Microsoft Azure

Your Intelligent Data Strategy for AI

Secure and transform your data into your competitive edge

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Introduction to intelligent data for AI

In a world of constant change, data gives businesses the clarity and direction they need.

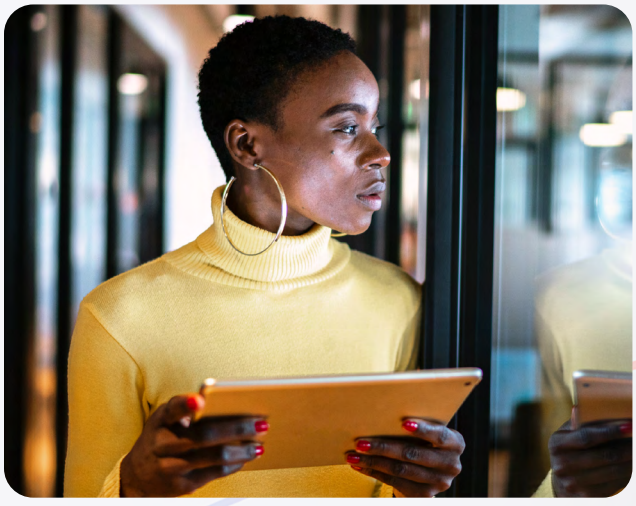
But managing it isn't easy – on its own, data can be complex and time-consuming, especially when applied to AI.

Today's businesses want to dig deeper into their mountains of data and extract the information that will help get the best results. By using AI to analyse and identify patterns in historical and real-time data, decision makers can spot areas for improvement, find growth opportunities and avoid potential disruptions. Now, generative AI is expanding that value even further – helping growing businesses not only analyse data, but also automatically generate clear, easy-to-use reports that guide day-to-day decisions.

For growing companies, this means you don't need a team of data experts to make sense of your information. With the right tools, AI can uncover insights, simplify reporting and keep sensitive data secure – all while saving time and reducing risk. Whether you're looking to enhance your predictive power or create new products and digital experiences, the intelligence to drive AI innovation is buried somewhere in your data – you just need the ability to find it and use it efficiently and effectively.

Essentially, your data can illuminate paths to success. The more data you have, the brighter that light can be. Without the right safeguards and strategy, that complexity can slow you down – or worse, expose your business to security risks.

To avoid obstacles in your path to growth, you need a strong data strategy that addresses the most common data complexities. This eBook is designed to show growing businesses how to balance simplicity, security and ROI so you can confidently put your data to work without adding unnecessary cost or risk.



What is intelligent data?

Intelligent data involves capturing all of the intelligence inside an organisation's data, which is key to driving innovation and differentiation in today's competitive landscape.

Overcoming common data challenges

Business and technology leaders today realise that data is an essential part of creating digital experiences and products that allow them to connect with customers, employees and partners in ways never before possible. But for many growing businesses, managing data often feels harder than it should. Juggling multiple tools, limited budgets and the need to keep sensitive information secure can slow down progress and make it tough to get real value from your data.

The good news is data doesn't have to be overwhelming. With the right approach, you can start small, see quick wins and grow from there – without putting your business at risk or overcomplicating daily operations. And once your data is working for you, you'll be better positioned to take advantage of new technologies, including AI, in a way that's simple and sustainable.

Here are four of the biggest obstacles to making data a true business asset – and why solving them can set your business up for faster ROI, stronger security and easier adoption of new tools down the road.

1. Low visibility

The complexity of managing data across multiple platforms can reduce data visibility and even cause organisations to miss critical information. As organisations adopt different apps and services to handle sales, finance, marketing and operations, data often ends up scattered across spreadsheets, cloud tools and partner systems. Each tool holds valuable information, but it typically resides in its own silo, making it challenging to bring everything together. This fragmentation makes it difficult to access data quickly and get a clear, complete view of the business.

