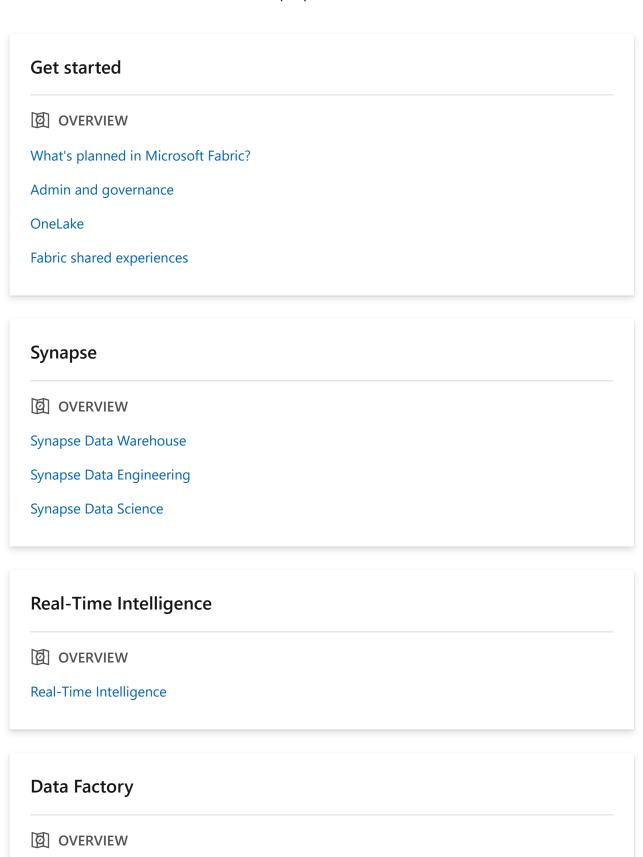# Microsoft Fabric release plan documentation

The Microsoft Fabric release plan documentation announces the latest updates and timelines to customers as features are prepared for future releases.

Get started

OVERVIEW

[What's planned in Microsoft Fabric?](#)

[Admin and governance](#)

[OneLake](#)

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Synapse

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OVERVIEW

Data Factory

Power BI

What's new and planned in Microsoft Fabric?

Article • 05/21/2024

> ⓘ **Important**
>
> The release plans describe functionality that may or may not have been released yet. The delivery timelines and projected functionality may change or may not ship. Refer to **Microsoft policy**⧉ for more information.

Microsoft Fabric offers a unified suite of analytical experiences that streamline data management. It enables you to use your data for a competitive advantage today and prepare for future AI innovations. Microsoft Fabric offers data factory, data engineering, data warehousing, data science, real-time intelligence, and business intelligence, all on a lake-centric SaaS platform for simplified analytics. Your teams can instantly process, analyze, and collaborate with data without having to focus on configuration or management of the underlying infrastructure. Fabric's open foundation with built-in governance enables you to connect to various clouds and tools while maintaining data trust. Microsoft Fabric also provides transparent cost control to optimize expenses.

To learn more about what was announced with Microsoft Fabric, see the Microsoft Fabric blog⧉ and the documentation.

Get started with Microsoft Fabric

Enable Microsoft Fabric

Microsoft Fabric is generally available. A Microsoft Fabric administrator (formerly a Power BI administrator) can turn on the Fabric experiences through the admin portal settings. Fabric can be enabled for the entire tenant or a subset of users. Microsoft Fabric is currently enabled by default for all Power BI tenants. Additionally, capacity administrators can enable or disable Fabric at the capacity level through capacity settings.

Start a free Fabric capacity trial

Customers without Power BI Premium or Fabric Capacities will receive a free Fabric capacity trial when you create a Fabric item that uses capacity. This trial Fabric capacity

can be associated with one or more workspaces and is free to use for 60 days. Administrators can turn off trial functionality in the [admin portal](#).

Learning resources

To help you get started with Microsoft Fabric, there are several resources we recommend:

- [Microsoft Fabric learning paths](#): A high level tour of Microsoft Fabric capabilities.

- [Microsoft Fabric tutorials](#): Detailed tutorials with a step-by-step guidance on how to create an end-to-end solution in Microsoft Fabric. They focus on a few different common patterns. The scenarios include a lakehouse architecture, a data warehouse architecture, real-time intelligence, and data science projects.

- [Microsoft Fabric documentation](#): Detailed documentation for all aspects of Microsoft Fabric.

- [Microsoft Fabric Community](#) ⧉ : Engage with the community, ask, and answer questions about Microsoft Fabric.

What can you find in this document?

This Microsoft Fabric release plan announces the latest updates as features are being prepared for release. It allows you to stay informed about upcoming capabilities, plan for future deployments, and keep track of any changes in our plans.

Share your thoughts and feedback with us in the [Microsoft Fabric community](#) ⧉ forum and suggest features in our Ideas forum. Your input helps us make improvements.

Change log

This document will be updated monthly with changes to our plans, timelines, and new capabilities added to the roadmap. Changes to this document will be listed here.

Experience release notes

Visit detailed release notes for all of the experiences in Microsoft Fabric:

- [Admin and governance](#)
- [OneLake](#)
- [Synapse Data Warehouse](#)

- Synapse Data Engineering
- Synapse Data Science
- Synapse Real-Time Intelligence
- Data Factory
- Data Activator
- Power BI

Related content

- Microsoft Fabric documentation
- Microsoft Fabric tutorials

What's new and planned for Administration, Governance and Security in Microsoft Fabric

Article • 05/21/2024

> ⓘ **Important**
>
> The release plans describe functionality that may or may not have been released yet. The delivery timelines and projected functionality may change or may not ship. Refer to **Microsoft policy** ↗ for more information.

Microsoft Fabric is a unified SaaS platform that enables customers to build diverse projects, spanning from lakehouses to BI reports/dashboards consumed by business users. Microsoft Fabric admins require tools to govern user actions and for compliance management within their tenant. Workspace and capacity administrators need these tools to organize their content and manage costs. Integration with Purview allows visibility across the tenant and tools to manage user activity.

Microsoft Fabric empowers developers to automate user experiences, streamline business processes, and enhance efficiency through a user-friendly developer platform. This enables the creation of apps that use Microsoft Fabric as a data and analytics platform, ensuring seamless data processing and collaboration without the need for extensive infrastructure management, while benefiting from built-in governance and security features.

Today, you can automate the Fabric activities in your organization with our REST APIs and SDKs ↗. This includes workspace content deployment between development, testing, and production stages.

To learn more about how administrators can monitor and govern Microsoft Fabric, see the documentation.

Investment areas

⟦⟧ Expand table

Feature	Estimated release timeline
Private Link support at a tenant level	Q2 2024
Managed VNet support for Spark	Q2 2024
Fabric as a trusted service for Azure Storage	Q2 2024
Fabric items - Master data	Q3 2024
Restrict access to content by using Microsoft Purview sensitivity labels to apply protection	Q3 2024
Fabric Capacity Metrics Historical Lineage Views	Q3 2024
Fabric Capacity Metrics Admin monitoring integration	Q3 2024
Fabric Capacity Metrics Cross-capacity insights	Q3 2024
Capacity Metrics Chargeback Public Preview	Q3 2024
Tags for fabric items	Q3 2024
Enhancements for Domains in Fabric	Q3 2024
External data sharing enhancements	Q4 2024
Microsoft Purview data loss prevention policies for Lakehouses in OneLake	Q4 2024
Private Link support at a workspace level	Q4 2024
Data exfiltration protection for Spark	Q4 2024
Usage and adoption in admin monitoring	Q4 2024
Fabric monitoring	Q4 2024
Microsoft Fabric Reserved Instance offerings in Azure	Shipped (Q4 2023)
Deployment pipelines	Shipped (Q4 2023)
Disaster recovery support	Shipped (Q1 2024)
Require users to apply Purview Information Protection sensitivity labels	Shipped (Q1 2024)
Purview Information Protection sensitivity labels	Shipped (Q1 2024)
Purview Information Protection default sensitivity labels policy	Shipped (Q1 2024)
Workspace recovery	Shipped (Q1 2024)

Feature	Estimated release timeline
Purview hub for administrators and data owners	Shipped (Q1 2024)
Admin API to query delegated tenant settings	Shipped (Q1 2024)
Fabric Admin APIs	Shipped (Q1 2024)
Managed VNet support for Spark	Shipped (Q1 2024)
Fabric as a trusted service for Azure Storage	Shipped (Q1 2024)
More users in the organization can edit and republish protected PBIX files in Power BI Desktop	Shipped (Q1 2024)
Microsoft Fabric Git integration (ADO)	Shipped (Q1 2024)
Private Link support at a tenant Level	Shipped (Q1 2024)
External data sharing public preview	Shipped (Q2 2024)

Private Link support at a tenant level

Estimated release timeline: Q2 2024

Release Type: General availability

Organizations can enhance security by using private links, allowing users in their tenant to access Microsoft Fabric securely. This setup uses Azure Private Link and Azure Networking private endpoints to ensure data traffic travels privately via Microsoft's backbone network, instead if using public endpoints. The Private Link capability at the tenant level will expand from Power BI to other workloads in phases. Once Azure Private Link is configured and public internet access is restricted, all the supported scenarios for that Fabric tenant will be routed through private links.

Managed VNet support for Spark

Estimated release timeline: Q2 2024

Release Type: General availability

Spark, as we know is a distributed processing system used for big data workloads. Hence, Spark in Fabric warrants access to data, at scale but also the ability to connect to protected data sources, as most business-critical data is secured in private networks. The Managed VNets feature allows Spark to seamlessly connect with protected data sources

in a secure manner via Managed private endpoints in a Microsoft managed virtual network.

Fabric as a trusted service for Azure Storage

Estimated release timeline: Q2 2024

Release Type: General availability

You'll be able to add the Fabric workspace identity (FWI) as a trusted identity for a storage account. This allows seamless connectivity to Azure Storage accounts secured by a firewall. It also enables traffic using that Fabric workspace identity from the corresponding workspace to connect to the storage account. For instance, this feature will enable creating a shortcut to a storage account deployed behind a firewall. Once a shortcut is created, users can work with this data in all Fabric workloads

Fabric items - Master data

Estimated release timeline: Q3 2024

Release Type: Public preview

Previously, we introduced endorsement for Fabric items. Certified and promoted endorsements encouraged the use of standardized and trustworthy data. Now, we're taking it a step further with the introduction of Master Data. This new endorsement stage empowers IT and data teams to define and establish the organization's single source of truth. By defining master data, your organization can benefit from creating a repository of all critical organizational data, making it available to users with a variety of skills to discover and build upon.

Restrict access to content by using Microsoft Purview sensitivity labels to apply protection

Estimated release timeline: Q3 2024

Release Type: Public preview

In the Microsoft Purview Information Protection portal where security admins can create sensitivity labels and also restrict access to Fabric items that the label will be applied to, similar to how they can restrict access to Microsft 365 content (files ,emails, meetings, etc).

For example you can protect content in the following ways:

- Only users within your organization can access items with "Confidential" sensitivity label in Fabric.
- Only users in the finance department can edit data items with "Financial data" sensitivity label, while other users in your organization can only read them.

Limitation: This release will support restrict access to all Fabric item types except for Report, Paginated report, Scorecard, Dashboard, Dataflow, Datamart, Streaming dataset, Streaming dataflow, Mirrored items, Warehouse. Restrict access functionality for these items will be available later this calendar year.

Note: Information Protection sensitivity labels require Microsoft Purview license.

Fabric Capacity Metrics Historical Lineage Views

Estimated release timeline: Q3 2024

Release Type: Public preview

Capacity Metrics Lineage views let Tenant and Capacity administrators easily drill through to the hisorical performance of operations running on their Fabric capcities. These views let admins quickly identify the top consumers of compute based on drill through experiences. They can also identify regressions in job-level performance, operation level detilas for operation compute history and pass rates or scheduling abuse for operations.

Fabric Capacity Metrics Admin monitoring integration

Estimated release timeline: Q3 2024

Release Type: Public preview

This feature will allow Capacity Admins to directly access Capacity Metrics as part of the admin workspace experience to help unify all admin consumption experiences in one place without the need to download a seperate application from the app store.

Fabric Capacity Metrics Cross-capacity insights

Estimated release timeline: Q3 2024

Release Type: Public preview

Fabric Capacity Metrics Cross-capacity views simplify administration of Fabric capacities for anyone managing more than one capacity. This feature will let admins quickly

identify the capacities across their tenant that are running hot, experiencing overages or in need of load balancing or resize.

Capacity Metrics Chargeback Public Preview

Estimated release timeline: Q3 2024

Release Type: Public preview

Capacity Metrics chargeback provides admins with turnkey insights to easily spread the costs of Fabric capacities to individual internal business units based on consumption trends by workspace or user.

Tags for fabric items

Estimated release timeline: Q3 2024

Release Type: Public preview

We are introducing the ability to apply tags on Fabric items, to enhance item discoverability and use. Tenant admins can define a list of tags, from which data owners can selects and apply the relevant tags to their items. Once applied, data consumers can view, search & filter by the applied tags across various experiences.

Enhancements for Domains in Fabric

Estimated release timeline: Q3 2024

Release Type: Public preview

Domains and sub domains enable structuring the data in the organization while enabling optimized consumption experience per business needs. In this semester we plan to strengthen the governance controls such as delegated settings and defining default sensitivity label per domain, and to allow more consumption experiences such as the ability to search by domain/sub domain, filter the WS by domain/sub domain and see the domains details as part of the item location.

External data sharing enhancements

Estimated release timeline: Q4 2024

Release Type: Public preview

We will introduce additional enhancements to the external data sharing public preview in preparation for GA.

- Public APIs
- Share multiple tables
- Sovereign cloud support

Microsoft Purview data loss prevention policies for Lakehouses in OneLake

Estimated release timeline: Q4 2024

Release Type: Public preview

Security admins can create in Microsoft Purview Data Loss Prevention portal policies to detect the upload of sensitive data (such as social security number) to Fabric Lakehouse. If such an upload is detected, the policies will trigger automatic audit activity and can be configured to show a custom policy tip to data owners and it can also trigger an alert for security admins. DLP policies can help automate the compliance processes to meet enterprise-scale compliance and regulatory requirements in an effective way.

