Power BI and Microsoft 365.

✓ **Build a strong, data-driven culture.**

Companies with mature data cultures outperform peers in growth, profitability and resilience. Fabric gives teams access to the right data and tools, promoting a shared understanding across business units and unlocking new ways of working across team boundaries.

✓ **Meet teams where they are.**

A foundation of data sharing helps you build a resilient, insight-driven organisation. Changing a culture takes time, but Fabric helps your team quickly skill up. Whether they're designing lakehouse architectures, modelling data, writing code or visualising BI, they have access to free, role-specific learning paths plus code samples, reference architectures and other resources. For example, teams can use the Real-Time Intelligence experience for instant analysis of streaming data, making decisions as events unfold.

✓ **Expect better analytics, but keep the door open to discovery.**

AI-powered tools help your teams improve data analysis – while revealing surprising new approaches. In using Fabric for insights, you may discover entirely new revenue streams as many Fabric customers have.

Spotlight on tech:
Lumen unifies data, gains near-real-time insights

Lumen's ageing systems created data silos, duplication and inconsistent metrics. Lumen adopted Fabric to unify ingestion, storage and analytics in one platform, empowering teams with real-time insights, improved lead targeting and reduced infrastructure costs.[7]

10,000

hours of manual labour cut

6 hours/day

of data copying saved

Read the full story →

"Fabric let us build on the familiarity, security and scalability of Azure. It unites data flows, storage, analytics and machine learning in a single experience."

Jerod Ridge
Director of Data Engineering, Lumen

Deliver trusted data with integrated security and governance

A unified data strategy helps you realise the full potential of AI, responsibly and at scale, while also safeguarding data, operations and people. Even a 10% boost in data usability can translate into USD 2 billion more annual revenue for the average Fortune 1000 company.[8] But usability requires security. That means establishing role-based access controls, policy enforcement, data classification and data lineage.

When security and governance scale with your environment, innovation is never at odds with protection. With OneLake at the centre of your data platform, you can effectively manage and govern your data with industry-leading security and built-in federated governance tools. In one place – OneLake Catalogue – you get a centralised hub for discovering, managing and governing all Fabric items, including lakehouses, warehouses, reports, dashboards and pipelines.

Fabric offers a complete security package for the entire platform. You can define access rules and apply them across Fabric to protect sensitive data and ensure the right users get the data they need. For advanced help governing, protecting and managing data wherever it lives, Fabric provides native integration with Microsoft Purview.

Trust essentials

To operate with confidence, build your data estate on a mission-critical foundation:

✓ **Build trust by removing blind spots and limiting risk.**

A modern data and analytics estate must provide end-to-end visibility to reduce the risk of data exposure and maintain trust. The comprehensive governance and compliance capabilities in Fabric help you manage, protect, monitor and improve the discoverability of your organisation's sensitive information.

✓ **Maintain trust through persistence.**

With centralised and delegated administration, domain-specific policies, multilevel security, metadata scanning, data lineage tracking and more, Fabric helps maintains trust in even the most complex operational and regulatory environments.

✓ **Extend trust across your data estate.**

Complex, distributed data landscapes need enterprise-level protection. Integration with Microsoft Purview gives you access to advanced data security, compliance and governance.

Spotlight on finance:
## KPMG delivers productivity gains and new business

As a leader in audit, tax and advisory services, KPMG faced a daunting challenge: the need to manage and analyse data from a myriad of sources. After implementing Fabric internally, KPMG was ready to share its expertise and experience with clients to design, implement and operate data and AI solutions using Fabric.[9]

