



Microsoft Power Platform

2022 RELEASE WAVE 1 PLAN

Features releasing from April 2022 through September 2022

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Microsoft Power Platform: 2022 release wave 1 plan

The Microsoft Power Platform release plan for the 2022 release wave 1 describes new features releasing from **April 2022** through **September 2022** for Power BI, Power Apps, Power Apps portals, Power Automate, Power Virtual Agents, and AI Builder, as well as Microsoft Power Platform capabilities for governance and administration, ISV experiences, and data integration. You can either browse the release plan [online](#) or download the document as a [PDF file](#).

The Dynamics 365 and industry clouds features shipping in the 2022 release wave 1 have been summarized in a separate [release plan](#) as well as a downloadable [PDF](#).

2022 release wave 1 overview

Microsoft Power Platform enables users and organizations to analyze, act, and automate on the data to digitally transform their businesses. Microsoft Power Platform today comprises four products: Power BI, Power Apps, Power Automate, and Power Virtual Agents. It also has two add-ins: AI Builder and Power Apps portals.

Power BI

[Power BI](#) continues to invest in empowering every individual, team, and organization to drive a data culture:

- For individuals, we're improving the create experience through the creation of measures using natural language and work sharing for easy collaboration using OneDrive.
- For teams, we're bringing enhancements to goals focused on enterprise needs, integration with PowerPoint, and new capabilities to the Power BI experience in Teams.
- For organizations, we're improving our experience with big data through automatic aggregations, data protection capabilities through DLP, and providing improved visibility into activity to admins.

Power Apps

[Power Apps](#) will continue to enable developers of all skill levels to build enterprise class apps for web and mobile infused with intelligence and collaboration capabilities. New built-in collaboration features will enable teams to work on an app simultaneously as well as merge and track changes for faster and more seamless development. Makers and developers will be more productive over Dataverse by leveraging intelligence to assist development with natural language to code powered by advanced AI models such as GPT-3 and PROSE. Most importantly, key updates will ensure that organizations can deliver flagship apps across the

entire company faster and safer than ever, such as Power Apps mobile apps (allowing packaging of apps to be deployed on Android and iOS) and improvements to ALM and governance capabilities to ensure safe and scalable roll outs.

Power Apps portals

[Power Apps portals](#) continues to invest in bringing more out-of-the-box capabilities to support both low-code / no-code development as well as for professional developers. Some of the salient capabilities for makers include converting portals into cross-platform mobile applications, option to use Global search that is powered through Dataverse search integration, enhancements for professional developers to do more with the portals using Power Platform PAC CLI tool as well as for admins to author administrative workflows using Admin APIs.

Power Automate

[Power Automate](#) is more accessible than ever before with integrations in Windows 11, Microsoft Teams, which helps in automating tasks no matter where you are in Microsoft 365. With increased customer usage of the robotic process automation (RPA) deployments, we are adding features to make it easier to manage machines in Azure and the credentials of your users and accounts. All features are increasingly automatable by default (adhering to the API-first approach), so that IT departments can manage their Power Automate infrastructure in whatever way they want.

Power Virtual Agents

[Power Virtual Agents](#) brings improvements in the authoring experience with commenting, Power Apps Portals integration, data loss prevention options, proactive bot update messaging in Microsoft Teams, and more. Power Virtual Agents gives anyone in your organization the ability to create powerful custom bots using an easy, code-free graphical interface, without the need for AI experts, data scientists, or teams of developers. A bot can interact with users, ask for clarifying information, and ultimately answer a user's questions.

Microsoft Dataverse

[Microsoft Dataverse](#) continues investment in Azure Synapse Link. Customers will be able to unlock deeper insights from Dataverse data using the power of Azure Synapse. Deeper integration with Azure Active Directory will simplify sharing while improving governance and security. Enhancements to Dataverse data modelling will allow customers to build new types of applications leveraging rich and intelligent data types.

AI Builder

In 2022 release wave 1, [AI Builder](#) is adding capabilities around document automation like the ability to process unstructured documents (such as contracts or e-mails). By extracting

insights from the semantic understanding of the text in unstructured documents, we'll be able to extract key information from documents and process them automatically in an end-to-end flow using Power Automate. Increased capabilities include effectively managing the governance and lifecycle of AI Models. We'll focus on building out a Feedback loop process, enabling improvement of model accuracy by retraining models with data processed in production.

Microsoft Power Platform governance and administration and ISV experiences

[Microsoft Power Platform governance and administration](#) Organizations can now connect their Azure subscription to an environment and pay for Power Apps and Dataverse as it is consumed across their organization. For simplified governance, we have enhanced out-of-the-box tenant level analytics, additional advanced Data Loss Prevention capabilities, and information protection policies to manage connectors and Power Platform assets. Lastly, we're investing in new capabilities like Lockbox for Power Platform to satisfy the new European Data Boundary (EUDB) regulations.

[Microsoft Power Platform ISV experiences](#) building on our platform are now able to service their customers at planet scale. Instead of servicing each customer with manual updates, ISVs can now have their customers opt in to receive automatic updates. With this update we are enabling ISVs to be much more agile and ship updates at the same high cadence as customers are used to from our Dynamics 365 applications. ISV studio offers a view into status of updates and how many customers have opted into auto updates.

Data integration

[Data integration](#) in this upcoming release wave, we will deliver improvements in our big data performance and high scale connectivity Dataverse, Snowflake, Databricks, BigQuery and Redshift. You can expect several enhancements across connectors, Gateway and VNet. New capabilities will simplify data prep through visual authoring environment and diagram view to create high-scale dataflows to Microsoft Cloud, supporting Power BI, Insights Apps and Power Platform.

Key dates for the 2022 release wave 1

This release plan describes functionality that may not have been released yet. Delivery timelines and projected functionality may change or may not ship (see [Microsoft policy](#)).

Here are the [key dates](#) for the 2022 release wave 1.

Milestone	Date	Description
Release plans available	January 25, 2022	Learn about the new capabilities coming in the 2022 release wave 1 (April 2022 – September 2022) across Dynamics 365 and Industry Clouds and Microsoft Power Platform.
Early access available	January 31, 2022	Test and validate new features and capabilities that will be a part of the 2022 release wave 1, coming in April, before they get enabled automatically for your users. You can view the Microsoft Power Platform 2022 release wave 1 early access features now.
Release plans available in 11 additional languages	February 23, 2022	The Dynamics 365 and Industry Clouds and Power Platform release plans are published in Danish, Dutch, Finnish, French, German, Italian, Japanese, Norwegian, Portuguese (Brazilian), Spanish, and Swedish.
General availability	April 1, 2022	Production deployment for the 2022 release wave 1 begins. Regional deployments will start on April 1, 2022.

Just like the previous release waves, we continue to call out how each feature will be enabled in your environment:

- **Users, automatically** – These features include changes to the experience for users and are enabled automatically.
- **Admins, makers, or analysts, automatically** – These features are meant to be used by administrators, makers, or business analysts and are enabled automatically.
- **Users by admins, makers, or analysts** – These features must be enabled or configured by the administrators, makers, or business analysts to be available for their users.

You can get ready with confidence knowing which features will be enabled automatically.

We've done this work to help you—our partners, customers, and users—drive the digital transformation of your business on your terms. We're looking forward to engaging with you as you put these new services and capabilities to work, and we're eager to hear your feedback as you dig into the 2022 release wave 1.

Let us know your thoughts. Share your feedback in the [Microsoft Power Platform community forum](#). We'll use your feedback to make improvements.

Change history

This topic is updated when a feature's release date changes or when a feature is added or removed. You can see the full topic in the [Change history](#) online.



2022 release wave 1 features available for early access

This topic lists the features that can be enabled for testing in your environment beginning **January 31, 2022**. Features from the following apps are available as part of early access:

- Power Apps

The features from these apps update the existing user experiences. You can opt in early to enable these features in your environment. This will allow you to test these features and then adopt them across your environments. For information on how to enable these features, go to [Opt in to 2022 release wave 1 updates](#).

IMPORTANT If you are using Dynamics 365 apps, such as Sales, Service, Marketing, Finance, Supply Chain Management, Business Central, and Commerce, there are early access features that could impact your users. For Dynamics 365 early access features, go to [2022 release wave 1 features available for early access](#).

Power Apps

For a complete list of the Power Apps features, go to [What's new and planned for Power Apps](#).

Feature	Enabled for	Early access	General availability
Offline Sync notification	Users, automatically	Jan 31, 2022	Apr 2022
Power Apps read-only grid control is the default grid for read-only scenarios	Users, automatically	✓ Jan 6, 2022	Apr 2022
UI improvement for business process flows	Users, automatically	✓ Dec 9, 2021	Apr 2022

Power BI

Plan and prepare for Power BI in 2022 release wave 1

IMPORTANT The 2022 release wave 1 plan covers all new functionalities planned to be delivered to market from April 2022 to September 2022. In this article, you'll find the product overview and what's new and planned for **Power BI**.

Overview

Microsoft business intelligence 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:

Empower every individual

Power BI makes it easier than ever for everyone to work with data, using familiar Office-like experiences and AI-infused insights across Power BI Desktop, the Power BI service, and mobile applications. Our focus is to deliver capabilities designed for business analysts and end users. We're integrating Power BI even more tightly with Office to enable everyone to start analyzing data without friction. We're providing one-click on-ramps for analyzing tables of data from anywhere and capabilities that complement Excel. We continue our investment in improving our authoring experiences for visuals and measures, leveraging natural language input where possible. And most importantly, we're also making progress on ideas and feedback that the community has shared with us.

Empower every team

Power BI is woven into the fabric of where teams work. We make data a standard part of every team's decision-making by focusing on capabilities to drive team productivity, collaboration, and bias for action. This has become even more critical over the last couple of years as people have been working remotely and a lot of collaboration is occurring using technology. Insights become more valuable when they're shared. By integrating Power BI deeply with Office, we bring insights to Teams, where everyone collaborates, with a deeper integration in key experiences, such as meetings, channels, and chats. We're also enabling users to find and share data quickly within and outside their organization, track business objectives at enterprise scale through Goals, and build narratives around data through storytelling.

Empower every organization

Power BI can scale to meet the most demanding needs of large enterprise customers. With the centralized administration, governance, and industry-leading security capabilities in Power BI, IT always has full visibility and control. Our investments continue to span several areas of the product focused on trust and compliance, auditability, information quality, adoption, connectivity, self-service data prep, big data, enterprise semantic models, and enterprise reporting. Our balance between enabling individuals and teams, along with enabling IT to meet advanced security and governance requirements, really helps organizations deliver insights at scale.

For official product documentation and training for Power BI, go to:

- [Power BI docs](#)
- [Power BI training on Microsoft Learn](#)

TIP Download the release overview guide and share with your team as you plan to onboard the new capabilities included in this release wave.

[Download the overview guide \(PDF\)](#)

* Overview guide available in English version only



What's new and planned

Power BI Pro

In order to build a data culture, everyone needs to be able to discover, share, and collaborate on insights. Whether that's authors creating reports using Power BI Desktop, consumers exploring data in the Power BI service or mobile applications, or users in Office using data to make better decisions, Power BI will continue to evolve to make it easier than ever to work with data. We're investing in three key areas:

- **Empower every individual** with instantly familiar experiences and AI-infused insights.
- **Empower every team** with business intelligence woven into the fabric of where teams work, making data a standard part of every decision and turning insights into actions.

- **Empower every organization** to meet the most demanding enterprise and administrative needs.

Power BI Premium

With each release, Microsoft Power BI Premium continues to deliver features that help organizations accelerate the delivery of insights at scale, meeting the most demanding needs of an enterprise. These investments will span the following areas:

- **Flexible licensing models:** Organizations can choose between per user and per capacity licensing options.
- **Microsoft-owned resource management:** Organizations don't have to worry about workload spikes and capacity utilization that can impact the speed of work.
- **Autoscale and pay-as-you-go pricing:** Scale beyond resource capacity without experiencing drops in performance.
- Advanced self-service data prep.
- **Interactive experiences over big data** in big data sources, such as Azure Synapse Analytics.
- **Operational reporting and distribution** to distribute pixel perfect reports to millions of users.
- Advanced security.

What's new and planned for Power BI

This topic lists features that are planned to release from April 2022 through September 2022. Because this topic lists features that may not have released yet, **delivery timelines may change and projected functionality may not be released**. For more information, go to [Microsoft policy](#).

In the **General availability** column, the feature will be delivered within the month listed. The delivery date can be any day within that month. Released features show the full date, including the date of release.

This check mark (✓) shows which features have been released for public preview or early access and for public preview, early access, and general availability.

Power BI Premium

New Power BI Premium features help organizations accelerate the delivery of insights at scale, meeting the most demanding needs of an enterprise.

Feature	Enabled for	Public preview	General availability
Data protection enhancements - highlighting centralized Power BI DLP policies	Users by admins, makers, or analysts	Apr 2022	-
Automatic aggregations	Admins, makers, marketers, or analysts, automatically	-	May 2022
Hybrid tables	Admins, makers, marketers, or analysts, automatically	-	May 2022
Power BI Report Server - May 2022 release	Users by admins, makers, or analysts	-	May 2022
Power BI Report Server - September 2022 release	Users by admins, makers, or analysts	-	Sep 2022
Chargeback reporting for Power BI Premium administrators	Admins, makers, marketers, or analysts, automatically	Jun 2022	Sep 2022

Power BI Pro

New features encourage a data culture by helping everyone discover and collaborate on insights.

Feature	Enabled for	Public preview	General availability
Create reports in the Power BI service with new data sources	Users, automatically	Apr 2022	
New and enhanced Power BI experiences in Teams	Users, automatically	Apr 2022	
Quick measures using natural language	Admins, makers, marketers, or analysts, automatically	Apr 2022	-
Contextual on-object interaction with Power BI visuals	Admins, makers, marketers, or analysts, automatically	May 2022	
Power BI integration in Outlook and Office hub	Users, automatically	May 2022	-

Feature	Enabled for	Public preview	General availability
Power BI datasets hub enhancements	Admins, makers, marketers, or analysts, automatically	Jun 2022	-
Quickly create a Power BI dataset or report from a table of data in Excel	Users, automatically	Jul 2022	
View Power BI files in OneDrive and SharePoint	Users, automatically	Jul 2022	-
Accessibility - improved slicer navigation	Users, automatically	-	Jul 2022
Accessibility - improved table navigation	Admins, makers, marketers, or analysts, automatically	-	Jul 2022
Accessibility - reflow to support 400x zoom	Admins, makers, marketers, or analysts, automatically	-	Jul 2022
Accessibility - show visuals as tables	Admins, makers, marketers, or analysts, automatically	-	Jul 2022
Accessibility - smart narrative descriptions	Admins, makers, marketers, or analysts, automatically	-	Jul 2022
Embed Power BI scorecards in PowerPoint presentations	Users, automatically	-	Sep 2022
Improved Power BI administration and operations	Admins, makers, marketers, or analysts, automatically	-	Sep 2022
Improve My workspace governance	Admins, makers, marketers, or analysts, automatically	May 2022	Sep 2022
Administrative insights with long-term historical tenant activity retention, central metadata, and built-in reports	Admins, makers, marketers, or analysts, automatically	Sep 2022	To be announced

Description of **Enabled for** column values:

- **Users, automatically:** These features include changes to the user experience and are enabled automatically.

- **Admins, makers, marketers, or analysts, automatically:** These features are meant to be used by administrators, makers, marketers, or business analysts and are enabled automatically.
- **Users by admins, makers, or analysts:** These features must be enabled or configured by the administrators, makers, or business analysts to be available for their users.

For a list of the countries or regions where Dynamics 365 business applications are available, go to the [International availability guide](#). For more information about geographic areas and datacenters (regions), go to the [Dynamics 365 and Microsoft Power Platform availability page](#).

Power BI Premium

Overview

With each release, Microsoft Power BI Premium continues to deliver features that help organizations accelerate the delivery of insights at scale, meeting the most demanding needs of an enterprise. These investments will span the following areas:

- **Flexible licensing models:** Organizations can choose between per user and per capacity licensing options.
- **Microsoft-owned resource management:** Organizations don't have to worry about workload spikes and capacity utilization that can impact the speed of work.
- **Autoscale and pay-as-you-go pricing:** Scale beyond resource capacity without experiencing drops in performance.
- Advanced self-service data prep.
- **Interactive experiences over big data** in big data sources, such as Azure Synapse Analytics.
- **Operational reporting and distribution** to distribute pixel perfect reports to millions of users.
- Advanced security.

Data protection enhancements - highlighting centralized Power BI DLP policies

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Apr 2022	-

Business value

This feature enables organizations to control and protect their sensitive enterprise data by leveraging Microsoft's leading security solutions for information protection, threat protection, and cloud app security.

Feature details

Providing data protection capabilities in Power BI is critical to enabling our customers to control and protect their sensitive enterprise data. We've been leading the landscape with data protection capabilities in Power BI. We can do this by integrating Microsoft's leading security solutions for information protection, threat protection, and cloud app security.

We're continuing to invest in data protection. We plan to introduce additional capabilities, allowing organizations across the various industries to use the most sensitive data while adhering to company policies and ensuring data security. We also plan to extend capabilities to support more restrictive and demanding security and compliance requirements.

These capabilities include:

Centralized Power BI data loss prevention (DLP) policies: We're expanding the capabilities of DLP policies for Power BI, based on additional conditions and allowing further actions. For example:

- We'll make it possible to define Microsoft 365 DLP policies to prevent the upload of sensitive data to Power BI, based on various conditions.
- We'll support auto-classification of data and make it possible to define conditions for info that is classified as sensitive.
- We've already implemented the following data protection features:
 - Allowing customers to classify and label sensitive data in Power BI.
 - Persisting labels and protection throughout the Power BI service and in the mobile apps, and when content is exported to Excel, PowerPoint, PDF, and live connections to Excel files.
 - Supporting inheritance of labels between artifacts, starting with inheritance upon creation of new Power BI assets.
 - Enforcing label-specific permissions when data is exported out of Power BI.
 - Monitoring user access and activity, including real-time risk analysis and protection.
 - Adding downstream inheritance of labels within Power BI projects. When a label is applied to a certain asset (such as a dataset), connected downstream assets (reports, dashboards) will inherit that label.
 - Persisting sensitivity labels and enforcing protection in Power BI Embedded (SaaS embedding).

- Providing APIs for administrators to retrieve asset sensitivity labels.
- Requiring labels when content is created or edited in the Power BI service. This feature is managed by administrators who can turn it on and off.
- Providing sensitivity labels in Power BI on government clouds (GCC, GCCH, and DOD).
- General availability of applying sensitivity labels and protection to **Power BI desktop files** (.pbix).
- Get data from protected Excel files. This capability applies the Excel file's sensitivity label on downstream Power BI datasets and reports.
- Microsoft 365 Power BI data loss prevention (DLP) policies enable security administrators to apply their organization's data loss prevention policies to sensitive data in the Power BI service. Starting with DLP policies to alert and/or prevent the upload of sensitive data to the Power BI service when a given condition is met, for example when the Microsoft Information Protection (MIP) label set on content.

Automatic aggregations

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	May 2022

Business value

Automatic aggregations are managed automatically by Power BI, accelerating time to insight, and reducing total cost of ownership. Most business intelligence queries are aggregated in nature. Therefore, if you cache data at the aggregated level, you will see a high rate of return in terms of boosting query performance while minimizing data duplication.

Feature details

Automatic aggregations will automatically create and manage VertiPaq in-memory aggregation tables in Power BI Premium datasets in DirectQuery mode. The aggregation tables will be based on usage and query patterns. They will be automatically maintained as a self-learning, self-optimizing, AI-driven system. Power BI queries generated when users interact with report visuals will automatically use the aggregation tables. This feature will provide enhanced performance and user concurrency to unlock massive datasets for interactive analysis.

The automatic aggregations feature will include a lift chart to show the performance impact across all users and reports for the dataset.

Hybrid tables

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	May 2022

Business value

Hybrid tables combine the performance of VertiPaq in-memory caches with the capabilities of DirectQuery, allowing users to unlock massive datasets for real-time, interactive analysis.

Feature details

Hybrid tables will contain in-memory VertiPaq caches of historical data for blazing-fast performance. In the same table, real-time data will be queried in DirectQuery mode and dynamically combined with cached data. The DirectQuery range can be limited to only the necessary real-time data, which improves the performance of queries on big-data sources. When combined with Power BI's automatic page refresh feature, hybrid tables will unlock massive datasets with billions of rows for interactive analysis while providing a great solution for real-time requirements.

Power BI Report Server - May 2022 release

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	-	May 2022

Business value

Power BI Report Server is the on-premises solution for reporting today, with the flexibility to move to the cloud tomorrow. It's included with Power BI Premium so you have the ability to move to the cloud on your terms.

Feature details

Power BI Report Server provides customers with the flexibility to deploy reporting on-premises, which is necessary for customers who can't use the cloud service for compliance or policy reasons. While Power BI Report Server isn't a substitute for the breadth of capabilities in the Power BI service, we continue to enhance Power BI Report Server based on customer feedback. In this release, we'll continue to bring more of the Power BI Desktop reporting capabilities to Power BI Report Server. These include reporting, modeling, and analytics capabilities of Power BI reports.

Power BI Report Server - September 2022 release

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	-	Sep 2022

Business value

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Chargeback reporting for Power BI Premium administrators

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Jun 2022	Sep 2022

Business value

Administrators manage budgets, and they need to spread out the cost of Power BI Premium capacities across different groups.

Feature details

Administrators who manage budgets can allocate the cost of Power BI Premium capacities across the different business groups that use those capacities. This report can be used by administrators to streamline the chargeback process.

Power BI Pro

Overview

In order to build a data culture, everyone needs to be able to discover, share, and collaborate on insights. Whether that's authors creating reports using Power BI Desktop, consumers exploring data in the Power BI service or mobile applications, or users in Office using data to

make better decisions, Power BI will continue to evolve to make it easier than ever to work with data. We're investing in three key areas:

- **Empower every individual** with instantly familiar experiences and AI-infused insights.
- **Empower every team** with business intelligence woven into the fabric of where teams work, making data a standard part of every decision and turning insights into actions.
- **Empower every organization** to meet the most demanding enterprise and administrative needs.

Create reports in the Power BI service with new data sources

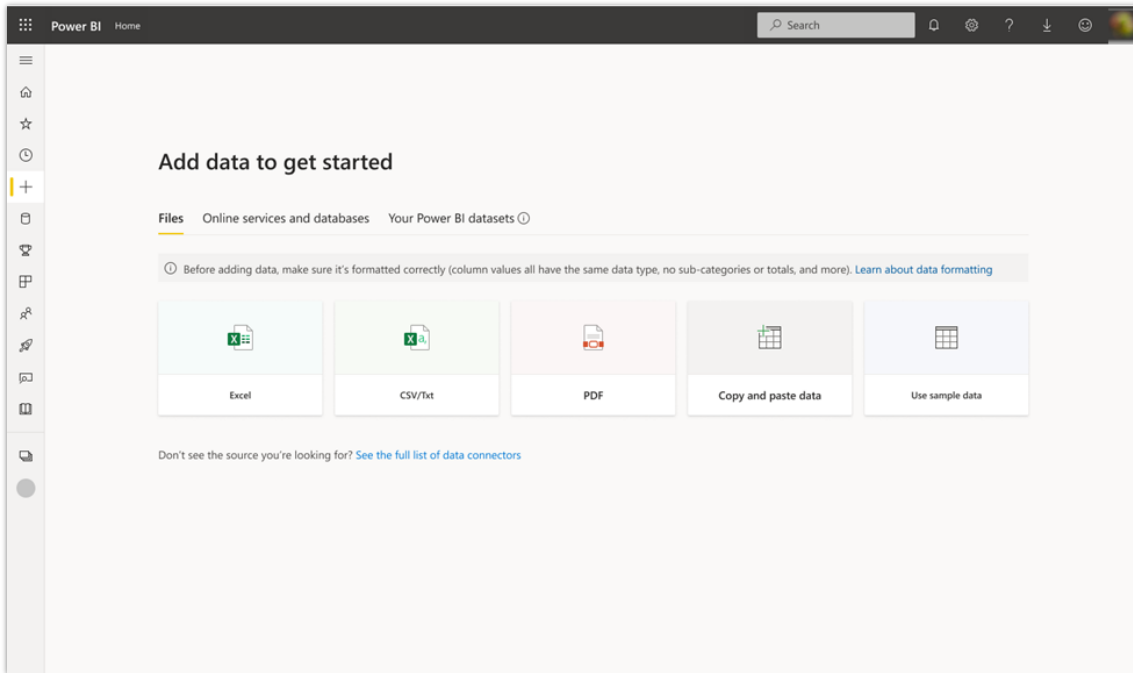
Enabled for	Public preview	General availability
Users, automatically	Apr 2022	-

Business value

On the Create page in the Power BI service, you can create reports and find insights quickly in cases where data modeling using Power BI Desktop isn't required. Now, in addition to the ability to copy and paste into the Power BI Create page, you'll be able to select tables of data directly from common file types, online services, and database data sources. Power BI will automatically create a basic report so you can get started with analysis or report authoring.

