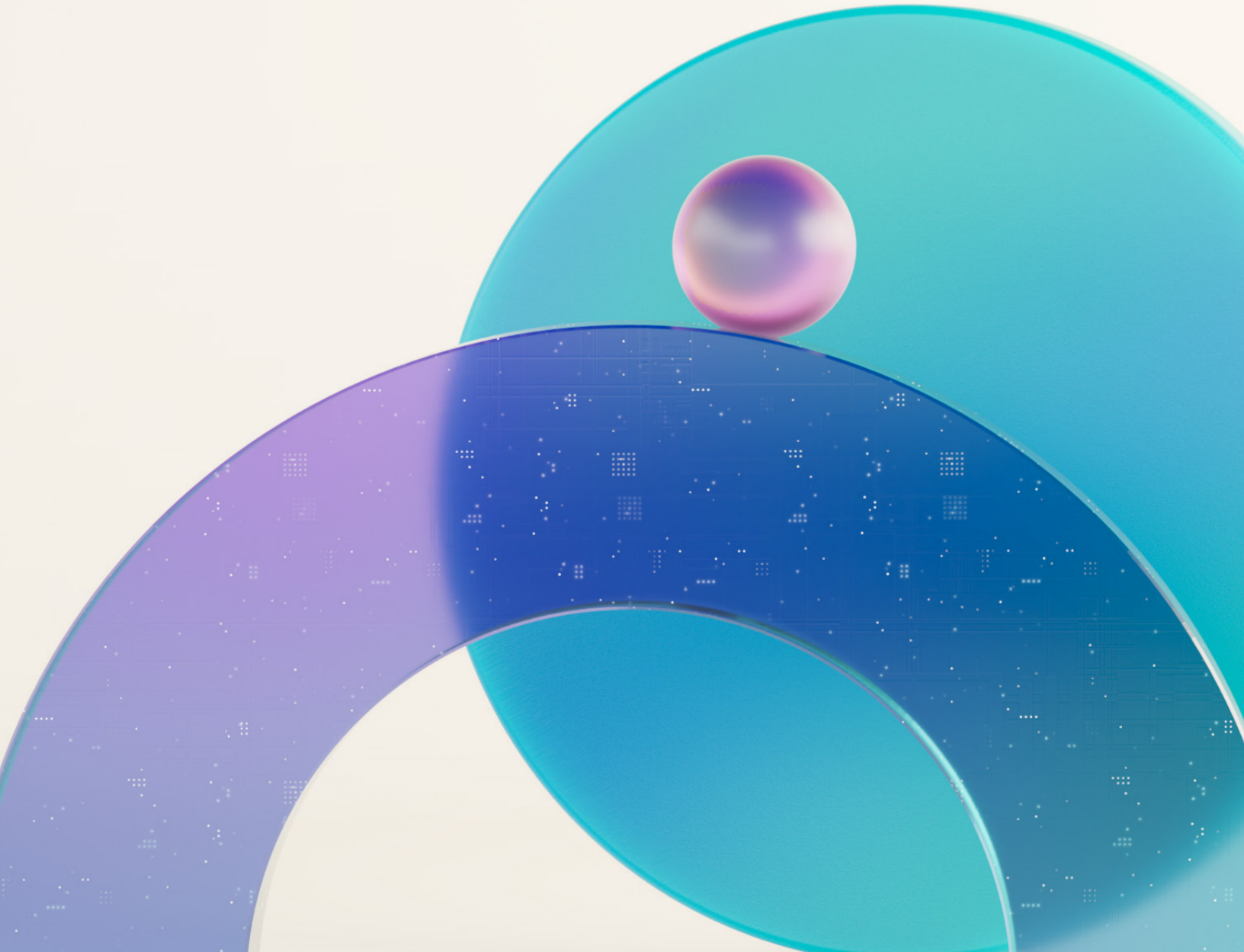
Microsoft

Accelerating Business Insights with **Unified Analytics**



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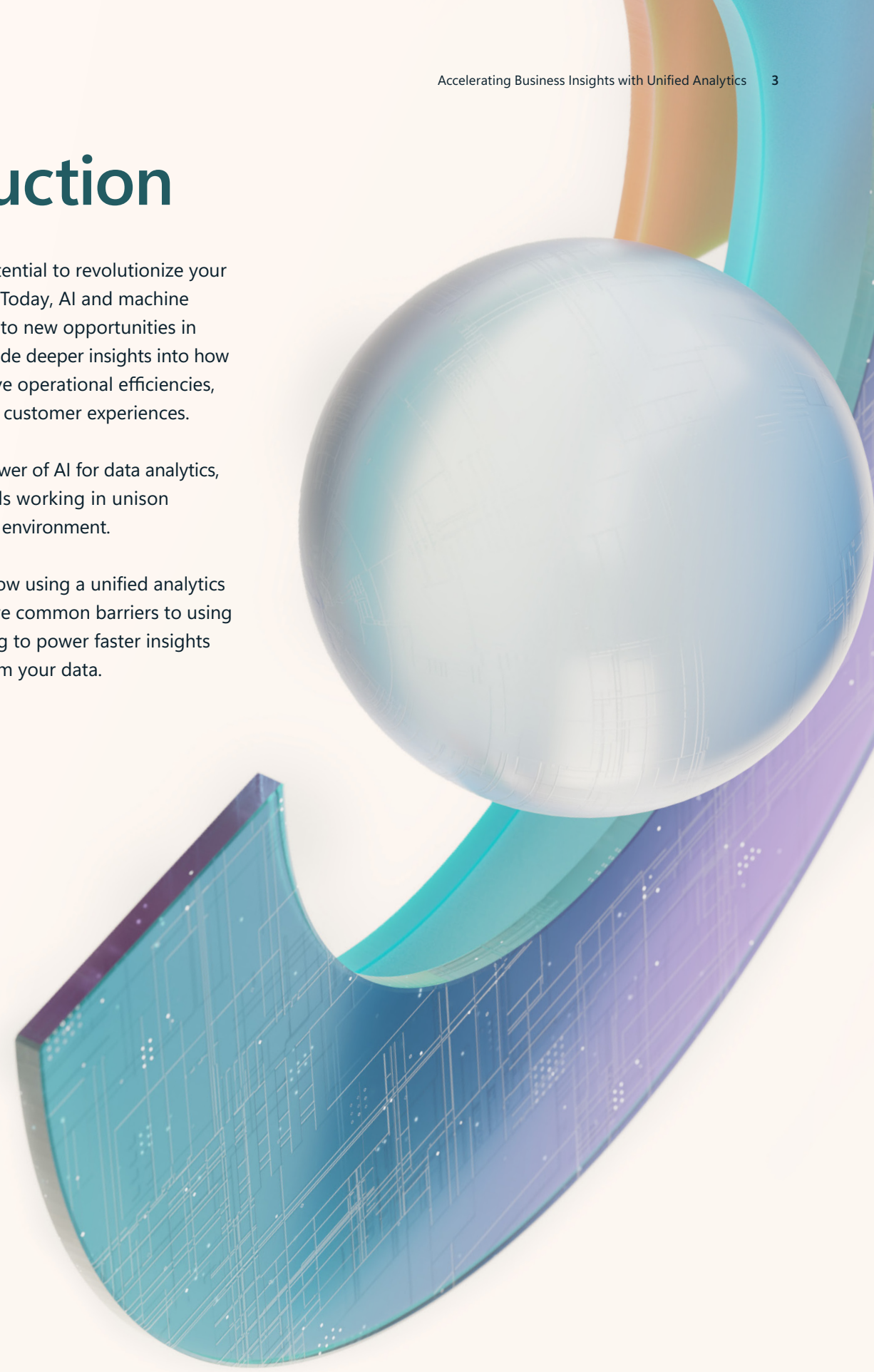
Introduction

Your data holds the potential to revolutionize your business at every level. Today, AI and machine learning are giving rise to new opportunities in data analytics that provide deeper insights into how to drive growth, improve operational efficiencies, and deliver exceptional customer experiences.

To fully embrace the power of AI for data analytics, you need the right tools working in unison within a cohesive cloud environment.

This e-book explores how using a unified analytics ecosystem helps remove common barriers to using AI and machine learning to power faster insights and get more value from your data.



Chapter 1

The limits of innovating with a disparate data estate

Data analytics helps fuel strategies for growth and optimization by providing deep insights that reveal how your processes operate and perform. For example, marketing professionals can use data analytics to examine the correlation between social media impressions and spending to help them maximize impressions per dollar. Meanwhile, analytics performed on sales, competitor, and promotional data helps implement more profitable pricing strategies. In finance, it's used to optimize expense management by tracking spending and budgets and flagging outliers that might indicate fraud.