Faster visualisations

Deeper insights

New client services

Read the full story (→)
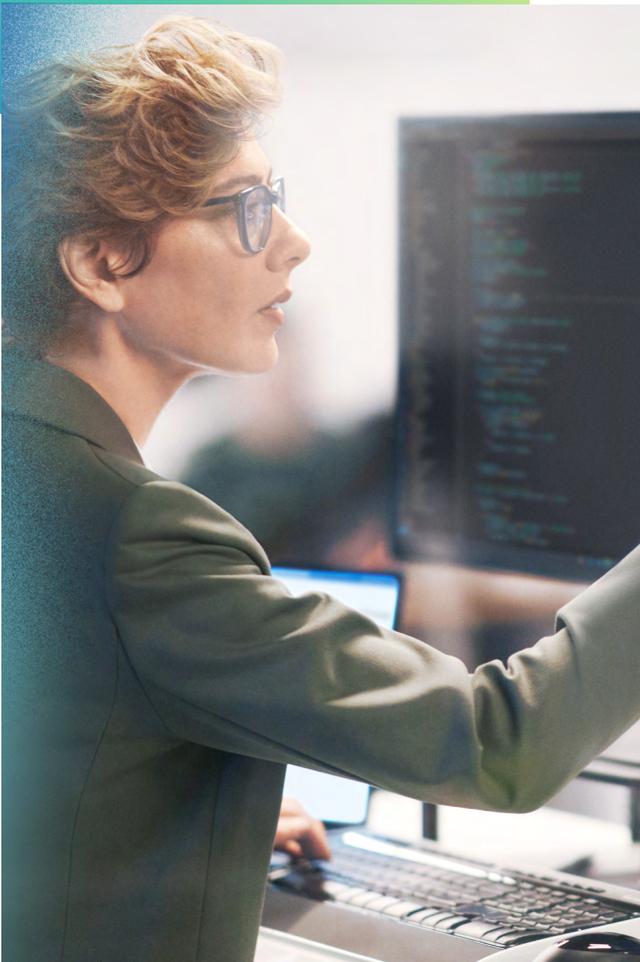
"We're excited by the opportunity to use our in-house experience to help clients harness the capabilities of Fabric to analyse data at scale, taking advantage of key features such as robust data governance and security capabilities, Microsoft OneLake for centralised data access and Microsoft Power BI for reporting."

Rajiv Phougat
Principal and CTO for Data and Analytics, KPMG US

Optimise efficiency and accelerate time to value

A unified data strategy enables teams to efficiently capitalise on existing analytics capabilities without the risk, disruption and cost of a complete overhaul. Even if you're sitting on a patchwork of products from various suppliers and paying for idle capacities, you can bring them together using cost-effective, cloud-native SaaS.

SaaS is the foundation for AI and BI success. Given the rapid rate of AI advancements, SaaS positions you to grab the best of the new capabilities as they become available. In addition, its pay-per-use services democratise access to these advancements for all your teams, and you can easily scale up or down as needs evolve, ensuring agility and cost-effectiveness.

The best of SaaS comes together in Fabric. It requires minimal set-up to create an environment optimised for cost-effective data analytics. Operational, analytical and AI data from hybrid and multicloud sources are united in a complete data platform with SaaS databases and powerful analytics services. The simplified pricing model aligns expenses with actual usage and eliminates the need to track separate costs for different tools and storage types.

Your teams can speed up time to value and get more done – data engineers using Fabric spend 90% less time searching, integrating and debugging.[10] You can make the most of existing investments as well through seamless integration with Microsoft 365, Azure and familiar assets.
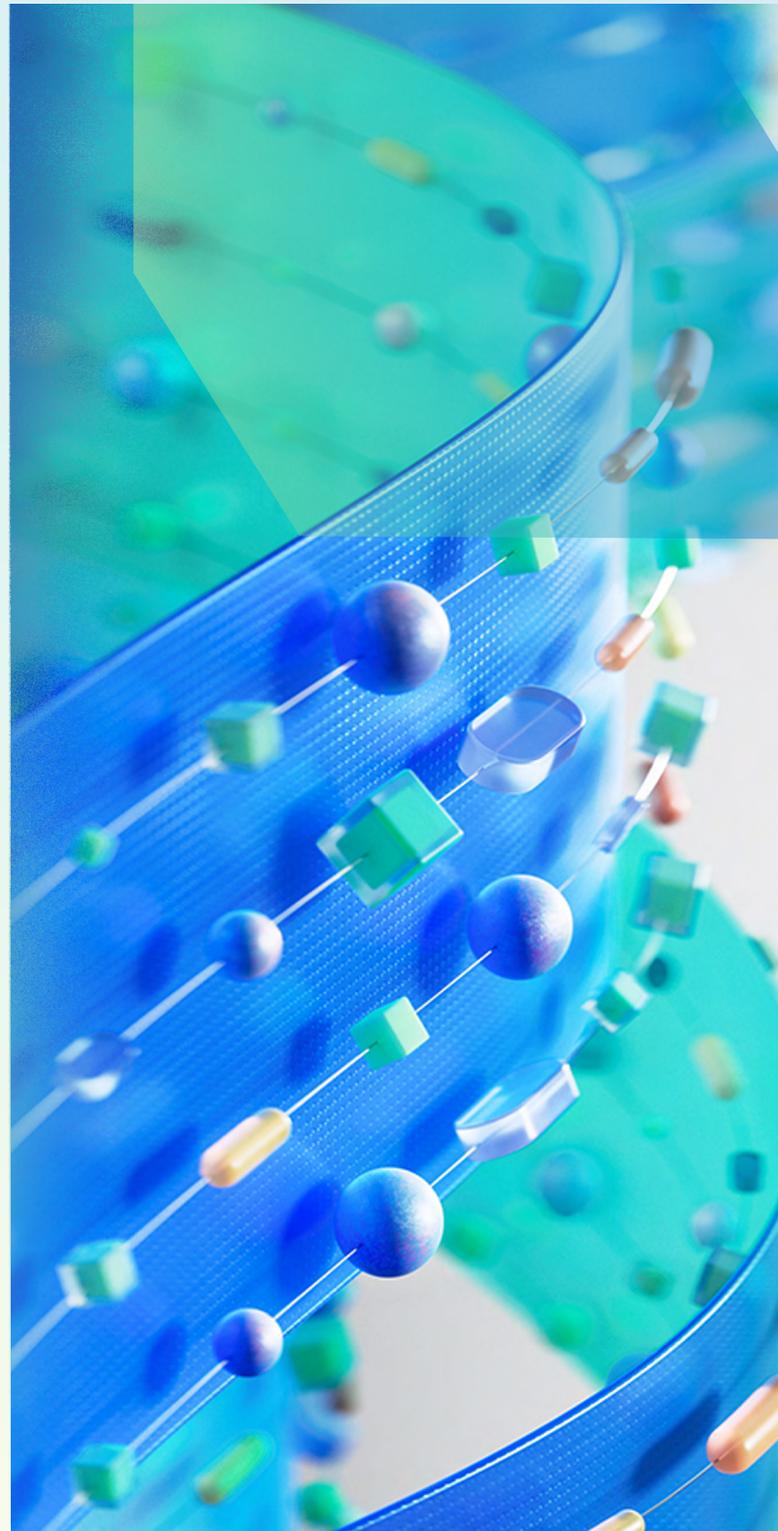
Efficiency essentials

