Microsoft

Maximize Your Power BI Value

Five ways to get more value from your analytics tools

Contents

Introduction

For enterprises, data is the essential ingredient to a successful strategy for growth. Power BI has been helping organizations across industries uncover deep insights from their data and turn them into actionable strategies. Now, advanced cloud technology provides more opportunities to improve your insights, increase the value of your data, and maximize your Power BI investment.

The next step to amplifying business intelligence: Unified analytics

Most enterprises today have data coming in from numerous sources—the edge, IoT devices, social media, and other applications used in everyday workflows. Wherever it comes from, your data needs to end up in an accessible location for reporting and advanced analytics, AI, and machine learning processes. Since a large volume of data is required for these tasks, the cloud provides a secure and scalable location for storing and analyzing it all in one place.

Microsoft Fabric is a cloud-based platform that provides a unified environment for analytics tools, including Power BI and Azure Synapse.

By consolidating tools and diverse data sources in a single environment, Fabric lets everyone from data analysts to data citizens use the real-time data they need to extract the most accurate and up-to-date insights from their data.

This e-book will examine five ways to get the most value from your Power BI using connected cloud-first solutions with Fabric. Incorporating the elements discussed in this book will give you the starting points to address some of the most common barriers when it comes to getting the best insights from your data.

Barriers to better insights

Data siloes stem from the dispersion of data across different sources, departments, and systems, often in different formats and structures. This hinders seamless data consolidation, making integrating, cleaning, and transforming for analysis difficult. Data fragmentation can also lead to inconsistencies and inaccuracies, undermining the reliability of analytical results.

Disconnected teams within an organization present a significant challenge regarding data analytics. This disconnect often results in different departments or teams working in isolation, each with its own data sources, tools, and methodologies. Consequently, valuable insights and knowledge remain siloed, preventing the cross-pollination of ideas and findings.

Redundant infrastructure leads to increased operational costs, as maintaining duplicate hardware, software, and systems requires a lot of ongoing financial investment. These redundant resources can also tie up valuable physical space, power, and IT staff, contributing to inefficiency and added complexity in your organization's IT environment. This raises the risk of errors, downtime, and security vulnerabilities.

Advanced cyber threats can lead to breaches and unauthorized access, resulting in data theft, manipulation, and financial and reputational damage. Compliance with data privacy regulations becomes increasingly complex when analytics involves sensitive information, requiring you to navigate regulatory landscapes like GDPR or HIPAA. Data integrity is another concern, as cyberattacks can introduce inaccuracies or biases into analytics results, undermining your insights' reliability. Furthermore, cyber threats can disrupt data availability through attacks like Distributed Denial of Service (DDoS), affecting decision-making processes. On top of that, malicious software, such as malware and ransomware, can infect analytics systems, encrypt data, or hold it hostage.

Limited ability to innovate with AI can impede the effectiveness of data analytics within your organization. AI plays a pivotal role in automating tasks, scaling analytics processes, and uncovering hidden insights in data. Without adequate access to AI, organizations may rely on manual, time-consuming processes, resulting in reduced efficiency and potential errors. Furthermore, AI-driven analytics can provide real-time insights, accurate predictions, and personalized customer experiences, all of which contribute to more informed decision-making.

This e-book offers five different tactics to maximize your Power BI investment using Azure Synapse or Microsoft Fabric:

1 | Unify your data

2 | Perform analytics from anywhere

3 | Ensure data storage is scalable and secure

4 | Use built-in data governance and protection

5 | Adopt AI tools to improve business intelligence

Chapter 1

Unify your data: Microsoft Fabric

The first step to getting the optimal value from your data is to unify it. As new technologies become more data-intensive (like generative AI), you need the ability to access, store, structure, and analyze your data within a connected, single source of truth.

Overcoming the challenges of fragmented data with Fabric

Most organizations' analytics ecosystems have evolved, creating many different specialized and disconnected services. Data teams must stitch these analytics services together so they can function effectively—but it's a time- and labor-intensive process, in which each challenge produces another one.

Added together, these challenges put up significant roadblocks to business intelligence. Without a unified cloud platform for data storage, transit, and analytics, it becomes increasingly difficult to scale your resources or share the information with the appropriate teams and lines of business.

With their limited scalability and connectivity, legacy systems simply aren't designed to handle the complexity of modern data analytics—which is why Microsoft has come up with a better way.

Fabric is a complete analytics solution that combines a range of services, covering data migration, data repositories, data processing, data amalgamation, scientific exploration, live data analysis, and business insights. It operates as a software as a service (SaaS), combining novel and pre-existing Power BI, Synapse, and Azure Data Factory elements into a unified cloud environment.