However, the reality is that many organizations face several barriers trying to extract these deep insights from their data. These challenges arise primarily from not having a unified platform that integrates all of their data and analytics tools.

Disconnected and duplicated data

Data silos take up more resources while producing lower-quality results

Organizations often gather data from various sources, including multiple clouds, on-premises, and third-party systems. A common issue arises when these sources aren't effectively integrated, resulting in unmanaged data silos. When this happens, organizations must spend more time and effort to store and manage multiple versions of the same data sets. Data silos also make it harder to ensure data is properly governed, leading to potential compliance issues or security breaches.

Meanwhile, data scientists working with silos often spend hours chasing requests throughout the organization to extract, load, and transform data in preparation for analysis.

Concerning analytics, data silos can drastically limit the quality of an organization's reporting. Without a single source of truth for trustworthy data, organizations tend to rely more on descriptive analytics—that is, examining what's already happened—as opposed to exploring predictive analytics, which can help determine what's going to happen. Ultimately, data silos and duplicate data end up using more organizational resources while simultaneously making it harder to deliver reliable and impactful insights.

Increased tech complexity

Managing different analytics solutions creates unnecessary complexity

Analysts and data scientists require various tools and services to uncover business insights. However, acquiring and maintaining these resources can become extremely costly, especially as more are added. Often, these tools are from different vendors, resulting in a challenging and lengthy integration process to guarantee seamless compatibility and functionality. The result is that tech teams are often focused on getting their tools to work together, rather than using their data for goal-oriented purposes.

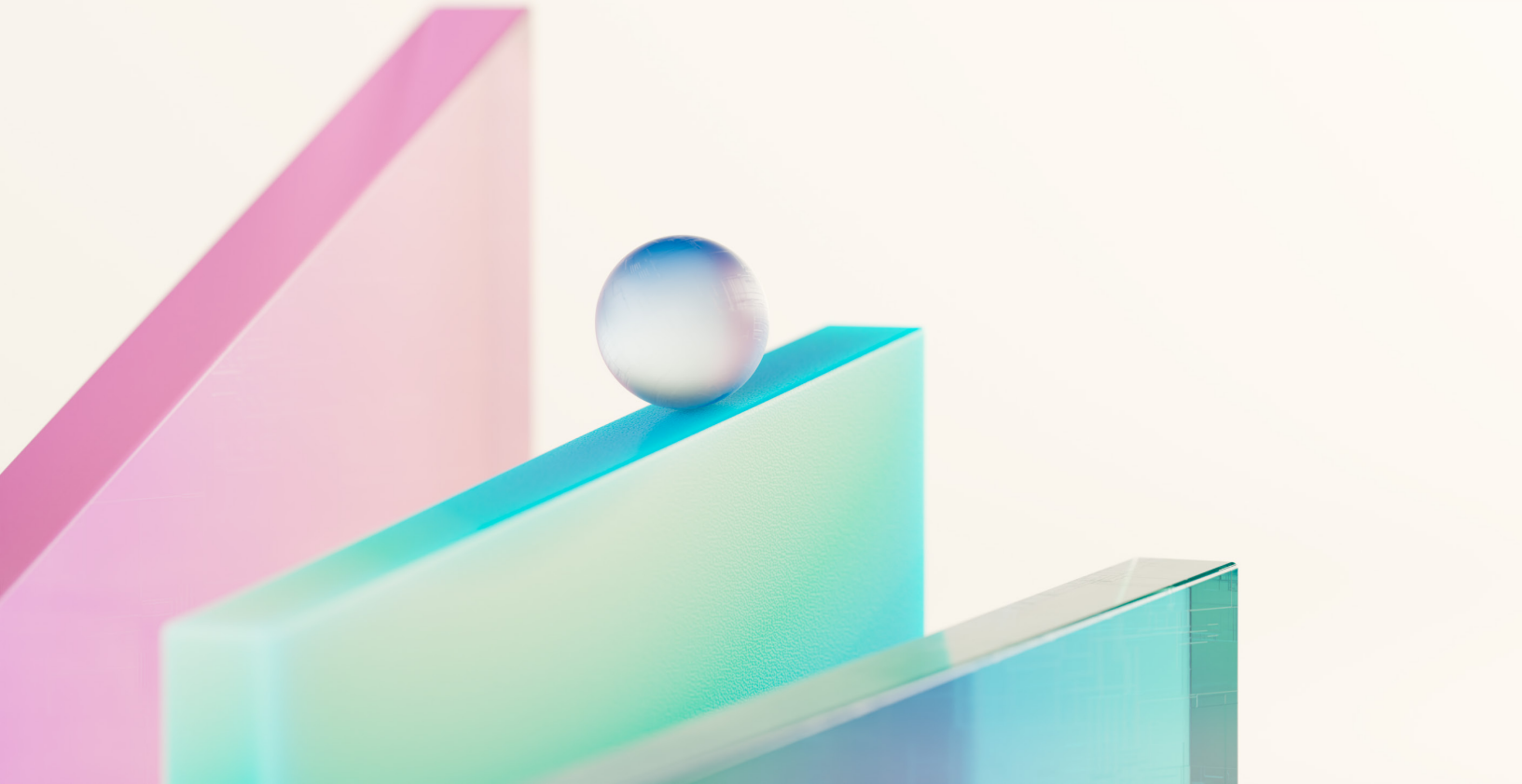
This complexity of managing analytics solutions makes it harder for teams to be agile and responsive in a constantly changing market. Without a lean and integrated solutions stack, organizations are more likely to miss opportunities for improvement when they would have the greatest impact.