Bring your data together to unlock faster time to value:

✓ **View AI as a business essential, not just a technology investment.**

Integrated AI capabilities in an optimised SaaS environment like Fabric generate value across teams and business units, accelerating deal cycles, proposals, presentations and time to market for products.

✓ **Understand the economics of SaaS and AI investments.**

A unified data strategy benefits from the savings delivered by AI-enabled workflows and processes. As a complete, AI-powered data platform, Fabric eliminates the need to purchase separate services while providing a flexible, consumption-based cost structure.

✓ **Extend the value of existing investments.**

Interoperable platforms keep costs in check by connecting with your existing tools, preferred applications and third-party platforms. With its open ecosystem and data lake architecture, Fabric simplifies integration with your existing services and helps you avoid supplier lock-in.

✓ **Choose technologies built for the future.**

What are tomorrow's data, interoperability, security and geopolitical requirements? As your organisation grows, the open ecosystem in Fabric supports structured and unstructured data of any format, provides access to tools from industry leaders and helps you maintain compliance with key industry standards and regulations.

Spotlight on healthcare:
Whakarongorau Aotearoa innovates digitally with Microsoft

With the health sector under pressure to service growing demand and complexity, telehealth services provider Whakarongorau Aotearoa wanted to enhance its capacity to help people seeking advice. The move from on-premises infrastructure to a cloud-based solution is enabling the company to make improvements and modernise its digital services significantly faster.[11]

USD 10K
saved per month since transition

55%
of health needs resolved at first contact

89%
**of contacts diverted from emergency services**

Read the full story →

"We needed a more flexible, dynamic and adaptable platform. After looking at a few different options, it became clear that Fabric offered the best way forward for us as an organisation. It's been a positive shift in terms of data accessibility and its ability to gather insights."