Note: Microsoft Purview data loss prevention policies for Fabric require Microsoft Purview license.

Private Link support at a workspace level

Estimated release timeline: Q4 2024

Release Type: Public preview

While private links at a tenant level enable secure connectivity to Fabric, we intend to provide granular support for this feature at a workspace level. Organizations can use this feature to secure inbound traffic to specific workspaces instead of the entire tenant and this allows them to secure production workspaces but let dev and test workspaces to be accessed over internet. This setup uses Azure Private Link and Azure Networking private endpoints to ensure data traffic travels privately via Microsoft's backbone network, instead if using public endpoints. The Private Link capability at the workspace level will start with few workloads and extend to others in phases. Once Azure Private Link is configured and public internet access is restricted, all the supported scenarios for that Fabric workspace will be routed through private links.

Data exfiltration protection for Spark

Estimated release timeline: Q4 2024

Release Type: Public preview

Fabric administrators want to ensure that data in Fabric isnt exfiltrated to unpermitted destinations outside of Fabric unintentionally or by due to malicious intent . In this milestone, we will provide controls to ensure Spark in a Fabric workspace can only connect to specific data sources or endpoints outside of Fabric. In the future we will addData exfiltration support for other Fabric experiences

Usage and adoption in admin monitoring

Estimated release timeline: Q4 2024

Release Type: General availability

Fabric tenant administrators need access to detailed audit logs and summarized views, to track usage and adoption growth, support audits, and ensure compliance. Analytical views built on the audit logs can help you understand user actions. You can govern Fabric by identifying specific trends, patterns, and activities. This report currently supports Power BI items and it will expand to cover other Fabric items this semester.

Fabric monitoring

Estimated release timeline: Q4 2024

Release Type: Public preview

Fabric workspace administrators and developers require access to detailed diagnostic logs and workload metrics to troubleshoot performance issues, capacity performance, and data downtime. As part of the Fabric Monitoring feature we intend to provide a read-only database of workspace logs that users can query ad-hoc, analyze for patterns and anomalies, or save drafted queries to as query sets. This helps drive investigations on root-cause analysis for errors, long running queries, refresh failures, and other issues. We will continue to enhance this feature by adding in-context monitoring and diagnostics experiences.

▼

Shipped feature(s)

Microsoft Fabric Reserved Instance offerings in Azure

Shipped (Q4 2023)

Currently all the capabilities of Fabric are available for purchase within Azure with a Pay-as-you-go offering with lower purchase points. You can pause/resume and scale up/down on demand. Soon you can purchase a 1-year reservation for Fabric with large discounts for that commitment.

Deployment pipelines

Shipped (Q4 2023)

As organizations increasingly adopt Deployment pipelines, there's a growing demand to add more stages to these pipelines. This year, we'll enable customers to define and customize the number of stages for each pipeline they create. Furthermore, certain Microsoft Fabric items will become deployable as part of a pipeline deployment processes - Data pipeline, Warehouse.

Disaster recovery support

Shipped (Q1 2024)

Release Type: General availability

The goal of Business Continuity and Disaster Recovery (BCDR) is to ensure uninterrupted access to data and services during data center outages or regional disasters. As we shift towards a self-service SaaS model for our cloud-scale analytics solutions, we understand the need for minimal configuration and planning for critical workloads. In our initial release, we'll provide cross-regional data availability in OneLake if there's a disaster. We also plan to enable capacity-level disaster recovery configuration, allowing you to select replication for essential workspace data while excluding dev and test workspaces.

Require users to apply Purview Information Protection sensitivity labels

Shipped (Q1 2024)

Release Type: General availability

Compliance and security admins can configure the label policy in Microsoft Purview compliance portal to require users to apply sensitivity label to newly created Fabric items. This helps organizations meet compliance and regulatory requirements of having all their data in Fabric with sensitivity labels.

Purview Information Protection sensitivity labels

Shipped (Q1 2024)

Release Type: General availability

Microsoft Purview Information Protection sensitivity labels integration into Fabric introduces the familiar concept of sensitivity from Office. In Office, you can see confidential documents and emails, and you may not be authorized to export sensitive data. Similarly in Fabric you can easily identify and control confidential content using Information Protection sensitivity labels. When the owner assigns a sensitivity label to a lakehouse or any other item, the label is inherited with the data to all the downstream items. Additionally, when exporting data from Fabric to Office files, the label and protection settings are automatically applied on the Office files.

Purview Information Protection default sensitivity labels policy

Shipped (Q1 2024)

Release Type: General availability

Compliance and security admins can configure the label policy in Microsoft Purview compliance portal to automatically apply a sensitivity label to newly created Fabric items. This helps organizations meet compliance and regulatory requirements of having all their data in Fabric with sensitivity labels.

Workspace recovery

Shipped (Q1 2024)

Release Type: General availability

In the event of unintentional workspace deletions, this feature allows tenant admins to recover workspaces, including Fabric items. Admins can set recovery policies and recover the deleted workspaces within a specified timeframe. Deleted workspaces are soft deleted and recoverable by the tenant admins. Tenant admins will be able to configure the retention period via a setting in the Fabric admin portal. This capability, is already supported for workspaces with Power BI items, and it will extend to include workspaces with Fabric items.

Purview hub for administrators and data owners

Shipped (Q1 2024)

Release Type: Public preview

Fabric admins and data owners can gain valuable insights about sensitive data, certified and promoted items. They contain insights about sensitive data, certified and promoted items, and a gateway to advanced capabilities in Microsoft Purview portals.

Admin API to query delegated tenant settings

Shipped (Q1 2024)

Release Type: Public preview

This API enables tenant administrators to track settings modifications made by other administrators at capacity, domain, or workspace levels. It scans and returns all the units of governance or a group of such units where the tenant admin settings have been overridden. In the initial release, we aim to include the ability to query tenant settings delegated to a capacity.

Fabric Admin APIs

Shipped (Q1 2024)

Release Type: Public preview

Admin APIs in Microsoft Fabric offers programmatic access to administrative functions within the Fabric service. Admin APIs play an important role in automating essential admin and governance tasks, including activities such as monitoring, auditing, compliance, access controls, etc. The existing PBI-only admin APIs have encountered issues like timeouts and slow performance while lacking coverage for non-PowerBI Fabric artifacts. In response to these challenges, the next-gen Fabric admin APIs were launched as part of the Fabric GA release in November 2023. The initial set of APIs focuses on the discovery and exploration of Workspaces, non-PowerBI Fabric items, and user access details at the workspace and item levels. To further enhance functionality, in Q1 2024, we are planning to extend these discovery and exploration APIs to include PowerBI items. Moreover, the Fabric API surface will be expanded to include APIs for adding and deleting users and workspaces. It's important to note that Microsoft will continue to support PowerBI-only Admin APIs to ensure a seamless transition to the new Fabric APIs.

Managed VNet support for Spark

Shipped (Q1 2024)

Release Type: Public preview

Spark, as we know is a distributed processing system used for big data workloads. Hence, Spark in Fabric warrants access to data, at scale but also the ability to connect to protected data sources, as most business-critical data is secured in private networks. The Managed VNets feature allows Spark to seamlessly connect with protected data sources in a secure manner via Managed private endpoints in a Microsoft managed virtual network.

Fabric as a trusted service for Azure Storage

Shipped (Q1 2024)

Release Type: Public preview

You'll be able to add the Fabric workspace identity (FWI) as a trusted identity for a storage account. This allows seamless connectivity to Azure Storage accounts secured by a firewall. It also enables traffic using that Fabric workspace identity from the corresponding workspace to connect to the storage account. For instance, this feature will enable creating a shortcut to a storage account deployed behind a firewall. Once a shortcut is created, users can work with this data in all Fabric workloads

More users in the organization can edit and republish protected PBIX files in Power BI Desktop

Shipped (Q1 2024)

Release Type: Public preview

This feature allows users with a wider range of sensitivity permissions from the Microsoft Purview compliance portal to open, edit, and publish encrypted PBIX files in Power BI desktop. Some limitations apply.

Microsoft Fabric Git integration (ADO)

Shipped (Q1 2024)

Git integration is offered to users connecting to Azure DevOps repositories, enabling synchronization between Microsoft Fabric workspace and the selected Git repository (for commits and updates). Additional Microsoft Fabric items will support source control - Data pipeline, Warehouse, Spark Environment and Spark Job Definition. We'll also

provide public REST APIs for automating key git operations, such as connecting a workspace to a git branch, committing items, and updating items from git.

Private Link support at a tenant Level

Shipped (Q1 2024)

Release Type: Public preview

Organizations can enhance security by using private links, allowing users in their tenant to access Microsoft Fabric securely. This setup uses Azure Private Link and Azure Networking private endpoints to ensure data traffic travels privately via Microsoft's backbone network, instead if using public endpoints. The Private Link capability at the tenant level will expand from Power BI to other workloads in phases. Once Azure Private Link is configured and public internet access is restricted, all the supported scenarios for that Fabric tenant will be routed through private links.

External data sharing public preview

Shipped (Q2 2024)

Release Type: Public preview

Sharing data across organizations has become a standard part of day-to-day business for many of our customers. External data sharing, now in public preview is built on top of OneLake shortcuts,and enables seamless, in-place sharing of data across tenant boundaries. This can be used by retailers sharing data with suppliers, consumers sharing diagnostic data with manufacturers, healthcare providers sharing data to create better diagnostics, corporations sharing data with their consultants, or for any other business scenario in which data needs to be shared with users outside of the data provider's tenant.

Related content

- [Microsoft Fabric documentation for admins](#)

What's new and planned for OneLake in Microsoft Fabric

Article • 05/21/2024

> ⓘ **Important**
>
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> yet. The delivery timelines and projected functionality may change or may not ship.
> Refer to **Microsoft policy** ↗ for more information.

OneLake is a single, unified, logical data lake for your whole organization. Like OneDrive, OneLake comes automatically with every Microsoft Fabric tenant and is designed to be the single place for all your analytics data.

Any data in OneLake works with out-of-the-box governance such as data lineage, data protection, certification, catalog integration, etc. and is ultimately under the control of a tenant admin. Within a tenant, workspaces enable different parts of the organization to work independently while still contributing to the same data lake.

OneLake is open at every level. OneLake supports the same ADLS Gen2 APIs and SDKs to be compatible with existing ADLS Gen2 applications and can support any type of file, structured or unstructured.

OneLake aims to give you the most value possible out of a single copy of data. With OneLake shortcuts, you can unify your data across domains, clouds, and accounts by creating a reference to data stored in other file locations such as other OneLake locations or ADLS or S3 without data movement or duplication. You can also use the same data across multiple analytical engines because Fabric engines store all tabular data in the open parquet formats.There's no longer a need to copy data just to use it with another engine.

To learn more, see the documentation.

Investment areas

⌗ Expand table

Feature	Estimated release timeline
OneLake shortcuts to on-premises data	Q2 2024

Feature	Estimated release timeline
OneLake table shortcuts to Iceberg data	Q3 2024
OneLake data access roles general availability	Q4 2024
OneLake security model	Q1 2025
Smart caching for Amazon S3 shortcuts	Shipped (Q4 2023)
Shortcuts API	Shipped (Q1 2024)
Shortcuts Google cloud storage	Shipped (Q1 2024)

OneLake shortcuts to on-premises data

Estimated release timeline: Q2 2024

Release Type: Public preview

Microsoft OneLake shortcuts is expanding to include on-premises and network-restricted data sources. With this capability, you can unify your on-prem and cloud data in OneLake.

During creation of shortcuts to AWS S3, Google Cloud Storage, or S3 compatible buckets, you will be able to optionally select an on-premises data gateway (OPDG) to establish connectivity.

OneLake table shortcuts to Iceberg data

Estimated release timeline: Q3 2024

Release Type: Public preview

With Microsoft OneLake, you will be able to create table shortcuts to Iceberg data in other locations, and this data will appear automatically with the Delta Lake format.

OneLake automatically produces virtualized Delta Lake metadata and makes it available through the OneLake shortcut. This means you can use your Iceberg data with all Fabric workloads that work with Delta Lake formatted data.

OneLake data access roles general availability

Estimated release timeline: Q4 2024

Release Type: General availability

OneLake data access roles build upon the existing capabilities of OneLake's security model to increase the granularity at which security can be applied within a Fabric data item. This feature adds an inheritable RBAC (role-based access control) model that simplifies user and permissions management for data in OneLake. You can define security roles that grant read access to specific folders in OneLake, and assign them to users or groups. The access permissions determine what folders users see when accessing the lake view of the data, either through the lakehouse UX, notebooks, or OneLake APIs.

OneLake security model

Estimated release timeline: Q1 2025

Release Type: Public preview

Managing data security across multiple analytical engines and copies of data is challenging. OneLake and Fabric simplify this by enabling the use of a single data copy across multiple analytical engines without any data movement or duplication. Taking the "one copy" concept further, OneLake is also enhancing security with a finer-grain model, allowing for table and folder access in addition to row and column level security. These security definitions live with the data and travel across shortcuts to wherever the data is used. Security defined at OneLake is universally enforced no matter which analytical engine is used to access the data.

▼

Shipped feature(s)

Smart caching for Amazon S3 shortcuts

Shipped (Q4 2023)

Release Type: Public preview

Smart caching for Amazon S3 shortcuts reduces egress costs and enhances performance by bringing data closer to the compute engine. Smart caching will egress data from S3 once, cache it locally in OneLake for a certain period. This way it eliminates the need for repeated data retrieval from S3. The cached data can be reused across multiple users, analytical engines, and scenarios that optimize the value a single egress.

Shortcuts API

Shipped (Q1 2024)

Release Type: Public preview

A public REST API to automate creation and management of shortcut scenarios.