Limited data literacy

Lack of data democratization prevents more teams from using analytics effectively

Managing platforms that convert data into actionable insights requires skilled engineers and developers to set up, adjust, and maintain them. Because these platforms are highly technical, regular business users without a high level of data literacy can't easily extract insights independently. Instead, they depend on data experts to do it for them. As the need for insights grows, so does the workload on these specialized teams.

It's critical, then, to democratize these tools so that no one person or role serves as a bottleneck for progress. Without democratized analytics tools, line of business users often have a harder time deriving insights independently. Even if they can extract insights, they may still struggle to create and share visualizations and reports without intuitive self-service tools. The result is that data analytics capabilities are limited to a few highly technical personnel, whom the rest of the organization must rely on for insights and reporting.



Chapter 2

Unify your analytics tools for the era of AI

Without a unified analytics platform, surfacing insights from your data can be a fragmented, complex, and costly process. That's where Microsoft Fabric comes in.

Organizations can drastically increase the value of their insights by:

- Having a single source of truth for their data.
- Using an open and governed environment that keeps their data secure and compliant.
- Democratizing access to analytics tools for non-technical users.
- Integrating AI and machine learning capabilities in analytics workloads.

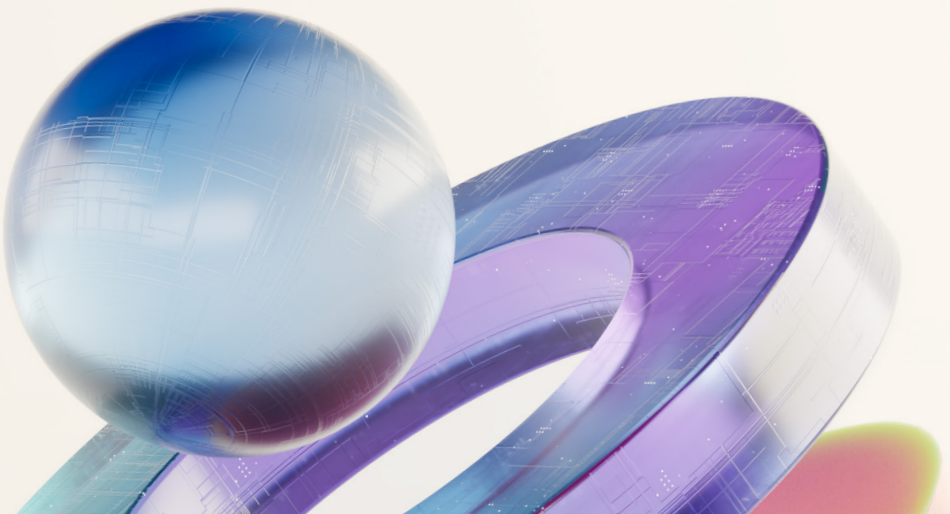
What is Microsoft Fabric?

Microsoft Fabric is an end-to-end analytics platform for ingesting, storing, processing, and analyzing data within a single integrated environment. Built on a software foundation as a service, Fabric eliminates the need to stitch solutions together in preparation for analytics workloads. Instead, Fabric users access their tools within an integrated interface optimized for their unique experience, so they can jump right into their analytics tasks without waiting for data to be copied, transformed, or moved. Essentially, Fabric makes it easier for data professionals and citizens to derive fast and meaningful insights from their data without running up against the limits of non-integrated tools mentioned earlier.