Feature details

Today, the **Create** page in the Power BI service enables users to copy and paste a table of data into Power BI, and Power BI automatically generates a basic report based on that data. This helps users get started with data analysis or report authoring directly in the Power BI service when data modeling in Power BI Desktop isn't required. With this new feature, we'll be adding additional data sources to the Create page in the Power BI service, so users have more ways to create reports quickly. New options on the Create page will include selecting data from common file data sources, such as Excel, CSV, and SharePoint, as well as from popular online services and databases. These options will allow users to have Power BI automatically generate a report without needing to copy and paste the data into Power BI or connect to the data using Power BI Desktop.



Screenshot of new sources on Create page.

New and enhanced Power BI experiences in Teams

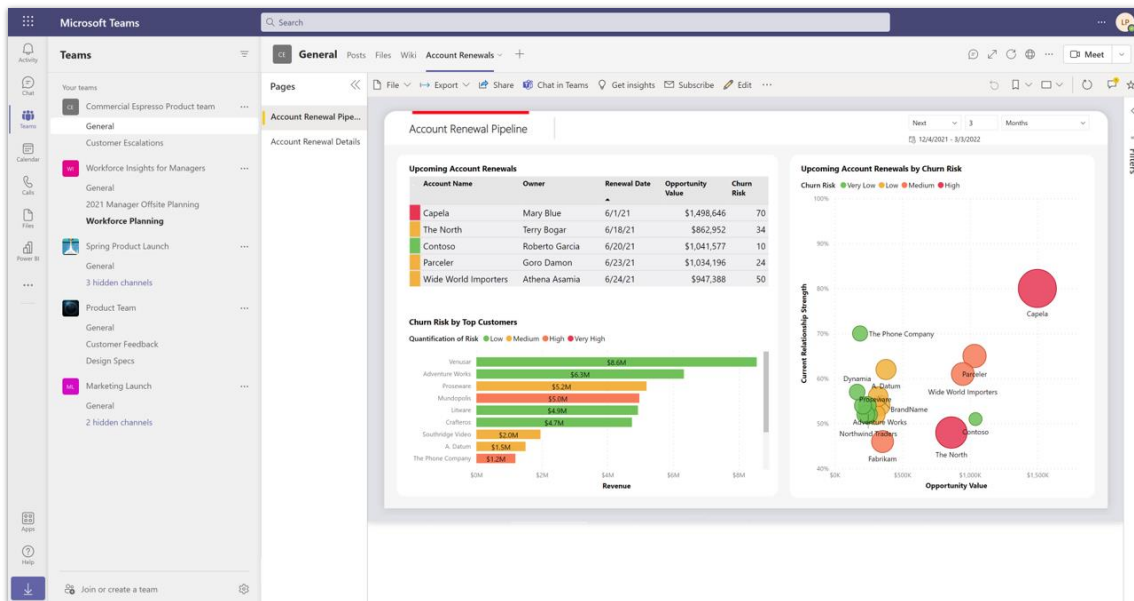
Enabled for	Public preview	General availability
Users, automatically	Apr 2022	-

Business value

Modern work requires keeping everyone up to date and using relevant data to make decisions. That’s why so many organizations use Power BI in Microsoft Teams so that users have access to data when and where decisions are made. Power BI is deepening its integration with Microsoft Teams, so data is always just one click away in every Teams channel, chat, and meeting.

Feature details

Microsoft Teams is a centralized location that helps users collaborate with their team, meet with others, and find relevant information to make better decisions. The Power BI app for Teams has brought the full experience of Power BI into Teams and made data one click away in chats and channels. To enhance this experience and make data and insights even more accessible to teams, Power BI is improving how Power BI content is added to Teams channels to support all Power BI content types, as well as enabling multitasking support for the Power BI personal app in Teams.



Power BI in Teams

Quick measures using natural language

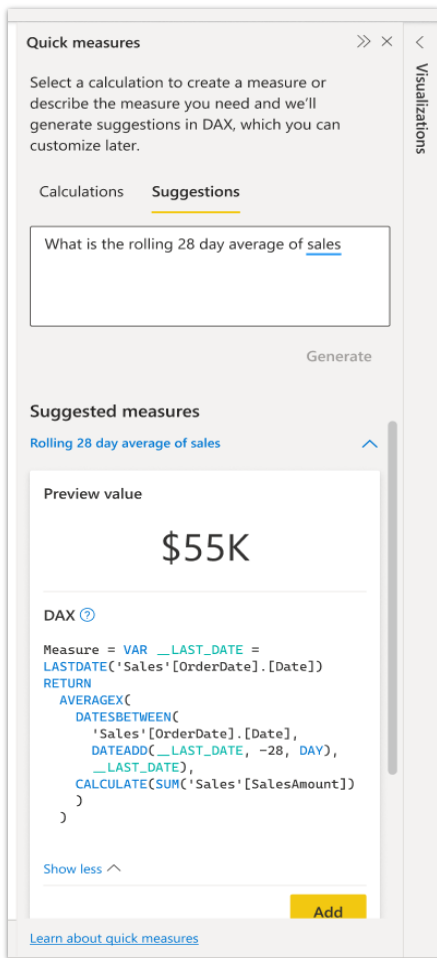
Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Apr 2022	-

Business value

You can now use natural language statements to define calculations and help speed up the time to insights. Traditionally, you would be required to write DAX from scratch or use a built-in template. With this new capability, DAX measure suggestions are automatically generated from your input. We hope this will help beginners quickly perform basic calculations easily and help seasoned DAX developers generate more sophisticated calculations in less time than before.

Feature details

In this new update, you can generate DAX measures using natural language statements. Statements can include simple mathematical operations, time-based calculations, if conditions, text concatenation, and more.



Measure suggestions based on natural language statements

Contextual on-object interaction with Power BI visuals

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	May 2022	-

Business value

Office users today rely heavily on contextual on-object controls to help them quickly and effectively edit their objects, such as text and images, as efficiently as possible. This is extremely useful for new users who are unaware of what settings are available to them.

Feature details

In this new update, Power BI will provide contextual on-object controls for objects such as visuals and buttons, to help users make beautiful pixel perfect reports quickly.

Power BI integration in Outlook and Office hub

Enabled for	Public preview	General availability
Users, automatically	May 2022	-

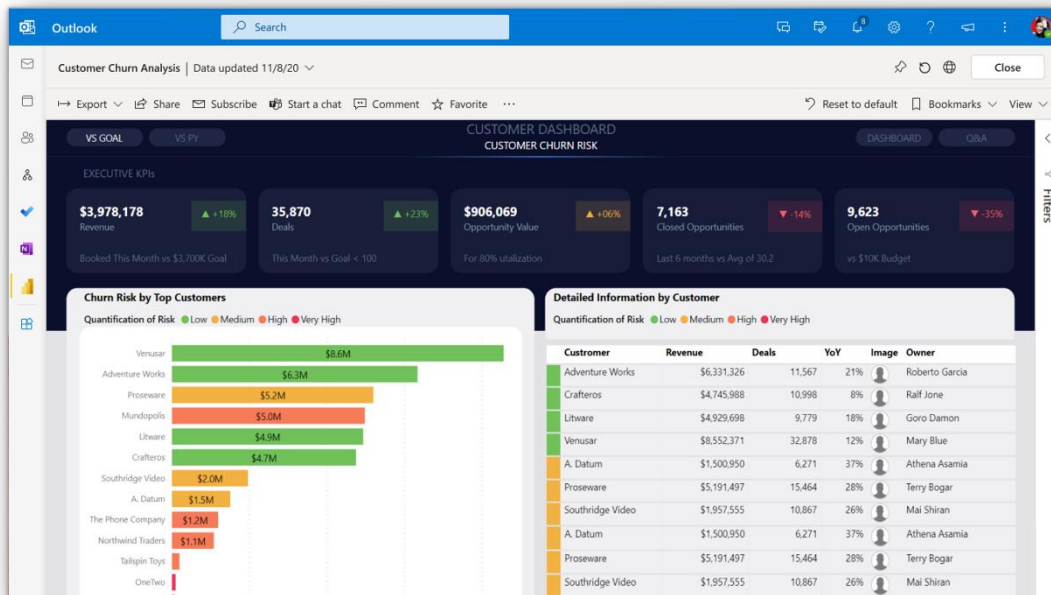
Business value

By making Power BI available from Outlook and the Office hub, customers will be able to discover and consume data and insights in context. Because customers can discover and act on their data and insights so quickly and easily, this feature helps drive an organizational data culture.

Feature details

Power BI will be fully integrating with Outlook and the Office hub. This includes integrating the entire Power BI personal app, opening Power BI reports attached to emails directly in the context of Outlook, and the ability to easily find and add Power BI adaptive cards to emails.

The Power BI personal app, currently available in Microsoft Teams, will enable users to find, consume, or create Power BI content from Outlook and the Office hub. Additionally, the integration in Outlook will make it easy to find and add Power BI content to email as adaptive cards. Finally, Power BI content included in emails will open within Outlook so users can consume Power BI without the need to change applications.



Screenshot of Power BI in Outlook.

Power BI datasets hub enhancements

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Jun 2022	-

Business value

This feature enables users to easily discover and reuse data in one central hub. The datasets hub is a centralized experience that empowers users by enabling them to curate, publish, discover, and reuse organizational datasets and address their business questions either in Power BI or in Excel. For data owners, the hub enables efficient and centralized management of data assets.

Feature details

In the expanding world of BI, being able to easily discover valuable and trustworthy data in one central location has become crucial for deriving business insights and making correct business decisions. To address this, we recently introduced the new datasets hub, available within both the Power BI service and the Power BI Teams personal app.

The new datasets hub enables users to:

- Discover curated, non-curated, and recommended datasets that have been shared with them.
- Explore relevant dataset properties (description, sensitivity, refresh time, and so forth).
- Discover related reports.
- Explore usage information for the selected dataset.
- Create a report based on a selected dataset or start from a template report.
- Analyze a dataset in Excel.
- View lineage and impact for the selected dataset.
- Discover curated datasets that were set by their owners as discoverable and request access to view the data, build reports, or analyze it in Excel.
- View dataset schema and quickly create a report on top of a selected table.
- View dataset refresh history and refresh failure reason and trigger a new refresh.
- Share a dataset with a link or a chat in Teams to provide easy access and collaboration.

Moving forward, we're committed to making the datasets hub the central location for data discovery, exploration, and reuse for deriving insights. To accomplish this, we're expanding the capabilities of the datasets hub. This includes the ability to:

- Enable users to easily publish their data to Power BI and share further with their teams, directly from SharePoint Online, Log Analytics, Excel, and others.
- Enhance data discovery capabilities by enabling users to find data by searching by dataset name.
- Discover new datasets in your hub with read-only permissions and request further access.
- New options to create reports on top of a dataset. (Auto-create a report on a single table dataset or create as a formatted table.)
- Quickly access datasets from Power BI home page and recent lists, allowing access to dataset details in the datasets hub to explore further.

Quickly create a Power BI dataset or report from a table of data in Excel

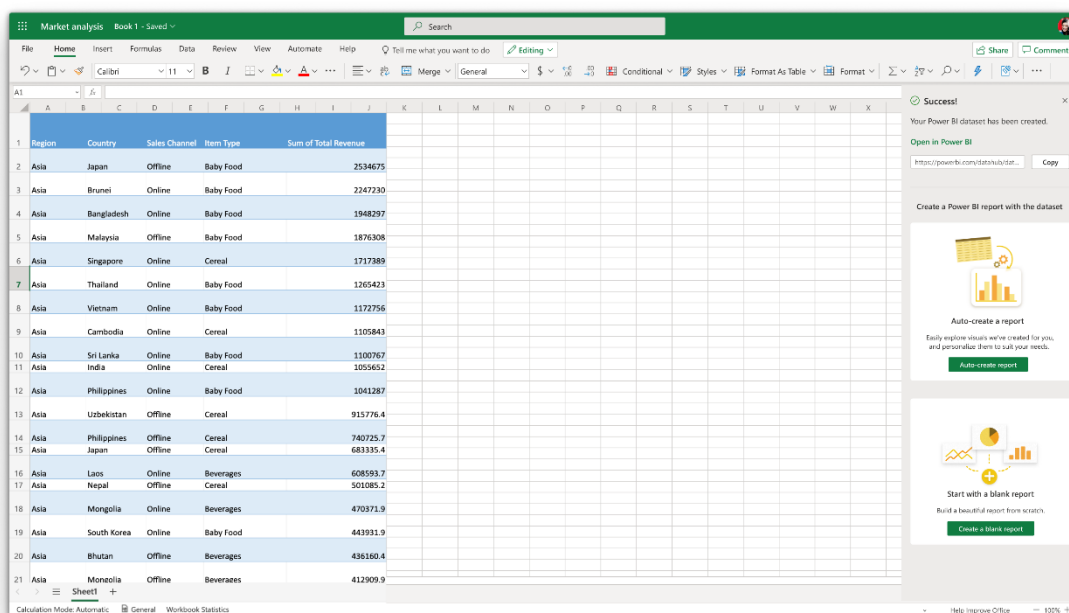
Enabled for	Public preview	General availability
Users, automatically	Jul 2022	-

Business value

For many users, Excel is the most common and familiar place to work with data. But it can be challenging, from within Excel, to quickly and easily take advantage of unique Power BI capabilities, such as reporting, analysis, and data sharing. By adding new options in Excel to quickly create a Power BI dataset and report from Excel tables, you can combine the flexibility and familiarity of Excel with the connected and governed analysis and sharing of Power BI.

Feature details

A new option in Excel will enable you to automatically create a Power BI dataset. That dataset will be connected to tables in an Excel workbook selected by you. To ensure that the data is available to Power BI, you'll be guided to save the Excel workbook in OneDrive or SharePoint. After the dataset is automatically created, you'll have the option to immediately build a Power BI report connected to the new dataset or to share a link to the dataset in Power BI with others.



Create Power BI dataset or report from Excel table

View Power BI files in OneDrive and SharePoint

Enabled for	Public preview	General availability
Users, automatically	Jul 2022	-

Business value

Almost every Office user relies on OneDrive and SharePoint to share and collaborate on Office documents and files. In this new update, users can view and edit Power BI reports from within OneDrive and SharePoint without needing to download Power BI Desktop.

Feature details

Currently, when users open a Power BI report saved on OneDrive or SharePoint, they cannot preview the report nor make tweaks to the report without downloading both the report and Power BI Desktop. In this new update, Power BI reports can now be viewed directly within OneDrive or SharePoint, and users with edit permissions to the file can also make edits to the report. This feature will make it easier for users to preview and collaborate on reports from their OneDrive or SharePoint files.



Accessibility - improved slicer navigation

Enabled for	Public preview	General availability
Users, automatically	-	Jul 2022

Business value

The Power BI slicer visual will include improved keyboard navigation and assistive technology support.

Feature details

The improved slicer experience enables Power BI users to easily navigate the slicer using a keyboard and better support assistive technologies. Enhancements include improved keyboard navigation and focus management, enhanced screen reader announcements, and increased contrast for hover and focus outline.

Accessibility - improved table navigation

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Jul 2022

Business value

Power BI table visual will include improved keyboard navigation and assistive technology support.

Feature details

Improved table experiences enable Power BI users to easily navigate the table using a keyboard and better support assistive technologies. Enhancements include:

- Additional keyboard shortcuts for easier navigation and focus management.
- Increased contrast for hover, focus outline, and row selection.
- Improved screen reader announcements.
- Integrated alt text for images in tables.
- Enhanced conditional formatting announcements.

Accessibility - reflow to support 400x zoom

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Jul 2022

Feature details

The Power BI service will support views up to 400% zoom for core scenarios. This will include the open content view for reports, open content view for apps, and core navigation scenarios on the home page and left navigation pane. This support will allow content to reflow accurately when the browser zoom is activated.

Accessibility - show visuals as tables

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Jul 2022

Business value

A Power BI visual can be shown as a table individually to display the data that is being used to create the visual using the *Show visuals as tables* feature. To make it easier to explore and navigate data for all visuals in a report, we're expanding this feature to convert all visuals to tables at the same time, enhancing accessibility and providing better support for assistive technologies.

Feature details

When consuming a report in Power BI Service, you can select the *Show visuals as tables* option in the menu bar which will convert all visuals into the new improved tables with one-click and remain interactive. Using the same option, users can easily revert the report back to the original visuals.

Accessibility - smart narrative descriptions

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Jul 2022

Business value

The Power BI smart narrative visual helps you quickly summarize data by providing relevant out-of-box insights, key takeaways, and trends. To make it easier to explore visuals in a

report, we're expanding this feature with smart narrative descriptions by adding narratives directly on visuals to provide better support for assistive technologies.

Feature details

When consuming a Power BI report, users can navigate to visuals and activate smart narrative descriptions in visual headers to consume key takeaways. This feature will make it easier for users to gain insights with key summarizations directly on the visual which can be accessed with screen readers for enhanced accessibility. *Smart narrative descriptions will only support visuals that currently support smart narrative visuals.*

Embed Power BI scorecards in PowerPoint presentations

Enabled for	Public preview	General availability
Users, automatically	-	Sep 2022

Business value

Users will be able to embed and use Power BI scorecards in their presentation, allowing them to present live scorecards as part of their presentation.

Feature details

Users will be able to embed scorecard items in their PowerPoint deck using the Power BI add-in. They'll be able to integrate goals, OKRs, and any other metrics they use to track success in the organization into their presentation, upgrading the conversation and presentation to focus on their objectives and results.

Improved Power BI administration and operations

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Sep 2022

Business value

Easily manage Power BI with enhanced administration experiences and additional operational capabilities. Administrators can manage permissions with ease, reduce maintenance overhead by identifying unused assets, and delegate administrative tasks to others.

Feature details

Improved administration experiences enable Power BI administrators to be more productive and decrease maintenance overhead. Enhancements include:

- The ability to use APIs and reports to identify unused Power BI assets.
- Use of APIs to reassign permissions for assets.

Improve My workspace governance

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	May 2022	Sep 2022

Business value

Customers, especially those in the healthcare and financial sectors, have concerns about the governance of **My workspace**. By addressing these concerns directly, we help unblock adoption and drive adoption. Today, **My workspace** is harder to manage than collaborative workspaces (also known as app workspaces) due to its limitation on permission management, app publication, and geolocation. The fact that **My workspace** is available to every free user increases the risk of non-compliance.

Feature details

My workspace will continue to be available for all users, and existing functionality will continue to work. It will be upgraded to V2 platform, and non-premium features will continue to be fully available to users

Service admins can better manage **My workspace**:

- * They can add or remove themselves as admin of **My workspace**.

Service admins can configure **My workspace** to meet data residency requirements:

- They can set a default Premium capacity for all My workspaces.
- My workspace owners cannot reassign their My workspaces back to shared capacity.

Administrative insights with long-term historical tenant activity retention, central metadata, and built-in reports

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Sep 2022	To be announced

Business value

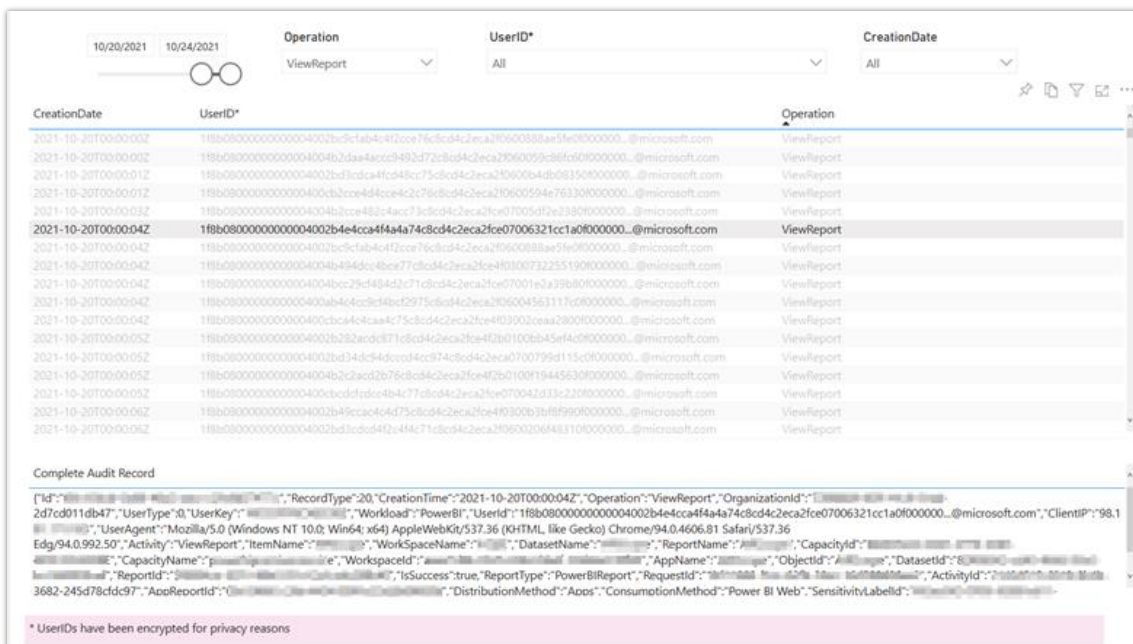
Customers need visibility within the Power BI environment. Power BI administrators need to monitor performance, understand usage and adoption growth, support audits, and ensure compliance within their Power BI environment. This requires access to detailed historical

metrics. Customers also need to ensure business continuity by accessing recent activity data to respond to issues immediately.

Feature details

Administrators will have automatic access to a dedicated workspace that will contain tenant-wide historical datasets and reports to help monitor and govern Power BI. The following areas of Power BI will be available:

- **Artifact Metadata:** Standalone dataflows/datasets describing all known workspaces, reports, datasets, and more, regardless of whether they are actually used. At a minimum, we will provide an artifact identifier and name. Each artifact will have additional relevant attributes such as certification status or owner, as appropriate.
- **Audit logs:** Provides information about asset lifecycle activities (create, access, modify and delete). The information will match what is available in the Power BI activity log and Microsoft 365 audit log. We will provide access to raw audit log data directly through Power BI dataflows and/or datasets so that you won't need Microsoft 365 admin rights to view the audit data. The Power BI administrator can control how much data to retain. We'll also provide an audit log search capability within Power BI, so admins don't have to visit external portals.

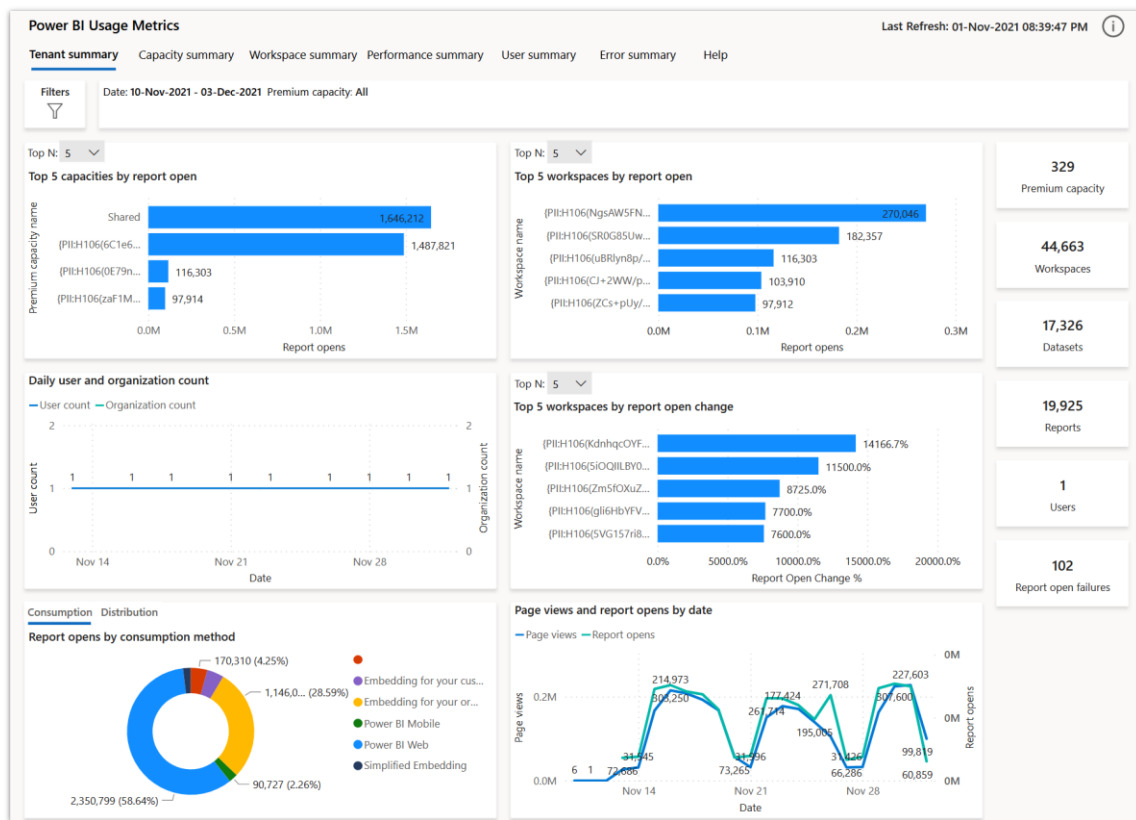


Prototype of audit log search report.