Shortcuts Google cloud storage

Shipped (Q1 2024)

Release Type: Public preview

OneLake will expand shortcut support to Google Cloud Storage, allowing virtualization of data without moving or duplicating it. This enables the integration of Google Cloud Storage data with Microsoft services like ADLS gen2, OneLake, Dataverse, and Amazon S3. The data will appear and work as if it was in OneLake and gives you a simple data lake that can span clouds.

Related content

- [OneLake in Microsoft Fabric documentation](#)

What's new and planned for Fabric Developer Experiences in Microsoft Fabric

Article • 05/21/2024

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A core investment area in Microsoft Fabric is around our unified experiences across the platform. This includes shared user experiences for navigating around the product, managing content in workspaces, and developer tools for managing your projects. We plan to invest in areas to make it easier to get started building your projects, smooth out the collaboration experiences, and improve your ability to monitor and deploy projects.

Investment areas

⛶ Expand table

Feature	Estimated release timeline
Fabric Core REST API generally available	Q2 2024
Power BI Embedded over Direct Lake	Q2 2024
Git integration - enhanced branching capabilities	Q2 2024
.NET SDK for Fabric REST APIs	Q2 2024
Instant and summarized help answers in the Fabric Help Pane	Q3 2024
Improved discoverability of the Help Pane in the product	Q3 2024
Fabric Core REST APIs support Service Principal	Q3 2024
Folders in workspaces	Q1 2024
Fabric workload developer kit	Q2 2024

Feature	Estimated release timeline
Enable users to adjust list column width in workload home, browse and workspace view	Q2 2024
Add job capacity information in Monitoring Hub	Q2 2024
GitHub and GitHub Enterprise support	Q3 2024
Improve '+New' experience in workspace: Item grouped by JTBD	Q3 2024
Workspace filters/search support nested folders	Q3 2024
Lakehouse interactive tutorial	Q3 2024
Recommend task flow for Power BI workspaces	Q3 2024
Unified Fabric developer homepage	Q3 2024
Request access flow for a Fabric item	Q3 2024
Deployment pipelines new UI	Q3 2024
Fabric APIs Phase II	Q3 2024
Git integration folders support	Q3 2024
Git integration change review	Q3 2024
Microsoft Fabric ARM APIs	Q3 2024
Parent-child items in workspaces	Shipped (Q4 2023)
Persistent filters in workspaces	Shipped (Q1 2024)
Customizable left navigation bar	Shipped (Q1 2024)

Fabric Core REST API generally available

Estimated release timeline: Q2 2024

Release Type: General availability

Fabric Core REST APIs are now generally available. This marks a significant milestone in the evolution of Microsoft Fabric, a platform that has been meticulously designed to empower developers and businesses alike with a comprehensive suite of tools and services. The Core REST APIs are the backbone of Microsoft Fabric, providing the essential building blocks for a myriad of functionalities within the platform. They are designed to improve efficiency, reduce manual effort, increase accuracy, and lead to

faster processing times. These APIs help scale operations more easily and efficiently as the volume of work grows, automate repeatable processes with consistency, and enable integration with other systems and applications, providing a streamlined and efficient data pipeline. The Microsoft Fabric Core REST APIs cover a broad spectrum of functionalities, including: Workspace management: APIs for handling workspace operations, including permission management. Item management: APIs enabling the creation, retrieval, update, and deletion of items, with upcoming plans for enhanced support in data source discovery and granular permissions management. Item defintion: Ability to create, retrieve, and update definitions for various items such as Semantic Model, Report, Notebook, SJD, and Data Pipeline. With these APIs, developers can exercise precise control over their deployment processes by effortlessly adjusting parameters such as semantic model configurations or report themes before publishing. Leveraging Microsoft Fabric REST APIs facilitates seamless project deployment through REST API calls. Additionally, the APIs offer functionalities for job and tenant management, streamlining operations within the platform. For developers eager to explore the details of Microsoft Fabric Core APIs, comprehensive documentation is readily available. This documentation includes usage guidelines, illustrative examples, and articles housed in a centralized repository for easy accessibility and discoverability.The documentation is continuously updated to reflect the latest features and improvements, ensuring that developers have the most current information at their fingertips. To learn more, see Fabric REST API docs

Power BI Embedded over Direct Lake

Estimated release timeline: Q2 2024

Release Type: Public preview

Power BI Embedded over Direct Lake mode semantic models is enabled, including full automation based on Fabric REST APIs. This allows ISVs to deploy and manage a solution, based on Direct Lake semantic models, to a very large number of their customer tenants. Direct Lake mode is a groundbreaking new engine capability to analyze very large datasets in Power BI. The technology is based on the idea of loading parquet-formatted files directly from a data lake, without having to query a Warehouse or SQL analytics endpoint, and without having to import or duplicate data into a Power BI semantic model. This native integration brings a unique mode of accessing the data from the Warehouse or SQL analytics endpoint, called Direct Lake. Direct Lake provides the most performant query and reporting experience. Direct Lake is a fast path to load the data from the data lake straight into the Power BI engine, ready for analysis. In traditional DirectQuery mode, the Power BI engine directly queries the data from the source for each query execution, and the query performance depends on the data

retrieval speed. DirectQuery eliminates the need to copy data, ensuring that any changes in the source are immediately reflected in query results. In Import mode, the performance is better because the data is readily available in memory, without having to query the data from the source for each query execution. However, the Power BI engine must first copy the data into the memory, at data refresh time. Any changes to the underlying data source are picked up during the next data refresh. Direct Lake mode eliminates the Import requirement by loading the data files directly into memory. Because there's no explicit import process, it's possible to pick up any changes at the source as they occur. Direct Lake combines the advantages of DirectQuery and Import mode while avoiding their disadvantages. Direct Lake mode is the ideal choice for analyzing very large datasets and datasets with frequent updates at the source.

Git integration - enhanced branching capabilities

Estimated release timeline: Q2 2024

This update to Fabric Git integration introduces enhanced branch-related capabilities, providing users with a seamless method to work in isolation, an essential aspect of any workflow. This release encompasses several improvements to the connection between Fabric and Git branches:

- Branching Out to New Workspace: Users can effortlessly branch out to new work environments with just a few clicks. This feature facilitates the creation of a new workspace synced with a corresponding new branch, ready for developers to begin their work. Once tasks are completed, merging back can easily be done via the existing Git workflow. This ensures isolation and streamlines the developers' work process.
- Contextual Workspace Navigation: To streamline navigation between related workspaces, a "related branches" section is added to the source control pane. This area displays any connected workspaces sharing the same Git connection, allowing users to seamlessly transition between them. This functionality enhances workflow continuity and aids in maintaining context within Fabric.
- Improved Source Control Pane Structure: The Git source control pane is redesigned for enhanced usability. It will feature separate tabs for managing changes and updates, branch-related actions and navigation, and additional tabs planned for future updates. This restructuring aims to simplify interaction with the source control pane, providing users with a more intuitive experience.

.NET SDK for Fabric REST APIs

Estimated release timeline: Q2 2024

Release Type: Public preview

The Fabric REST API provides developers with programmatic access to manage and interact with Microsoft Fabric resources. It enables developers to automate a wide array of tasks, including data integration, data warehousing, big data analytics, deployment process automation, new tenant provisioning, and more. The .NET SDK is a wrapper library that simplifies the communication with the Fabric REST API and handles the authentication, serialization, and error handling for you. The .NET SDK for Fabric REST API exposes the following endpoints: • Capacities: List capacities • Workspaces: Create, update, delete, or list Microsoft Fabric workspaces. • Items: Create, update, delete, or list Microsoft Fabric items. • Git: Commit to Git, Connect and Disconnect workspace to Git and update workspace from Git. • Long running operations: get operation status and get operation result. • OneLake shortcuts: Create, delete and get shortcut

Instant and summarized help answers in the Fabric Help Pane

Estimated release timeline: Q3 2024

Release Type: General availability

A search experience that considers the user intent (search keywords) to propose ML powered instant answers and self-help resources in the help pane

Improved discoverability of the Help Pane in the product

Estimated release timeline: Q3 2024

Release Type: General availability

Through user feedback, we heard that users do not know where to get help in product. Through this feature, all Fabric users will be able to navigate to to the help pane from error messages, support page, and the global search boxto get contextual help.

Fabric Core REST APIs support Service Principal

Estimated release timeline: Q3 2024

Release Type: General availability

Enablement of Service Principal support in Microsoft Fabric REST API is a pivotal enhancement for the automation of customers deployment and management of environments.The ability to manage principal permissions for Fabric workspaces, as well

as the creation and management of Fabric artifacts like eventhouse and lakehouse, is crucial for the automation of provisioning workflows. By end of May 2024, following MS Build conferance, Service Principal will already be supported by few automation scenarios, such as Fabric Workspace management, Power BI Report management, Power BI Semantic Models management and Fabric Capacity Management. By the end of 2024, all Fabric automation scenarios will support Service Principal.

Folders in workspaces

Estimated release timeline: Q1 2024

Introducing folders in the workspace allows you to better organize and find items. The preview of this feature provides the organizational capabilities of folders. Subsequent updates address folder-related permission management scenarios.

Fabric workload developer kit

Estimated release timeline: Q2 2024

Release Type: Public preview

This feature now extends to additional workloads and offers a robust developer toolkit for designing, developing, and interoperating with Microsoft Fabric using frontend SDKs and backend REST APIs. Introducing the Microsoft Fabric Workload Development Kit.

The Microsoft Fabric platform now provides a mechanism for ISVs and developers to integrate their new and existing applications natively into Fabric's workload hub. This integration provides the ability to add net new capabilities to Fabric in a consistent experience without leaving their Fabric workspace, thereby accelerating data driven outcomes from Microsoft Fabric.

By downloading and leveraging the development kit, ISVs and software developers can build and scale existing and new applications on Microsoft Fabric and offer them via the Azure Marketplace without the need to ever leave the Fabric environment.

The development kit provides a comprehensive guide and sample code for creating custom item types that can be added to the Fabric workspace. These item types can leverage the Fabric frontend SDKs and backend REST APIs to interact with other Fabric capabilities, such as data ingestion, transformation, orchestration, visualization, and collaboration. You can also embed your own data application into the Fabric item editor using the Fabric native experience components, such as the header, toolbar, navigation pane, and status bar. This way, you can offer consistent and seamless user experience across different Fabric workloads.

Enable users to adjust list column width in workload home, browse and workspace view

Estimated release timeline: Q2 2024

Release Type: General availability

Currently the columns in Fabric workload home, browse and workspace page cannot be expanded to display full object name. The maximum width allowed for the name column is determined by the screen width.

This feature improves the column width resizing experience and allow users to set up unlimited column width. And at same time, ensure a non-broken experience of the table and other columns.

Add job capacity information in Monitoring Hub

Estimated release timeline: Q2 2024

Release Type: General availability

Add Capacity name in monitoring hub and support filter.

Currently only PBI artifacts have the capacity column as optional. But because more and more users are asking for the capacity info. Plus capacity plays a signification role on Fabric for customer billing. We should make capacity a common column for all the item types.

GitHub and GitHub Enterprise support

Estimated release timeline: Q3 2024

Fabric Git integration is broadening its compatibility by adding support for GitHub as a provider. Given GitHub's widespread adoption as a leading source control tool, this expansion will grant organizations relying on GitHub the opportunity to harness Fabric Git integration, ensuring synchronization between their fabric workspaces and Git repositories. GitHub will come in the addition to the existing Azure DevOps support, offering all of the same familiar tools and capabilities. Developers will have the ability to connect to GiHub using their personal access tokens, ensuring a precise connection for each developer. GitHub Enterprise Cloud will also be supported, excluding the use of specific allowed IP adresses and private links.

Improve '+New' experience in workspace: Item grouped by JTBD

Estimated release timeline: Q3 2024

Release Type: General availability

Current the +New dropdown in workspace is a long and flat list. We kept getting feedback from customers that they expect items to be grouped by JTBD so that they can easily find them. We also add the capability to let user favourite the item types for quick create.

Workspace filters/search support nested folders

Estimated release timeline: Q3 2024

Release Type: Public preview

This feature provides user capability to filer/search by keyword in entire workspace or entire folder including all its children.

Lakehouse interactive tutorial

Estimated release timeline: Q3 2024

Release Type: Public preview

Provide interactive tutorial for lakehouse to help users get started on Fabric.

Recommend task flow for Power BI workspaces

Estimated release timeline: Q3 2024

Release Type: Public preview

Recommend a task flow for Power BI existing workspace to help users adopt the feature. According to user research learnings this is a game changer.

Unified Fabric developer homepage

Estimated release timeline: Q3 2024

Release Type: Public preview

We have been hearing continously feedback from customers that the 'expereince segmented UI' doesn't make sense to them. We will unify the experience homepage to be one developer homepage.

Request access flow for a Fabric item

Estimated release timeline: Q3 2024

Release Type: Public preview

This feature enables users to request access to an artifact, enable receivers of requests to view all requests and approve/deny. This is critial for driving user growth and retention.

Deployment pipelines new UI

Estimated release timeline: Q3 2024

As Deployment pipelines evolve into a platform tool (fabric's), it necessitates modifications in its current design to accommodate Fabric from various angles such as UX alignments, scalability, and advanced features, among others. The new UI of Deployment pipelines introduce a fresh user interface for the creation process and the pipeline's main page, along with some UX improvements. There's also a shift in the deployment operation where instead of deploying to the next stage, you're now deploying to your current stage. Other than that, all functionalities have stayed the same so anything you can do in the original UI you can do with the new UI.

Fabric APIs Phase II

Estimated release timeline: Q3 2024

Release Type: General availability

In line with Fabric alignment, we are finalizing the public APIs for the Deployment pipelines on the Fabric platform, following the initial batch of APIs released in May 2024. While the May release provided the ability to retrieve existing deployment pipeline details and stages, the upcoming release will introduce APIs for their modification, workspace addition/removal, access control, and administrative tasks. The complete list is provided below.