Components of Fabric

Integrated experiences for data professionals

Fabric encompasses a suite of analytics compute experiences. Bringing together these different experiences helps remove common roadblocks that traditionally slow down time to insights, providing data professionals with a clearer path to the data they need based on their roles and objectives.



Capability	Experience	Objective
Data integration	**Data Factory**	Automate the movement and transformation of data to a centralized location for analysis.
Data engineering	**Synapse data engineering**	Design, build, and maintain infrastructures that make data usable for analysis.
Data warehousing	**Synapse data warehouse**	Store and organize data for fast querying, analysis, and reporting.
Data science	**Synapse data science**	Interpret data to help businesses understand their customers, markets, products, processes, and performance more accurately and clearly.
Real-time analytics	**Synapse real-time analytics**	Quickly collect, query, and process real-time data from various sources like websites, sensors, or devices.
Business intelligence	**Power BI**	Create and share reports and dashboards that simplify and visualize data into actionable insights.

Increased tech complexity

All of these Fabric experiences are built on a cloud-based data lake foundation called OneLake. Sometimes referred to as "the OneDrive for data," OneLake is a unified storage system that lets multiple analytical engines use a single copy of data, rather than requiring multiple sets across different groups. When one compute engine stores data in OneLake, every other compute engine can instantly access and use the same data without copying, moving, importing, or exporting it.

Just as Word, Excel, PowerPoint, and other Office software automatically store documents in OneDrive, all the workloads of Fabric store their data in OneLake. It automatically indexes that data and scales to provision as much storage as needed, making it the only storage platform you'll ever need for analytics.

OneLake shortcuts eliminate the need to move and duplicate data

Shortcuts are a key feature of OneLake. If your organization stores or uses data across different clouds, domains, subscriptions, and accounts, shortcuts allow you to bring that data into OneLake without any data movement or duplication.

Without OneLake shortcuts, you have to schedule periodic jobs to copy data from other locations into your platform. Depending on the data size, this could add significant time and overheard costs just to make your data accessible. OneLake shortcuts help you avoid these issues by letting you access data from different storage locations without copying it, giving your data professionals a head start on their analytics workflows.

OneLake shortcuts act like shortcut links on your desktop, allowing you to access data from other sources outside of Fabric, including:

Azure Data Lake Storage Gen2

Amazon S3

Dataverse

Fabric + Databricks: Making your data ready for AI

The magic behind Fabric is in its ability to connect solutions that make it easier to apply AI and machine learning to your data. With that goal in mind, Fabric was intentionally designed to use a standardized storage format to be compatible with another widely used tool—Azure Databricks.

Azure Databricks is a cloud-based platform that lets you build and run machine learning models using a popular analytics engine called Apache Spark. Spark can process large amounts of data quickly and efficiently, allowing Azure Databricks users to rapidly create, test, and deploy AI models to the cloud.

Because OneLake supports different data formats, users can easily access them from Fabric and Azure Databricks. This allows users to move data from one platform to another without losing quality or compromising security. Fabric and Azure Databricks help leverage AI and derive deeper business insights at an accelerated pace.

We see that Microsoft Fabric will be critical for our professionals and insurance industry clients to realize the full potential of AI to protect the health and financial well-being of people everywhere."

Ken Mungan, Chairman, Milliman

Chapter 3

Five key benefits of integrated analytics

By integrating your analytics tools and establishing a single source of truth for your data, Fabric makes it easier to find out what's not working optimally within your organization. From there, AI-powered analytics help you make timely and informed decisions on addressing those issues and then track the progress of your strategy for improvement. Meanwhile, additional benefits help ensure your analytics processes stay lean, efficient, and adaptive to emerging technologies.

Benefit #1
Enhanced visibility and governance capabilities

Microsoft Purview works with Fabric to provide governance, risk, and compliance solutions that help ensure data is protected and consistent. Purview creates a unified map of your entire data estate that gives you a bird's eye view of sensitive data and allows you to provision access only to the right users. Knowing that your analytical insights are based on high-quality data that adhere to even the most stringent compliance regulations gives you greater peace of mind.

Benefit #2
Higher analytics performance

Using multiple tools together allows you to process complex analytics workloads faster and more efficiently. You can use one tool to collect and store your data, another to process and transform it, and another to create charts and reports—all without the downtime normally resulting from disconnected solutions.