Progression of challenges

Every analytics project
has many subsystems

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Those subsystems require a **different class of product** to operate

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Multiple vendors supply those products

↓

Integrating those products is complex, labor-intensive, and costly

How Fabric solves for the progression of challenges

The Fabric unified data foundation provides
a single, simplified source of truth

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Democratized access enables streamlined collaboration and agility

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Built-in **security and compliance** offer full visibility and governance over the entire analytics estate and its users

How does it work?

Microsoft Fabric is a lake-first platform that combines the most powerful data analytics components—data mesh, data fabric, and data hub.

Data mesh

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Provides access to data through a series of domains assigned to an individual line of business (LOB).

Data fabric

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Automates data management tasks like unifying and cleaning disparate sources authorizing data access, and optimizing existing data sources.

Data hub

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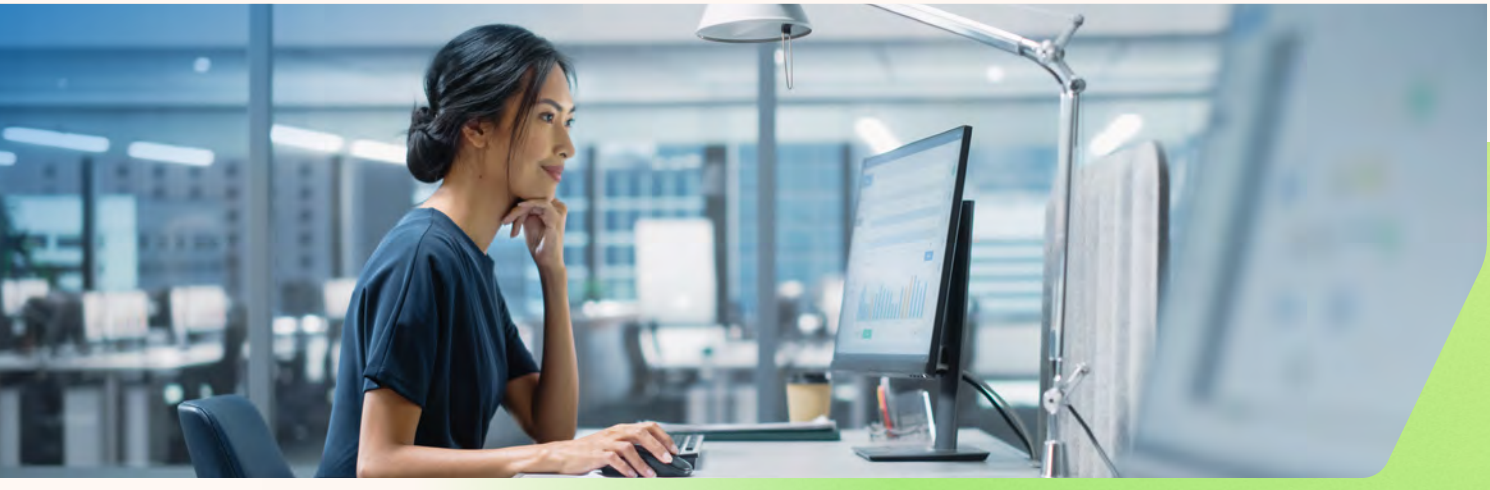
Stores data on an open and governed lakehouse, making it easily consumable for domain users.

Fabric allows for effortless resource adjustments in the face of constantly changing needs and budgets so you can easily scale resources up or down as required. At the same time, it also helps you streamline operations, making it possible for smaller teams to achieve tasks that would typically demand larger data teams.

Fabric creates a unified ecosystem that centralizes administration and governance by harmonizing new and existing components from Power BI, Synapse, and Azure Data Factory. This consolidation simplifies IT management, giving IT teams centralized control over critical enterprise functions and automatically disseminating permissions throughout the underlying services. Furthermore, data sensitivity labels are seamlessly inherited across all items within the suite, ensuring a consistent and secure management approach.

As with every solution by Microsoft, security is paramount to Fabric. Built on a secure and compliant foundation with inherent security and reliability, Fabric ensures data protection and risk mitigation, providing features like resiliency, conditional access, service tags, and a lockbox to safeguard data across the entire environment.



Tips for getting started with Fabric:

- **Start with a proof of concept:** Whether you're looking to optimize analytics to gain better insights into your marketing and sales, operations, or HR processes, start with creating a proof of concept (POC). Rather than focusing on multiple big-picture challenges, focus on a specific departmental scenario and build out from there.

- **Align with your organization's data stewards:** Collaborate with your data stewards to create a business value roadmap that outlines your goals and ties them to tangible business outcomes. Use their help to document the details of your existing data estate and lay a framework for transforming your data analytics processes in Fabric.

Take the next step

Try Microsoft Fabric paid features for free for 60 days, available for Microsoft 365, Power Platform, and Fabric admin roles.

On the Fabric homepage, select the Account manager and then select Start trial. If there isn't a Start trial button, you may need to enable trials for your tenant by granting Administer user access to a Fabric trial. Once you've agreed to the terms, you can begin exploring Fabric by adding items to **My workspace** or creating a new workspace.