Add Deployment Pipeline Role Assignment Delete Deployment Pipeline Role Assignment Get Deployment Pipeline Role Assignments Create Deployment Pipeline

Delete Deployment Pipeline Update Deployment Pipeline Assign Workspace To Stage Unassign Workspace From Stage

- Add deployment options to Deploy API

Get Deployment Pipeline Operation Get Deployment Pipeline Operations Admin: List Deployment Pipelines Admin: Add Deployment Pipeline Role Assignment Admin: Delete Deployment Pipeline Role Assignment Admin: Get Deployment Pipeline Role Assignments

Git integration folders support

Estimated release timeline: Q3 2024

Folder support with Git integration will empower users to uphold their folder structure consistently across both the Fabric workspace and the connected Git repository. Modifications to workspace folders containing Fabric items will be accurately mirrored in both platofrms, facilitating seamless synchronization between Git and Fabric, even when handling intricate folder hierarchies.

Git integration change review

Estimated release timeline: Q3 2024

Change Review with Git integration will provide developers with the capability to evaluate modifications just prior to committing them to Git or updating them from Git to the workspace. This will allow developers to inspect alterations within the source control pane, facilitating a comprehensive understanding of the impending changes and ensuring their accuracy.

Microsoft Fabric ARM APIs

Estimated release timeline: Q3 2024

Release Type: Public preview

Deliver a user-friendly, standardized API for Microsoft Fabric's Azure resources using Azure ARM APIs. Ensuring ease of use for developers to automatically create update and delete the Microsoft Fabric Capacities.

▼

Shipped feature(s)

Parent-child items in workspaces

Shipped (Q4 2023)

Some Fabric items have children items such as Lakehouse, Data Warehouse, etc. This feature enables you to easily view the parent-child items relationship in workspace UI and also makes the items list cleaner.

Persistent filters in workspaces

Shipped (Q1 2024)

Currently, the workspace filters aren't persistent. You must reapply filters each time upon returning to the workspace. We heard your feedback and plan to enable persistent filters for improved navigation.

Customizable left navigation bar

Shipped (Q1 2024)

We learned from you that the frequently used capabilities vary for everyone based on their roles and job to be done during a certain period time. To better improve productivity, we plan to make the left navigation bar customizable. You can pin or unpin an entry point on the left navigation bar according to your own preferences.

Related content

- Data Factory documentation in Microsoft Fabric
- Microsoft Fabric concepts and licenses

What's new and planned for Synapse Data Warehouse in Microsoft Fabric

Article • 05/21/2024

> ⓘ **Important**
>
> The release plans describe functionality that may or may not have been released yet. The delivery timelines and projected functionality may change or may not ship. Refer to **Microsoft policy**⧉ for more information.

Synapse Data Warehouse in Microsoft Fabric is the first data warehouse that supports multi-table transactions and natively embraces an open data format. The warehouse is built on the robust SQL Server query optimizer and an enterprise grade distributed query processing engine that eliminates the need for configuration and management. Synapse Data Warehouse in Microsoft Fabric seamlessly integrates with Data Factory for data ingestion, Power BI for analysis and reporting, and Synapse Spark for data science and machine learning. It streamlines an organization's analytics investments by converging data lakes and warehouses.

Data warehousing workloads benefit from the rich capabilities of the SQL engine over an open data format, enabling customers to focus on analysis and reporting. They also benefit from accessing data from OneLake, a data lake storage virtualization service.

To learn more, see the documentation.

Investment areas

⌐⌐ Expand table

Feature	Estimated release timeline
Warehouse monitoring experience	Q2 2024
Time travel	Q2 2024
In-place restore within warehouse editor	Q2 2024
COPY INTO support for secure storage	Q2 2024
Copilot	Q2 2024

Feature	Estimated release timeline
Case insensitive collation support	Q3 2024
ALTER TABLE - Add nullable column	Q3 2024
TRUNCATE	Q3 2024
Result set caching	Q3 2024
Automatic statistics enhancements	Q3 2024
Workload execution insights	Q3 2024
Query insights updates	Q3 2024
Nested CTE	Q3 2024
Notebook integration	Q3 2024
VARCHAR(MAX)/VARBINARY(MAX) types	Q3 2024
String performance improvements	Q3 2024

Warehouse monitoring experience

Estimated release timeline: Q2 2024

Using the built-in warehouse monitoring experience, you can view both live queries and historical queries, monitor, and troubleshoot performance of their end-to-end solution.

Time travel

Estimated release timeline: Q2 2024

The ability to time travel at the T-SQL statement level empowers users to query historical data from various past timeframes by specifying the timestamp only once for the entire query. Time travel helps save significantly on storage costs by using single copy of data present in One Lake for conducting historical trend analysis, troubleshooting, and data reconciliation. Additionally, it also facilitates achieving stable reporting by upholding the data integrity across various tables within the data warehouse.

In-place restore within warehouse editor

Estimated release timeline: Q2 2024

You can now easily create restore points and restore the warehouse to a known good state in the event of accidental corruption, using the Warehouse editor experience.

COPY INTO support for secure storage

Estimated release timeline: Q2 2024

Release Type: Public preview

You can now ingest data into your Warehouse using COPY INTO from an external Azure storage account that is protected behind a Firewall.

Copilot

Estimated release timeline: Q2 2024

Release Type: Public preview

Copilot enables developers of any skill level to quickly build and query a warehouse in Fabric. Copilot offers advice and best practices, autocomplete code, help fix and document code, and offer assistance with data prep, modeling, and analysis.

Case insensitive collation support

Estimated release timeline: Q3 2024

Using the public REST APIs to create a Data Warehouse includes a new option to set the default collation. This can be used to set a new Case Insensitive Collation default. You'll also be able to use the COLLATE command with CREATE TABLE to directly control which collation your VARCHAR fields use. The two supported collations are Latin1_General_100_CI_AS_KS_WS_SC_UTF8 (which is Case Insensitive) and Latin1_General_100_BIN2_UTF8 (which is Case Sensitive) and continues to be our default.

ALTER TABLE - Add nullable column

Estimated release timeline: Q3 2024

Support for ALTER TABLE ADD COLUMN to be able to extend already existing tables with new columns that allow NULL values.

TRUNCATE

Estimated release timeline: Q3 2024

The TRUNCATE command quickly removes all rows of data from a table.

Result set caching

Estimated release timeline: Q3 2024

Result set caching saves the results of applicable queries and returns them immediately on subsequent runs, which drastically reduce execution time by bypassing recompilation and recomputation. Cache is automatically managed and requires no manual intervention.

Automatic statistics enhancements

Estimated release timeline: Q3 2024

Various enhancements are planned – shorter execution time of automatic statistic updates, opportunistic support for VARCHAR(MAX) column types, improved storage of intermediate statistic steps, automatic statistics maintenance outside of user query.

Workload execution insights

Estimated release timeline: Q3 2024

This new feature gives users more insight into how a query could perform before they run a query. Users get information on the key steps the query executes, how similar queries have done in the past and the overall condition of the warehouse that could impact your workload.

Query insights updates

Estimated release timeline: Q3 2024

A historic view of your closed sessions will be made available via Query Insights. This addition it helps you analyze traffic, load, and usage of your DW.

Nested CTE

Estimated release timeline: Q3 2024

Common Table Expressions (CTE) increases the readability and simplification for complex queries by deconstructing ordinarily complex queries into simple blocks to be used and reused if necessary, instead of rewriting the query. A nested CTE is defined with the definition of another CTE.

Notebook integration

Estimated release timeline: Q3 2024

Release Type: Public preview

You can start using T-SQL language support within Notebooks which combines the power of Notebooks and SQL within the same experience - enabling intellisense, autocomplete, cross database queries, richer visualizations and the ability to easily collaborate and share using Notebooks.

VARCHAR(MAX)/VARBINARY(MAX) types

Estimated release timeline: Q3 2024

Users can define columns with VARCHAR(MAX)/VARBINARY(MAX) types in Data warehouse to store string or binary data up to 1 MB. In SQL endpoint for the Lakehouse, the string types in Delta tables are represented as VARCHAR(MAX) without truncation to 8 KB. The performance differences between the queries that are working with VARCHAR(MAX) and VARCHAR(8000) types are minimized, which enables users to use large types without significant performance penalty.

String performance improvements

Estimated release timeline: Q3 2024

Operations on strings (VARCHAR(N)) are common in T-SQL queries. Performance improvements on string functions and operators that are working with strings boosts the performance of the queries that use LIKE predicates, string functions and comparison operators in WHERE predicates, and operators like GROUP BY, ORDER BY, JOIN that are working with string types.

Related content

- Data warehousing documentation in Microsoft Fabric

What's new and planned for Synapse Data Engineering in Microsoft Fabric

Article • 05/21/2024

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Synapse Data Engineering empowers data engineers to be able to transform their data at scale using Spark and build out their lakehouse architecture.

Lakehouse for all your organizational data: The lakehouse combines the best of the data lake and the data warehouse in a single experience. It enables users to ingest, prepare, and share organizational data in an open format in the lake. Later you can access it through multiple engines such as Spark, T-SQL, and Power BI. It provides various data integration options such as dataflows and pipelines, shortcuts to external data sources, and data product sharing capabilities.

Performant Spark engine & runtime: Synapse Data engineering provides customers with an optimized Spark runtime with the latest versions of Spark, Delta, and Python.. It uses Delta Lake as the common table format for all engines, enabling easy data sharing and reporting with no data movement. The runtime comes with Spark optimizations, enhancing your query performance without any configurations. It also offers starter pools and high-concurrency mode to speed up and reuse your Spark sessions, saving you time and cost.

Spark Admin & configurations: Workspace admins with appropriate permissions can create and configure custom pools to optimize the performance and cost of their Spark workloads. Creators can configure environments to install libraries, select the runtime version, and set Spark properties for their notebooks and Spark jobs.

Developer Experience: Developers can use notebooks, Spark jobs, or their preferred IDE to author and execute Spark code in Fabric. They can natively access the lakehouse data, collaborate with others, install libraries, track history, do in-line monitoring, and get recommendations from the Spark advisor. They can also use Data Wrangler to easily prepare data with a low-code UI.

Platform Integration: All Synapse data engineering items, including notebooks, Spark jobs, environments,and lakehouses, are integrated deeply into the Fabric platform (enterprise information management capabilities, lineage, sensitivity labels, and endorsements).

Investment areas

⬚ **Expand table**

Feature	Estimated release timeline
Data APIs for GraphQL in Fabric	Q2 2024
Spark Native Execution Engine	Q2 2024
Create and attach environments	Q2 2024
High concurrency in pipelines	Q2 2024
Schema support and workspace in namespace in Lakehouse	Q2 2024
User Data Functions in Fabric	Q3 2024
VSCode Core Extension for Fabric	Q3 2024
VSCode Satellite Extension for User Data Functions in Fabric	Q3 2024
VS Code for the Web - debugging support	Q3 2024
Ability to sort and filter tables and folders in Lakehouse	Q3 2024
Spark Connector for Fabric Data Warehouse	Q3 2024
Public monitoring APIs	Q4 2024
Lakehouse data security	Q4 2024
Spark autotune	Shipped (Q1 2024)
Optimistic Job Admission for Fabric Spark	Shipped (Q2 2024)
Job Queueing for Notebook Jobs	Shipped (Q2 2024)

Data APIs for GraphQL in Fabric

Estimated release timeline: Q2 2024

Release Type: Public preview

Data APIs for GraphQL will allow Fabric data engineers, scientists, data solution architects to effortlessly expose and integrate Fabric data, for more responsive, performant and rich analytical applications, leveraging the power and flexibility of GraphQL.

Spark Native Execution Engine

Estimated release timeline: Q2 2024

Release Type: Public preview

The native execution engine is a groundbreaking enhancement for Apache Spark job executions in Microsoft Fabric. This vectorized engine optimizes the performance and efficiency of your Spark queries by running them directly on your lakehouse infrastructure. The engine's seamless integration means it requires no code modifications and avoids vendor lock-in. It supports Apache Spark APIs and is compatible with Runtime 1.2 (Spark 3.4), and works with both Parquet and Delta formats. Regardless of your data's location within OneLake, or if you access data via shortcuts, the native execution engine maximizes efficiency and performance

Create and attach environments

Estimated release timeline: Q2 2024

Release Type: General availability

To customize your Spark experiences at a more granular level, you can create and attach environments to your notebooks and Spark jobs. In an environment, you can install libraries, configure a new pool, set Spark properties, and upload scripts to a file system. This gives you more flexibility and control over your Spark workloads, without affecting the default settings of the workspace. As part of GA, we're making various improvements to environments including API support and CI/CD integration.

High concurrency in pipelines

Estimated release timeline: Q2 2024

Release Type: General availability

In addition to high concurrency in notebooks, we'll also enable high concurrency in pipelines. This capability will allow you to run multiple notebooks in a pipeline with a single session.

Schema support and workspace in namespace in Lakehouse

Estimated release timeline: Q2 2024

Release Type: Public preview

This will allow to organize tables using schemas and query data across workspaces.

User Data Functions in Fabric

Estimated release timeline: Q3 2024

Release Type: Public preview

User Data Functions will provide a powerful mechanism for implementing and re-using custom, specialized business logic into Fabric data science and data engineering workflows, increasing efficiency and flexibility.

VSCode Core Extension for Fabric

Estimated release timeline: Q3 2024

Release Type: Public preview

Core VSCode Extension for Fabric will provide common developer support for Fabric services.

VSCode Satellite Extension for User Data Functions in Fabric

Estimated release timeline: Q3 2024

Release Type: Public preview

The VSCode Satellite extensionn for User Data Functions will provide developer support (editing, building, debugging, publishing) for User Data Functions in Fabric.

VS Code for the Web - debugging support

Estimated release timeline: Q3 2024

Release Type: Public preview

Visual Studio Code for the Web is currently supported in Preview for authoring and execution scenarios. We add to the list of capabilities the ability to debug code using this extension for notebook.