Benefit #3
Lower costs

Whereas stitching together different analytics tools creates additional costs through buying and managing multiple licenses, integrating your solutions helps lower costs. It eliminates the need for additional licenses and cuts costs by reducing time-intensive integration efforts that come with manually connecting those tools. Plus, thanks to OneLake, you don't have to pay more to store multiple versions of the same dataset.

Benefit #4
Ease of AI adoption

The compatibility between Fabric and Azure Databricks helps simplify the data and AI lifecycle, from data ingestion to model deployment. Use Fabric to unify and model your data in a secure environment, then use Azure Databricks to analyze that data with advanced AI and machine learning. Fabric also includes AI capabilities like Azure OpenAI Service, which lets users interact with their data and analytics workloads using natural language and code.

Benefit #5
Real-time analytics

Without real-time analytics capabilities, businesses may have difficulty identifying the root of their biggest challenges. For example, if a company suddenly starts losing sales, it needs fast and complete insight into its processes to determine the cause and correct it quickly. With the integration of Synapse Real-Time Analytics, Fabric makes it easier to find and act on opportunities for improvement in minutes as opposed to hours or days.

> **With Fabric, there was the promise to do more with our data—turn it into insights, turn insights into actions, and do so in a secured environment."**
>
> **Markus Morgner**, Head of Enterprise Data Platform and Engineering, ZEISS Group

Chapter 4

Integrated analytics use cases for decision makers

Fabric democratizes data analytics for non-technical team members. With self-service tools and easy-to-use interfaces, Fabric makes it easier for more team members to apply analytics use cases to innovations that directly impact customer-facing and revenue-generating initiatives.

To illustrate how Fabric makes this possible, let's explore some specific use cases for both executive-level personas and department leadership personas.

Executive-level use cases

Developing big-picture business strategies
A team of C-suite executives strategizing for next year's growth initiatives use Power BI to request predictive insights in seconds. Then, they ask questions using natural language to dive deeper into those insights and create visualizations that arrange the information into an easily digestible format.

Sharing real-time reporting
A group of executives with limited code experience uses the drag-and-drop interface in Power BI to create interactive reports that showcase insights. Then, they embed those visualizations in PowerPoint or Outlook for sharing via email or in a meeting presentation.

Department leadership use cases

Optimizing department processes
Rather than operating from disparate datasets, leaders in marketing, sales, and customer service work from and contribute to the same data set within OneLake to optimize their processes using a fuller and more accurate representation of their customer base.

Improving analytics literacy
Leaders wanting to empower their staff to use analytics for their everyday tasks can easily onboard staff to start deploying self-service, low-code business intelligence, and analytics tools with zero configuration.

Embedding interactive reports
Department leaders can simplify data presentations by embedding Power BI reports directly into business applications like Dynamics 365 and Salesforce.

Conclusion

The impact of embracing a "one-stop shop" for analytics

Mastering analytics in the era of AI requires more than having the right tools together in the right place. It also requires a holistic approach that ensures your analytics stack and team members are compatible. Transformational insights come from organizations who know how to maximize their people's skills and the technology they use daily.

Microsoft Fabric is a revolutionary end-to-end analytics platform tailor-made for the AI era. By consolidating all your data and analytical tools in a central location—and empowering team members of varying IT skill levels to use those tools—you can unlock the potential hidden within your data to improve planning, optimize processes, and enhance forecasting.

You need fast access to accurate, high-quality data to become an insight-driven business. With Fabric, you can remove the typical barriers to insights and get started on the real work of making intelligent business decisions and driving your strategies for growth forward.

[1]New Technology: The Projected Total Economic Impact™ Of Microsoft Fabric, a commissioned study conducted by Forrester Consulting, September 2023.

Fabric delivers positive results to businesses

New Technology: The Projected Total Economic Impact™ Of Microsoft Fabric, a commissioned study conducted by Forrester Consulting, showed significant results in a composite organization using Fabric, including:

254%-420%
projected return on investment over three years[1]

Up to 50%
increase in data engineer and data scientist productivity[1]

$500K-$1.2M
in enhanced business results due to better insights[1]

$660K-$1M
reduced costs of security, governance, and compliance[1]

$1.1M
saved due to eliminated spending on current solutions[1]

Launch your journey to unified analytics
Take the next step to enabling business-driven insights.

Contact Sales >

Get started with integrated analytics. **Try Fabric for free >**