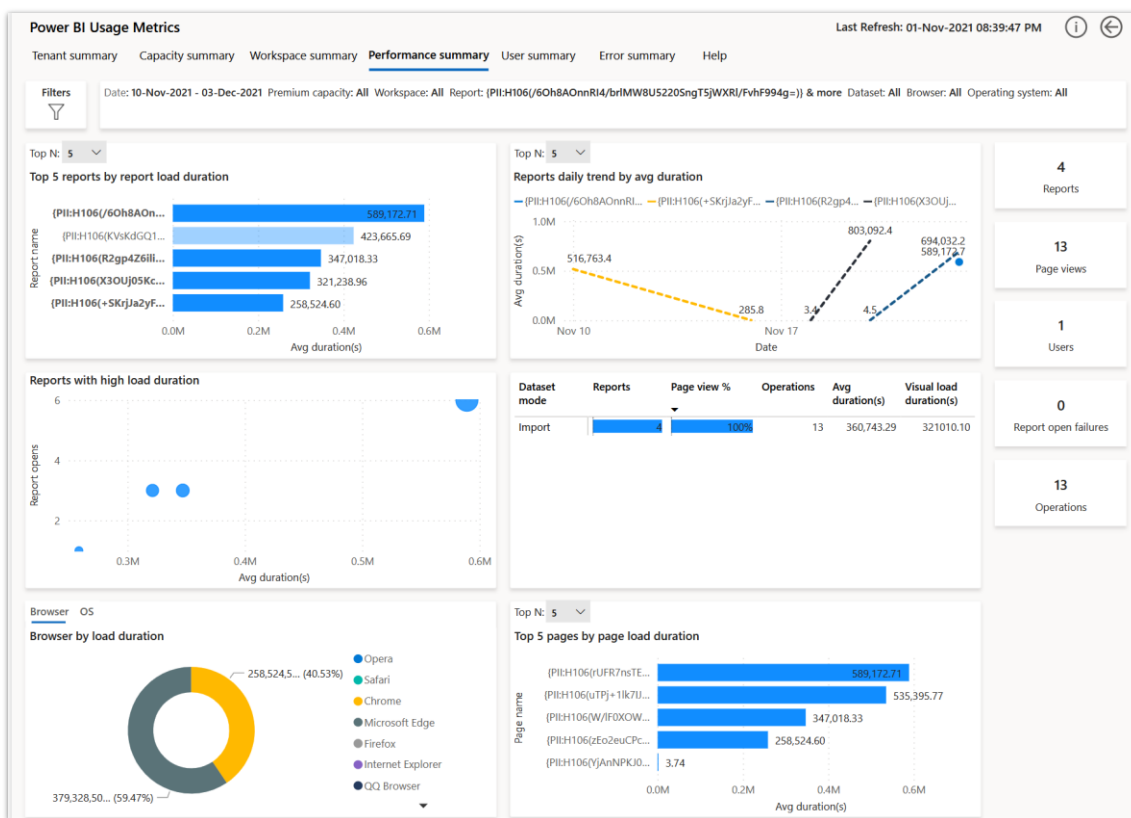
- **Report usage and performance metrics:** Provides insights into the user actions performed on Power BI reports through the Power BI portal, mobile apps, or embedded within custom applications. Usage and performance are logged at the report page level and include a breakdown of time spent on queries and report rendering. This helps you



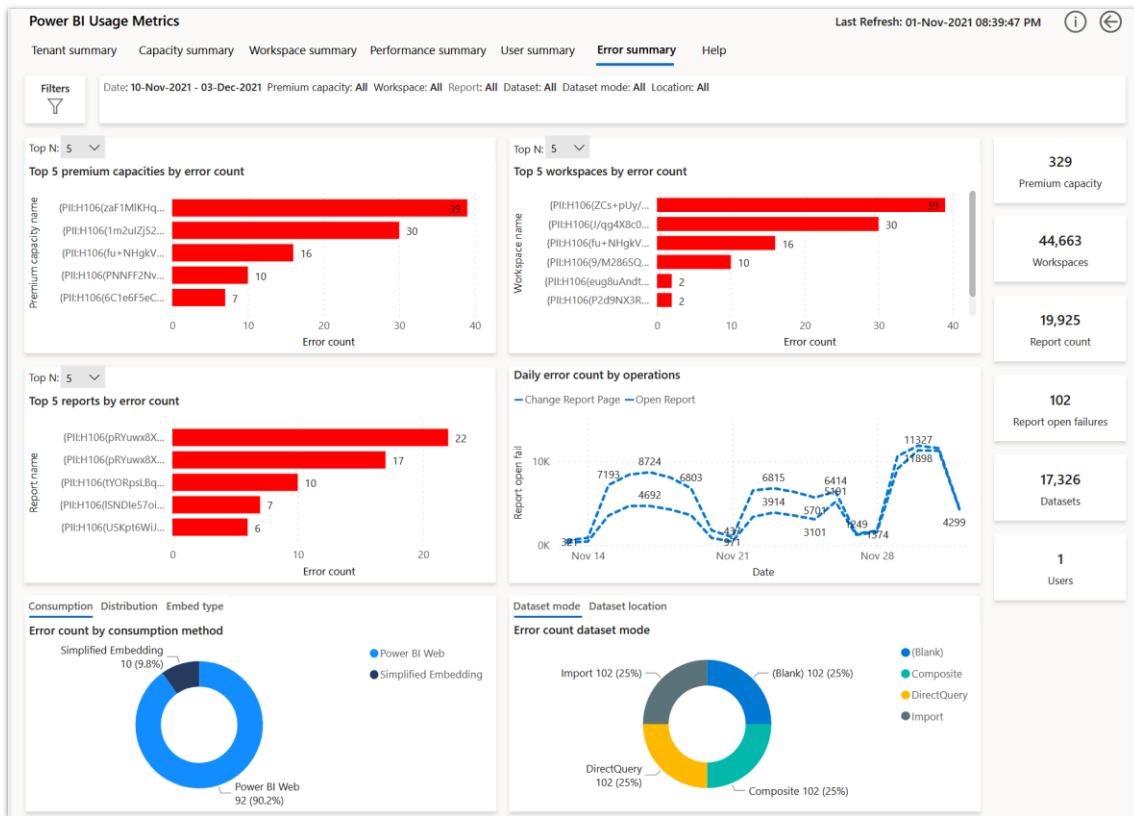
understand whether an issue is related to an external data source, the Power BI data model, or design choices in the report.



Summary of report usage at tenant level.

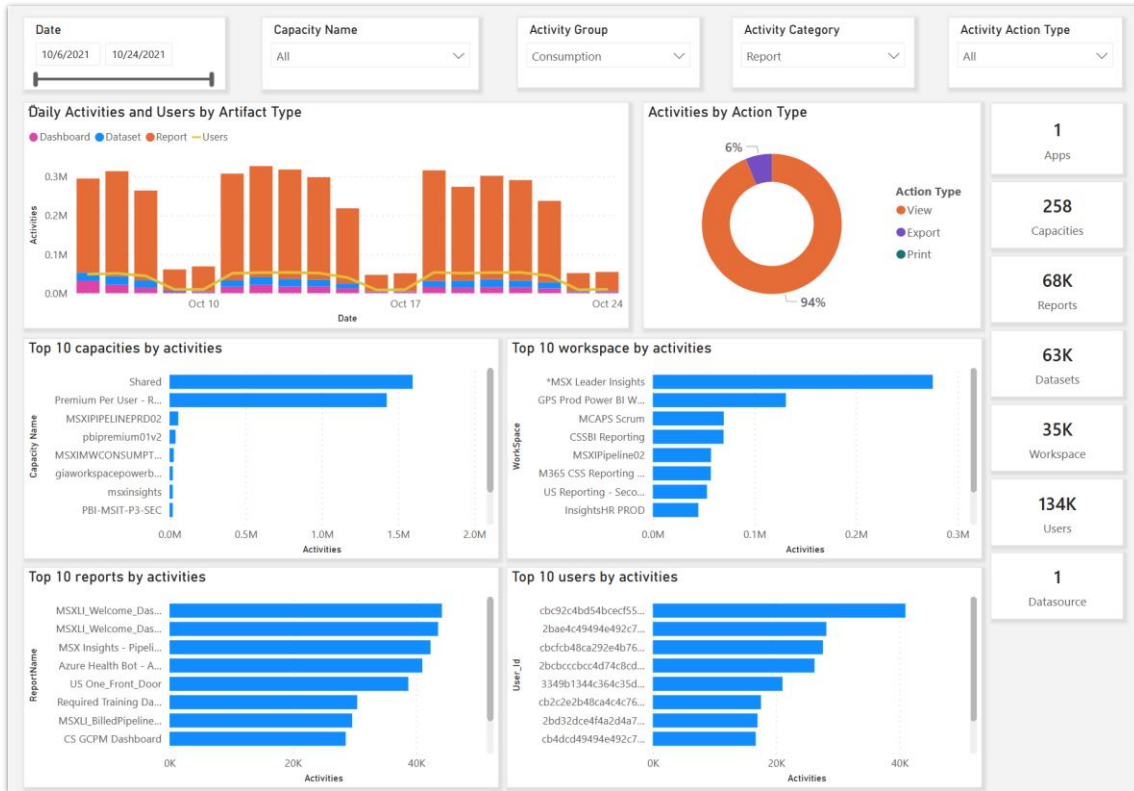


Performance summary highlighting slow running reports and trends.



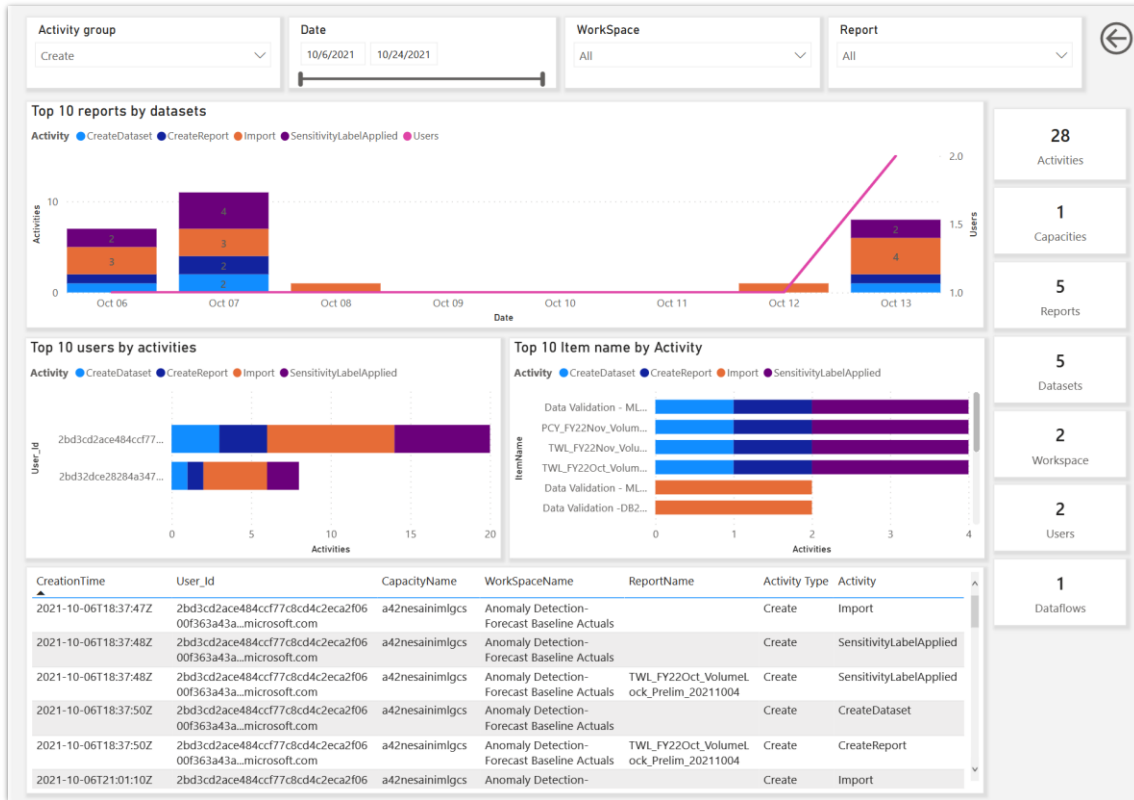
Overview of report viewing errors.

- Power BI Premium Gen2 utilization:** Provides capacity utilization logs and metrics about workload activity, core allocation, autoscale, throttling, CPU, and memory usage. This enables capacity planning, capacity optimization, cost distribution, and cross-charging.
- Feature Usage and Activity Analytics:** Analytical views over the audit log that can help you understand who is doing what. This allows you to better govern Power BI by identifying specific desired/undesired behaviors. For example, you may discourage direct report sharing from certain workspaces and want to know when it happens.



Summary of activity across entire tenant based on Power Bi audit log.

For advanced debugging, we support integration with Azure Log Analytics in private preview as of June 2021. Power BI administrators and workspace owners will have access to detailed real-time and historical metrics. With these new metrics, administrators will be able to analyze performance and activity to better understand usage and resolve problems. The metrics are visualized by using a Power BI template app and reports.



Detailed view of activities which can be filtered by multiple grouping levels such as artifact.

- Log Analytics for Analysis Services engine:** Provides insights into activities performed against the Power BI datasets for reports and ad-hoc queries. This allows you to investigate query and refresh activity, load, and performance.

Power Apps

Plan and prepare for Power Apps in 2022 release wave 1

IMPORTANT The 2022 release wave 1 plan covers all new functionalities planned to be delivered to market from April 2022 to September 2022. In this article, you'll find the product overview and what's new and planned for **Power Apps**.

Overview

Microsoft Power Apps is the industry-leading low-code application development platform that underpins Dynamics 365 extensibility, Microsoft 365 customization, and standalone custom line of business applications for customers around the world. Power Apps dramatically lowers the cost, complexity, and time of software development through a range of powerful low-code development tools, a deep data platform in Microsoft Dataverse, and hundreds of connectors to common business data sources.

Power Apps is investing in several areas as part of Microsoft Power Platform 2022 release wave 1:

- **Deliver modern business apps with unparalleled productivity for all users:** Power Apps will add built-in collaboration for end users and integration with Microsoft 365 to allow teams to collaborate and act on business data, as well as key updates to modernize user experiences.
- **Activate experts across the organization with advanced low code:** Makers and developers of all skill levels will be more productive over Dataverse, multiply their productivity with fusion teams, and leverage intelligence to assist development.
- **Power Apps is the safest way to digitally transform at whole-company scale:** Secure and governable enterprise apps are critical to creating trust with your users and enterprise IT teams.
- **Deliver flagship applications faster than ever:** Organizations can now build and deliver flagship apps to the entire company through Power Apps with offline and standalone apps.

For official product documentation and training for Power Apps, go to:

- [Power Apps docs](#)
- [Power Apps training on Microsoft Learn](#)



TIP Download the release overview guide and share with your team as you plan to onboard the new capabilities included in this release wave.

[Download the overview guide \(PDF\)](#)

* Overview guide available in English version only



What's new and planned

Deliver modern business apps with unparalleled productivity for all users

Users can take advantage of cohesive and modern experiences while collaborating with team members in Power Apps. Key updates include:

- **Apps built using Power Apps are now multiplayer with built-in collaboration:** Enable users to collaborate, chat, and start meetings directly within the app.
- **Act on business data in context across Microsoft 365:** See and act on Power Apps and Dynamics 365 data directly in Microsoft 365 by pasting a link.
- **Keep users on task with cohesive experiences and delightful UX:** Modern and cohesive control updates across Power Apps provides a delightful and productive experience.

Enable experts across the organization with advanced low code

Makers and developers of all skill levels can be more productive with Power Apps and Dataverse, enabling fusion teams and leveraging intelligence to simplify common tasks. Key updates include:

- **It's easier than ever to get started with Dataverse:** With simplified table creation and data load, the addition of Power Fx, and new modern low-code designers to simplify building apps over Dataverse.
- **Unleash fusion teams with collaborative development:** Allow multiple makers to work on a single app at the same time, accelerating the time of development and supporting with Microsoft 365 style tools, such as commenting.

- **Infuse intelligence for makers and end users alike:** Support developers to resolve common tasks and errors with intelligence.

Safest way to digitally transform at whole-company scale

Secure and governable enterprise apps are critical to creating trust with your users and enterprise IT teams. New capabilities are here to help you set the right policies to enable your enterprise apps across more places. Key updates include:

- **Solution quality and enforcement:** Continuing to evolve the checkers already in place in Power Apps, these will evolve to be more comprehensive and enforce quality in production environments.
- **Security updates:** Further updates on conditional access and providing more visibility to makers on security when sharing apps.

Rapid delivery of flagship applications

Organizations can now build and deliver flagship apps to the entire company through Power Apps. Key updates include:

- **Accelerate line of business app dev professionals:** Simplified development and management of offline apps.
- **Deliver standalone mission critical apps to every device:** Create standalone, native mobile apps with Power Apps.

What's new and planned for Power Apps

This topic lists features that are planned to release from April 2022 through September 2022. Because this topic lists features that may not have released yet, **delivery timelines may change and projected functionality may not be released**. For more information, go to [Microsoft policy](#).

In the **General availability** column, the feature will be delivered within the month listed. The delivery date can be any day within that month. Released features show the full date, including the date of release.

This check mark (✓) shows which features have been released for public preview or early access and for public preview, early access, and general availability.

Deliver modern business apps with unparalleled productivity for all users

Users can take advantage of cohesive and modern experiences while collaborating with team members in Power Apps.

Feature	Enabled for	Public preview	Early access*	General availability
Power Apps grid control support for editable scenarios in model-driven apps	Users by admins, makers, or analysts	May 2022	-	-
Enable model-driven app redirect from Internet Explorer to Microsoft Edge	Users by admins, makers, or analysts	Jun 2022	-	
Model-driven app in-app notifications	Users by admins, makers, or analysts	-	-	Apr 2022
Easy record sharing	Users by admins, makers, or analysts	✓ Nov 4, 2021	-	Apr 2022
Explore data through modern advanced find	Users by admins, makers, or analysts	✓ Dec 9, 2021	-	Apr 2022
UI improvement for business process flows	Users, automatically	-	✓ Dec 9, 2021	Apr 2022
Offline Sync notification	Users, automatically	-	Jan 2022	Apr 2022
Power Apps read-only grid control is the default grid for read-only scenarios	Users, automatically	-	Jan 2022	Apr 2022
New activity dropdown to show only relevant activities	Users by admins, makers, or analysts	Mar 2022	-	Apr 2022
Appointment description supports rich text	Users by admins, makers, or analysts	Mar 2022	-	Apr 2022
Create and join Teams meetings from in-app appointments	Users by admins, makers, or analysts	Mar 2022	-	Apr 2022
Use Lobe models in your apps and flows	Admins, makers, marketers, or analysts, automatically	✓ Nov 4, 2021	-	Apr 2022
Co-presence in records	Users by admins, makers, or analysts	✓ Nov 4, 2021	-	Sep 2022



Feature	Enabled for	Public preview	Early access*	General availability
Owner field has improved on-line presence indicator and contact card	Users by admins, makers, or analysts	✓ Nov 4, 2021	-	Sep 2022

Enable experts across the organization with advanced low code

Enable experts across the organization with advanced low code.

Feature	Enabled for	Public preview	Early access*	General availability
Intelligent formula repair in Power Fx	Admins, makers, marketers, or analysts, automatically	May 2022	-	
Makers can collaborate together on the same app by merging changes	Admins, makers, marketers, or analysts, automatically	Jun 2022	-	
Support for data sources with dynamic schema	Admins, makers, marketers, or analysts, automatically	Jun 2022	-	-
Quickly explore and create tables with the table hub and designer	Admins, makers, marketers, or analysts, automatically	-	-	Apr 2022
Command designer with Power Fx	Admins, makers, marketers, or analysts, automatically	✓ Jul 29, 2021	-	Apr 2022
Power Fx formulas provide richer and easier to use column calculations in Microsoft Dataverse	Admins, makers, marketers, or analysts, automatically	✓ Sep 23, 2021	-	May 2022
Data prefetch and cache control eliminates manual cache management	Admins, makers, marketers, or analysts, automatically	Mar 2022	-	May 2022
Power Fx named formulas to ease development and improve performance	Admins, makers, marketers, or analysts, automatically	Mar 2022	-	May 2022

Feature	Enabled for	Public preview	Early access*	General availability
Build forms entirely using features available in the modern form designer	Admins, makers, marketers, or analysts, automatically	-	-	May 2022

Rapid delivery of flagship applications

Deliver flagship applications faster than ever.

Feature	Enabled for	Public preview	Early access*	General availability
Create standalone, native mobile apps with Power Apps	Users by admins, makers, or analysts	Feb 2022	-	Apr 2022
Power Apps application on Windows running model-driven and canvas apps with full support for offline	Users by admins, makers, or analysts	Feb 2022	-	Apr 2022

Safest way to digitally transform at whole-company scale

Power Apps is the safest way to digitally transform at whole-company scale.

Feature	Enabled for	Public preview	Early access*	General availability
Conditional access policies for individual Power Apps	Users by admins, makers, or analysts	✓ Aug 29, 2021	-	Apr 2022
Enable quarantine of non-compliant Power Apps	Users by admins, makers, or analysts	✓ Aug 29, 2021	-	Apr 2022
Solution checker enforcement improvements	Admins, makers, marketers, or analysts, automatically	May 2022	-	Jun 2022

* You are able to opt into some features as part of early access on January 31, 2022, including all mandatory changes that affect users. To learn more, go to [Early access FAQ](#).

Description of **Enabled for** column values:

- **Users, automatically:** These features include changes to the user experience and are enabled automatically.

- **Admins, makers, marketers, or analysts, automatically:** These features are meant to be used by administrators, makers, marketers, or business analysts and are enabled automatically.
- **Users by admins, makers, or analysts:** These features must be enabled or configured by the administrators, makers, or business analysts to be available for their users.

For a list of the countries or regions where Dynamics 365 business applications are available, go to the [International availability guide](#). For more information about geographic areas and datacenters (regions), go to the [Dynamics 365 and Microsoft Power Platform availability page](#).

Deliver modern business apps with unparalleled productivity for all users

Overview

Users can take advantage of cohesive and modern experiences while collaborating with team members in Power Apps. Key updates include:

- **Apps built using Power Apps are now multiplayer with built-in collaboration:** Enable users to collaborate, chat, and start meetings directly within the app.
- **Act on business data in context across Microsoft 365:** See and act on Power Apps and Dynamics 365 data directly in Microsoft 365 by pasting a link.
- **Keep users on task with cohesive experiences and delightful UX:** Modern and cohesive control updates across Power Apps provides a delightful and productive experience.

Power Apps grid control support for editable scenarios in model-driven apps

Enabled for	Public preview	Early access	General availability
Users by admins, makers, or analysts	May 2022	-	-

Business value

This grid control allows users to be more productive by letting them edit values directly in the grid.