Chapter 2

Run analytics from anywhere with Azure Synapse and Microsoft Fabric

Your organization's data holds the key to identifying new opportunities, achieving cost reduction, enhancing risk mitigation, discovering new revenue streams, and improving customer satisfaction. What you need is the right analytics tools to uncover those insights.

Establish a connected analytics approach with Azure Synapse and Microsoft Fabric

Azure Synapse Analytics is an advanced analytics service that seamlessly combines SQL and Spark technologies for enterprise data warehousing and big data systems. It also incorporates Data Explorer for log and time series analytics, pipelines for data integration, and integrates with other services like Power BI, Cosmos DB, and Azure Machine Learning.

Synapse offers several features for secure and efficient data transferring. You can use public network access to allow incoming public network connections to your Synapse workspace. Alternatively, private endpoints enable secure access to your workspace from within your virtual network. There's also a connection policy for Synapse SQL that enables various data scenarios and extends T-SQL capabilities to address streaming and machine learning needs.

Synapse enhances security by supporting a minimal TLS version of 1.2 or higher for the serverless SQL and development endpoints. This ensures that login attempts using a TLS version lower than 1.2 won't succeed. Users can adjust the minimal TLS version via the API for both new and existing Synapse workspaces, accommodating those needing to use a lower client version.

How does it work?

Together, Fabric and Synapse offer the flexibility to query data on-demand, using dedicated serverless options at scale. This way, data professionals can quickly ingest your data, and then transform and query it using SQL. As your data complexity continues to increase, the experiences required to manage it can use Synapse in different ways for optimal effect.

Synapse Data Engineering → Data engineers handle data consolidation, security considerations, democratization of data, and adjusting to different consumption needs. Instead of stitching together different products and data sources, data engineers would prefer to focus on the jobs to be done.

Synapse Data Engineering helps remove the friction of data ingesting, transforming, and sharing by combining the best features of data lakes and warehouses in an open format. Making the lakehouse a first-class item in the workspace makes it easier for data engineers to create and work with it. They can choose from different ways of bringing data into the lakehouse and use shortcuts to create virtual folders and tables without the data leaving their storage accounts.

Since all the data in Fabric is stored in the Delta format by default, it's much easier for different data professionals to work together. The lakehouse also has an SQL endpoint that provides data warehousing capabilities, including running T-SQL queries, creating views, and defining functions. Every lakehouse comes with a semantic dataset, which lets BI users build reports directly on top of their lakehouse data. Connect your Power BI to the lakehouse data using 'Direct Lake' mode, which lets you read the data in the lake without data movement or a dip in performance.

Synapse Data Science → Data science encompasses a broad range of methodologies, including data mining, machine learning, and predictive modeling. Using data science, your company can make more informed decisions and gain predictive insights that would otherwise be out of your reach.

Synapse Data Science in Fabric lets data science practitioners work seamlessly on top of the same secured and governed data that data engineering teams have prepared. This eliminates the need to copy data and find ways of giving your data science teams secure access to data. The open Delta Lake support lets data science users version datasets and create reproducible machine learning code. With Notebooks and Visual Studio Code, they also gain access to a wide range of low-code tools and code-authoring experiences. Synapse Data Science in Fabric also offers a wide set of built-in machine learning tools including MLFlow model and experiment tracking. The SynapseML Spark library also provides scalable machine learning tools that allow users to quickly serve predictions to Power BI for better collaboration across different analytics roles.

Synapse Data Warehousing → With data warehousing, the data flows in from various sources, such as point-of-sales systems, business applications, and relationship databases. Then, it's usually cleaned and standardized before it hits the warehouse, which can store large amounts of information that can be used for data mining, data visualization, and other forms of business intelligence reporting.

Synapse Data Warehouse in Fabric is a natively supported, open data format data warehouse that lets you collaborate seamlessly and derive actionable insights without putting enterprise security or governance at risk. Like the previous data warehouse generation, SQL provides multi-table ACID transactional guarantees. It's built on the well-established SQL Server Query Optimizer and Distributed Query Processing engine, but with the key improvements that add new value to enterprises. Based on a fully serverless compute infrastructure, Synapse Data Warehouse in Fabric allows you to provision resources in milliseconds as job requests come in and cross-querying, auto-scaling, and self-optimizing workloads.

Synapse Real-time Analytics → Certain data types can depreciate over time—and quickly. Data professionals sometimes need their data in real time to ensure it can deliver the most impactful insights and smart decision-making potential.