Ability to sort and filter tables and folders in Lakehouse

Estimated release timeline: Q3 2024

Release Type: General availability

This feature allows customers to sort and filter their tables and folders in the Lakehouse by several different methods, including alphabetically, created date, and more.

Spark Connector for Fabric Data Warehouse

Estimated release timeline: Q3 2024

Release Type: Public preview

Spark Connector for Fabric DW (Data Warehouse) empowers a Spark developer or a data scientist to access and work on data from Fabric Data Warehouse with a simplified Spark API, which literally works with just one line of code. It offers an ability to query the data, in parallel, from Fabric data warehouse so that it scales with increasing data volume and honors security model (OLS/RLS/CLS) defined at the data warehouse level while accessing the table or view. This first release will support reading data only and the support for writing data back will be coming soon.

Public monitoring APIs

Estimated release timeline: Q4 2024

Release Type: General availability

The public monitoring APIs would allow you to programmatically retrieve the status of Spark jobs, job summaries, and the corresponding driver and executor logs.

Lakehouse data security

Estimated release timeline: Q4 2024

Release Type: Public preview

You'll have the ability to apply file, folder, and table (or object level) security in the lakehouse. You can also control who can access data in the lakehouse, and the level of permissions they have. For example, You can grant read permissions on files, folders, and tables. Once permissions are applied, they're automatically synchronized across all engines. Which means, that permissions are consistent across Spark, SQL, Power BI, and external engines.

▼

Shipped feature(s)

Spark autotune

Shipped (Q1 2024)

Release Type: Public preview

Autotune uses machine learning to automatically analyze previous runs of your Spark jobs and tunes the configurations to optimize the performance. It configures how your data is partitioned, joined, and read by Spark. This way it will significantly improve the performance. We have seen customer jobs run 2x faster with this capability.

Optimistic Job Admission for Fabric Spark

Shipped (Q2 2024)

Release Type: General availability

With Optimistic Job Admission, Fabric Spark only reserves the minimum number of cores that a job needs to start, based on the minimum number of nodes that the job can scale down to. This allows more jobs to be admitted if there are enough resources to meet the minimum requirements. If a job needs to scale up later, the scale up requests is approved or rejected based on the available cores in capacity.

Job Queueing for Notebook Jobs

Shipped (Q2 2024)

Release Type: General availability

This feature allows scheduled Spark Notebooks to be queued when Spark usage is at its maximum number of jobs it can execute in parallel and then execute once usage has dropped back below the maximum number of parallel jobs allowed.

Related content

- Data Engineering documentation in Microsoft Fabric

What's new and planned for Synapse Data Science in Microsoft Fabric

Article • 05/21/2024

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>
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Synapse Data Science provides data scientists with an end-to-end workflow for building their machine learning models, from exploration to model scoring. From a data exploration perspective, data scientists can use R and Python in notebooks, and built-in tools like Data Wrangler for easy analysis. Users can track and compare their model experiments and runs with MLFlow. They can save the best performing model in the workspace as a new model item and easily use Predict for batch scoring at scale. Data science in Fabric is deeply integrated with the rest of the stack, meaning it's seamless to score data in a lakehouse, write back the predictions to OneLake, and visualize the data in reports using Direct Lake mode.

Investment areas

⌄⌃ Expand table

Feature	Estimated release timeline
Copilot in notebooks	Q3 2024
AI operations in Data Wrangler	Q4 2024

Copilot in notebooks

Estimated release timeline: Q3 2024

Release Type: General availability

We are excited to announce the general availability of the Copilot for Data Science and Data Engineering in Microsoft Fabric. This innovative feature is designed to empower users with a conversational Q&A experience over their data. Whether you're working

with Lakehouse tables, Power BI Datasets, or pandas/spark/fabric dataframes, the Copilot can provide answers, generate queries, and offer code snippets to enhance your data exploration and analysis.

With the Copilot, every user can effectively build and configure AI experiences, gaining the insights and answers they need right at their fingertips. This release marks a significant milestone in our journey to make data science and engineering more accessible and collaborative for all. Try out the Copilot for Data Science and Data Engineering today and discover how it can transform your productivity and creativity in Microsoft Fabric notebooks.

AI operations in Data Wrangler

Estimated release timeline: Q4 2024

Release Type: Public preview

A new suite of AI-powered operations in Data Wrangler will allow users to describe code transformations with natural language and generate the corresponding Python; translate custom Python code into PySpark code; and apply SynapseML transformations like text translation and sentiment analysis in a matter of clicks.

Related content

- Synapse Data Science documentation in Microsoft Fabric

What's new and planned for Real-Time Intelligence in Microsoft Fabric

Article • 05/21/2024

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Real-Time Intelligence enables data professionals, analysts, and business users to ingest, process, analyze, transform, visualize and act on large, time-sensitive and highly granular data to help organizations make faster and more informed business decisions. It is an end-to-end experience that enables seamless handling of real-time data without the need to land it first. Real-Time Intelligence builds on the existing Real-Time Analytics and Data Activator capabilities and offers new features making it even easier for users of all skill levels to get the most from their real-time data. This includes ingesting streaming data with high granularity, dynamically transform streaming data, query data in real-time for instant insights, and trigger actions like alerting a production manager when equipment is overheating or rerunning jobs when data pipelines fail.

Even though it's called "real-time", your data doesn't have to be flowing at high rates and volumes to get true business value. Real-Time Intelligence gives you event-driven, rather than schedule-driven solutions, ensuring you can make the best decisions on time.

Behind this powerful workload is the Real-Time hub, a single place to discover, manage and use event steaming data from Fabric, other Microsoft data sources, and external data sources. Just like the OneLake data hub makes it easy to discover, manage, and use the data at rest, the Real-Time hub can help you do the same for data in motion. All events that flow through the Real-Time hub can be easily transformed and routed to any Fabric data stores and can create new streams that can be discovered and consumed.

For more information, see the Real-Time Intelligence documentation and visit the announcement blog ⧉.

The items available in Real-Time Intelligence are:

- **Real-Time hub**, a single place to discover, manage and use event steaming data from Fabric, other Microsoft data sources, and external data sources

- **Eventstreams** for capturing, transforming, and routing real-time events to various destinations with a no-code experience.

- **Evenhouse and KQL database** for data storage, analytics, and management. Data loaded into a KQL database can be accessed in OneLake and is exposed to other Fabric experiences.

- **KQL queryset** to run queries, view, and customize query results on data. The KQL queryset allows you to save queries for future use, export, and share queries with others. It includes the option to generate a Power BI report.

- **Real-time dashboards**, which contains a collection of tiles. Each tile has an underlying query and a visual representation perfect for data exploration, monitoring, and forensics.

- **Data Activator** that integrates with Real-Time hub, eventstreams, real-time dashboards and KQL querysets, making it seamless to trigger on any patterns or changing in real-time data.

Investment areas

⛶ Expand table

Feature	Estimated release timeline
Create actions and alerts with Data Activator	Q4 2023
Azure Synapse Link to KQL databases	Q4 2023
SQL native support in KQL querysets	Q2 2024
Enrich event data by joining reference data in eventstreams	Q3 2024
CI/CD support for Eventstream items	Q3 2024
Set Alerts on KQL Querysets	Q3 2024
Webhook support	Q3 2024
More trigger options	Q3 2024
Low latency triggers	Q3 2024
Support for parameters in triggering Fabric actions and webhooks	Q3 2024
Data streaming from Azure Event Grid to eventstreams	Q3 2024

Feature	Estimated release timeline
New streaming connectors for Kafka public clusters and Mongo DB CDC	Q3 2024
Additional Fabric system events	Q3 2024
Event catalog integration	Q3 2024
Eventstream tenant level private endpoint support	Q3 2024
Additional destinations for Eventstreams	Q3 2024
KQL Database Entities Diagram	Q4 2024
Cloud connection creation embedded in eventstreams	Shipped (Q1 2024)
Two ingestion modes for eventstream lakehouse destinations	Shipped (Q1 2024)
Improved Get Data experience	Shipped (Q1 2024)
Autoscale eventstreams	Shipped (Q1 2024)
Delta support to the KQL database OneLake representation	Shipped (Q1 2024)
Administrative monitoring	Shipped (Q1 2024)
Table optimization shortcut in eventstream lakehouse destinations	Shipped (Q1 2024)
Enhanced Custom App Details tab offers comprehensive endpoint information	Shipped (Q1 2024)
Improved no-code stream processing designer	Shipped (Q1 2024)
"Get data from Eventstream" in multiple Fabric items	Shipped (Q1 2024)
Eventstream data preprocessing to KQL database destination	Shipped (Q1 2024)
New eventstream destination to Data Activator	Shipped (Q1 2024)
Customizable event data retention in eventstreams	Shipped (Q1 2024)
Scale up to 100 MB/s for eventstream processing	Shipped (Q1 2024)
Notebook integration	Shipped (Q1 2024)
Enhancements to Event processor in Eventstream	Shipped (Q1 2024)
Enhanced trigger options	Shipped (Q2 2024)
Set Alert on Real-Time Dashboards	Shipped (Q2 2024)
Real-Time Hub for all data in motion	Shipped (Q2 2024)

Feature	Estimated release timeline
Get events experience in Real-Time Hub (change to explain value or remove for 18/24)	Shipped (Q2 2024)
New streaming connectors including Confluent Kafka, AWS Kinesis, PostgresSQL CDC and more	Shipped (Q2 2024)
New sources of discrete events from Fabric system events and Azure storage events	Shipped (Q2 2024)
Source from Real-Time Hub in Enhanced Eventstream	Shipped (Q2 2024)
Eventstream Edit and Live modes	Shipped (Q2 2024)
Default and Derived Streams	Shipped (Q2 2024)
Content-based event routing to destinations in eventstreams	Shipped (Q2 2024)
Get data from Real-Time Hub within Data Activator	Shipped (Q2 2024)
Create triggers from Real-Time Hub	Shipped (Q2 2024)
Taking action through Fabric Items	Shipped (Q2 2024)
Eventhouse	Shipped (Q2 2024)
Eventhouse OneLake Availability	Shipped (Q2 2024)
Create a database shortcut to another KQL Database	Shipped (Q2 2024)
Support for AI Anomaly Detector	Shipped (Q2 2024)
Eventhouse tenant level private endpoint support	Shipped (Q2 2024)
New experience for data exploration from Real-Time Dashboards	Shipped (Q2 2024)
Use Real-Time hub to Get Data in KQL Database in Eventhouse	Shipped (Q2 2024)
Co-pilot for Real-Time Intelligence	Shipped (Q2 2024)
Pause, stop, or restart eventstream flows	Shipped (Q2 2024)
Real-Time Dashboard	Shipped (Q2 2024)

Create actions and alerts with Data Activator

Estimated release timeline: Q4 2023

This feature provides a low-code/no-code experience to drive actions and alerts from your KQL database data. Data Activator gives you a single place to define actionable patterns in your data. These patterns can range from simple thresholds (such as a value being exceeded) to more complex patterns over time (such a value trending down). When Data Activator detects an actionable pattern, it triggers an action. That action can be an email or a Teams alert to the relevant person in your organization. It can also trigger an automatic process, via a Power Automate flow or an action in one of your organization's line-of-business apps.

Azure Synapse Link to KQL databases

Estimated release timeline: Q4 2023

Customers can stream all updates from Cosmos DB to a KQL database, enabling large scale, powerful analytics.

SQL native support in KQL querysets

Estimated release timeline: Q2 2024

This feature enables customers to use a native SQL editor to run SQL over KQL databases in a queryset, alongside using KQL. With this capability, customers are able to use the SQL editor's native capabilities, such as syntax highlighting, suggestions, and more.

Enrich event data by joining reference data in eventstreams

Estimated release timeline: Q3 2024

During event data ingestion into destinations, an eventstream can enrich the event data by joining it with SQL reference data, enabling customers to extract more valuable insights from their event data.

CI/CD support for Eventstream items

Estimated release timeline: Q3 2024

Release Type: Public preview

Customers can easily version and deploy their eventstreams across development, testing, and production workspaces using the integrated Git integration and

deployment experience in the Fabric platform.

Set Alerts on KQL Querysets

Estimated release timeline: Q3 2024

Release Type: Public preview

Data Activator will be able to monitor the results of queries managed in a KQL Queryset, running the query on a regular schedule and acting on the results.

Webhook support

Estimated release timeline: Q3 2024

Release Type: Public preview

Webhooks represent a large base of application integrations that can be used in different scenarios. Data Activator will support actions that call webhooks when triggers fire.

More trigger options

Estimated release timeline: Q3 2024

Release Type: Public preview

To address further requests for monitoring different business conditions, Data Activator will support triggers that check date/time values, basic math functions etc.

Low latency triggers

Estimated release timeline: Q3 2024

Release Type: Public preview

We hear in customer feedback that triggers need to react faster when the specified condition is met. Data Activator will support lower-latency triggers in scenarios with simple conditions and lower volumes of data.

Support for parameters in triggering Fabric actions and webhooks

Estimated release timeline: Q3 2024

Release Type: Public preview

Triggers that take action by starting Fabric jobs or calling webhooks will be able to pass the value of properties in the reflex model as parameters to the job or webhook.

Data streaming from Azure Event Grid to eventstreams

Estimated release timeline: Q3 2024

Customers can subscribe to Azure resource events (like Blob storage events), partner events (like SAP), custom events, or MQTT topics, and then have them published to eventstreams.

New streaming connectors for Kafka public clusters and Mongo DB CDC

Estimated release timeline: Q3 2024

Release Type: Public preview

Additional connectors will be available through the Get Events experience, including Public Kafka clusters and Mongo DB CDC.

Additional Fabric system events

Estimated release timeline: Q3 2024

Release Type: Public preview

Beyond Fabric workspace events, other Fabric system events such as platform diagnostic events will be available for subscription through Real-Time Hub.

Event catalog integration

Estimated release timeline: Q3 2024

Release Type: Public preview

Real-Time hub expands capabilities to support managing event types, providing a catalog for schema management and discovery.