Feature details

Building on the previous work with the [Power Apps read-only grid control](#), the new **Power Apps grid control (preview)** for model-driven apps is available with two primary changes:

- **Infinite scrolling:** Users no longer need to page to see more records. Instead, users can continue scrolling to get to the row(s) they are interested in. Paging buttons will be available as an option for makers.
- **Inline editing within views and subgrids:** In addition to being available for read-only scenarios, this control can also be used as an editable grid. When editing is enabled by the maker, users can be more productive by making edits directly in the grid instead of having to make changes in the corresponding form.

This new control continues to align with the latest Microsoft design guidance for styling and continues to support the latest Microsoft accessibility standards.

See also

[Explore data in a view on a grid page](#) (docs)

Enable model-driven app redirect from Internet Explorer to Microsoft Edge

Enabled for	Public preview	Early access	General availability
Users by admins, makers, or analysts	Jun 2022	-	-

Business value

Administrators can improve the user experience with a faster, more reliable experience in Unified Interface by redirecting to Microsoft Edge.

Feature details

Using the Power Platform admin center, administrators can enable users that open Unified Interface within Internet Explorer to be redirected to Microsoft Edge. This is the pattern that is used by other Microsoft applications to ensure users have the best experience.

We announced deprecation in [Internet Explorer 11 support for Dynamics 365 and Microsoft Power Platform is deprecated](#) and noted in [Supported web browsers and mobile devices](#) and [Support for Microsoft Internet Explorer and Microsoft Edge Legacy](#).

The current experience for Internet Explorer users is a warning message that was announced in [Unified Interface browser support changes](#).

Model-driven app in-app notifications

Enabled for	Public preview	Early access	General availability
Users by admins, makers, or analysts	-	-	Apr 2022

Business value

Users can be alerted to key items to address, which makes them more likely to be successful.

Feature details

The in-app notification feature that was announced for public preview July 2021 with [Model-driven app adds in-app notifications](#) is reaching general availability. Learn more about how makers [send in app notifications](#) and how users receive [notifications](#).

Since public preview, we've improved the scalability of in-app notifications by uptaking the non-relational data storage and adding enhanced polling based on user navigation.

Power Apps read-only grid control is the default grid for read-only scenarios

Enabled for	Public preview	Early access	General availability
Users, automatically	-	Jan 2022	Apr 2022

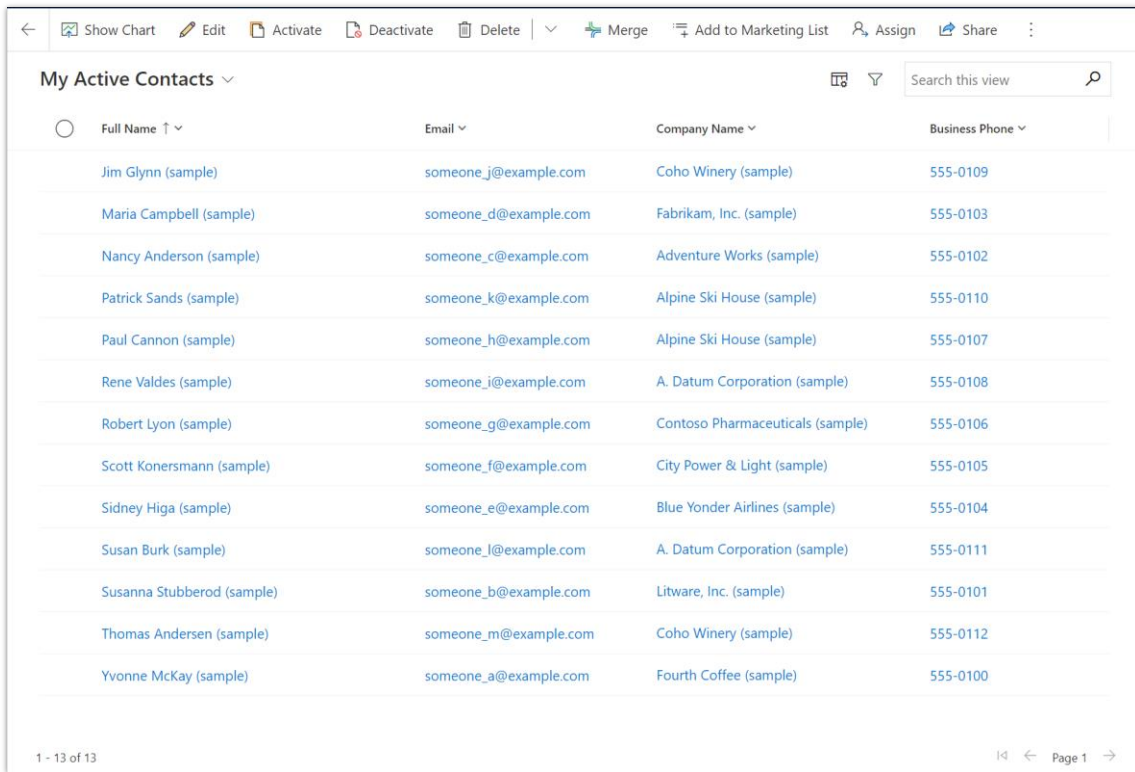
Business value

The Power Apps read-only grid control includes productivity and performance enhancements, alignment with the latest in Microsoft design, and compliance with Microsoft Accessibility Standards.

Feature details

The [New Power Apps read-only grid control](#) released in 2021 release wave 2 will be the default read-only grid experience for everyone on model-driven apps in 2022 release wave 1. This applies to grids inside view pages and sub grids in forms. When originally enabled, the jump bar row is not visible; however, this can be turned back on as needed.

All organizations will have the Power Apps read-only grid with the 2022 wave 1 release, including organizations that previously opted out. Note that organizations can opt out of this experience using the switch under the **Grids and views** section in the Power Platform admin center. Also, the legacy Wijmo read-only grid experience is deprecated with the 2022 wave 1 release but is targeted to be available as a fallback option until the 2022 wave 2 release.



Screenshot of Power Apps read-only grid control on the Contacts entity.

Easy record sharing

Enabled for	Public preview	Early access	General availability
Users by admins, makers, or analysts	✓ Nov 4, 2021	-	Apr 2022

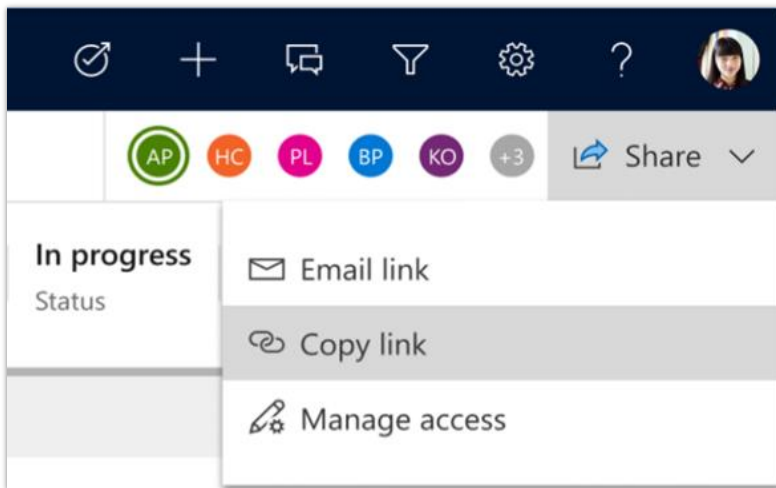
Business value

Easily share links to records with colleagues who may not have a link to the record.

Feature details

Share records as easy as Microsoft Office documents. Use the new share button to email a link or copy the link and share it with someone else. A link to the record can only be shared with users who have permissions to access the record.

This feature is currently available for the **Account**, **Case**, **Opportunity**, and **Contact** tables.



New Share menu in app.

Explore data through modern advanced find

Enabled for	Public preview	Early access	General availability
Users by admins, makers, or analysts	✓ Dec 9, 2021	-	Apr 2022

Business value

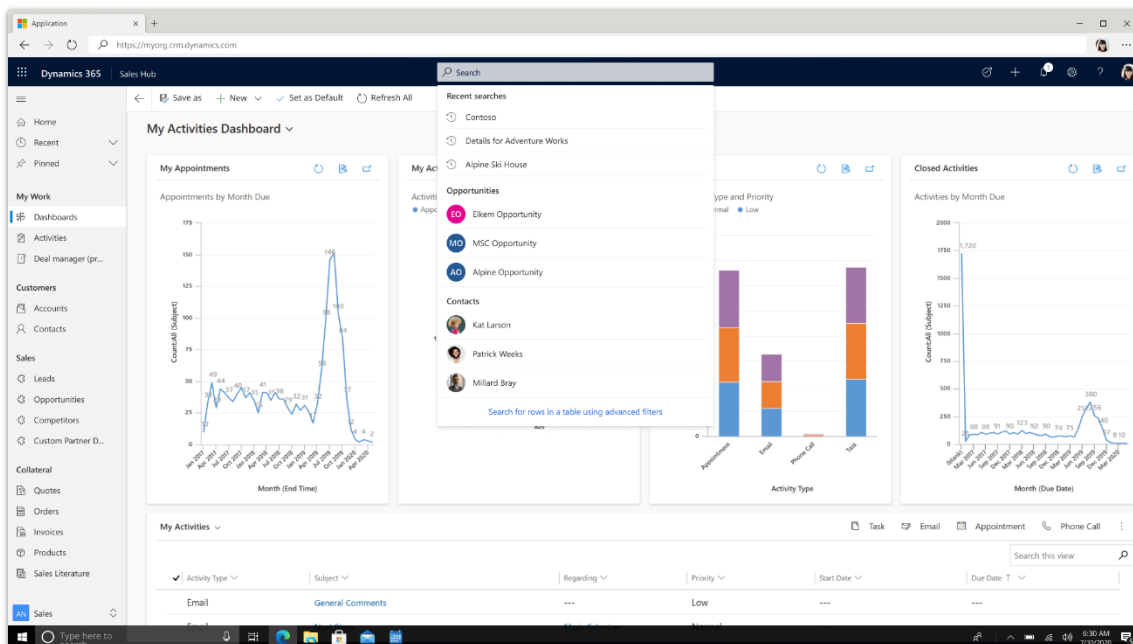
With modern advanced find, you can access any table in a model-driven app through search and use advanced filters to explore the data easily. Be more productive with navigation by searching for a view by its name in the enhanced view selector. The new view management experience will provide you options to share views so you can collaborate with your team easily. Managing views is simpler with personalization options to build your own set of views.

Feature details

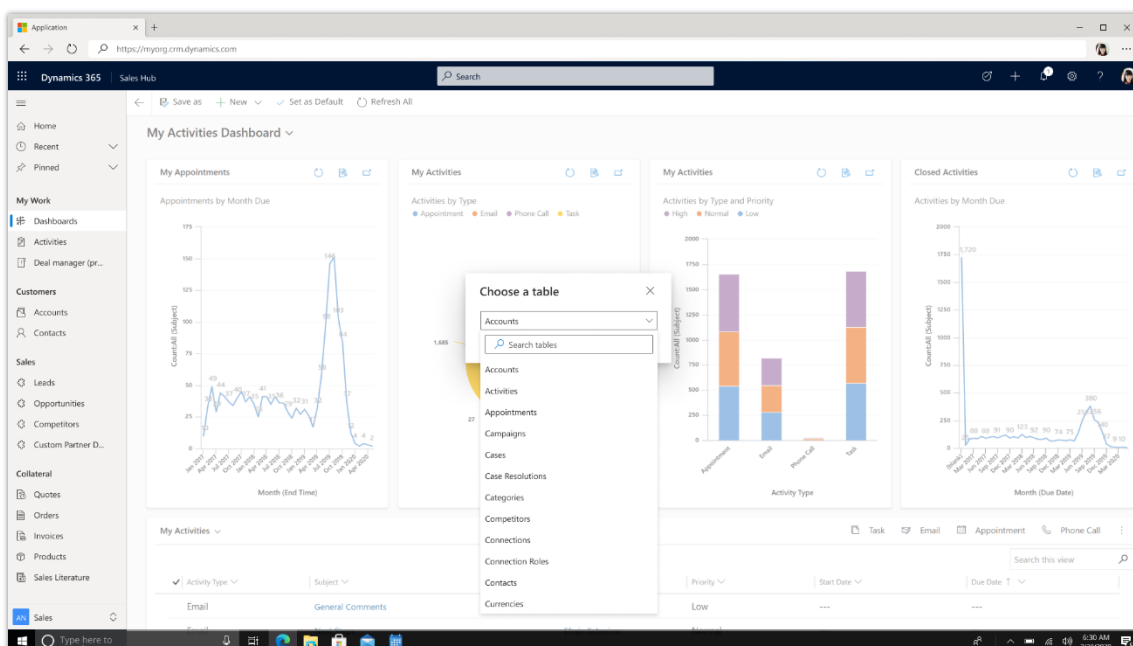
Modern advanced find provides the following benefits:

- Explore any table in a model-driven app through structured search and filters. Edit columns and filter data to construct views that help you apply the right lens on your data easily.
- Choosing the right view to access is easier with the latest enhancement to view selector having the ability for you to search for a view.
- Managing views is simpler with personalization options to build your own set of views, hide views, and order them differently. Your personalized view list travels with you across all apps and all devices, online and offline.
- Collaborate with your team by sharing views easily and managing the views shared to you.

All of the capabilities mentioned above will replace the legacy advanced find experience.

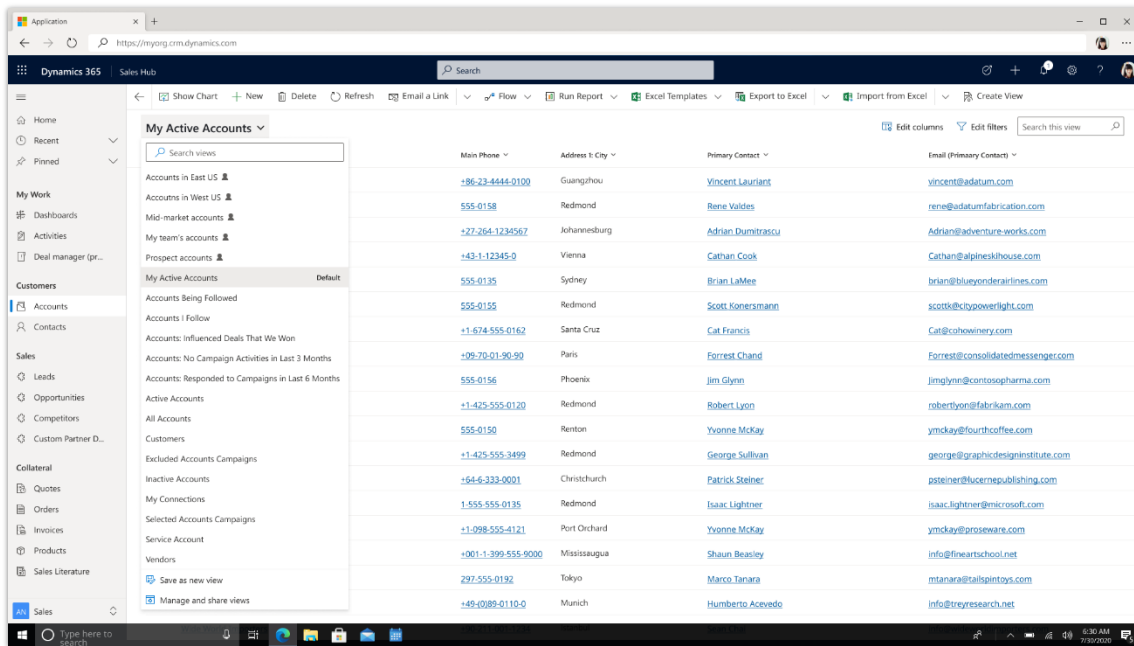


Advanced find entry point through search.



Advanced find table picker.





Enhanced view selector.

See also

[Advanced find in model-driven apps](#) (docs)

UI improvement for business process flows

Enabled for	Public preview	Early access	General availability
Users, automatically	-	✓ Dec 9, 2021	Apr 2022

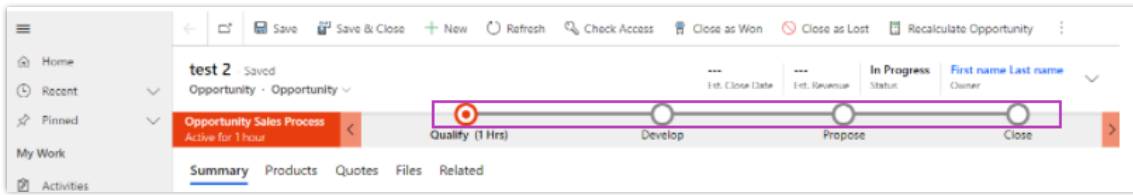
Business value

Changing the business process flow path-line color to a darker shade to help users easily identify and follow each stage in a business process flow.

Feature details

We're updating the color contrast in the path-line between each stage in the business process flow to a slightly darker shade. This will help users easily identify and follow each stage in a business process flow when working with data on a form in a model-drive app.





Business process flow.

Offline Sync notification

Enabled for	Public preview	Early access	General availability
Users, automatically	-	Jan 2022	Apr 2022

Business value

This feature gives users visibility into data that is being downloaded for offline support on Power Apps mobile.

Feature details

When you use Power Apps mobile in offline mode, data is downloaded in the background. In the past, the only way to check the status of the download was to manually go to the offline status page.

With the new **Offline Sync notification** feature, users can easily tell when the app is ready to use in offline mode. Notifications appear in the following scenarios:

- During the initial sync, you'll get a notification that tells you the number of rows downloaded and how much disk space is used. You'll also get the same notification when the app is used after some time.
- When you refresh the data on a grid view, you'll get a notification stating: *Refreshing your data.*

See also

[Enable and use mobile offline-first](#) (docs)

New activity dropdown to show only relevant activities

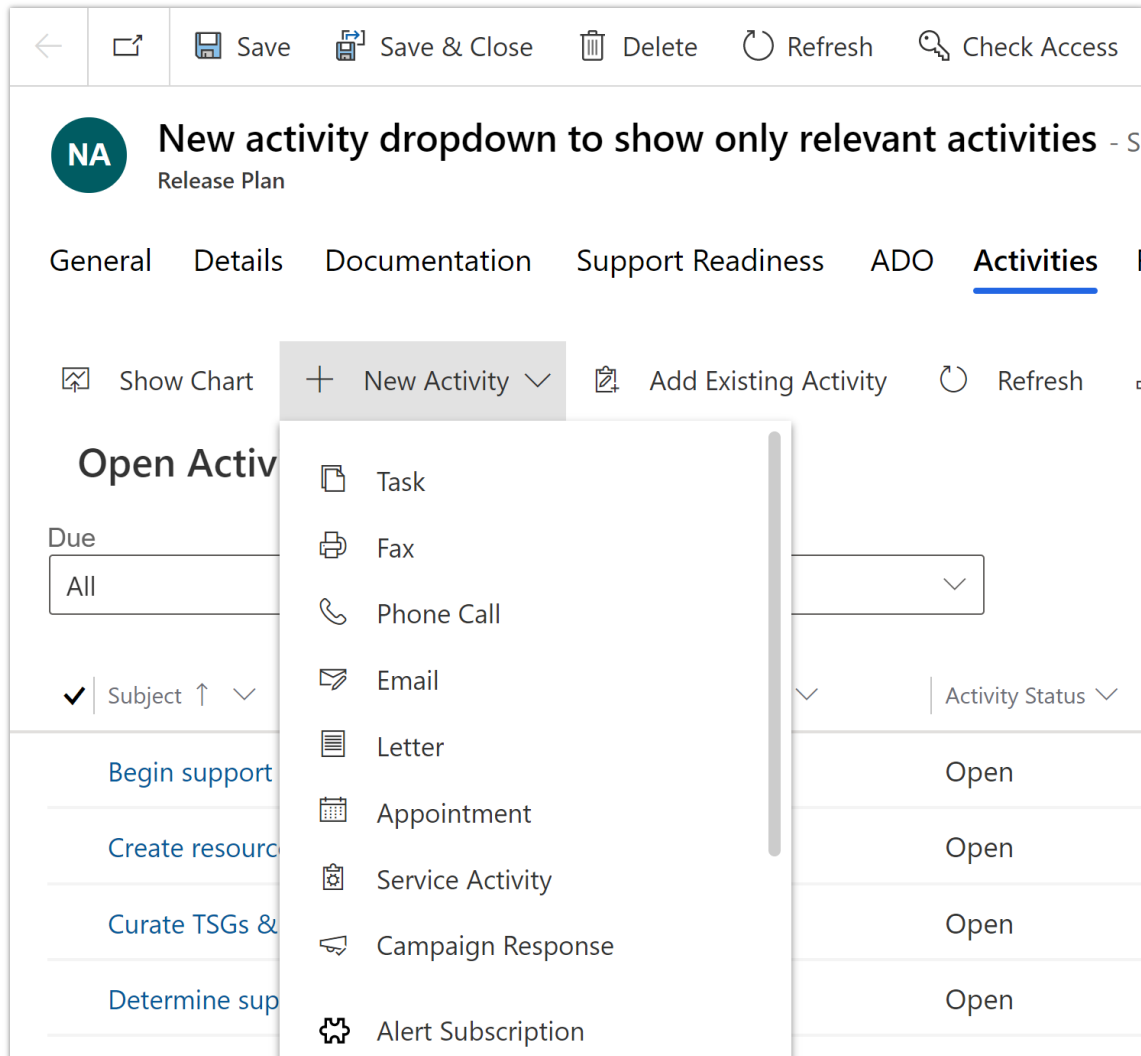
Enabled for	Public preview	Early access	General availability
Users by admins, makers, or analysts	Mar 2022	-	Apr 2022

Business value

Improve productivity by showing only relevant tables in the drop-down list.

Feature details

The **New Activity** drop-down list will only show activities that are relevant to the app. Activities that are not included in the app metadata now are hidden from the **New Activity** command.



Options shown in new activity dropdown.

Appointment description supports rich text

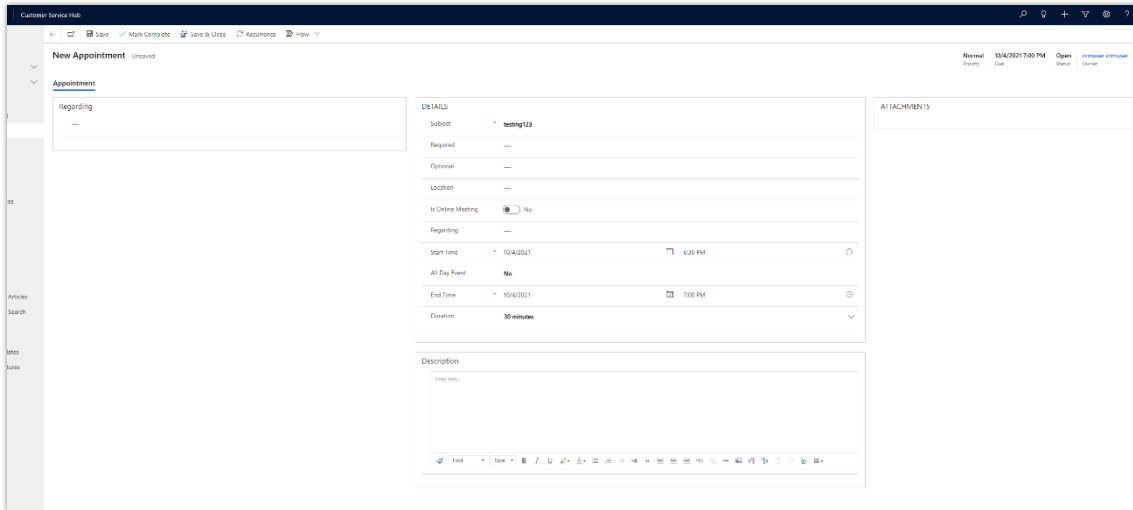
Enabled for	Public preview	Early access	General availability
Users by admins, makers, or analysts	Mar 2022	-	Apr 2022

Business value

Include rich text descriptions in your appointments, including links to online meetings.

Feature details

You can now add links, lists, and other rich text in your appointment description with the new rich text editor control. The new rich text editor is supported for all model-driven apps and is the default standard editor for appointments and email activities.



Screenshot of updated appointment form.