Synapse Real-Time Analytics lets you simplify your data integration and focus on scaling up your analytics solution while also democratizing data for everyone, from citizen data scientists to advanced data engineers. Gain access to data insights through automatic data streaming, indexing, and partitioning, and employ auto-generated queries and visualizations. Real-Time Analytics is optimized for streaming and time-series data, using a query language and engine with high performance for searching structured, semi-structured, and unstructured data. Ingest data from any source and in any data format without building complex data models or creating scripts to transform the data. Real-Time Analytics is ideal for achieving high performance and low query latency, even when you're working with high-speed and high-volume data streams.

Tips for getting the most out of your Synapse data infrastructure:

Connecting your Power BI with Synapse is just one way of maximizing your data reporting. Here are three other ways to fine-tune your reports and deliver eye-opening insights across every line of business in your organization:

- **Manage your data lake and build data marts for BI reports.** Data stored in the data lake is often stored in parquet format, which provides columnar data compression and can be queried faster using the default serverless endpoint and read more quickly in Fabric. This doesn't stop you from accessing the data in Power BI. Rather, it provides a method for ensuring that you can load perhaps a rolling 24 months of data by loading only that data into the model.

- **Explore your data lake using a fully managed serverless endpoint.** You can create logical databases with ADLS storage so that you can explore the data contained in the data lake using T-SQL. The virtual database includes the ability to create row-level security within the database as this feature is supported. Additionally, by using views, you can ensure the columns are in human-readable format and sorted by the columns with the least number of values to improve Power BI report performance.

- **Build code-free data pipelines to integrate more data sources.** Fabric integrations provide the ability to create data pipelines in the same fashion as Azure Data Factory, while also providing the capability to include PySpark notebooks to write data to serverless pools that can be included in a Power BI model.

Connect your Power BI workspaces with your Synapse workspace.

Building and analyzing Power BI dashboards directly from Synapse is a simple process that begins with installing the Power BI Desktop.

Once that's done, follow these instructions to create a Power BI workspace and begin the first steps to monitoring your activities in Synapse.

Chapter 3

Make data storage scalable and secure: **Microsoft OneLake and Microsoft Azure Databricks**

Scalable and secure data storage is critical for effective data analytics and business intelligence reporting. Firstly, they allow you to optimize costs by independently scaling storage and computing—a flexibility not typically available with on-premises data lakes. This enables you to adjust resources based on usage patterns and implement automated lifecycle management policies to control storage expenses. Plus, cloud-based storage helps deliver consistently high performance for large-scale analytics queries and robust data security including encryption at rest, advanced threat protection, and mechanisms for safeguarding data across various levels of access, encryption, and network controls.

Integrate OneLake and Azure Databricks using Fabric

Microsoft OneLake serves as Fabric's unified, open, and governed SaaS data lake. It acts as a central repository for organizational data, facilitating multiple computing engines to access the same data in diverse ways. **Azure Databricks**, on the other hand, is a high-speed, user-friendly, and collaborative analytics platform based on Apache Spark. It empowers the swift development and deployment of data-driven applications, with a range of features to enhance secure and efficient data transfer. When used together, Microsoft OneLake and Azure Databricks can significantly simplify your organization's data journey.

How do they work?

OneLake

Included with every Fabric tenant, OneLake is a unified, logical data lake for your organization that's designed to serve as a one-stop shop for your analytics data. It's built on top of Azure Data Lake Storage Gen2 and can support any type of file, whether it's structured or unstructured. It delivers one data lake to your entire organization and a copy of your data to be used with different analytic engines.

Before the introduction of OneLake, users sometimes opted to create separate data lakes for different business groups, despite the added complexity of managing multiple resources. OneLake addresses these challenges by emphasizing improved collaboration. Each customer tenant is allocated precisely one OneLake (there can never be more than one or zero). The provisioning of OneLake is seamlessly integrated with every Fabric tenant, requiring no additional resources for setup or management.

While many applications separate storage from computing, data often gets optimized for a specific engine, hindering its reuse across multiple applications. With Fabric, various analytical engines like T-SQL, Spark, and Analysis Services store data in the open delta parquet format, enabling its utilization across multiple engines without data copying. This flexibility allows you to choose the most suitable engine for your specific task. For instance, if your SQL team is building a transaction data warehouse, they can leverage the T-SQL engine to create and transform tables. On the other hand, data scientists can use the Spark engine directly over the data stored in OneLake in delta parquet format, tapping into its full capabilities. Additionally, business users can construct Power BI reports directly on OneLake using the new direct lake mode in the Analysis Services engine. This mode combines data import speed with the convenience of not duplicating data, offering users the best of both worlds for efficient data analysis and reporting.

Databricks

Azure Databricks is a comprehensive cloud-based platform built on Apache Spark that's designed to facilitate the deployment, sharing, and management of enterprise-grade data and AI solutions at scale. Organizations of all sizes have already widely adopted it for data processing, analytics, and data science. The Azure Databricks workspace offers a unified interface and a wide array of tools for various data tasks, including data processing workflows, SQL operations, compute management, machine learning modeling, and more.