Eventstream tenant level private endpoint support

Estimated release timeline: Q3 2024

Release Type: Public preview

Eventstream supports tenant level private endpoints, ensuring that the data flows in and out of Eventstream over secure networks.

Additional destinations for Eventstreams

Estimated release timeline: Q3 2024

Release Type: Public preview

Eventstreams will support additional destinations including Eventhouse and Data Integration items.

KQL Database Entities Diagram

Estimated release timeline: Q4 2024

Release Type: Public preview

a visual representation of the KQL DB entities and their relations (such as tables, functions, materialized views, and more).

▼

Shipped feature(s)

Cloud connection creation embedded in eventstreams

Shipped (Q1 2024)

Customers can create a cloud connection directly within their eventstreams, without navigating to another webpage.

Two ingestion modes for eventstream lakehouse destinations

Shipped (Q1 2024)

Eventstream lakehouse destinations support two ingestion modes: low latency and high throughput.

Improved Get Data experience

Shipped (Q1 2024)

Users experience a simplified and improved Get Data experience to get their data into a KQL database.

Autoscale eventstreams

Shipped (Q1 2024)

This feature provides the flexibility to automatically scale capacity in response to event data traffic volume, enabling seamless improvement of eventstream throughput without disrupting your business operations.

Delta support to the KQL database OneLake representation

Shipped (Q1 2024)

Release Type: Public preview

KQL database data is already available in OneLake in parquet format. Adding Delta support enables other Fabric capabilities to use the OneLake presence as a table rather than as a list of files.

Administrative monitoring

Shipped (Q1 2024)

You can use administrative monitoring to search audit logs, and to track usage and adoption, capacity consumption, and availability.

Table optimization shortcut in eventstream lakehouse destinations

Shipped (Q1 2024)

The table optimization shortcut helps users by opening a notebook with a Spark job that compacts small streaming files in the lakehouse table.

Enhanced Custom App Details tab offers comprehensive endpoint information

Shipped (Q1 2024)

The **Details** tab of the Custom App source and destination offers comprehensive information about the eventstream endpoint. Available information includes connection strings in Kafka, Eventhub, and AMQP formats, as well as sample Java code for event ingestion and consumption using these three protocols.

Improved no-code stream processing designer

Shipped (Q1 2024)

Users have an improved eventstream editing experience, with more intuitive gestures in the no-code designer.

"Get data from Eventstream" in multiple Fabric items

Shipped (Q1 2024)

Customers are able to get event data from eventstreams in multiple Fabric items, including Lakehouse, KQL Database, and Reflex.

Eventstream data preprocessing to KQL database destination

Shipped (Q1 2024)

The addition of the KQL database destination with data transformation enables customers to transform, enrich, and reduce the data volume before it's routed to KQL databases.

New eventstream destination to Data Activator

Shipped (Q1 2024)

The Data Activator destination option helps customers route events to Data Activator, where they can build triggers based on the event data from eventstreams natively.

Customizable event data retention in eventstreams

Shipped (Q1 2024)

Customers have the flexibility to set the event data retention time, ensuring that event data is retained in their eventstreams according to their specific business requirements.

Scale up to 100 MB/s for eventstream processing

Shipped (Q1 2024)

An eventstream can support events ingestion throughput up to 100 MB/s while ingesting data to KQL databases and lakehouses.

Notebook integration

Shipped (Q1 2024)

Customers can natively query KQL databases from Microsoft Fabric notebooks. Use notebooks to run queries on KQL databases, save the resulting data frames, ingest data into KQL databases, and more.

Enhancements to Event processor in Eventstream

Shipped (Q1 2024)

This includes three enhancements. First, personalize operation nodes and easily filter out 'null' values from your data. Second, manage and rename your column fields easily in the Aggregate operation. Third, Change your values to different data types using the Manage Fields operation .

Enhanced trigger options

Shipped (Q2 2024)

To represent the business conditions for monitoring, Data Activator will support more trigger conditions such as percentage changes over time, date/time functions, basic mathematic functions, signal absence detection and more.

Set Alert on Real-Time Dashboards

Shipped (Q2 2024)

In addition to monitoring Power BI and Eventstream data, Data Activator will support periodic querying against KQL queries saved in Real-Time Dashboards. These queries can be used to return exceptions, or track results over time to detect data changes or threshold conditions.

Real-Time Hub for all data in motion

Shipped (Q2 2024)

Real-Time hub is the single estate for all data-in-motion across your entire organization.

Get events experience in Real-Time Hub (change to explain value or remove for 18/24)

Shipped (Q2 2024)

Whether data is coming from new or existing sources, streams, or available events, the Get Events experience allows users to connect to a wide range of sources directly from Real-Time hub, Eventstreams, Eventhouse and Data Activator.

New streaming connectors including Confluent Kafka, AWS Kinesis, PostgresSQL CDC and more

Shipped (Q2 2024)

Beyond Microsoft sources, users can now stream data from other platforms like Google Cloud, Amazon Kinesis, Database change data capture streams, etc. using our new messaging connectors. Our messaging connectors are powered by Kafka connect with Camel Kafka connectors that offer a pluggable, declarative data integration framework, and flexibility for diverse source connections on popular data platforms, as well as the Debezium that could connect databases for fetching the Change Data Capture (CDC) streams.

New sources of discrete events from Fabric system events and Azure storage events

Shipped (Q2 2024)

Release Type: Public preview

Discrete events (a.k.a. notification events) are significant (important) facts that have happened, and that trigger state changes or actions in the downstream consumer applications (subscribers). Examples include events like OrderPlaced in order system, blob storage changes in Azure sources, or item changes in Fabric system.

Source from Real-Time Hub in Enhanced Eventstream

Shipped (Q2 2024)

Release Type: Public preview

The Eventstream homepage makes it even easier to bring in data. By clicking on the "Add external source", you will find these sources in the Get events wizard that helps you to set up the source in a few steps. After you add the source to your eventstream, you can publish it to stream the data into your eventstream. Using Eventstream with discrete sources to turn events into streams for more analysis. You can send the streams to different Fabric data destinations, like Lakehouse and KQL Database.

Eventstream Edit and Live modes

Shipped (Q2 2024)

Release Type: Public preview

Eventstream offers two distinct modes, Edit and Live, to provide flexibility and control over the development process of your eventstream. If you create a new Eventstream with Enhanced Capabilities enabled, you can modify it in an Edit mode. Here, you can design stream processing operations for your data streams using a no-code editor. Once you complete the editing, you can publish your Eventstream and visualize how it starts streaming and processing data in Live mode.

Default and Derived Streams

Shipped (Q2 2024)

Release Type: Public preview

Multiple streams are listed within the Real-Time Hub including Default and Derived streams. Default stream are automatically generated when a streaming source is added to Eventstream. Default stream captures raw event data directly from the source, ready for transformation or analysis. erived stream: A specialized stream that users can create as a destination within Eventstream. Derived stream can be created after a series of operations such as filtering and aggregating, and then it's ready for further consumption or analysis by other users in the organization through the Real-Time Hub.

Content-based event routing to destinations in eventstreams

Shipped (Q2 2024)

Release Type: Public preview

Bringing the no-code event processor to the eventstream main canvas allows customers to route event data to their destinations based on event content, using event processing logic defined with the event processor.

Get data from Real-Time Hub within Data Activator

Shipped (Q2 2024)

Release Type: Public preview

Bring new events into reflex items by using the embedded Real-Time Hub browser.

Create triggers from Real-Time Hub

Shipped (Q2 2024)

Release Type: Public preview

Across the Real-Time Hub you'll see options to create new triggers and alerts on both business and system events.

Taking action through Fabric Items

Shipped (Q2 2024)

Release Type: Public preview

Reflex items will support starting Fabric item jobs as an action. You'll be able to kick off data pipelines and notebooks.

Eventhouse

Shipped (Q2 2024)

Release Type: General availability

Eventhouse, a cutting-edge database workspace meticulously crafted to manage and store event-based data, is now officially available for general use. With Eventhouse, users can perform high-performance analysis of big data and real-time data querying, processing billions of events within seconds. The platform allows users to organize data into compartments (databases) within one logical item, facilitating efficient data management. Additionally, Eventhouse enables the sharing of compute and cache resources across databases, maximizing resource utilization.

Eventhouse OneLake Availability

Shipped (Q2 2024)

Release Type: General availability

Enabling data availability of Eventhouse in OneLake means that customers can enjoy the best of both worlds: they can query the data with high performance and low latency in their Eventhouse and query the same data in Delta Lake format via any other Fabric engines such as Power BI Direct Lake mode, Warehouse, Lakehouse, Notebooks, and more.

Create a database shortcut to another KQL Database

Shipped (Q2 2024)

Release Type: Public preview

A database shortcut in Eventhouse is an embedded reference to a source database. The database shortcut is attached in read-only mode, making it possible to view and run queries on the data that was ingested into the source KQL Database without ingesting it. This helps with data sharing scenarios where you can share data in-place either within teams, or even with external customers.

Support for AI Anomaly Detector

Shipped (Q2 2024)

Release Type: Public preview

AI Anomaly Detector algorithms are supported in Microsoft Fabric, allowing for real time scoring by KQL with inline Python in Real-Time Intelligence.

Eventhouse tenant level private endpoint support

Shipped (Q2 2024)

Release Type: Public preview

Customers can increase their network security by limiting access to Eventhouse at a tenant-level, from one or more virtual networks (VNets) via private links. This will prevent unauthorized access from public networks and only permit data plane operations from specific VNets.

New experience for data exploration from Real-Time Dashboards

Shipped (Q2 2024)

Release Type: Public preview

Directly from a real-time dashboard, users can refine their exploration using a user-friendly, form-like interface. This intuitive and dynamic experience is tailored for insights explorers craving insights based on real-time data. Add filters, create aggregations, and switch visualization types without writing queries to easily uncover insights.

Use Real-Time hub to Get Data in KQL Database in Eventhouse

Shipped (Q2 2024)

Release Type: Public preview

With Real-Time hub embedded in KQL Database experience, each user in the tenant can view and add streams which they have access and directly ingest it to a KQL Database table in Eventhouse.

Co-pilot for Real-Time Intelligence

Shipped (Q2 2024)

Release Type: Public preview

Co-pilot allows you to write queries in natural language and have them translated into Kusto Query Language (KQL). You can use Co-pilot to ask your how-to queries, explore your data in a KQL database, and create Kusto entities such as tables, functions, and materialized views.

Pause, stop, or restart eventstream flows

Shipped (Q2 2024)

This feature offers customers the capability to pause, stop, or restart real-time event flows, so they can iterate on transformation or event flow logic during the development phase.

Real-Time Dashboard

Shipped (Q2 2024)

Release Type: Public preview

A dashboard is a collection of tiles, optionally organized in pages, where each tile has an underlying query and a visual representation. Natively export Kusto Query Language (KQL) queries to a dashboard as visuals and later modify their underlying queries and visual formatting as needed. In addition to ease of data exploration, this fully integrated dashboard experience provides improved query and visualization performance with light, flexible modeling on high granularity low latency data.

What's new and planned for Data Factory in Microsoft Fabric

Article • 05/21/2024

> ⓘ **Important**
>
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Data Factory in Microsoft Fabric combines citizen data integration and pro data integration capabilities into a single, modern data integration experience. It provides connectivity to more than 100 relational and nonrelational databases, lakehouses, data warehouses, generic interfaces like REST APIs, OData, and more.

Dataflows: Dataflow Gen2 enables you to perform large-scale data transformations, and supports various output destinations that write to Azure SQL Database, Lakehouse, Data Warehouse, and more. The dataflows editor offers more than 300 transformations, including AI-based options, and lets you transform data easily with better flexibility than any other tool. Whether you're extracting data from an unstructured data source such as a web page or reshaping an existing table in the Power Query editor, you can easily apply Power Query's Data Extraction By Example, that uses artificial intelligence (AI) and simplifies the process.

Data pipelines: Data pipelines offer the capability to create versatile data orchestration workflows that bring together tasks like data extraction, loading into preferred data stores, notebook execution, SQL script execution, and more. You can quickly build powerful metadata-driven data pipelines that automate repetitive tasks. For example, loading and extracting data from different tables in a database, iterating through multiple containers in Azure Blob Storage, and more. Furthermore, with data pipelines, you can access the data from Microsoft 365, using the Microsoft Graph Data Connection (MGDC) connector.

To learn more, see the documentation.

Investment areas

Over the next few months, Data Factory in Microsoft Fabric will expand its connectivity options and continue to add to the rich library of transformations and data pipeline

activities. Moreover, it enables you to perform real-time, high-performance data replication from operational databases, and bring this data into the lake for analytics.

⛶ Expand table

Feature	Estimated release timeline
Data source identity management (SPN)	Q2 2024
Data pipeline support for SparkJobDefinition	Q2 2024
Data pipeline support for Azure HDinsight	Q2 2024
Support for invoking cross-workspace data pipelines	Q2 2024
Data pipeline support for Event-Driven Triggers	Q2 2024
New connectors for Copy Activity	Q2 2024
Data workflows: Build data pipelines powered by Apache Airflow	Q2 2024
Copilot for Data Factory (Dataflow)	Q3 2024
Staging defaults for Dataflow Gen 2 Output destination	Q3 2024
Incremental refresh support in Dataflow Gen2	Q3 2024
Data pipeline support for DBT CLI	Q3 2024
Data pipeline support for Azure Databricks Jobs	Q3 2024
Copy Job	Q3 2024
Copilot for Data Factory (Data pipeline)	Q3 2024
Improved email notifications for Refresh failures	Q3 2024
Dataflows Gen 2 Partition-based Parallel ingestion	Q3 2024
Data source identity management (Managed Identity)	Q3 2024
Data source identity management (Azure Key Vault)	Q3 2024
Enabling customers to parameterize their connections	Q4 2024
Cancel refresh support in Dataflow Gen2	Shipped (Q4 2023)
Get data experience improvements(Browse Azure Resources)	Shipped (Q1 2024)
On-premises data gateway (OPDG) support added to data pipelines	Shipped (Q1 2024)
Fast Copy support in Dataflow Gen2	Shipped (Q1 2024)

Feature	Estimated release timeline
Data Factory Git integration for data pipelines	Shipped (Q1 2024)
Enhancements to output destinations in Dataflow Gen2 (query schema)	Shipped (Q1 2024)

Data source identity management (SPN)

Estimated release timeline: Q2 2024

Release Type: General availability

Service principal - To access resources that are secured by an Azure AD tenant, the entity that requires access must be represented by a security principal. You'll be able to connect to your data sources with the service principal.