Create and join Teams meetings from in-app appointments

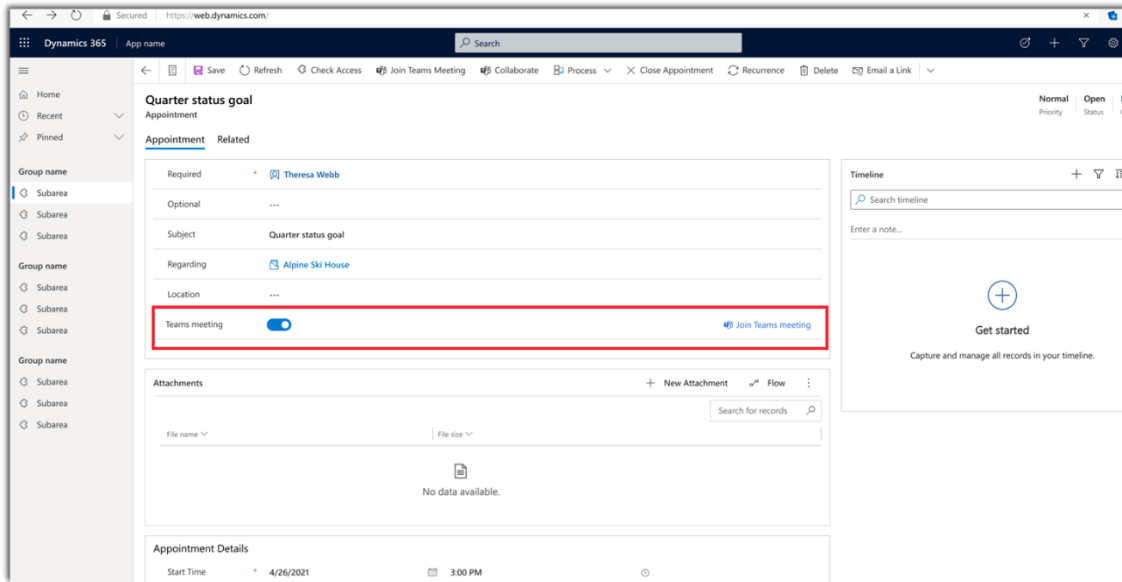
Enabled for	Public preview	Early access	General availability
Users by admins, makers, or analysts	Mar 2022	-	Apr 2022

Business value

Provide customers with unified meeting experience by allowing them to create and join Microsoft Teams meetings from their model-drive app.

Feature details

Easily add Microsoft Teams meeting from an appointment in your model-driven app. You can also join a Teams meeting with a single click from the appointment or the timeline control.



Option to join Teams meeting highlighted in appointment form.

Use Lobe models in your apps and flows

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	✓ Nov 4, 2021	-	Apr 2022

Business value

Makers can use computer vision to improve a business process or workflow by using Lobe. We'll be unlocking a new machine learning problem type (image classification) with Lobe, which will allow Power Platform users to train models locally on their desktop without using any AI Builder credits and with an easy-to-use app.

Feature details

Enable Power Platform users to leverage Lobe to train image classification models, upload them to AI Builder, and use them in canvas apps and Power Automate flows. This will increase the consumption of AI models in apps and flows.

See also

[Overview of image classification model by Lobe preview](#) (docs)

Co-presence in records

Enabled for	Public preview	Early access	General availability
Users by admins, makers, or analysts	✓ Nov 4, 2021	-	Sep 2022

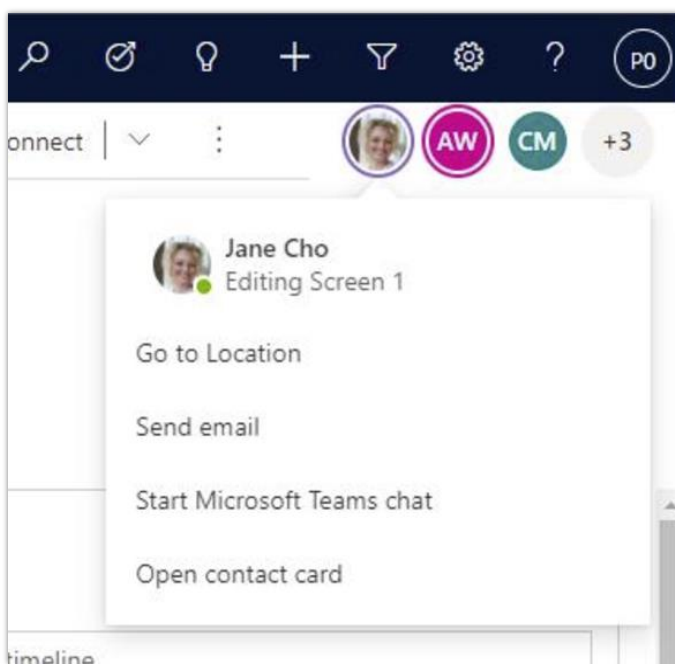
Business value

See colleagues who are currently working on a record and easily start chats with them.

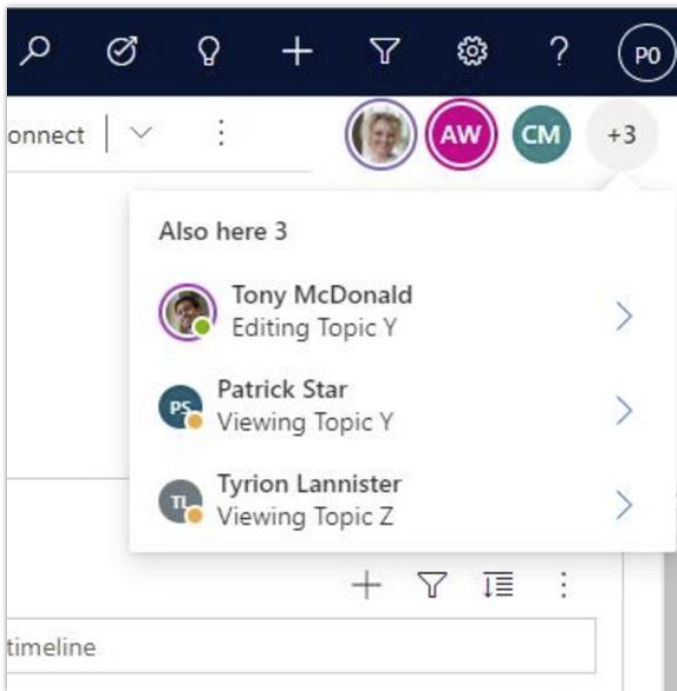
Feature details

Now you can see who's currently working on a record including their online status. You can also start a chat or send them an email and take collaboration to the next level.

This feature is currently available on the **Account**, **Case**, **Opportunity**, and **Contact** tables.



Facepile control expanded in model driven app.



Facepile overflow menu activated.

Owner field has improved on-line presence indicator and contact card

Enabled for	Public preview	Early access	General availability
Users by admins, makers, or analysts	✓ Nov 4, 2021	-	Sep 2022

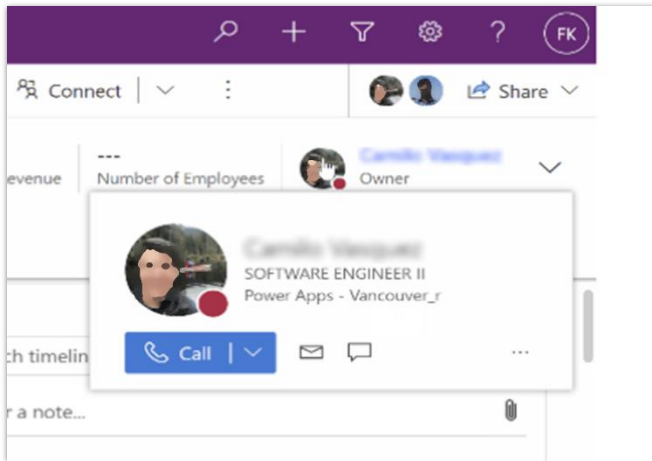
Business value

While you're working in your app, see your colleagues' online statuses and easily start a chat with them.

Feature details

When you're working on a record, you can see the person who owns the record and their online status. You can also select the user's photo and send them an email or start a chat.

This feature is currently available for the **Account**, **Case**, **Opportunity**, and **Contact** tables.



Persona card when clicking on the new owner field.

Enable experts across the organization with advanced low code

Overview

Makers and developers of all skill levels can be more productive with Power Apps and Dataverse, enabling fusion teams and leveraging intelligence to simplify common tasks. Key updates include:

- **It’s easier than ever to get started with Dataverse:** With simplified table creation and data load, the addition of Power Fx, and new modern low-code designers to simplify building apps over Dataverse.
- **Unleash fusion teams with collaborative development:** Allow multiple makers to work on a single app at the same time, accelerating the time of development and supporting with Microsoft 365 style tools, such as commenting.
- **Infuse intelligence for makers and end users alike:** Support developers to resolve common tasks and errors with intelligence.

Intelligent formula repair in Power Fx

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	May 2022	-	-

Business value

Power Apps uses AI to save time and suggest fixes to comment mistakes and errors in formulas, allowing makers to be more productive.

Feature details

When building apps, makers often encounter errors in formulas which can be time consuming for makers of all skill levels to investigate and resolve. Intelligent formula repair will use AI to review errors in formulas and recommend corrections immediately to the maker.

Intelligent formula report is supported by Program Synthesis using Examples ([PROSE](#))—the same technology used in other Microsoft products like Excel—to help automatically suggest a fix for errors found in a formula. Instead of hours or days, makers can fix their formulas and improve business productivity within just a few seconds.

Makers can collaborate together on the same app by merging changes

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	Jun 2022	-	-

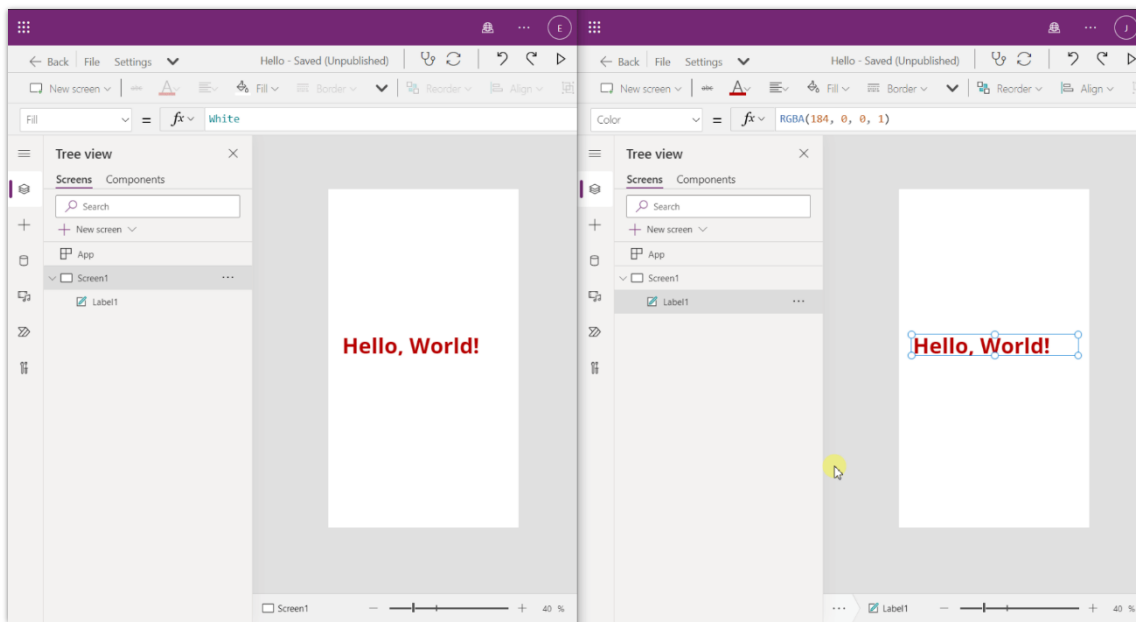
Business value

Enables multiple makers to simultaneously work on the same app and merge changes to accelerate development and track collaboration.

Feature details

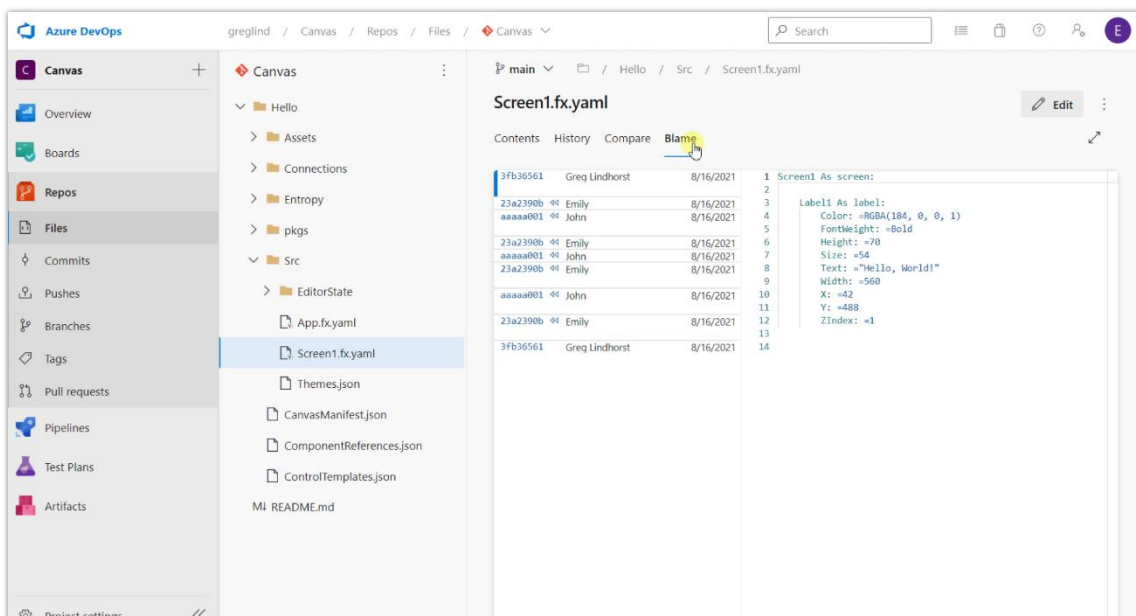
With this capability, makers will be able to work together on a single app to accelerate development, as well as track collaborating with tools, such as commenting, source code and version history.

The following image shows the same canvas app open in Power Apps Studio by two different makers at the same time, something that is not possible today. Changes are merged using rich semantic information about the app and the results are stored in Azure DevOps, GitHub, or any Git provider.



Screenshots of two makers working on the same canvas app at the same time.

We can see the changes in the following image—line by line—for each maker.



Screenshot of changes each user has made line by line.

Support for data sources with dynamic schema

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	Jun 2022	-	-

Business value

Power Apps can access a data source's dynamic schema - flexible additional columns of data - enabling makers to create more powerful apps with more information.

Feature details

Power Apps now supports dynamic schema. Some connectors can return extra columns based on how the API is called. The dynamic schema feature gives authors the ability to access the extra columns. For instance, customers can customize Azure DevOps with additional columns beyond the ones shipped by default. Over 40% of Power Platform connectors have some form of dynamic schema (input or output) that are now accessible with this feature. Once defined, this additional type definition is reusable. This feature will also enable us to support SQL stored procedures in the future.

Quickly explore and create tables with the table hub and designer

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Apr 2022

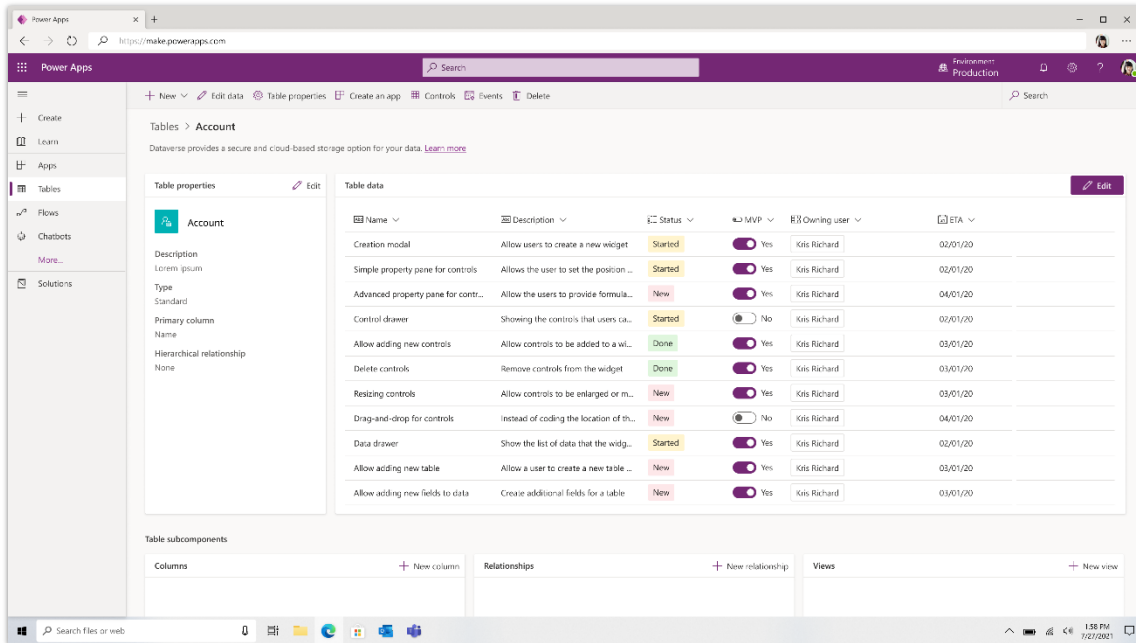
Business value

Bring table designer (currently only available in Power Apps for Teams app) to make.powerapps.com, to make creating and customizing tables more approachable for citizen developers. Enable quick create of an app over data from the table, publish and play immediately on web or using the phone app.

Feature details

Tables today are configured by diving directly into the list of columns, relationships, or other subcomponents that make up Microsoft Database tables. This feature introduces a hub view for a table to provide an overview of the table subcomponents and give the maker a view of the table data. New columns can be created in-line with that table data, and (with appropriate privileges) data can also be updated.

A quick way to generate an app starting from your table will allow you to create and play the app in your browser or on your mobile device by just supplying a name for the app, giving you a good idea of how your table is used in an app before jumping into editing the app to tailor the experience.



Dataverse table hub.

Command designer with Power Fx

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	✓ Jul 29, 2021	-	Apr 2022

Business value

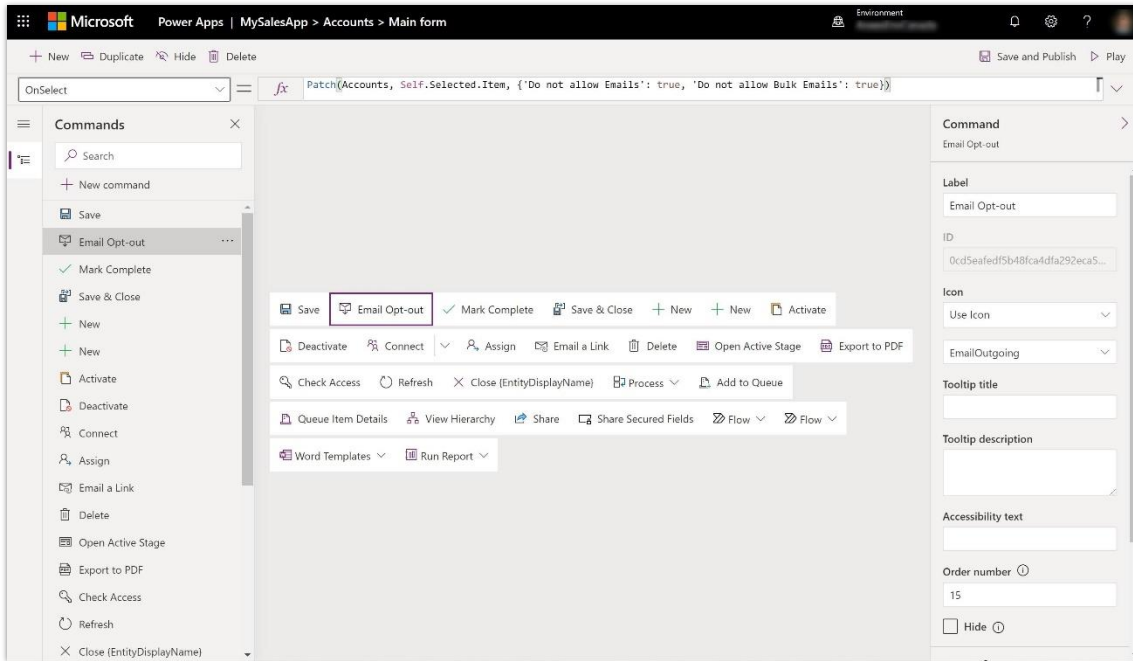
Power Apps makers can easily customize command bars and command buttons in model-driven and converged apps, including the ability to use low-code Power Fx formulas for command button visibility and actions.

Feature details

The new command designer simplifies command bar and command button customization for both low-code makers and pro-code developers:

- Use both low-code Power Fx formulas and JavaScript for command button visibility and action logic.

- Manage localization and error handling with Power Fx.
- Open a custom page as a dialog and trigger cloud flows using buttons on the custom page.
- Enhanced ALM support for the command designer enables standardized localization and presence in the solution interface.
- Better app-level control with commands applied to individual apps.
- Enhanced support for declarative programming patterns.



Command designer with Power Fx.

See also

[Using Power Fx with commands](#) (docs)

Power Fx formulas provide richer and easier to use column calculations in Microsoft Dataverse

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	✔ Sep 23, 2021	-	May 2022

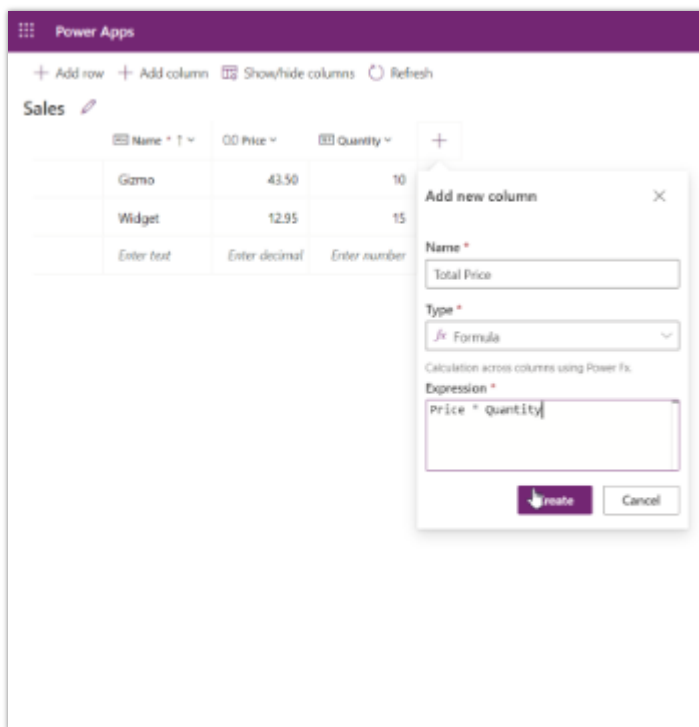
Business value

Power Fx dramatically expands what can be expressed in existing calculated columns and rollups, and adds the ability to perform calculations in real time.

Feature details

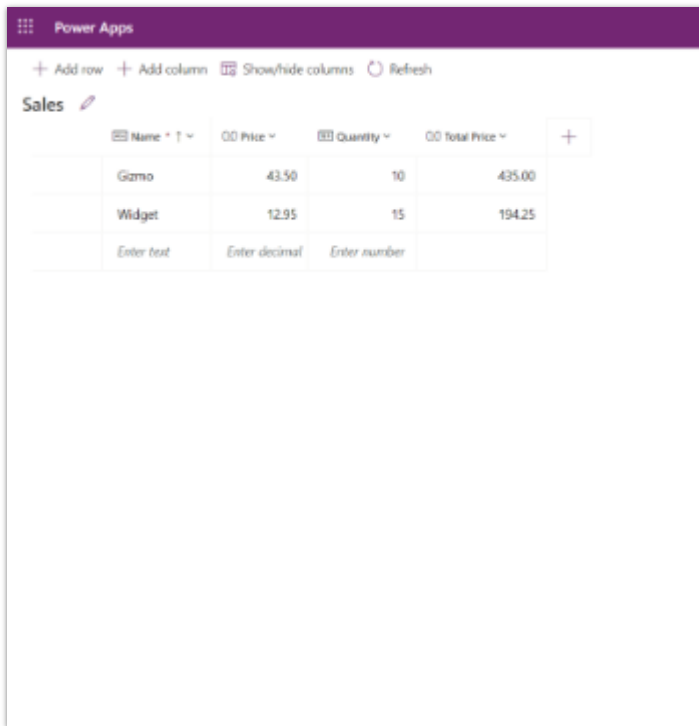
Power Fx picks up where existing Microsoft Dataverse calculated columns and rollups left off. The Power Fx formula bar has been directly integrated into the column settings, making it easy to see and edit the column's formula directly without needing to save or open another window. Power Fx adds many more functions and richer data type support than was previously available. Formula columns can also be calculated in real time, making available calculations with `Today()` and `Now()` functions for the first time.