Azure Databricks stands out by not mandating data migration into proprietary storage systems. Instead, it configures an Azure Databricks workspace through secure integrations with your cloud account, deploying compute clusters using your cloud resources to process and store data in services you control. Additionally, it offers disaster recovery, high availability assurances, and performance optimization guidance to enhance its functionality and reliability.

This collaborative workspace empowers data engineers, data scientists, and machine learning engineers to work together on substantial data projects efficiently. Azure Databricks excels in scalability, efficiently handling large datasets and dynamically adjusting resources as needed. Its user-friendly interface simplifies complex data operations, while its collaborative features enable multiple users to work concurrently, promoting information sharing and teamwork. Cost-effectiveness is achieved through a pay-as-you-go pricing model, and the platform supports multiple programming languages like Python, R, SQL, and Scala to cater to diverse data processing needs.

Tips for getting the most out of OneLake and Databricks

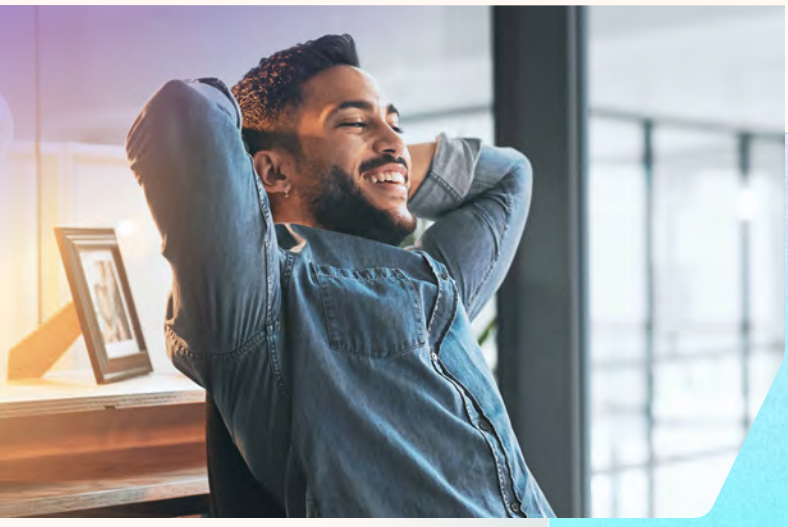
1. **Empower nontechnical business users with OneLake file explorer for Windows:** Just like OneDrive, you can explore OneLake from Windows using the OneLake file explorer. You can access your workspaces and data items and easily upload, download, or modify files. This feature is especially useful for business users already familiar with performing searches with their existing Windows tools.

2. **Connect data across business domains without data movement:** Shortcuts streamline data sharing within your organization, eliminating the need for redundant data movement and duplication. When teams operate in isolated workspaces, shortcuts facilitate the data aggregation from various business units and domains, creating virtual data products tailored to specific user requirements. Essentially, a shortcut acts as a reference to data stored in various file locations, whether within the same workspace, across different workspaces, in OneLake, or externally in ADLS or S3. Regardless of the location, these references make it appear as if the files and folders are locally stored, simplifying data access and utilization.

3. **Take advantage of machine learning, large language models, and generative AI:** Databricks Runtime for Machine Learning offers an array of libraries, including Hugging Face Transformers, enabling the seamless integration of pre-trained models and open-source libraries into your workflow. The MLflow integration within Databricks simplifies the use of the MLflow tracking service with transformer pipelines, models, and processing components. Moreover, you have the flexibility to integrate OpenAI models and solutions from partners like John Snow Labs into your Databricks workflows. Additionally, you can use AI Functions on Azure Databricks that enable SQL data analysts to access LLM models, including those from OpenAI directly, within their data pipelines and workflows, offering a comprehensive solution for AI-powered data analysis.

Direct Lake mode

is an innovative dataset feature within Power BI that revolutionizes the analysis of extensive data volumes. This capability operates by directly loading parquet-formatted files from a data lake, eliminating the need to query a lakehouse endpoint and avoiding data duplication or import into a Power BI dataset.
Set up a Direct Lake >