2. Lack of agility

The pace at which data becomes available is crucial for timely decision-making. For many businesses, data comes from multiple places – customer interactions, partner tools and internal systems – and pulling it all together fast enough to act on can be a challenge. Older systems aren't built to handle this pace and often struggle to keep up. As a result, reports take too long, insights arrive late and important opportunities can be missed.

3. Data security and compliance

Protecting sensitive information and meeting compliance requirements can be complex and time-consuming. As data moves between systems, it becomes vulnerable to threats such as unauthorised access or data breaches. For businesses without large IT teams, this can feel overwhelming – yet customers still expect their information to be kept secure and private. Building security into how you manage and share data is essential to protect both your business and your reputation.

4. AI readiness

AI and analytics tools work best with clean, consistent data, but many businesses struggle with information that's incomplete, duplicated or error-prone. When data isn't trustworthy, reports become less reliable and decisions suffer. This can mean wasted time, costly mistakes or tools that don't deliver on their promise. Taking steps to keep data organised and accurate helps ensure that every business decision – and any future AI project – is built on a solid foundation.

> **Organisations with AI-ready data and analytics foundations see a 20% improvement in AI-related business outcomes compared to organisations that don't."[1]**

Crafting a data strategy for innovation

Siloed data causes a ripple effect that has the potential to impact every aspect of your organisation – including your plans for innovating with AI.

By adopting a unified data strategy, you can ensure an open environment where data is accessible, secure and ready for AI innovation.

A strong data strategy combines analytics, cloud technology, AI, security and operational data workloads in a unified, intelligent construct – a comprehensive, integrated and flexible platform. This kind of platform supports your organisation's data needs across the entire lifecycle, including collection, analysis and visualisation, while also providing a robust foundation of governance and security.

An effective data platform considers many different components, including transactional databases, real-time and historical data, unstructured data, IoT sensors, AI and machine learning and high-performance analytical data stores. Meanwhile, an orchestration layer helps connect disparate tools and data stores, and the governance layer helps ensure consistent data management across your organisation.

Four key features that make a successful data strategy

A unified data platform encompasses four features to help organisations derive more value from their data:

1. **Databases**
   Transactional databases help operations. They're typically optimised for fast and efficient data retrieval and updates. With many organisations using dozens or even hundreds of databases, a unified data platform helps connect them, allowing teams to easily copy data from databases to analytic data stores and keep those stores synchronised as data changes. In this way, a unified data platform helps you easily use your data for analysis and visualisation while also ensuring governance and regulatory compliance.

2. **Analytics**
   The three primary areas of analytics within a unified data platform include data ingestion, analytical data storage and data visualisation. With these three components working together seamlessly on a unified platform, you can more easily turn raw data into insights and uncover trends that point to opportunities for growth.

3 AI and machine learning

Innovating with AI requires operational databases, analytics and governance solutions designed to work together so you can spend less time on data integration and more time on value creation. A unified data platform helps minimise integration bottlenecks and administrative overhead, allowing IT teams to focus on developing AI-driven products and services.

4 Data security

Building a successful data strategy requires data that can be trusted. A unified data platform allows organisations to identify new threats and respond quickly by enabling a layered defence-in-depth security approach. This layered approach involves cloud security, access management, threat protection and encryption for data in transit and at rest.

Benefits of a unified data platform

For growing businesses, technology should make things simpler – not more complicated. Microsoft Fabric is an all-in-one data and analytics solution built on Azure that brings data science, engineering, integration, warehousing and more into a single, secure cloud platform. Instead of stitching together different systems or managing costly infrastructure, you get everything in one place in a unified platform.

With Fabric, you can scale as your business grows, protect sensitive information with enterprise-grade security and use built-in AI and real-time analytics to turn your data into clear, actionable insights. That means faster decisions, smoother operations and less time spent struggling with technology.

Bring order to complex data estates

Many growing businesses struggle to keep their data organised and easily accessible, which can waste time, drive up costs and make it harder to obtain reliable results. Adopting a unified data platform like Fabric gives you one place to bring all your tools and information together, breaking down silos so your team can use data with confidence instead of feeling bogged down by it.