For example, the following image shows a formula being entered for the "Total price" column with the formula of "Price * Quantity".



A formula is being entered for the column Total price.

And the result of the formula entered is available immediately.



The result of creating the formula column is immediately available.

See also

[Work with formula table columns](#) (docs)

Data prefetch and cache control eliminates manual cache management

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	Mar 2022	-	May 2022

Business value

Simplify Power Apps development with easy-to-use declarative data prefetching and caching mechanisms. Not only is it easier to write, but it enables the system to do a much better job with optimizing data retrievals, resulting in shorter load times and a better user experience.

Feature details

Today, many makers load data into collections when an app starts during `App.OnStart`. This allows them to retrieve the data once, before the app starts, and to cache that data for the lifetime of the app. We've been promoting this approach for a long time to improve app performance.

This approach suffers from many problems. It's non-intuitive for citizen developer not accustomed to working with imperative logic. It requires changes to the app's formulas to replace the direct data source with a collection, locking out write back of changes, and it's limited by the non-delegation limit. It also prevents Power Apps from being able to optimize the data access patterns and improve performance of the app, especially during app load.

As a better way, data prefetching and caching will provide declarative directives that are easier to use and will work with data sources rather than sidestepping them. These directives will not change any formulas and will not change the behavior of the app. It'll only make it faster or slower, which means they can be applied and modified at any time. Analysis of app telemetry can be used to tune these directives.

Power Fx named formulas to ease development and improve performance

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	Mar 2022	-	May 2022

Business value

This feature simplifies app writing as state variables do not need to be manually initialized and maintained. This capability helps apps perform better as the system is free to optimize, defer loading data and calculating values until needed.

Feature details

Today, makers must initialize global variables and collections in `App.OnStart` or `Screen.OnVisible`. Since these formulas are imperative, it limits the optimizations that Power Apps can apply to defer and rearrange work, and as a result, dramatically slow the app load time.

As an example of a better way, Microsoft Excel supports the naming of formulas with the **Name Manager**, making formulas reusable across the spreadsheet. We're going to adopt this idea for Power Fx.

Instead of the maker writing `Set(X, Last(Accounts))`, they'll write `X = Last(Accounts)` instead. It's a subtle yet powerful change. In this example, when using `Set()`, `X` is only valid after `Set()` has been called, and `X` may become invalid if `Account*` is changed without `Set()` being called again. Worse, `X` could be set in some part of the app that the maker is unaware of. Finally, the data retrieval for `Accounts` must be done each time `Set()` is called because the intent of the maker may have been to capture `X` at that moment, before it changes, and Power Fx can't optimize it.

The named formula approach results in `X` always being set and always being up to date with changes in **Accounts**. The named formula sets up a dependency relationship between `X` and

Accounts, much as Excel would have between spreadsheet cells. There is only one source of truth—if you want to understand why X has the value it has, one only needs to look at the formula that defines it, nothing else can modify it. Power Fx optimizations are possible because X need not be evaluated unless it is used, and it can always be recalculated at that moment from the current state of Accounts.

Named formula can be used for simple values too. Often, `App.OnStart` will setup theme colors for the app. Instead of writing `Set(BackgroundColor, Color.Gray)`, you can now write `BackgroundColor = Color.Gray`. With the named formula, you don't need to execute `Set()`, no state variable is involved, and `BackgroundColor` is immutable and won't change. This feature eliminates a source of confusion and possible maker bugs—even for simple use cases.

Build forms entirely using features available in the modern form designer

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	May 2022

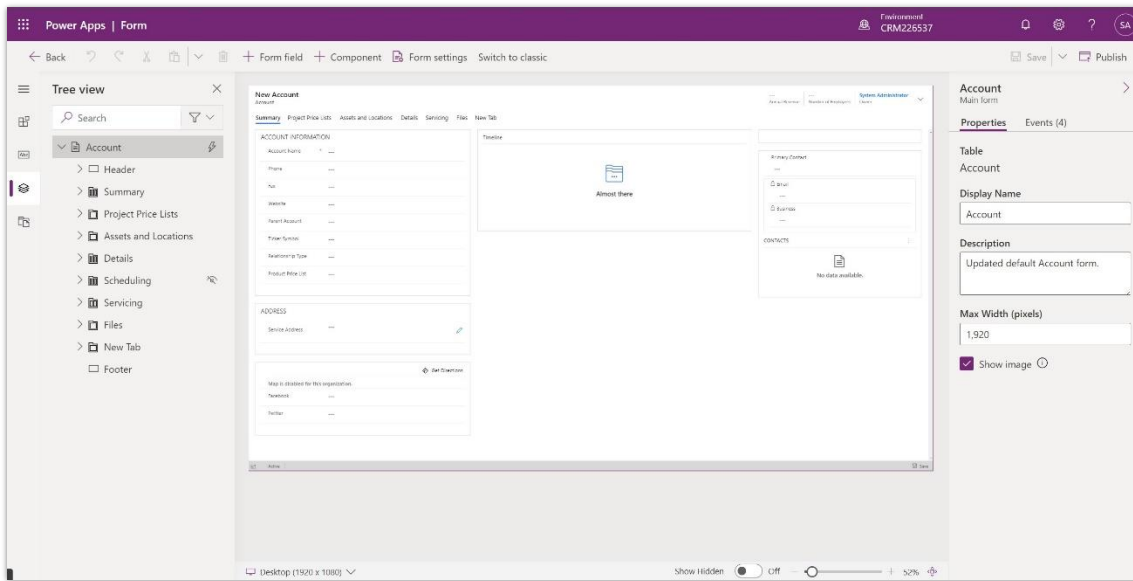
Business value

Provides an accessible modern form designer experience with full parity with classic forms. With this effort, we will soon be able to discontinue form designer with the web client.

Feature details

Makers can now build forms using the modern form designer with full parity with the classic form experience. With this update, makers will be able to customize their forms with all Power Apps component framework controls previously only available in classic, filter a lookup field based on another record through related record filtering, apply business logic to form fields through business rules, customize form elements with more formatting options, and more.

This will improve maker productivity and product accessibility removing the need for the legacy experiences. With this milestone, expect the classic form designer to soon be deprecated as makers can accomplish all the authoring tasks in the modern form designer.



Screenshot of modern form designer preview.

Rapid delivery of flagship applications

Overview

Organizations can now build and deliver flagship apps to the entire company through Power Apps. Key updates include:

- **Accelerate line of business app dev professionals:** Simplified development and management of offline apps.
- **Deliver standalone mission critical apps to every device:** Create standalone, native mobile apps with Power Apps.

Create standalone, native mobile apps with Power Apps

Enabled for	Public preview	Early access	General availability
Users by admins, makers, or analysts	Feb 2022	-	Apr 2022

Business value

Mobile Power Apps users have historically accessed company applications through the Power Apps mobile app for iOS and Android. With this feature, makers can publish their canvas apps as standalone, native mobile apps.

- Discoverability in the app store - your app gets its own unique Apple/Google app store identity (subject to channel policies).

- Provide your own home screen icon and app name.
- Set an image to show on the custom splash screen and sign in screens.
- Launch directly into your canvas app (no app list).
- Manage your app exclusively with Microsoft Intune policies.

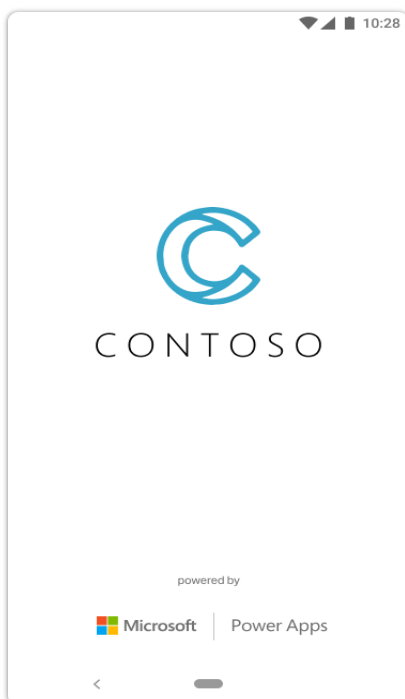
Feature details

This feature provides the following benefits:

- You can distribute the app natively to your app users (for example, with Microsoft Intune).
- Provide your own home screen icon and app name.
- Set an image to show on the custom splash screen.
- Launch directly into your canvas app (no need to use app list).
- Manage your app directly with Microsoft Intune policies.

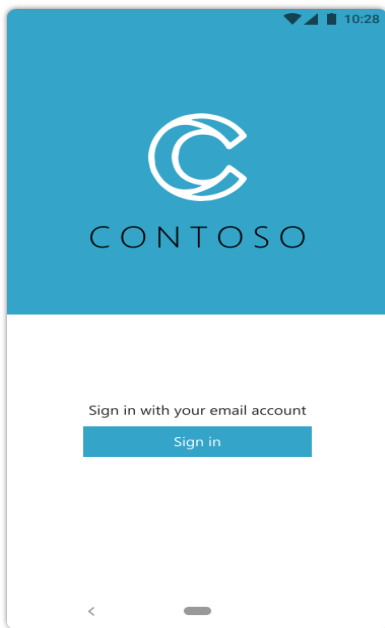
The following steps illustrate how the experience works with native mobile app created using Power Apps:

1. Open the app from its home screen icon.
2. App's native splash screen appears:



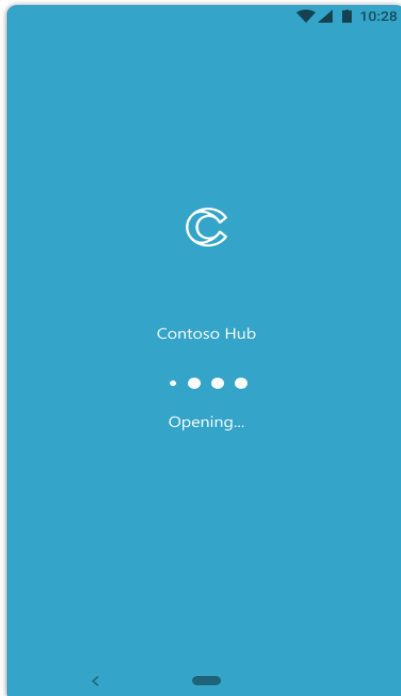
Shrink wrapped app native splash screen.

- App shows the welcome screen with the prompt to sign in:



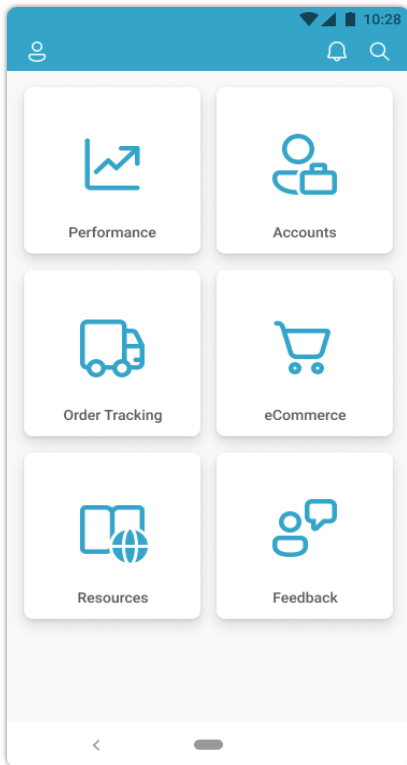
Shrink wrapped app customized sign-in screen.

- App starts to load and shows the loading screen:



Shrink wrapped (embedded) Canvas app loading screen.

5. App landing/home screen appears:



Shrink wrapped app primary embedded Canvas app landing page/home screen.

Power Apps application on Windows running model-driven and canvas apps with full support for offline

Enabled for	Public preview	Early access	General availability
Users by admins, makers, or analysts	Feb 2022	-	Apr 2022

Business value

The Power Apps for Windows is a new application in parity with iOS and Android. You can run both model-driven apps and canvas apps with full support for offline mode. Users can browse from the list of apps by recently used, favorites, featured, or search for a specific app. Power Apps for Windows also supports per app and per user licensing, native connection experience for Dataverse, and offline.

Feature details

With Power Apps for Windows you can work with your business data on any device from anywhere. You can also automate tasks to help users get more work accomplished quickly. Users can also run custom apps that are shared with them.

Power Apps for Windows supports these capabilities:

- Highly secured authentication with Azure Active Directory (Azure AD) support, Intune management, and Microsoft's System Center Configuration Manager (SCCM) app distribution.
- Access to Government Community Cloud (GCC) organizations.
- Access and run both model-driven and canvas apps.
- Find your apps using search or advanced browsing.
- Leverage devices capabilities, such as camera, microphone, file picker, geolocation, and barcode scanner from your apps.
- Access your data with the latest Dataverse native APIs.

See also

[Mobile offline overview](#) (docs)

Safest way to digitally transform at whole-company scale

Overview

Secure and governable enterprise apps are critical to creating trust with your users and enterprise IT teams. New capabilities are here to help you set the right policies to enable your enterprise apps across more places. Key updates include:

- **Solution quality and enforcement:** Continuing to evolve the checkers already in place in Power Apps, these will evolve to be more comprehensive and enforce quality in production environments.
- **Security updates:** Further updates on conditional access and providing more visibility to makers on security when sharing apps.

Conditional access policies for individual Power Apps

Enabled for	Public preview	Early access	General availability
Users by admins, makers, or analysts	✓ Aug 29, 2021	-	Apr 2022

Business value

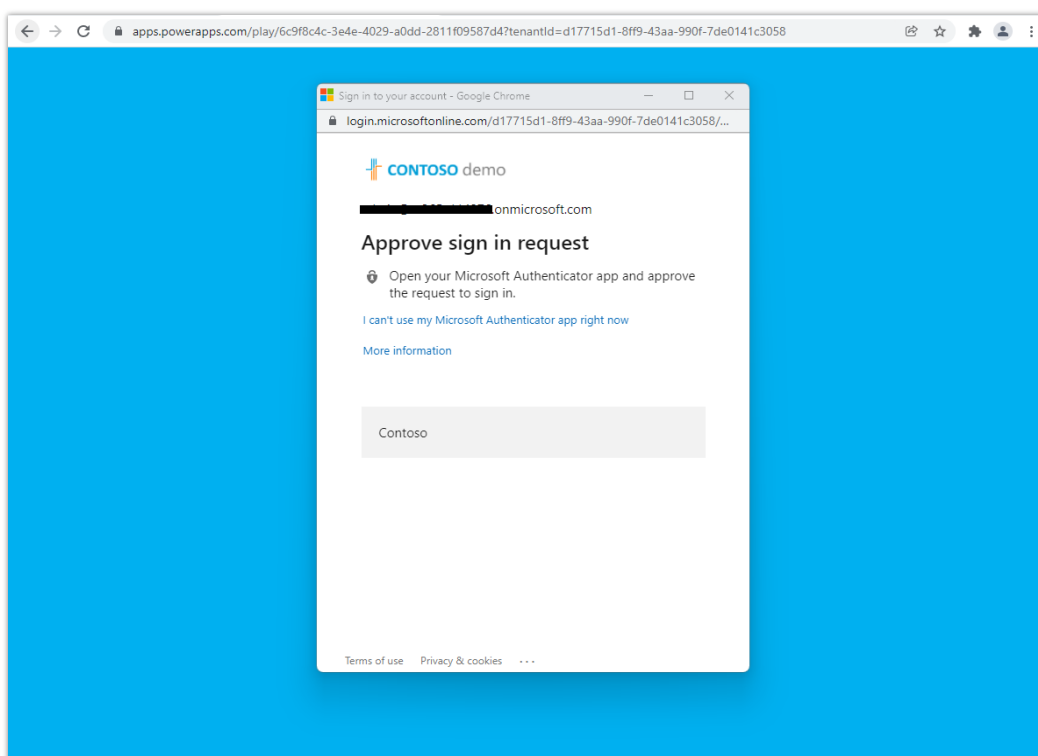
Enterprises can extend their use of Azure Active Directory Conditional Access to individual Power Apps by adding extra layers of security to apps containing sensitive data.

Feature details

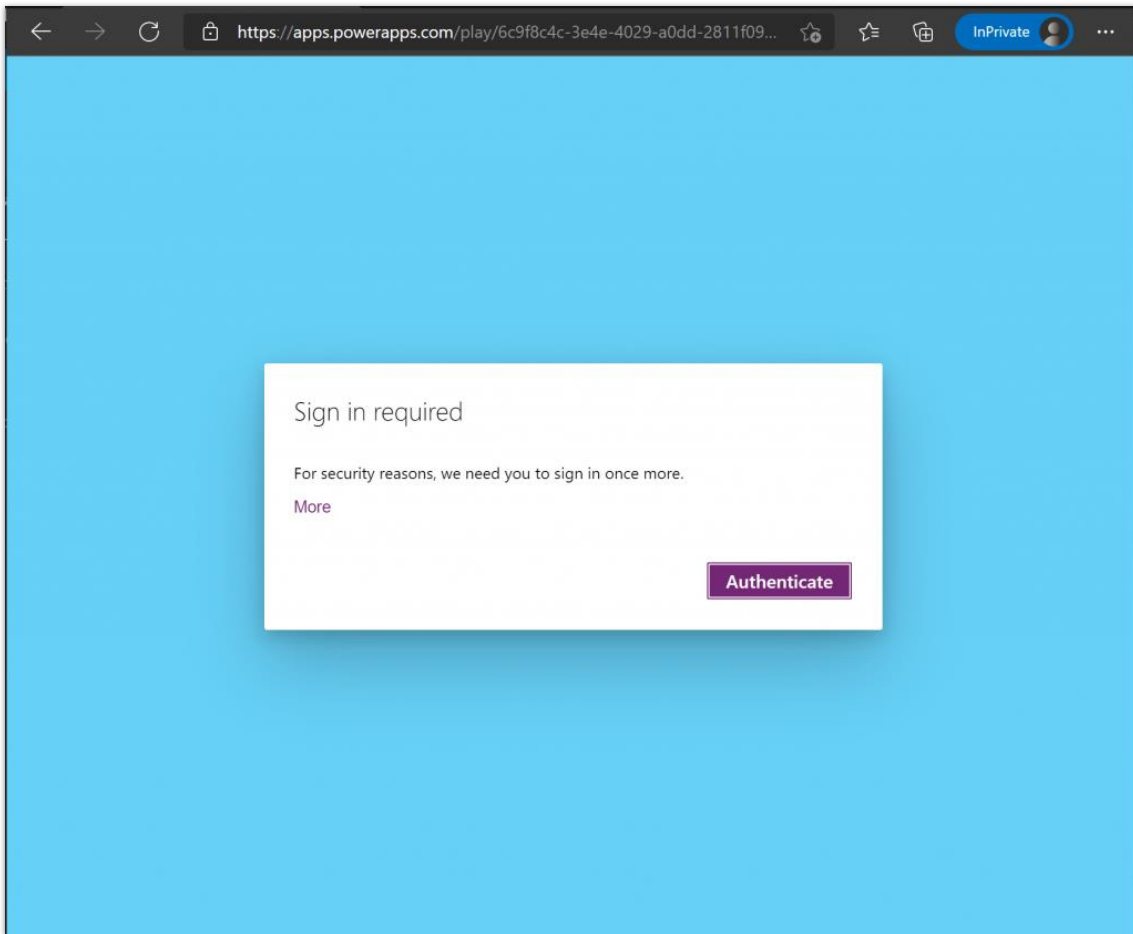
This finer granularity of Conditional Access on individual apps is available in public preview and leverages Azure AD's Conditional Access authentication context.

The granular application of Conditional Access enables many scenarios including:

- Designate specific apps to require users to perform multi-factor authentication.
- Designate specific apps to require users to be connected to their intranet to access the app.
- Designate specific apps to require users to connect from a device that is compliant with the organization's device management policies.
- Apply different Conditional Access requirements for apps available in Power Apps mobile. For example, the *Team Morale app* no longer needs to run on the intranet unlike the *Business Finance app*.
- For a given app, apply different Conditional Access policies per environment (for example, Dev, UAT, Production).



Experience when Power Apps individual app requires multi-factor authentication.



Experience when Power Apps prompts user to authenticate to satisfy Conditional Access requirement.

See also

[Manage Power Apps](#) (docs)

Enable quarantine of non-compliant Power Apps

Enabled for	Public preview	Early access	General availability
Users by admins, makers, or analysts	✓ Aug 29, 2021	-	Apr 2022

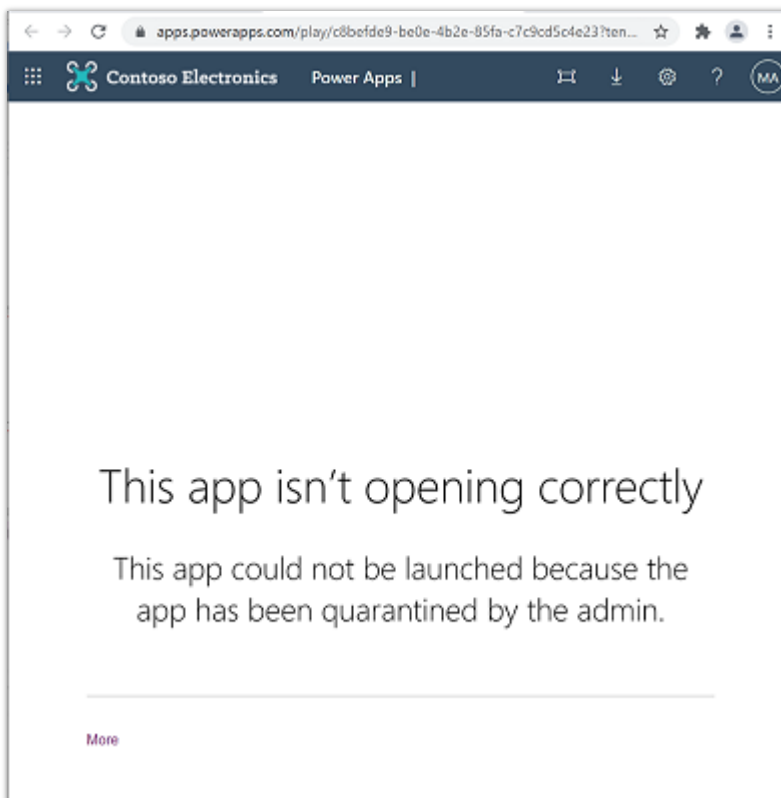
Business value

As a complement to Power Platform’s data loss prevention policies, Power Apps enables admins to *quarantine* an app. This allows admins to directly limit the availability of apps that may need attention to meet an organization’s compliance requirements, providing additional guardrails for low-code development.

Feature details

An app's quarantine state is managed by admins and controls whether a resource is accessible to users. The following table outlines how the quarantine state impacts experiences for admins, makers, and users.

Persona	Experience
Admin	Regardless of an app's quarantine state, an app is visible to admins in the Power Platform admin center and using PowerShell cmdlets.
Maker	Regardless of an app's quarantine state, an app is visible in https://make.powerapps.com and can be opened for editing in Power Apps Studio.
User	A quarantined app will present users that launch the app with a message indicating they're unable to access the app.



Power Apps experience when users attempt to launch an app that is quarantined by an admin.

See also

[Manage app quarantine state preview](#) (docs)

Solution checker enforcement improvements

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	May 2022	-	Jun 2022

Business value

Customers can identify harmful configurations and customizations in their solutions early, as part of the application lifecycle management process, to help make their apps more reliable, secure, and performant.

Feature details

Solution checker is a great tool for makers and administrators to inspect the customizations within a solution to identify potential issues before the changes are deployed to production. You can run the solution checker from Power Apps (make.powerapps.com) and view the results. With some effort, you can automate it to be part of the deployment process.

With this enhancement, we're making it easy for you to enforce solution checker as part of the solution packaging, export, and import process. You'll be able to easily view the results and necessary information to address any issues before continuing the process.