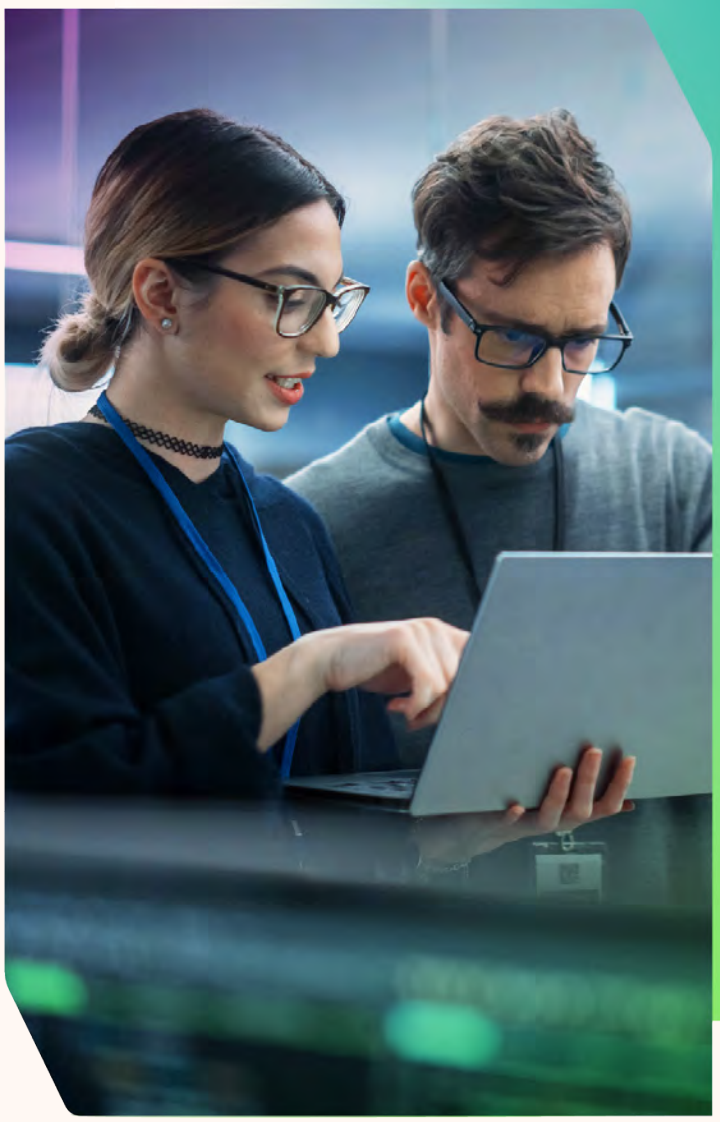
Chapter 4

Use built-in data governance and protection: Microsoft Purview

Today's expanding landscape of diverse data creates unprecedented challenges for data governance and protection. Some organizations might be uncertain about the whereabouts and security of their data, making managing and protecting data across their growing digital estates a pressing concern. Added to this is the worry that they might lack the necessary security expertise and resources. Amid these pressures, security teams have embraced a multitude of technologies and strategies for enhanced data governance so they can follow trustworthy data practices across their organization.

End-to-end governance with Microsoft Purview

Microsoft Purview works with Fabric to create a comprehensive governance solution from data source to Power BI reporting. This integration lets you efficiently store, analyze, and govern your data without the need to assemble services from multiple providers. Microsoft Purview encompasses risk and compliance solutions as well as unified data governance capabilities, accommodating Microsoft 365, on-premises, multicloud, and SaaS data services.



With Microsoft Purview, you can safeguard sensitive data across various clouds, applications, and devices. Detect data-related risks, manage regulatory compliance requirements, and establish a real-time overview of your entire data landscape. The platform's comprehensive view also includes data classification, end-to-end lineage, and identification of the locations where sensitive data is stored within your estate.

How does it work?

Microsoft Purview includes a suite of data governance, risk, and compliance solutions designed to assist your organization in overseeing and safeguarding your whole data portfolio. These solutions offer comprehensive coverage and aim to tackle the recent challenges posed by expanded remote user connectivity, data dispersion within organizations, and the evolving landscape of traditional IT management roles.

Microsoft Purview integrates seamlessly with Microsoft Fabric so you can explore and oversee Microsoft Fabric items within Microsoft Purview applications. This integration grants access to several key governance applications:

Microsoft Purview Information Protection
Discover, classify, and protect Fabric data with sensitivity labels. Your data stays protected while it's being exported via supported export paths. Meanwhile, your compliance admins can easily monitor activities on sensitivity labels in Microsoft Purview Audit.

Microsoft Purview Data Loss Prevention (DLP)
DPL policies are exclusively applicable within Fabric for Power BI datasets. These policies are designed to identify the uploading of sensitive data into datasets, spot sensitivity labels and sensitive information types such as credit card and social security numbers, and then configure them to provide policy tips to dataset owners and send alerts to security administrators. You also have the option to configure DLP policies to permit data owners to override them when necessary.

Tips for getting the most out of Microsoft Purview

- **Find the sweet spot between data protection and productivity:** When control is overly strict, it can overwhelm security teams with alerts and potentially slow down business operations. That's where Adaptive Protection comes in as a valuable feature within Purview. Using machine learning to identify and address the most critical risks, this feature helps save precious time for security teams while ensuring more robust data security without the need for hiring more agents.