Empower leadership to make informed, real-time decisions

The longer data stays hard to find or locked away in different systems, the less useful it becomes for making smart business decisions. If your data doesn't clearly show what's happening right now – in your operations, customers or market – you're left making decisions based mostly on hindsight. Fabric makes it easier to get the right information in front of the right people, giving leaders a complete view of the business at any moment. That means you can pivot quickly and make confident decisions that drive the best results.

Unify your data with integrated database and analytics solutions

Microsoft Fabric

Azure Cosmos DB

Azure Databricks

Azure Database for PostgreSQL

Azure Database for MySQL

Minimise security concerns and governance complexities

Data can create risks if it isn't properly protected, including breaches, cyberattacks or fines for not following regulations. It can be challenging to track, secure and monitor sensitive information effectively. Bringing your data, AI and analytics together on Fabric gives your team better visibility into potential risks, makes it easier to respond quickly to threats and helps ensure your business stays secure and compliant without added complexity.

Security solutions for hybrid, multicloud, edge and IoT protection

Microsoft Defender XDR

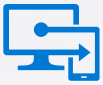
Microsoft Defender for Cloud

Microsoft Sentinel

Microsoft Purview

Microsoft Priva

Microsoft Entra



Microsoft Intune

NexJ Health needed to cut cloud costs, simplify deployments and scale efficiently, driving their move to Microsoft Azure's modern, scalable platform. They used Azure Kubernetes Service, Azure AI services and Azure Landing Zones to migrate and modernise infrastructure, streamline deployments and enhance performance.

As a result, NexJ Health cut hosting costs by **35%**, reduced deployment time by **25%** and achieved **100%** uptime in the U.S., enabling faster feature delivery, improved reliability and greater focus on innovation.

> "Using Microsoft Azure strengthens every aspect of our work. It helps us innovate faster, deliver better outcomes and expand access to advanced healthcare."
>
> — **Sabina Girard**, Director of Technology and Chief Privacy Officer, NexJ Health

Read the story ›

Lay a solid foundation for innovating with AI

Adopting a data strategy that prioritises breaking down silos and integrating solutions is crucial for achieving high-quality, scalable and sustainable AI innovation. Taking an integrated approach to data management enables organisations to streamline workflows, eliminate redundancy and establish a cohesive ecosystem that facilitates seamless access, analysis and utilisation of data for AI-driven insights. This approach encourages innovation, enabling businesses to quickly develop and deploy intelligent solutions that meet market demands, enhance customer engagement and optimise operations.

Kick-start your intelligent data strategy with Azure Data

The ability to unlock value from your data is essential for driving better business outcomes. Azure data solutions, such as Fabric, empower growing businesses to break down data silos, streamline access and manage data effectively, enabling teams to deliver faster reporting, improve personalisation and make more informed decisions.

As a unified, secure platform that integrates analytics, databases, governance and collaboration, Fabric helps you organise and use your data efficiently. By leveraging Fabric alongside Azure Data, Azure Databricks and the Azure database family, your teams can work with both structured and unstructured data to drive meaningful impact across your business.

Fuel your intelligent data strategy with trusted cloud technology

- **Database and analytics:** Gain fuller visibility into your data and enable faster decision-making.
- **Security:** Help ensure compliance and safeguard data with built-in, multilayered security.
- **Innovation and AI:** Create products, services and digital experiences that differentiate your offerings, improve customer experiences and help employees achieve more.

Get started

Try Microsoft Fabric.

Start free trial >

Learn how to simplify migration and modernisation with **Azure Migrate**.

Get started >

Fuel your transformation with Microsoft experts and investments using **Azure Accelerate**.

Learn more >

[1] Gartner®, 3 Defining 2025 Trends for Chief Data and Analytics Officers, By Rita Sallam, April 1, 2025. GARTNER is a registered trademark and service mark of Gartner, Inc. and/or its affiliates in the U.S. and internationally and is used herein with permission. All rights reserved.