Power Apps portals

Plan and prepare for Power Apps portals in 2022 release wave 1

IMPORTANT The 2022 release wave 1 plan covers all new functionalities planned to be delivered to market from April 2022 to September 2022. In this article, you'll find the product overview and what's new and planned for **Power Apps portals**.

Overview

Power Apps portals empowers organizations to extend data and business processes to their internal and external users in a secure manner. It allows organizations to create multilingual, responsive, and branded portals.

Use Power Apps portals [documentation](#) to get detailed information about how portals can be used to meet a variety of business requirements.

The 2022 release wave 1 plan is focused on enhancements in the areas of the portals platform, new capabilities for administration, packaging, and professional development.



What's new and planned

Core platform

Portals core platform provides a rich set of out-of-the-box capabilities for makers to use as-is, configure, and customize in low-code/no-code ways and even build on top of using professional development techniques to meet business needs.

Typical areas that describe the portals core platform are:

- Content management system (CMS) capabilities to store web pages and related content
- Data types and components, such as forms and lists, which allow a user to interact with data in Microsoft Dataverse using standard ways

- User authentication by supporting OAuth 2.0, OpenID Connect, SAML 2.0, WS-Federation standard protocols
- Security using a robust authorization model that provides granular control over permissions on portal pages and data in Dataverse tables
- A configurable global search that allows searching content in Dataverse using portal pages
- Extensibility options provided by code components, Web APIs, Liquid code, client-side scripts, custom style sheets, and web templates

The additional and enhanced capabilities on the platform allow makers to enable more scenarios out-of-the-box while implementing Power Apps portals.

Professional developer experiences

Power Apps portals provides support for professional tools and editors, such as the [Microsoft Power Platform CLI](#) and [Visual Studio Code](#). Professional developers can create, build, debug, and publish their custom experiences quickly and efficiently.

Professional developers can:

- Use Microsoft Power Platform CLI commands for portal to list, download, and upload portals.
- Use deployment profiles to upload unique portal configurations to development, test, and production environments.
- Use Microsoft Power Platform CLI and GitHub Actions capabilities to enable Continuous Integration/Continuous Deployment (CI/CD) of portal configurations.
- Use Visual Studio Code extension Microsoft Power Platform Tools to improve productivity.

Governance and administration

Governance and administration features enable administrators to efficiently manage, configure, and maintain portals.

These features allow administrators to:

- View portal details, capacity consumption reports, and update portal packages from the Power Platform Admin center.
- Use self-service diagnostic tools, such as the Portal Checker, to identify and resolve common issues in portals.
- Configure integration to other services (for example, SharePoint and Power BI), restrict access by IP address, enable maintenance mode, and other admin options.

What's new and planned for Power Apps portals

This topic lists features that are planned to release from April 2022 through September 2022. Because this topic lists features that may not have released yet, **delivery timelines may change and projected functionality may not be released**. For more information, go to [Microsoft policy](#).

In the **General availability** column, the feature will be delivered within the month listed. The delivery date can be any day within that month. Released features show the full date, including the date of release.

This check mark (✓) shows which features have been released for public preview or early access and for public preview, early access, and general availability.

Core platform

Additional and enhanced capabilities on the platform allow makers to enable more scenarios out-of-the-box while implementing Power Apps portals.

Feature	Enabled for	Public preview	General availability
Dataverse search integration in portals	Users by admins, makers, or analysts	-	Apr 2022
Portals support for image columns in Microsoft Dataverse	Users by admins, makers, or analysts	Apr 2022	Jun 2022
Portals support for file columns in Microsoft Dataverse	Users by admins, makers, or analysts	Jun 2022	Aug 2022

Governance and administration

Tools and capabilities enable administrators to support portals in their organizations.

Feature	Enabled for	Public preview	General availability
Portals audit logging in Microsoft 365 compliance center	Admins, makers, marketers, or analysts, automatically	-	May 2022
Support for portal actions using admin APIs	Users by admins, makers, or analysts	-	May 2022

Professional developer experiences

Unlock advanced portal customizations using professional developer capabilities and familiar toolsets.

Feature	Enabled for	Public preview	General availability
Microsoft Power Platform CLI support for Portal Checker	Users by admins, makers, or analysts	-	Apr 2022

Description of **Enabled for** column values:

- **Users, automatically:** These features include changes to the user experience and are enabled automatically.
- **Admins, makers, marketers, or analysts, automatically:** These features are meant to be used by administrators, makers, marketers, or business analysts and are enabled automatically.
- **Users by admins, makers, or analysts:** These features must be enabled or configured by the administrators, makers, or business analysts to be available for their users.

For a list of the countries or regions where Dynamics 365 business applications are available, go to the [International availability guide](#). For more information about geographic areas and datacenters (regions), go to the [Dynamics 365 and Microsoft Power Platform availability page](#).

Core platform

Overview

Portals core platform provides a rich set of out-of-the-box capabilities for makers to use as-is, configure, and customize in low-code/no-code ways and even build on top of using professional development techniques to meet business needs.

Typical areas that describe the portals core platform are:

- Content management system (CMS) capabilities to store web pages and related content
- Data types and components, such as forms and lists, which allow a user to interact with data in Microsoft Dataverse using standard ways
- User authentication by supporting OAuth 2.0, OpenID Connect, SAML 2.0, WS-Federation standard protocols
- Security using a robust authorization model that provides granular control over permissions on portal pages and data in Dataverse tables

- A configurable global search that allows searching content in Dataverse using portal pages
- Extensibility options provided by code components, Web APIs, Liquid code, client-side scripts, custom style sheets, and web templates

The additional and enhanced capabilities on the platform allow makers to enable more scenarios out-of-the-box while implementing Power Apps portals.

Dataverse search integration in portals

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	-	Apr 2022

Business value

With Dataverse search enabled, the search within Power Apps portals will be consistent with the search within Microsoft Power Platform and provide enhanced search capabilities.

Feature details

In this release, the portals search experience will provide an option to use [Dataverse search](#) for searching records across multiple tables and columns in portals while remaining consistent with security permissions.

This experience will be the default search experience for all new Power Apps portals that are created. Users will have an option to choose the current (Lucene.NET based) search for a limited period.

NOTE The Dataverse based search will eventually replace the current Lucene.NET based [search](#) with the new search capabilities.

Portals support for image columns in Microsoft Dataverse

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Apr 2022	Jun 2022

Business value

Makers can configure their portal to surface image columns defined in Microsoft Dataverse to forms and lists.

Feature details

In 2022 release wave 1, Power Apps portals is extending support for [image columns](#) from tables in Microsoft Dataverse to forms and lists in portals. Makers can design [basic forms](#)

and [advanced forms](#) to include image columns providing the ability for portal users to upload images while submitting data. The thumbnail image can be seen on viewing the data on a portal form. A user can download the image directly from portal forms or with the portals Web API.

Portals support for file columns in Microsoft Dataverse

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Jun 2022	Aug 2022

Business value

Makers can configure their portal forms and lists to surface file columns defined in Microsoft Dataverse.

Feature details

In 2022 release wave 1, Power Apps portals is extending the support for [file columns](#) from tables in Microsoft Dataverse to forms and lists in portals. Makers can now include file columns when designing [basic forms](#), [advanced forms](#), and [lists](#). Portal users can upload files while submitting or editing data using forms. Power users can also download files from both forms and lists.

Governance and administration

Overview

Governance and administration features enable administrators to efficiently manage, configure, and maintain portals.

These features allow administrators to:

- View portal details, capacity consumption reports, and update portal packages from the Power Platform Admin center.
- Use self-service diagnostic tools, such as the Portal Checker, to identify and resolve common issues in portals.
- Configure integration to other services (for example, SharePoint and Power BI), restrict access by IP address, enable maintenance mode, and other admin options.

Portals audit logging in Microsoft 365 compliance center

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	May 2022

Business value

Organizations require availability of detailed portal website activity logs to perform regular auditing. This feature will allow administrators to download website logs from the Microsoft 365 compliance center.

Feature details

Power Apps portals is an external facing website, and often, organizations want to audit website activities. Use the auditing solution feature at Microsoft 365 compliance center to review logged portal activities.

Audit events include, but are not limited to:

- When the portal website is accessed
- Where the website is accessed from
- Which pages have been viewed
- Details of page requests

The length of time that an audit record is retained and searchable in the log depends on your Office 365 or Microsoft 365 Enterprise subscription and specifically the type of the license that's assigned to specific users.

Support for portal actions using admin APIs

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	-	May 2022

Business value

IT administrators can use these APIs to obtain portal details and perform administrative actions.

Feature details

With this feature, we'll be adding the support for administrative APIs in Power Apps portals. Administrators can use these APIs in their automation and governance processes.

Actions that will be made available through these APIs are:

- **List portal:** Get a list of available portals for a selected environment.
- **Create portal:** Create a new portal in an environment.
- **Delete portal:** Delete a portal.
- **Restart portal:** Restart a portal.

Professional developer experiences

Overview

Power Apps portals provides support for professional tools and editors, such as the [Microsoft Power Platform CLI](#) and [Visual Studio Code](#). Professional developers can create, build, debug, and publish their custom experiences quickly and efficiently.

Professional developers can:

- Use Microsoft Power Platform CLI commands for portal to list, download, and upload portals.
- Use deployment profiles to upload unique portal configurations to development, test, and production environments.
- Use Microsoft Power Platform CLI and GitHub Actions capabilities to enable Continuous Integration/Continuous Deployment (CI/CD) of portal configurations.
- Use Visual Studio Code extension Microsoft Power Platform Tools to improve productivity.

Microsoft Power Platform CLI support for Portal Checker

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	-	Apr 2022

Business value

Allow professional developers to get diagnostic results from the Power Platform CLI.

Feature details

With this feature, we're adding support for [Portal Checker](#) self-service diagnostic tool through the Power Platform CLI. This feature will allow users to invoke Portal Checker **offline** on the [downloaded content and configuration of a portal](#) and get diagnostic results. These results will help pro developers identify and fix the configuration problems proactively.

Power Automate

Plan and prepare for Power Automate in 2022 release wave 1

IMPORTANT The 2022 release wave 1 plan covers all new functionalities planned to be delivered to market from April 2022 to September 2022. In this article, you'll find the product overview and what's new and planned for **Power Automate**.

Overview

Microsoft Power Automate provides the tools you can use to improve your business' productivity by automating repetitive, time-consuming tasks. Power Automate provides a better way to get things done across your organization through cloud robotic process automation (RPA). It is deeply integrated with the Microsoft 365 ecosystem and the rest of Microsoft Power Platform.

Power Automate is investing in several areas as a part of Microsoft Power Platform 2022 release wave 1, including the following the following four themes:

- **Automation for everyone – exactly where you need it:** Today, the way that many people discover Power Automate is through our integrations in other products, like Windows 11, SharePoint, or Microsoft Teams. This wave, we're making it easier to get started with automation no matter what application you're using in Windows or Microsoft 365.
- **Hyperscale Cloud RPA:** From our biggest enterprise customers to our small and medium businesses, everyone is increasing the scale of their RPA deployments. We'll make it easier to roll out RPA at scale - with features to make it easier to manage your machines in Azure and the credentials of your users and accounts.
- **Automation that lets you sleep at night:** We're taking the burden of complexity and repetitive work away from you. That means, fundamentally, the service must never go down, we should deliver you consumer-quality end-to-end experiences, and ultimately, everything about our platform needs to "just work." All the features we have must be reliable and consumable, and automatable by default (adhering to the API-first approach), so that you can set it and forget it.
- **Anyone can get started:** We'll make it easier for anyone to get started with automation when they launch Power Automate for desktop or go to PowerAutomate.com for the first time. In addition to relevant first-run experiences, we'll be adding more intelligence throughout the product, making it easier to process even complex documents.

For official product documentation and training for Power Automate, go to:



- [Power Automate docs](#)
- [Power Automate training on Microsoft Learn](#)

TIP Download the release overview guide and share with your team as you plan to onboard the new capabilities included in this release wave.

[Download the overview guide \(PDF\)](#)

* Overview guide available in English version only



What's new and planned

Cloud flows

Cloud flows is a core automation capability in Power Automate that allows customers to focus on what matters and automate the rest. This product area includes:

- Integration with applications like Microsoft Teams, SharePoint, OneDrive, Dynamics 365 suite of applications, and more.
- Integration with the rest of Microsoft Power Platform, including the ability to invoke workflows from an app created using Power Apps, when a data alert is triggered in Power BI or to take an action in Power Virtual Agents.
- Mobile applications that help customers be notified, perform approvals, invoke, and monitor automation execution on the go.

This functionality was first released in 2016 and has been updated on a weekly basis. In 2022 release wave 1, we're focusing on making it easier to build, deploy, and share automation as well as help organizations drive adoption with confidence through deeper governance and privacy controls.

Desktop flows

The need for accessing robotic process automation (RPA) capabilities becomes more and more urgent for organizations. Indeed, they are looking to help their employees be more productive by focusing on the most important tasks and avoid spending time on repetitive, time-consuming ones, which often can be automated. Building desktop automation can be

complex hence it is critical to provide simple and intuitive user experiences for people who build or run automation flows. Desktop flow makers can either be advanced RPA developers or citizen developers with less technical skills but they both need to be able to build the automations they need. In this democratization journey, Power Automate for desktop comes now with Windows 11 making RPA easily accessible for both individual users as well as organizations.

In 2022 release wave 1, we'll keep investing heavily in Power Automate for desktop to make automation even easier with improvements like welcoming in-app tutorials and out of the box ready-to-run desktop flow examples. Additionally, we'll expand the Power Automate for desktop capabilities by addressing the main UI challenges like image-based automations. All those application enhancements come with platform improvements providing better governance, monitoring, and troubleshooting capabilities to help organizations with the deployment and management of their desktop automations.

What's new and planned for Power Automate

This topic lists features that are planned to release from April 2022 through September 2022. Because this topic lists features that may not have released yet, **delivery timelines may change and projected functionality may not be released**. For more information, go to [Microsoft policy](#).

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This check mark (✓) shows which features have been released for public preview or early access and for public preview, early access, and general availability.

Cloud flows

Use the new cloud flows features to automate tasks across hundreds of connectors.

Feature	Enabled for	Public preview	Early access*	General availability
Improved home page experience	Admins, makers, marketers, or analysts, automatically	Apr 2022	-	
Copy and paste improvements in cloud flows	Admins, makers, marketers, or analysts, automatically	-	-	Apr 2022

Feature	Enabled for	Public preview	Early access*	General availability
Enhanced help topics in Power Virtual Agents	Admins, makers, marketers, or analysts, automatically	-	-	Apr 2022
Handle null values in JSON	Admins, makers, marketers, or analysts, automatically	-	-	Apr 2022
Improved error messages across cloud flows	Admins, makers, marketers, or analysts, automatically	-	-	Apr 2022
More discoverable help bot for cloud flows	Admins, makers, marketers, or analysts, automatically	-	-	Apr 2022
OData editor improvements in cloud flows	Admins, makers, marketers, or analysts, automatically	-	-	Apr 2022
Resubmit multiple failed runs at once	Admins, makers, marketers, or analysts, automatically	-	-	Apr 2022
Solution list warnings are shown when connection references are not ready for use	Admins, makers, marketers, or analysts, automatically	-	-	Apr 2022
Solution references will be visible when viewing solution resources	Admins, makers, marketers, or analysts, automatically	-	-	Apr 2022
Solution-aware cloud flows are shown in the my flows list	Admins, makers, marketers, or analysts, automatically	-	-	Apr 2022
Undo feature in cloud flow designer	Admins, makers, marketers, or analysts, automatically	-	-	Apr 2022

Feature	Enabled for	Public preview	Early access*	General availability
Troubleshooting identifier column in the flow runs page	Admins, makers, marketers, or analysts, automatically	Mar 2022	-	Apr 2022
Flow ownership supported for Service Principals	Admins, makers, marketers, or analysts, automatically	-	-	Apr 2022
Use connections provided by run-only users with the Microsoft Dataverse connector	Admins, makers, marketers, or analysts, automatically	-	-	May 2022
Greater control over connection reference creation and reuse during flow creation	Admins, makers, marketers, or analysts, automatically	-	-	May 2022
Improved Power Automate mobile app for Android	Admins, makers, marketers, or analysts, automatically	-	-	Sep 2022

Desktop flows

Use the new desktop flows features to automate tasks on the web or desktop.

Feature	Enabled for	Public preview	Early access*	General availability
Use credentials from CyberArk in desktop flow connections	Admins, makers, marketers, or analysts, automatically	Jul 2022	-	
Desktop flow machines and runs - status health, analytics, and error reporting improvements	Admins, makers, marketers, or analysts, automatically	Aug 2022	-	
Set screen resolution for unattended desktop flow runs	Admins, makers, marketers, or analysts, automatically	Aug 2022	-	



Feature	Enabled for	Public preview	Early access*	General availability
SharePoint connector in Power Automate for desktop	Admins, makers, marketers, or analysts, automatically	Sep 2022	-	
Use credentials from Azure Key Vault in desktop flow connections	Admins, makers, marketers, or analysts, automatically	Sep 2022	-	

* You are able to opt into some features as part of early access on January 31, 2022, including all mandatory changes that affect users. To learn more, go to [Early access FAQ](#).

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Improved home page experience

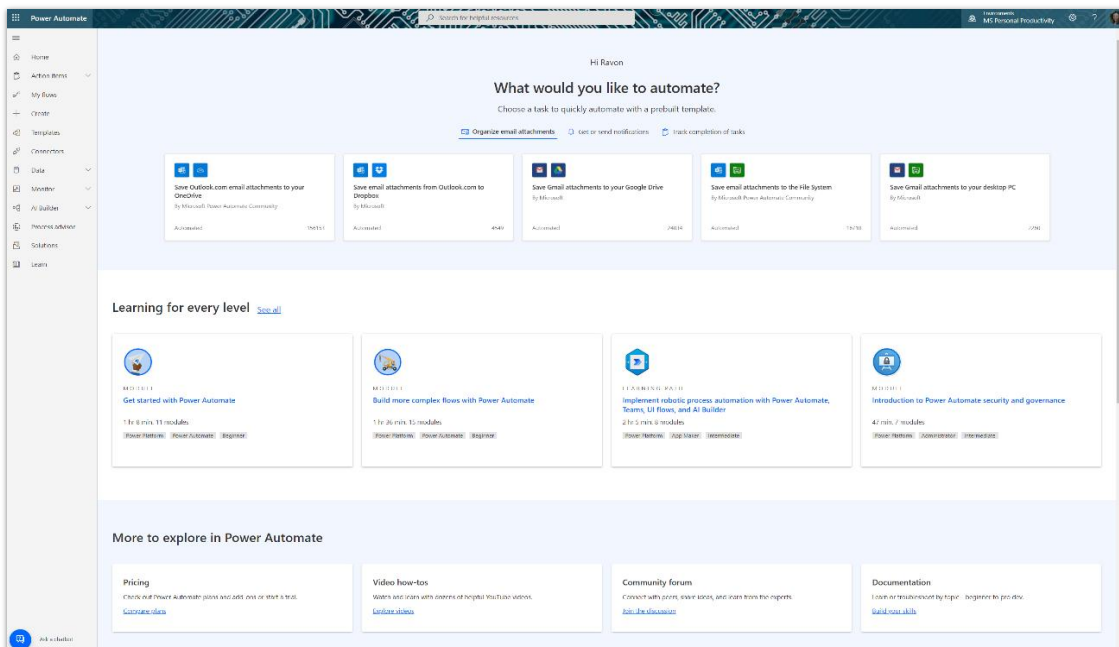
Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	Apr 2022	-	-

Business value

The new Power Automate home page makes it easier for users to learn how to build flows and discover more about Power Automate capabilities.

Feature details

With this feature, several improvements are being made to the Power Automate home page. This improved page makes it easier to get started making a flow. It has features and learning paths from Microsoft Learn that target new and intermediate users. There are resources for users to learn about pricing, interact with the community, access documentation, and watch how-to videos. Users can stay in the know by reading blog posts written by the Power Automate team.



Screenshot of the new home page.

Copy and paste improvements in cloud flows

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Apr 2022

Business value

Customers adopting solutions for application lifecycle management (ALM) use connection references to vary configuration, specifically the connection a flow uses between environments. With this feature, connection references can now be copied.

Feature details

Currently, if a maker uses copy and paste on an action in a solution-aware cloud flow, the connection references aren't included. It's difficult for a maker to troubleshoot this issue.

With this new feature, copy and paste fully uses the clipboard and supports connection references. You can also copy and paste actions inside of nested switch statements, which isn't currently available.

Enhanced help topics in Power Virtual Agents

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Apr 2022

Business value

Power Automate includes a Power Virtual Agents-powered help bot to assist people while they build flows. We'll provide upgrades so that users can get more of their questions answered through the bot.

Feature details

Many users' questions are related to how to perform automation and other questions that are documented. Instead of opening support tickets or asking users to search online for the documentation, we're adding more self-help topics on Power Virtual Agents so that users can quickly find answers.

Handle null values in JSON

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Apr 2022

Business value

Customers often use Power Automate to read in data from a variety of formats, including JSON. This feature will unblock customers who encounter null values in the JSON parsing action.

Feature details

Currently, cloud flows do not handle null values in the JSON parsing action. Instead, an exception is thrown and it is hard for users to troubleshoot, requiring a workaround in their flows to be resolved. In 2022 release wave 1, we'll add support to handle null values in the JSON parsing action.

Improved error messages across cloud flows

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Apr 2022

Business value

With improved error messages across the cloud flow experiences, users will better be able to correct errors.

Feature details

Users frequently get internal error code messages (for example, *400 Bad Request*), but they're not very actionable and are difficult to understand or troubleshoot. In 2022 release wave 1, we'll reduce instances of these errors and provide a more actionable error message wherever possible.

More discoverable help bot for cloud flows

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Apr 2022

Business value

Since it will be easier to find, more users will be able to find answers through the Power Virtual Agents-powered chat bot across all Power Automate pages.

Feature details

Currently, it's not easy enough to find the Power Virtual Agents bot. With this feature, there will be a virtual agent icon on every screen in the Power Automate designer, helping users find the answers they need quickly by chatting to a Power Virtual Agents bot.

OData editor improvements in cloud flows

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Apr 2022

Business value

This feature provides easier filtering in actions like the SharePoint **Get Items** action that previously required OData syntax.

Feature details

With this new feature, cloud flow actions will hide OData syntax by default. Makers can switch between basic and advanced mode, making it easier to filter items without in-depth knowledge. Advanced makers can still use OData if they choose. This feature will first be available in the SharePoint Online connector's **Get Items** action.

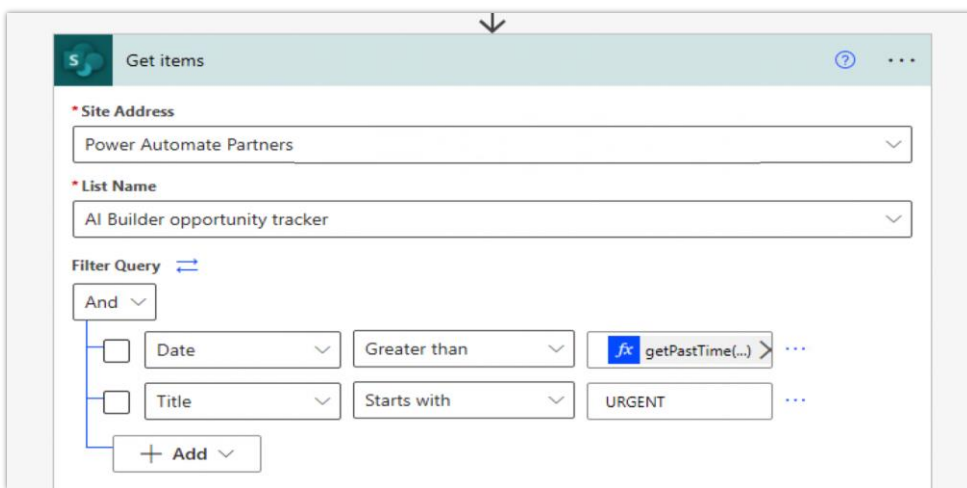


Image of the Get Items for SharePoint showing the new OData query options.