- **Monitor across on-premises, cloud-based locations, and endpoint devices:** Data loss prevention is a holistic approach that blends human expertise, established procedures, and cutting-edge technology to identify and thwart the unauthorized sharing or leakage of sensitive data. A DLP solution employs advanced tools like antivirus software, artificial intelligence, and machine learning to spot unusual behaviors. It does so by cross-referencing content with your organization's DLP policy, which outlines how data is classified, shared, and safeguarded to prevent unauthorized access.

Connect Power BI to Purview

The Azure Purview Power BI integration helps enhance governance for your hybrid data and keep it protected across your data estate.
Connect a Power BI tenant in Purview >

Chapter 5

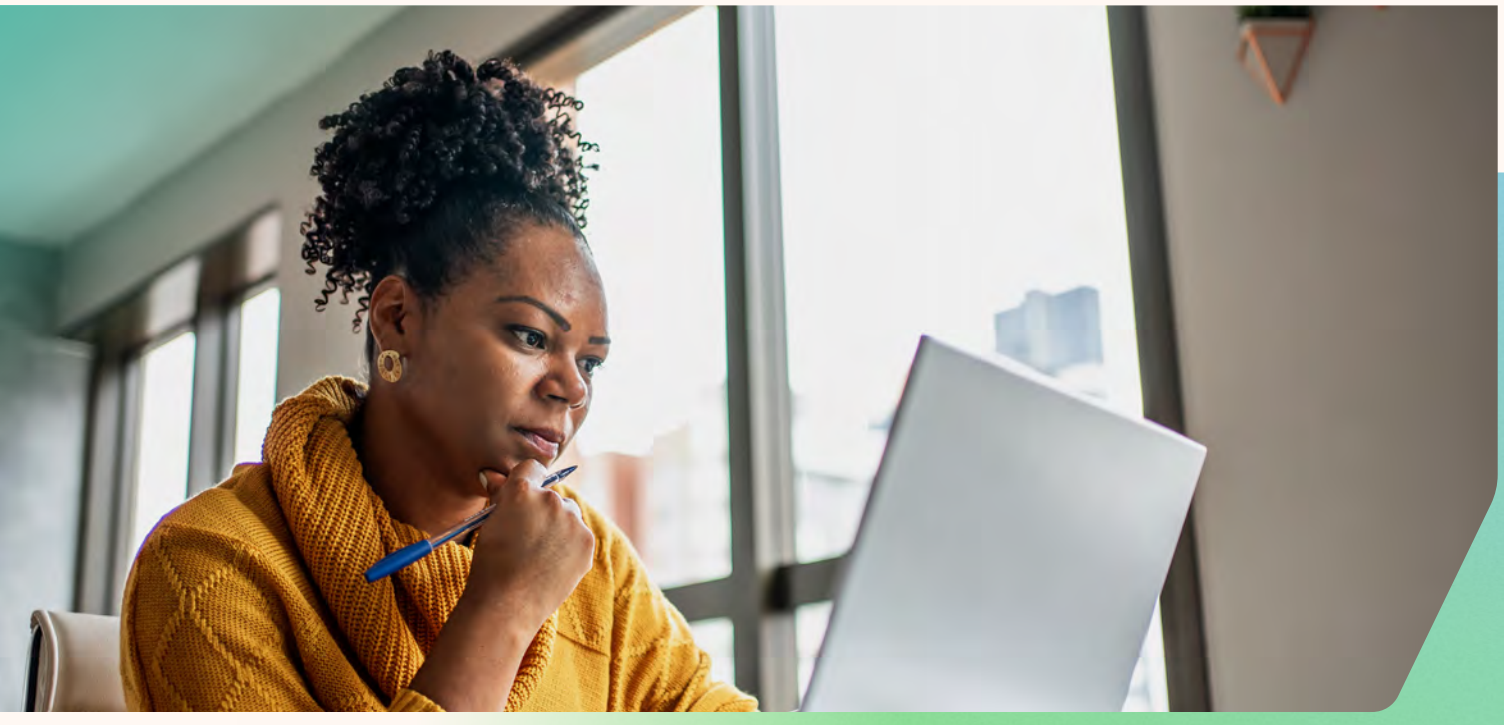
Adopt AI tools to improve business intelligence: Copilot in Fabric

Having a unified data fabric platform accelerates the adoption of generative AI tools by providing several key advantages. It ensures data accessibility by consolidating diverse data sources, maintains data quality through cleansing processes, and offers scalability to support resource-intensive AI workloads. It also incorporates robust data governance features to manage privacy and compliance requirements so you can adopt new AI capabilities without risking your data.

Free up your teams' brain power with Copilot in Fabric

For years, businesses have been amassing huge quantities of data from different sources—apps, services, IoT sensors, and more. This data collection has grown exponentially year after year, making it increasingly challenging to extract meaningful insights—especially if you don't have the budget to hire dozens of new data professionals.