Data pipeline support for SparkJobDefinition

Estimated release timeline: Q2 2024

Release Type: General availability

Now you can execute your Spark code, including JAR files, directly from a pipeline activity. Just point to your Spark code and the pipeline will execute the job on your Spark cluster in Fabric. This new activity enables exciting data workflow patterns that leverages the power of Fabric's Spark engine while including the Data Factory control flow and data flow capabilities in the same pipeline as your Spark Jobs.

Data pipeline support for Azure HDinsight

Estimated release timeline: Q2 2024

Release Type: General availability

HD Insight is the Azure PaaS service for Hadoop that enables developers to build very powerful big data solutions in the cloud. The new HDI pipeline activity will enable HDInsights job activities inside of your Data Factory data pipelines similar to the existing funcationality that you've enhoyed for years in ADF and Synapse pipelines. We've now brought this capability directly into Fabric data pipelines.

Support for invoking cross-workspace data pipelines

Estimated release timeline: Q2 2024

Release Type: Public preview

Invoke Pipelines activity update: We are enabling some new and exciting updates to the Invoke Pipeline activity. In response to overwhelming customer and community requests, we are enabling running data pipelines across workspaces. You will now be able to invoke pipelines from other workspaces that you have access to execute. This will enable very exciting data workflow patterns that can utilize collaboration from your data engineering and integration teams across workspaces and across functional teams.

Data pipeline support for Event-Driven Triggers

Estimated release timeline: Q2 2024

Release Type: Public preview

A common use case for invoking Data Factory data pipelines is to trigger the pipeline upon file events like file arrival and file delete. For customers coming from ADF or Synapse to Fabric, using ADLS/Blog storage events is very common as a way to either signal for a new pipeline execution or to capture the names of the files created. Triggers in Fabric Data Factory leverage Fabric platform capabilities including EventStreams and Reflex triggers. Inside of the Fabric Data Factory pipeline design canvas, you will have a Trigger button that you can press to create a Reflex trigger for your pipeline or you can create the trigger directly from the Data Activator experience.

New connectors for Copy Activity

Estimated release timeline: Q2 2024

Release Type: Public preview

New connectors will be added for Copy activity to empower customer to ingest from the following sources, while leveraging data pipeline: Oracle, MySQL, Azure MySQL Database, Azure AI Search, Azure Files, Dynamics AX, Azure Files, Google BigQuery.

Data workflows: Build data pipelines powered by Apache Airflow

Estimated release timeline: Q2 2024

Release Type: Public preview

Data workflows are powered by Apache Airflow and offer an integrated Apache Airflow runtime environment, enabling you to author, execute, and schedule Python DAGs with ease.

Copilot for Data Factory (Dataflow)

Estimated release timeline: Q3 2024

Release Type: General availability

Copilot for Data Factory (Dataflow) empowers customers to express their requirements using natural language when creating data integration solutions with Dataflows Gen2.

Staging defaults for Dataflow Gen 2 Output destination

Estimated release timeline: Q3 2024

Release Type: Public preview

Dataflow Gen2 provides capabilities to ingest data from a wide range of data sources into the Fabric OneLake. Upon staging this data, it can be transformed at high-scale leveraging the High-Scale Dataflows Gen2 engine (based on Fabric Lakehouse/Warehouse SQL compute).

The default behavior for Dataflows Gen2 is to stage data in OneLake to enable high-scale data transformations. While this works great for high-scale scenarios, it does not work as well for scenarios involving small amounts of data being ingested given that it introduces an extra hop (staging) for data before it is ultimately loaded into the dataflow output destination.

With the planned enhancements, we're fine tuning the default Staging behavior to be disabled, for queries with an output destination that doesn't require staging (namely, Fabric Lakehouse and Azure SQL Database).

Staging behavior can be manually configured on a per-query basis via the Query Settings pane or the query contextual menu in the Queries pane.

Incremental refresh support in Dataflow Gen2

Estimated release timeline: Q3 2024

Release Type: Public preview

We're adding incremental refresh support in Dataflow Gen2. This feature enables you to incrementally extract data from data sources, apply Power Query transformations, and load into various output destinations.

Data pipeline support for DBT CLI

Estimated release timeline: Q3 2024

Release Type: Public preview

DBT CLI Orchestration (Data Build Tool): Incorporates the data build tool (dbt) for data transformation workflows.

Data pipeline support for Azure Databricks Jobs

Estimated release timeline: Q3 2024

Release Type: Public preview

We are updating the Data Factory data pipelines Azure Databricks activities to now use the latest jobs API enabling exciting workflow capabilities like executing DLT jobs.

Copy Job

Estimated release timeline: Q3 2024

Release Type: Public preview

Copy Job simplifies the experience for customers who need to ingest data, without having to create a Dataflow or Data pipeline. Copy Job supports full and incremental copy from any data sources to any data destinations.

Copilot for Data Factory (Data pipeline)

Estimated release timeline: Q3 2024

Release Type: Public preview

Copilot for Data Factory (Data pipeline) empowers customers to build data pipelines using natural language and provides troubleshooting guidance.

Improved email notifications for Refresh failures

Estimated release timeline: Q3 2024

Release Type: Public preview

Email notifications allow Dataflow Gen2 creators to monitor the results (success/failure) of a dataflow's refresh operation.

Dataflows Gen 2 Partition-based Parallel ingestion

Estimated release timeline: Q3 2024

Release Type: Public preview

Currently, Dataflows Gen2 containing queries against a data source that supports partitions will refresh the partitions within those queries sequentially. An example of this behavior is a query running against a Folder and ingesting all files within the folder (then, parsing them into tables, combining into a single table, etc.).

With the planned enhancements, we're optimizing the orchestration of such queries so that processing each of the source partitions can be run in parallel. This optimization may bring significant reduction of the overall dataflow run durations.

Data source identity management (Managed Identity)

Estimated release timeline: Q3 2024

Release Type: Public preview

This enables Managed identity to be configured at a workspace level. You can use the Fabric managed identities to connect to your data source securely.

Data source identity management (Azure Key Vault)

Estimated release timeline: Q3 2024

Release Type: Public preview

Support for Azure Key Vault - You can store your keys and secrets in Azure Key Vault and connect to it. This way, you can manage your keys in a single place.

Enabling customers to parameterize their connections

Estimated release timeline: Q4 2024

Release Type: Public preview

Connections provide a common framework for defining connectivity and authentication for your data stores. These connections can be shared across different items. With parameterization support, you'll be able to build complex and reusable pipelines, notebooks, dataflows, and other item types.

▼

Shipped feature(s)

Cancel refresh support in Dataflow Gen2

Shipped (Q4 2023)

Release Type: Public preview

We're adding support to cancel ongoing Dataflow Gen2 refreshes from the workspace items view.

Get data experience improvements(Browse Azure Resources)

Shipped (Q1 2024)

Release Type: Public preview

Browsing Azure resources provides seamless navigation to browse Azure resources. You can easily navigate your Azure subscriptions and connect to your data sources through an intuitive user interface. It helps you quickly find and connect to the data you need.

On-premises data gateway (OPDG) support added to data pipelines

Shipped (Q1 2024)

Release Type: Public preview

This feature enables data pipelines to use Fabric data gateways to access data that is on-premises and behind a virtual network. For users using self-hosted integration runtimes (SHIR), they'll be able to move to on-premises data gateways in Fabric.

Fast Copy support in Dataflow Gen2

Shipped (Q1 2024)

Release Type: Public preview

We're adding support for large-scale data ingestion directly within the Dataflow Gen2 experience, utilizing the pipelines Copy Activity capability. This supports sources such Azure SQL Databases, CSV, and Parquet files in Azure Data Lake Storage and Blob Storage.

This enhancement significantly scales up the data processing capacity of Dataflow Gen2 providing high-scale ELT (Extract-Load-Transform) capabilities.

Data Factory Git integration for data pipelines

Shipped (Q1 2024)

Release Type: Public preview

You can connect to your Git repository to develop data pipelines in a collaborative way. The integration of data pipelines with the Fabric platform's Application Lifecycle Management (ALM) capability enables version control, branching, commits, and pull requests.

Enhancements to output destinations in Dataflow Gen2 (query schema)

Shipped (Q1 2024)

Release Type: Public preview

We're enhancing the output destinations in Dataflow Gen2 with the following highly requested capabilities:

- Ability to handle query schema changes after configuring an output destination.
- Default destination settings to accelerate dataflows creation.

To learn more, see Dataflow Gen2 data destinations and managed settings

Related content

- Data Factory documentation in Microsoft Fabric

What's new and planned for Power BI in Microsoft Fabric

Article • 05/21/2024

> ⓘ **Important**
>
> The release plans describe functionality that may or may not have been released yet. The delivery timelines and projected functionality may change or may not ship. Refer to **Microsoft policy**⧉ for more information.

Microsoft business intelligence (BI) helps drive a data culture where everyone, at every level of an organization, can make confident decisions with data at any scale. To enable organizations to drive a data culture, we continue to invest across three key themes that we've introduced before: Power BI makes it easier than ever for every individual, every team, and every organization to work with data.

Empower every individual, Power BI provides familiar Office-like experiences and infuses artificial intelligence (AI) to increase user productivity. With the introduction of Power BI Copilot, we're transforming how users interact and work with data by automating steps in the report creation workflow.

Empower every team, Power BI is integrated deeply with Office. It brings insights to Teams and Outlook, where everyone collaborates with deep integration in key experiences, such as meetings, channels, and chats.

Empower every organization, Power BI provides scale to meet the most demanding needs of large enterprises. With centralized administration, governance, and industry-leading security capabilities in Power BI, IT always has full visibility and control.

Investment areas

⛶ Expand table

Feature	Estimated release timeline
Combine existing mapping visuals into one with Azure Maps	Q1 2024
Control visual formatting with improved capabilities	Q1 2024

Feature	Estimated release timeline
Enhancing image capture in Power BI add-in for PowerPoint	Q1 2024
Create and run DAX queries with Query view in Power BI Desktop	Q2 2024
Author calculation groups in Power BI Desktop	Q2 2024
Model explorer provides easy navigation to author objects	Q2 2024
Copilot GA	Q2 2024
Copilot answer questions	Q2 2024
Dynamic per recipient subscriptions	Q3 2024
Dark mode support in Power BI Desktop	Q3 2024
Deliver subscriptions to a OneDrive and SharePoint location	Q3 2024
Copilot for measure descriptions	Q3 2024
Copilot for DAX query generation	Q3 2024
Organizational Apps for Fabric	Q3 2024
Live edit of Direct Lake semantic models in Power BI Desktop	Q3 2024
Metrics Hub	Q3 2024
Visual improvements	Q4 2024
Visual calculations UI Updates	Q4 2024
Customize content access request messages for Power BI organizational apps	Q4 2024
Balance user queries with query scale-out GA	Shipped (Q4 2023)
Create reports in the Power BI service with new data sources	Shipped (Q1 2024)
Automatic mobile report layout in Power BI Desktop	Shipped (Q1 2024)
Visual calculations	Shipped (Q1 2024)
Author calculation groups	Shipped (Q1 2024)
Create and run DAX queries with Query view in Power BI Desktop	Shipped (Q1 2024)
Periodic refresh in Power BI Storytelling add-in to support Slideshow	Shipped (Q1 2024)
Dynamic per recipient subscriptions	Shipped (Q1 2024)

Feature	Estimated release timeline
Copilot in Power BI	Shipped (Q1 2024)
Narrative with Copilot in Power BI	Shipped (Q1 2024)
Copilot for DAX query generation	Shipped (Q1 2024)
Stored credentials for Direct Lake dataset security in Microsoft Fabric	Shipped (Q1 2024)
Manage access to hidden content and link to content in Power BI organizational apps	Shipped (Q1 2024)
Connect to new datasources and create paginated reports on PBI Report Builder	Shipped (Q1 2024)

Combine existing mapping visuals into one with Azure Maps

Estimated release timeline: Q1 2024

Customers will get the best features of all mapping visuals rolled into a single visual. The new mapping visual supports the use of shapes, points, shading, and adding more data points than the current default map visual.

Control visual formatting with improved capabilities

Estimated release timeline: Q1 2024

Power BI will add new formatting capabilities that will provide users with more control over the appearance of their visuals. New format options will allow setting the padding and margins of visuals, and their default values will apply good design practices that will result in appealing visuals.

Enhancing image capture in Power BI add-in for PowerPoint

Estimated release timeline: Q1 2024

Previously, when users add Power BI report or visual to a PowerPoint presentation using the Power BI add-in, Power BI checks the user permissions before presenting any live data to those who view the presentation. But if the add-in was set as image, and when PowerPoint uses screen capture as a thumbnail, there is no check on who the user is. In

this update we will allow users to tell PowerPoint whether to show the image to every user who has access to the presentation or to limit that only to those who have access to the report in Power BI. In addition, the default thumbnail will be disabled.

Create and run DAX queries with Query view in Power BI Desktop

Estimated release timeline: Q2 2024

Release Type: General availability

The DAX query view allows BI developers to create and run DAX queries in Power BI! Use the existing DAX query syntax to quickly query your data model.

DAX expressions are used to define any measure, calculated column, calculated table, dynamic format string, calculation item, and row level security on your model. But that is not all you can do with DAX. With the DAX EVALUATE keyword, you can also use DAX to create a DAX query. This is much like a SQL query where you can specify columns and aggregations to return in a result table. You can learn more about DAX queries at DAX queries.