Shane Jensen
Senior Project Manager, Whakarongorau Aotearoa

Discover how Fabric prepares you for AI innovation

Fabric gives you a modern data foundation for AI with a comprehensive suite of services, including data lake, data engineering and data integration – all in one place.
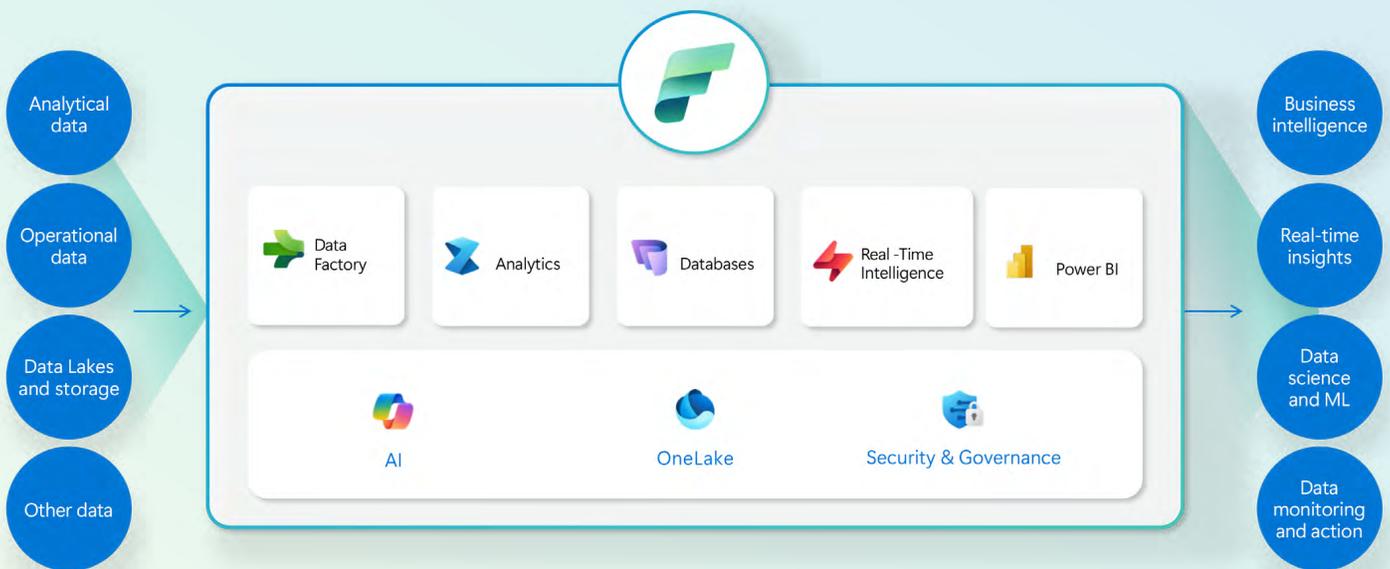
Separate components come together in Microsoft Fabric into a cohesive environment, where core workloads are tailored for specific teams, tasks and roles.

Fabric essentials

Empower every team in the analytics process with the role-specific experiences they need:

✓ **Data Factory** simplifies complex data movement and transformation with more than 300 connectors to cloud and on-premises data sources and AI-powered data pipelines.

✓ **Analytics** includes all the tools data professionals need for more complex authoring and modelling.

Data Engineering. Build scalable, high-quality data pipelines and lakehouses with familiar tools and languages.

Data Science. Accelerate AI innovation with built-in machine learning tools for modelling, experimentation and deployment.

Data Warehousing. Run enterprise-grade analytics at scale with no tuning, no duplication and full Power BI integration.

✓ **Databases** streamline AI application development with simple, intuitive and autonomous databases that provision in seconds. Your developers can quickly prototype new scenarios for AI transformation.

✓ **Real-Time Intelligence** lets you ingest streaming data with high granularity, dynamically transform that data, query it in real-time for instant insights and trigger actions – for example, alerting a production manager when equipment is overheating or rerunning jobs when data pipelines fail.

✓ **Power BI** in Fabric provides industry-leading visualisation and AI-driven analytics that enable business analysts and business users to gain insights from data. With deep integration into Microsoft 365, Power BI helps you deliver relevant insights to business users where they already work.

Next steps

The modern data estate spans multiple clouds, accounts, databases, domains and engines. Microsoft Fabric helps you bring it all together into a unified experience so you can unlock the potential of your data and lay the foundation for the era of AI.

→

Learn how to unify your data with Fabric

→

Watch the webinar

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Explore solution architectures to guide your planning

[1] Data Readiness for the AI Revolution. Harvard Business Review. 2024.
[2] Furlonger, David. What Your CEO Means When They Say "We're in the Era of AI." Gartner. April 2025.
[3] Gartner Magic Quadrant for Data Integration Tools. December 2024.
[4] Goodwin, Phil. Data Silos Remain a Problem. IDC. July 24, 2024.
[5] IFS boosts analytics, insights, and data access 325% with Microsoft Fabric. Microsoft. May 27, 2024.
[6] McKelvey, Wangui. Forrester Total Economic Impact study: Microsoft Fabric delivers 379% ROI over three years. Forrester Research, Inc. June 3, 2024.
[7] Lumen unifies data, gains near-real-time insights. Microsoft. May 19, 2025.
[8] CIO vision 2025: Bridging the gap between BI and AI. MIT Technology Review Insights and Databricks. 2025.
[9] KPMG delivers productivity gains and new business. Microsoft. May 27, 2024.
[10] McKelvey. Forrester Total Economic Impact study.
[11] Whakarongorau Aotearoa innovates digitally with Microsoft. Microsoft. July 8, 2025.