Copilot within Power BI holds immense potential for analytics and business intelligence operations because it can autonomously create valuable insights, reports, and even predictive models from large datasets. It can handle complex, repetitive tasks, allowing analysts to focus on more strategic aspects of data interpretation. Moreover, Copilot helps uncover hidden patterns and trends in data so your organization can make more informed and timely decisions, ultimately leading to improved business outcomes.



How does it work?

Copilot within Power BI uses advanced generative AI alongside your data to speed up uncovering and sharing insights. It simplifies the task by letting users express the insights they seek or ask questions regarding their data. From there, Copilot analyzes the data and generates visually appealing reports that instantly transform raw data into actionable insights.

By integrating Copilot throughout Power BI, this feature empowers users to be more productive and derive greater value from their data. Users can swiftly specify their desired visuals and insights, and Copilot handles the rest. This includes creating and customizing reports, crafting and editing DAX calculations, generating narrative summaries, and engaging in data-related conversations—all in a conversational manner. Moreover, Copilot offers the flexibility to adjust narrative tone, scope, and style, seamlessly incorporating them into reports for more impactful and understandable data insights. Add all of these benefits together, and you can give massive amounts of time and mental energy back to your IT teams, who can then refocus their efforts on more value-adding activities.

Tips for getting the most out of Copilot

Enterprise-grade collaboration with Git integration for Power BI datasets and reports: Microsoft is enabling more seamless collaboration with your development team on Power BI content with Git integration. You can now easily connect your workspace to Azure DevOps repositories to track changes, revert to previous versions, and merge updates from multiple team members into a single source of truth that will be synced into the workspace with a single click. As a developer, you can use this integration to:

- Author report and dataset metadata files in source-control friendly formats use Power BI Desktop.
- Allow multiple developers to collaborate, source control integration to track version history, compare different revisions (diff), and revert to previous versions.
- Use continuous integration and continuous delivery (CI/CD) to enforce quality gates before reaching production environments.
- Enable code reviews, automated testing, and automated build to validate the integrity of a deployment.
- Use the user interface (UI) experience or automate the process through other tools like Azure Pipelines.

Conclusion

For many enterprise businesses, data serves as a compass that helps guide smarter decision-making. However, gaining full visibility of your data and knowing what to focus on can be challenging, especially given today's increasing complexity and business landscape challenges.

Using Power BI in Fabric—which encompasses all the analytics and governance tools you need for effective and secure reporting—helps improve your business intelligence insights and decision-making. How you choose to put those deeper insights to use depends on your unique business needs. The following use cases are just a drop in the bucket when it comes to everything you can accomplish in your organizing by maximizing your Power BI investments with Fabric:

Marketing	Optimize spending for paid media by building models that identify the best areas and channels to move the budget to help gain the most impressions or leads per dollar. Collect real-time data like impressions, clickthrough rates, and video completion rates from digital ads on websites, social channels, and emails in a single location.
Sales	Monitor and compare key metrics from different data sources in real time, including win rates, number of wins, revenue to plan, margin, discounts, etc., and then create a single dashboard allowing others to access and track these metrics independently. Keep close tabs on metrics like pipeline value and win rates to get a holistic picture of progress towards quota, and quickly identify at-risk territories to improve quota management.
Operations	Develop predictive models to help manufacturing centers use market trends to know when to scale production up and down. Identify production bottlenecks using a heads-up dashboard and custom diagrams.
HR	Investigate demand planning anomalies by viewing detailed reports directly from your dashboard or by using the search engine-like capability to ask questions of your data and get immediate answers. Monitor fluctuations in key metrics, like when retention rates fall below a certain threshold or key positions are filled by setting up mobile notifications.

Benefits of optimizing analytics in Microsoft Fabric:

- **Achieve a unified hybrid and multicloud enterprise data estate for enhanced insights and intelligence.** Initiate the process by using your data in its current locations and gradually modernizing it for improved efficiency.
- **Develop analytics models tailored to your specific needs.** Seize the full potential of your data by building analytics applications and ML/AI models on a unified foundation without the need for data movement to application-specific infrastructure.
- **Expand the reach of transformative analytics applications.** Establish connections between the necessary clouds and services, creating an open and scalable analytics platform. Simplify the experience for every role, from data ingestion to insights generation, driving meaningful impact.
- **Promote responsible democratization of analytics with robust data governance.** Empower everyone with convenient access to powerful analytics tools and services, enabling the extraction of deep insights while ensuring secure sharing across the organization.

87%

of CxOs are investing in "intelligent enterprise" projects as their core priorities.

–IDC

40%

of global organizations say they're increasing investments in AI due to advances in generative AI.

–McKinsey

The next step

Take the next step to expanding your analytics stack by enabling Fabric in your Power BI tenant.
Start a free trial >

Reach out to an Azure expert.
Contact Sales >

Discover how to ingest data into a lakehouse and generate reports displaying your latest sales figures.
Demo learning path > (45 minutes)