This powerful way to interact with your data model will be available in the new DAX query view! We give you several ways to help you be as productive as possible with these DAX queries:

- Quick queries in the context menu of the Data pane tables, columns, or measures gives you a head start by creating a DAX query to preview data or show summary statistics to help you understand the data without creating visuals and for DirectQuery you no longer must go back to Power Query to see some sample data.
- Right-click in the Data pane to get the DAX expression of all measures or a specific measure in a DEFINE statement with an EVALUATE statement to run as a DAX query and add any additional columns.
- If you modify that DEFINE measure from the model definition, a time saving option to update model can overwrite the current model definition with your changes – you don't have to copy paste it back manually.
- If you use DEFINE to create a measure not in the model already, a time saving option to add to model can be used to add this measure to your model! Again, saving you the step of going new measure and then copy pasting the DAX expression over.
- If your measure references another measure, you can define the measure and all the references, meaning all the measures DAX expressions are visible on one

screen! Now you can see the full context of how this measure is calculated from the source columns.

- Performance Analyzer already lets you copy the visual DAX query. Now you no longer need to take that DAX query and use another tool to view and run it – simply run the visual DAX query in Power BI.

Author calculation groups in Power BI Desktop

Estimated release timeline: Q2 2024

Release Type: General availability

Calculation groups provide a simple way to reduce the number of measures in a model by grouping common measure expressions. Calculation groups work with existing explicit DAX measures by automating repetitive patterns. For example, a sales analyst might want to view sales and order quantities by month-to-date (MTD), quarter-to-date (QTD), year-to-date (YTD), orders year-to-date for the previous year (PY), and so on. With this enhancement, data modelers will be able to create calculation groups by using Power BI Desktop.

Model explorer provides easy navigation to author objects

Estimated release timeline: Q2 2024

Release Type: General availability

The model explorer provides a convenient tree view of all the semantic model objects in the Data pane. The semantic model is all the metadata about your data, and it impacts how your data shows in reports and DAX queries. Model explorer shows all the semantic model items at-a-glance. Find items fast with the search. Focus on what you want to do by expanding and collapsing different item sections. Know how many of each item you have with counts on each section.

- **Semantic model**: Clicking on the top semantic model node shows a properties pane with semantic model settings such as discourage implicit measures.
- **Calculation groups**: Full authoring capability for calculation groups and calculation items. Including the only way to view and edit the calculation items.
- **Cultures**: Visibility only into the cultures of this semantic model.
- **Measures**: Visibility and authoring capabilities of all the measures in this semantic model, even when they are residing in different tables and folders.
- **Perspectives**: Visibility only into the perspectives of this semantic model.

- **Relationships**: Visibility and authoring capabilities for relationships. Including creating a new relationship with the properties pane.
- **Roles**: Visibility and authoring of row-level security in this semantic model.
- **Tables**: All the tables with sub-sections for columns, measures, hierarchies, and partitions.

Copilot GA

Estimated release timeline: Q2 2024

Release Type: General availability

Copilot in Fabric for Power BI is now Generally available. This capability allows report authors to quickly and easily create brand new reports using the natural language to express intent. Copilot will take the intent and will quickly convert it to a brand new report page consisting of visuals, measures and filters automatically layed out by Copilot.

Copilot answer questions

Estimated release timeline: Q2 2024

Release Type: Public preview

This feature allows users to ask questions against their data model using Copilot even if the answer is not currently within the report

Dynamic per recipient subscriptions

Estimated release timeline: Q3 2024

Release Type: General availability

With dynamic per recipient subscriptions, you can set up a single email subscription that delivers a different copy of a report to each recipient. Using data in a Power BI dataset, you can dynamically specify who should receive the subscription and with what data. For example, consider a multi-geo sales report. You can now send this report to all salespeople, with each receiving an email with an exported copy of the report with only sales data from their region. Support for dynamic subscriptions will be extended from only paginated reports to also include Power BI reports.

Dark mode support in Power BI Desktop

Estimated release timeline: Q3 2024

Release Type: Public preview

This feature allows users to toggle dark mode insiode Power BI Desktop

Deliver subscriptions to a OneDrive and SharePoint location

Estimated release timeline: Q3 2024

Release Type: General availability

With the ability to deliver Power BI and paginated report subscriptions to a OneDrive or SharePoint location, users can now view reports that are too large to be delivered to their inboxes. Accessing these reports from OneDrive or SharePoint locations makes finding reports easy too. Users can also keep all the historical reports that they need.

Copilot for measure descriptions

Estimated release timeline: Q3 2024

Release Type: General availability

Use Fabric Copilot for Power BI to create descriptions for your semantic model measures. The description property is important documentation for your measures, as only the measure name and description are available to those who are making reports from your semantic model. Fabric Copilot can make your semantic model documentation easier by generating measure descriptions for you. This is when you create the measure and when you update the DAX formula of a measure, at each stage Copilot can quickly generate or update the measure description, helping you maintain your documentation and maintaining your workflow.

Copilot for DAX query generation

Estimated release timeline: Q3 2024

Release Type: General availability

DAX query authors can use Copilot for DAX query generation to write, edit, or explain DAX queries on their model data. Ask what data you want to see returned and Copilot will give you the DAX query. Copilot can also be used to add a column or formatting to an existing DAX query, even finding the column in your data. Finally, Copilot can explain

what a DAX query is doing or tell you more about specific DAX functions. This is a huge productivity boost in authoring DAX queries.

Organizational Apps for Fabric

Estimated release timeline: Q3 2024

Release Type: Public preview

Power BI apps are one of the easiest ways to package up and securely distribute Power BI reporting to your organization in a customized and easy-to-use experience. Previously one Power BI app could be created per workspace. With apps rebuilt for Fabric, multiple organizational apps can be created per workspace. Apps can contain more than just Power BI items like reports, but Fabric items like notebooks too. And the app experience can be customized in new ways with more control over the color (choose any color), navigation style, and landing experience.

Live edit of Direct Lake semantic models in Power BI Desktop

Estimated release timeline: Q3 2024

Release Type: Public preview

Previously, you could only create and edit semantic models using the incredible query performance of Direct Lake for your lakehouse based reports from the Power BI service. With live edit of Direct Lake semantic models in Power BI Desktop, you can also edit these semantic models in Power BI Desktop. Access the full power of semantic modeling capabilities and Git integration provided by Power BI Desktop for Direct Lake models! You can live edit semantic models by selecting the semantic model in OneLake Data Hub and simply click "Edit".

Metrics Hub

Estimated release timeline: Q3 2024

Release Type: Public preview

The Metrics Hub will enable users to promote consistent, reliable metrics in large organizations. This will help end users become more independent in the discovery and consumption of standardized metrics that are surfaced from corporate semantic models. Report creators will no longer have to rely on and understand complex models with

dozens of tables, or independently create and maintain new versions of the same measure that already exist. Additionally, this metrics layer will unlock previously siloed data. Because you can use metrics across Fabric, users can leverage key metrics in data solutions like Python notebooks. The Metrics Layer will help business users find what they are looking for quickly and easily without a dependency on IT, and make reliable, data-driven business decisions. It will add confidence in metrics by making visible business definitions and where the data is coming from, showing they are derived from trusted sources and allow for analysis of different dimensions of a given metric.

Visual improvements

Estimated release timeline: Q4 2024

Release Type: Public preview

We are continiously making a ton of improvement in the core visuls space and in this upcomming update we will be working on several of your top items including new list and dropdown slicer support, cartesian primary axis and thhe GA of modern tooltips

Visual calculations UI Updates

Estimated release timeline: Q4 2024

Release Type: Public preview

In this update, it will now be possible to interact with visual claulcations using a point and click UI similar to that of Excel. we are also extending the precanned templates for doing some of the most popular calculatiuonsand improving the support for all visuals when using visual calculatins

Customize content access request messages for Power BI organizational apps

Estimated release timeline: Q4 2024

Release Type: General availability

This feature will allow setting a custom entry point for each Power BI organizational app to an organization's internal access management system from Power BI Access Request messages. This feature will be especially useful for organizations that rely on security groups to control access to content.

▼

Shipped feature(s)

Balance user queries with query scale-out GA

Shipped (Q4 2023)

Release Type: General availability

Query scale-out is a Power BI Premium feature that load balances user queries across multiple dataset read replicas in a pool of Power BI Premium nodes. Essentially, it speeds up query response times for high user-concurrency workloads. Additionally, dataset refresh operations benefit from increased isolation from the read replicas that protect user queries and improve performance. The management of query scale-out in Power BI is highly automated compared to other platforms, such as Azure Analysis Services. Also, adding and removing read replicas is performed dynamically based on live usage.

Create reports in the Power BI service with new data sources

Shipped (Q1 2024)

It will be possible to create new reports in the Power BI service by using over 100 connectors and 300 transformations, supported by the full capability of Power Query Online.

Automatic mobile report layout in Power BI Desktop

Shipped (Q1 2024)

Power BI Desktop already supports creating an alternative report layout that's optimized for mobile devices. However, the mobile layout is a blank canvas, which requires the report creator to add, size, and format visuals.

To increase productivity, a new experience will automatically generate the mobile layout by selecting a button. Report creators can accept this layout as the final design, or they can use it as their starting point.

Visual calculations

Shipped (Q1 2024)

Release Type: Public preview

A visual calculation is a DAX calculation that's defined and executed directly on a visual. Visual calculations make it easier to create calculations that were previously hard to create, leading to simpler DAX, easier maintenance, and better performance. See Using visual calculations.

Author calculation groups

Shipped (Q1 2024)

Calculation groups are a simple way to reduce the number of measures in a model by grouping common measure expressions. Calculation groups work with existing explicit DAX measures by automating repetitive patterns. For example, a sales analyst might want to view sales and order quantities by month-to-date (MTD), quarter-to-date (QTD), year-to-date (YTD), orders year-to-date for the previous year (PY), and so on. Calculation groups are supported by Power BI models, however they're an engine-only feature. With this enhancement, data modelers will be able to create calculation groups by using Power BI Desktop.

Create and run DAX queries with Query view in Power BI Desktop

Shipped (Q1 2024)

Release Type: Public preview

Professional BI developers can write and run DAX queries natively within Power BI. Previously, as DAX queries is an existing feature, a BI developer would have needed to use third party external tools or use an API in order to write and run DAX queries. Now, they can write and run DAX queries natively in Power BI in context and with additional tools to quickly get started and productively use DAX queries.

Periodic refresh in Power BI Storytelling add-in to support Slideshow

Shipped (Q1 2024)

A Microsoft PowerPoint presentation can be configured to run in a continuous loop. This can be useful for general data displays, kiosks, or any other informational display that will run with or without interaction.

We are adding a setting to Power BI add-in that will tell the add-in to automatically refresh the data in the slide every configured interval, so when the presentation is set for

a continuous loop, the data keeps updating showing the most recent insights.

Dynamic per recipient subscriptions

Shipped (Q1 2024)

Release Type: Public preview

With dynamic per recipient subscriptions, you can set up a single email subscription that delivers a different copy of a report to each recipient. Using data in a Power BI dataset, you can dynamically specify who should receive the subscription and with what data. For example, consider a multi-geo sales report. You can now send this report to all salespeople, with each receiving an email with an exported copy of the report with only sales data from their region. Support for dynamic subscriptions will be extended from only paginated reports to also include Power BI reports.

Copilot in Power BI

Shipped (Q1 2024)

Release Type: Public preview

Copilot in Power BI brings advanced generative AI to experiences across Power BI report creation and consumption experiences. Copilot assists users to create new report pages by providing suggestions on how to analyze their data. It can also automatically create, format, and lay out visuals based on their natural language requests. Further, users can chat with Copilot in order to update and refine their report designs and to learn about the data presented in visuals. And most importantly, with Copilot the user is always in control. They decide what to keep, modify, or discard, and their data always remains their data.

Narrative with Copilot in Power BI

Shipped (Q1 2024)

Report creators in Power BI can use the new Narrative with Copilot visual to add generative AI summaries of their data within reports. Copilot provides suggested prompts that are used to summarize and find insights in data. Optionally, report creators can customize these prompts to fine tune the language, scope, and formatting of generated summaries. All insights generated by Copilot include citations that describe the sourced report data. Copilot summaries automatically regenerate when filters change, and they enforce any Power BI data security (like row-level security).

Copilot for DAX query generation

Shipped (Q1 2024)

DAX query authors can use Copilot for DAX query generation to write, edit, or explain DAX queries on their model data. Ask what data you want to see returned and Copilot will give you the DAX query. Copilot can also be used to add a column or formatting to an existing DAX query, even finding the column in your data. Finally, Copilot can explain what a DAX query is doing or tell you more about specific DAX functions. This is a huge productivity boost in authoring DAX queries.

Stored credentials for Direct Lake dataset security in Microsoft Fabric

Shipped (Q1 2024)

By default, Direct Lake storage mode accesses data in a Microsoft Fabric lakehouse or warehouse by using single sign-on (SSO). With SSO, the credentials of the user interacting with the Power BI report (or XMLA client tool) must have permission to query the underlying lakehouse or warehouse. However, it's possible to use stored credentials, in which case the dataset owner can disable SSO. That means end users don't require permission to query the underlying lakehouse or warehouse, and data security can be set up in the Power BI dataset. Direct Lake datasets can implement dataset data security, like row-level security (RLS) and object-level security (OLS).

Manage access to hidden content and link to content in Power BI organizational apps

Shipped (Q1 2024)

A new setting will allow organizational app creators to propagate access to an app's hidden content to app users. In addition to improved control over access propagation, app creators will be able to copy links to content in apps from the app edit experience. The hidden content setting and ability to grab links to content give app creators control over the app navigation experience they have been asking for.

Connect to new datasources and create paginated reports on PBI Report Builder

Shipped (Q1 2024)

You can create print-ready paginated reports from PBI Report Builder from datasources such as Snowflake and Databricks without requiring ODBC. You can then publish and share these reports on Power BI service.