Resubmit multiple failed runs at once

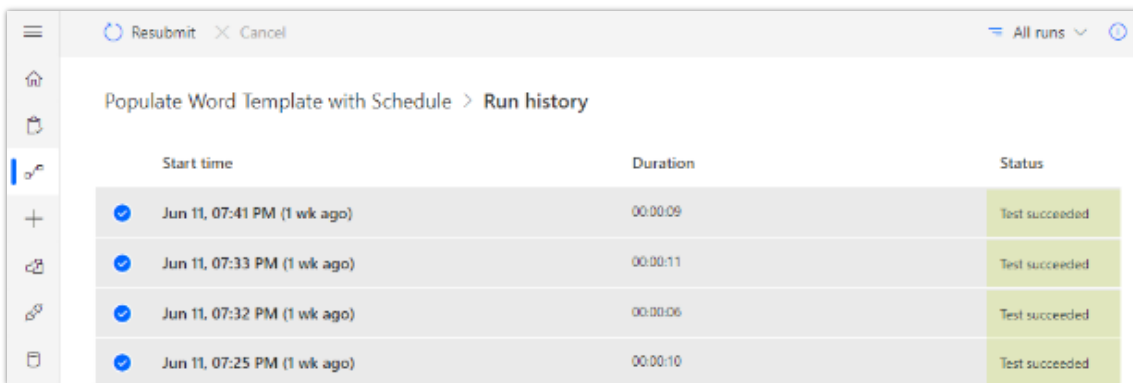
Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Apr 2022

Business value

Improve the maker productivity by resubmitting several failed flows to rerun at the same time.

Feature details

Sometimes, you may have a flow with several failed runs. Currently, you must manually resubmit each run individually if you want to rerun them. In 2022 release wave 1, we're introducing a feature that allows you to select and resubmit multiple runs at once. This means if you have multiple failed runs, you can select all of these runs and resubmit them at the same time.



Screenshot of multiple runs selected to resubmit.

Solution list warnings are shown when connection references are not ready for use

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Apr 2022

Business value

Connection references are an important cornerstone of the application lifecycle management (ALM) process for solution flows. This feature will warn users about connection references that are missing or need to be refreshed.

Feature details

When a connection reference is not ready for use, warnings are shown when a referencing flow is edited, but there's a need to have a central place to see any connection reference problems. The solution list currently shows a warning if any environment variables are missing values. This same behavior will be extended to warn about connection references that are missing connections or have connections that need to be refreshed.

Solution references will be visible when viewing solution resources

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Apr 2022

Business value

This feature allows users to see solution references when they're looking at solution resources, improving the ease of viewing and editing all resources in a solution.

Feature details

When you build a solution, there can be many dependencies between different types of resources. Currently, users can't easily determine the list of solutions that are referencing flows or connection references. In 2022 release wave 1, we'll make solution references visible in the flow details page and connection reference edit panel.

Solution-aware cloud flows are shown in the my flows list

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Apr 2022

Business value

We're updating the my flows experience so that users can find solution-aware cloud flows more easily.

Feature details

Flows must be solution-aware to participate in the application lifecycle management (ALM) process. Currently, solution-aware cloud flows aren't displayed in the my flows list, making them difficult to find. With this feature, the my flows list will contain solution-aware flows.

Undo feature in cloud flow designer

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Apr 2022

Business value

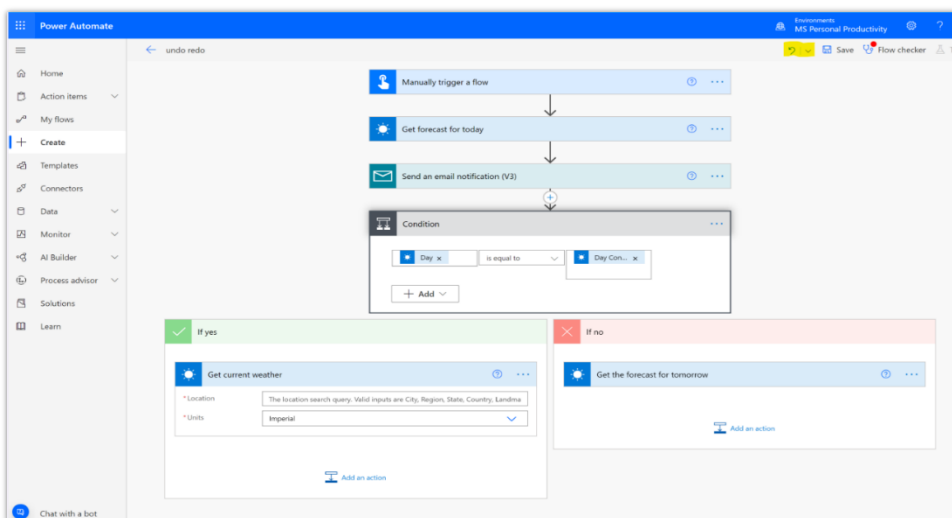
Many customers asked for an undo/redo capability. This feature helps users recover from situations where they've accidentally deleted actions and need to restore them.

Feature details

For organizations with robust source control, Microsoft recommends that they use solutions to manage the versions of their flows; however, sometimes makers simply want to have the undo/redo function support to revert some of their operations locally, such as adding, deleting, or editing some actions.

With this new feature, you can use the **Undo** and **Redo** buttons to easily revert some of your previous operations in the cloud flows designer.

NOTE This feature uses the local browser storage for design time only. It's not a server-side versioning support story.



Screenshot of the undo and redo feature in cloud flow designer.

Troubleshooting identifier column in the flow runs page

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	Mar 2022	-	Apr 2022

Business value

This feature allows makers to easily identify a flow run using an identifier column in flow runs page.

Feature details

Today, a maker can troubleshoot a flow run from the flow runs page by expanding a particular run and viewing the following data points about the run.

- How the flow ran.
- The values passed into the flow run.
- Who triggered the flow.
- Where and why the flow failed.

If you have hundreds of runs, however, you need a more holistic view of them to troubleshoot more efficiently. Today, this capability is not available.

With this feature, makers can choose a trigger dynamic value output that appears on a custom column in the flow runs view. After the flow runs, the column gets populated with the runtime value specified by the maker in the trigger's settings.

Flow ownership supported for Service Principals

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Apr 2022

Business value

This feature allows Microsoft Power Platform to work in enterprise environments where Service Principals are leveraged.

Feature details

Microsoft Dataverse application users can represent a Service Principal, but those users can't have connections shared with them so flows owned by a Service Principal cannot be enabled.

This encourages the use of shared "service accounts" when flow ownership can't be on a single user.

In 2022 release wave 1, we're updating connection sharing capabilities to allow flow ownership by a user that represents a Service Principal.

Use connections provided by run-only users with the Microsoft Dataverse connector

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	May 2022

Business value

Users will be able to deploy flows more broadly without needing to manage shared accounts. They can now enable users to use their own connections when triggering flows with the Microsoft Dataverse connector.

Feature details

Flow makers can configure whether a stored or a user-provided connection is used for Microsoft Dataverse actions using the **Manage run-only permissions** settings for flows that are manually triggered.

Greater control over connection reference creation and reuse during flow creation

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	May 2022

Business value

Connection references are an important cornerstone of the application lifecycle management (ALM) process for solution flows. This feature gives more control to cloud flow authors when creating and reusing connection references during flow creation.

Feature details

During flow creation, connection references are automatically created or reused. This can result in the use of connection references in other solutions and the creation of connection references in the wrong solution.

In 2022 release wave 1, cloud flow authors will be given greater control over connection reference creation and selection during flow creation.

Improved Power Automate mobile app for Android

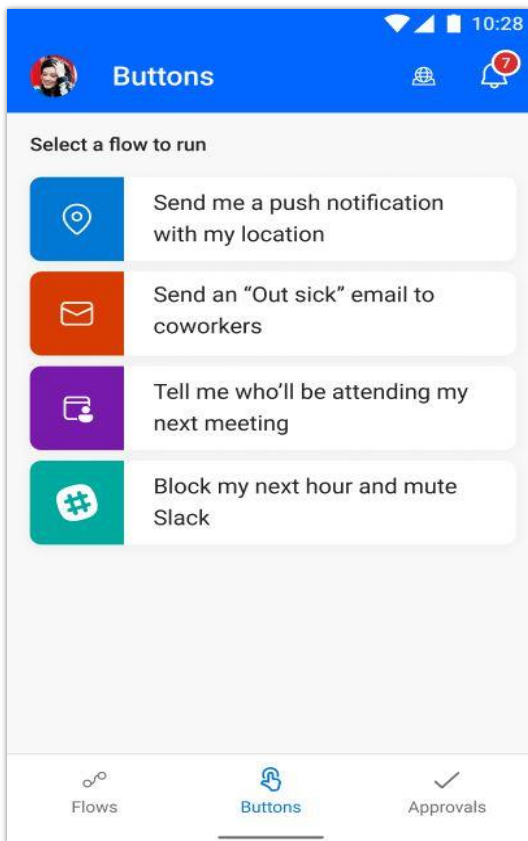
Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	-	-	Sep 2022

Business value

Improvements to the Power Automate mobile app for Android will provide a more usable and modern experience.

Feature details

The new version of the Power Automate mobile app for Android will provide an updated, modern experience for Power Automate users on their Android devices. Users will be able to receive notifications and trigger button flows on the go.



Screenshot of the updated Android mobile Power Automate app.

Desktop flows

Overview

The need for accessing robotic process automation (RPA) capabilities becomes more and more urgent for organizations. Indeed, they are looking to help their employees be more productive by focusing on the most important tasks and avoid spending time on repetitive, time-consuming ones, which often can be automated. Building desktop automation can be complex hence it is critical to provide simple and intuitive user experiences for people who build or run automation flows. Desktop flow makers can either be advanced RPA developers or citizen developers with less technical skills but they both need to be able to build the automations they need. In this democratization journey, Power Automate for desktop comes now with Windows 11 making RPA easily accessible for both individual users as well as organizations.

In 2022 release wave 1, we'll keep investing heavily in Power Automate for desktop to make automation even easier with improvements like welcoming in-app tutorials and out of the box ready-to-run desktop flow examples. Additionally, we'll expand the Power Automate for desktop capabilities by addressing the main UI challenges like image-based automations. All those application enhancements come with platform improvements providing better governance, monitoring, and troubleshooting capabilities to help organizations with the deployment and management of their desktop automations.

Use credentials from CyberArk in desktop flow connections

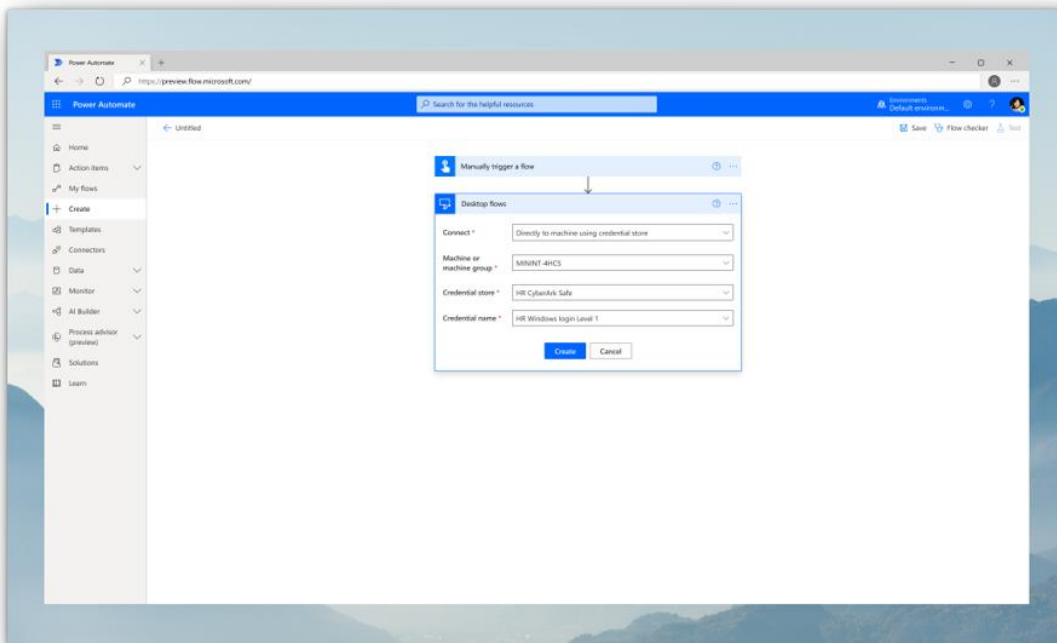
Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	Jul 2022	-	-

Business value

You can now leverage credentials from CyberArk to connect to Windows sessions on desktop flow machines. This feature supports rotating passwords without the need to update the connection.

Feature details

With this feature, users can now have their desktop flow automations run on Windows machines that are logged in with credentials from CyberArk. The machine will retrieve the latest credentials at runtime. This enables automations to keep running successfully even when the password is changed by the administrator.



Screenshot of username and password sourced from a CyberArk vault.

Desktop flow machines and runs - status health, analytics, and error reporting improvements

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	Aug 2022	-	-

Business value

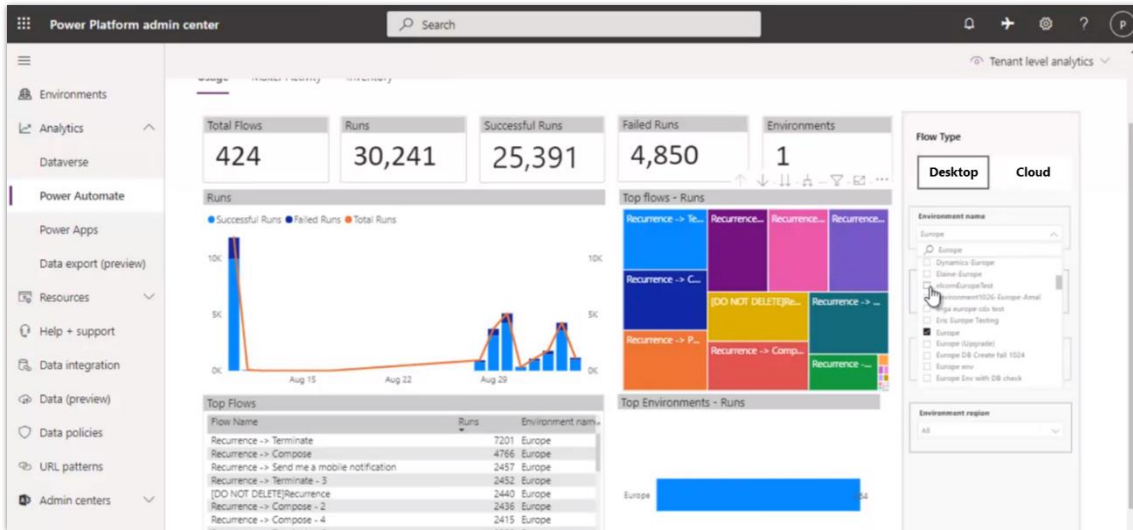
All customers need the ability to monitor and understand the health of their desktop flow setup. This includes analytics about machines configured to run them where they can quickly detect issues and be assisted in troubleshooting them as quickly as possible.

Feature details

CoE and admins have a way to monitor the health of their desktop flow machines and runs. They can get support in troubleshooting any issue surfaced with an end-to-end overview and additional capabilities.

New features will give you the ability to track/manage the health of machines and desktop flow runs end-to-end.

- The remediation pane and details run page shows up more meaningful and actionable error messages, including identifying in which step the error occurred.
- A new dashboard helps with tracking machines and flow runs health.



Screenshot of desktop flow analytics.

Set screen resolution for unattended desktop flow runs

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	Aug 2022	-	-

Business value

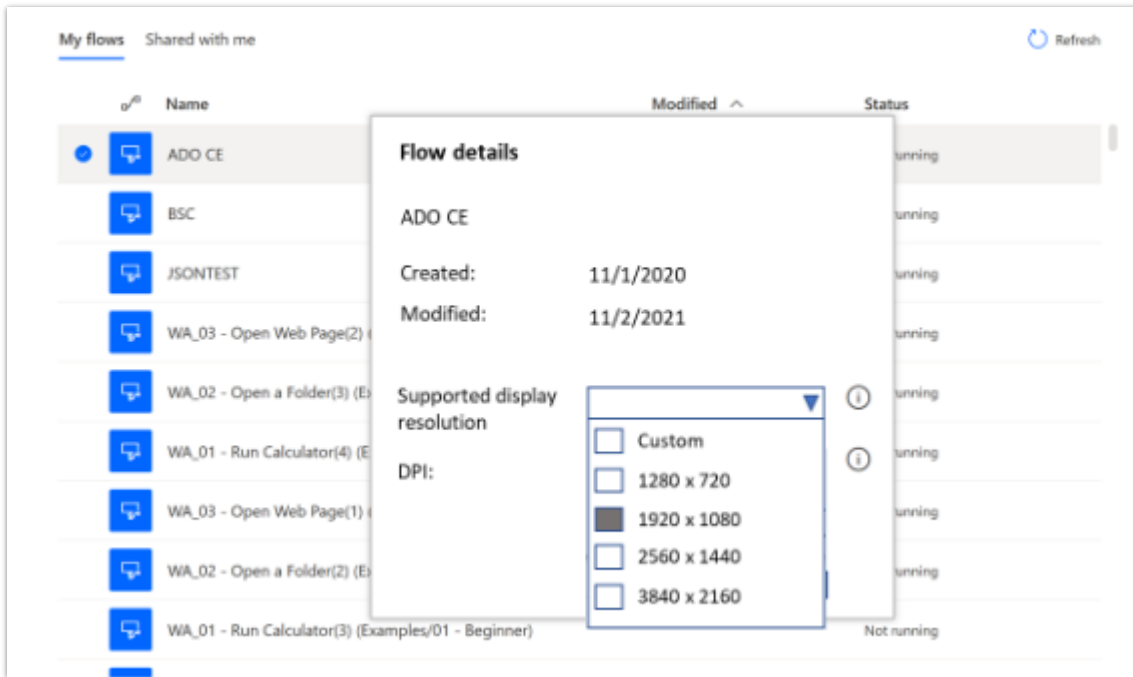
Some desktop flows can only run with a certain screen resolution. With this feature, customers can enforce a certain screen resolution to ensure their desktop flows won't fail because of a wrong screen resolution.

Feature details

Some desktop flows require a certain screen resolution to be able to run successfully. This feature allows users to define a static screen resolution to be enforced on all unattended flow runs.

From the flow details, flow makers can:

- Select between different screen resolutions
- Select between different scale settings (DPI)



Screenshot of options for desktop flows including setting resolution and DPI.

SharePoint connector in Power Automate for desktop

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	Sep 2022	-	-

Business value

The new SharePoint actions in Power Automate for desktop will increase the speed and ease of use of desktop automations.

Feature details

With the SharePoint connector in Power Automate for desktop, you can embed SharePoint cloud actions within desktop automations. Now, users can design and run desktop automations that loop over SharePoint lists and write into SAP as well as any other action from the SharePoint connector available in cloud flows.

Use credentials from Azure Key Vault in desktop flow connections

Enabled for	Public preview	Early access	General availability
Admins, makers, marketers, or analysts, automatically	Sep 2022	-	-

Business value

Users can leverage credentials from Azure Key Vault to connect to Windows sessions on desktop flow machines. This feature supports rotating passwords without the need to update the connection.

Feature details

With this feature, users can have their desktop flow automations run on Windows machines logged in with credentials from Azure Key Vault. The machine will retrieve the latest credentials at runtime. This enables automations to keep running successfully even when the password is changed by the administrator.

Power Virtual Agents

Plan and prepare for Power Virtual Agents in 2022 release wave 1

IMPORTANT The 2022 release wave 1 plan covers all new functionalities planned to be delivered to market from April 2022 to September 2022. In this article, you'll find the product overview and what's new and planned for **Power Virtual Agents**.

Overview

Power Virtual Agents enables anyone in your organization to create AI-powered bots that can chat with users about specific topics. Your bots can answer routine questions, resolve common issues, or automate tasks that take up valuable customer or employee time.

The 2022 release wave 1 brings improvements in the authoring experience with topic suggestions from bot sessions, Power Apps Portals integration, data loss prevention options, proactive bot update messaging in Microsoft Teams, and more.

Creating a bot is typically a complex and time-intensive process, requiring long content update cycles and a team of experts. Power Virtual Agents gives anyone in your organization the ability to create powerful custom bots using an easy, code-free graphical interface, without the need for AI experts, data scientists, or teams of developers. A bot can interact with users, ask for clarifying information, and answer a customer's questions.

With deep integration with Power Automate and the Microsoft Bot Framework, authors can extend their bots to integrate with API backends, which will enable the bots to handle additional topics, limited only by the author's imagination. You can deploy bots to many channels, including websites, Microsoft Teams, and Facebook.

As users interact with a bot, the author can see which topics are performing well and which need improvement.

TIP Download the release overview guide and share with your team as you plan to onboard the new capabilities included in this release wave.

[Download the overview guide \(PDF\)](#)

* Overview guide available in English version only

What's new and planned



What's new and planned

Service and runtime

Power Virtual Agents continues to ensure it meets strict compliance and governance needs. Power Virtual Agents will be available for US Government customers in the Government Community Cloud (High) environment, as well as in our Germany and United Arab Emirates regions.

Power Virtual Agents will make it easier to govern your Microsoft Teams-based environments costs by offering inactivity-based environment deletion, cleaning up those environments that are in disuse, allowing your organization to focus on only active projects.

Core authoring

Creating a bot with Power Virtual Agents is easy to do with the no-code authoring canvas, and there are several ways you can manage how topics interact, how you want the conversation to flow, and what it should feel like.

It's easy to test the bot without having to fully deploy the bot whenever you make a small change. There are also lesson topics that guide you through topic authoring from simple to complex scenarios as well as default system topics. You can choose what language you want your bot to use, too. Variables and entities make your bot more capable of understanding your users, and rich content makes your bot more relatable and easier to use.

Bot configuration

Bots can be configured to suit the individual needs of an organization and to provide further extensibility with other services and features. This includes authentication provider support, the use of Microsoft Bot Framework skills to augment the bot's capabilities, integration with Microsoft Teams, Facebook, and other channels, and more.

What's new and planned for Power Virtual Agents

This topic lists features that are planned to release from April 2022 through September 2022. Because this topic lists features that may not have released yet, **delivery timelines may**

change and projected functionality may not be released. For more information, go to [Microsoft policy](#).

In the **General availability** column, the feature will be delivered within the month listed. The delivery date can be any day within that month. Released features show the full date, including the date of release.

This check mark (✓) shows which features have been released for public preview or early access and for public preview, early access, and general availability.

Bot configuration

Configure bots to suit the individual needs of an organization and to provide further extensibility with other services and features.

Feature	Enabled for	Public preview	General availability
Use single sign-on with Dynamics 365 Customer Service	Users by admins, makers, or analysts	Apr 2022	-

Core authoring

Use the Power Virtual Agents conversational editor to construct your dialogs with rich content, variables, and powerful entity types.

Feature	Enabled for	Public preview	General availability
Start bot conversations with proactive triggers	Users by admins, makers, or analysts	Apr 2022	-
Use connectors within Power Virtual Agents or author custom connectors	Admins, makers, marketers, or analysts, automatically	Apr 2022	-
Notify Microsoft Teams users about updates to their queries	Admins, makers, marketers, or analysts, automatically	✓ Oct 29, 2021	Sep 2022

Service and runtime

Power Virtual Agents will be available for United States Government users in the Government Community Cloud (High) environment.

Feature	Enabled for	Public preview	General availability
Create bots in Germany and United Arab Emirates datacenters	Users, automatically	-	Sep 2022

Description of **Enabled for** column values:

- **Users, automatically:** These features include changes to the user experience and are enabled automatically.
- **Admins, makers, marketers, or analysts, automatically:** These features are meant to be used by administrators, makers, marketers, or business analysts and are enabled automatically.
- **Users by admins, makers, or analysts:** These features must be enabled or configured by the administrators, makers, or business analysts to be available for their users.

For a list of the countries or regions where Dynamics 365 business applications are available, go to the [International availability guide](#). For more information about geographic areas and datacenters (regions), go to the [Dynamics 365 and Microsoft Power Platform availability page](#).

Bot configuration

Overview

Bots can be configured to suit the individual needs of an organization and to provide further extensibility with other services and features. This includes authentication provider support, the use of Microsoft Bot Framework skills to augment the bot's capabilities, integration with Microsoft Teams, Facebook, and other channels, and more.

Use single sign-on with Dynamics 365 Customer Service

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Apr 2022	-

Business value

Improve your customers' experiences with your chatbots by removing the need for your customers to sign in multiple times.

Feature details

When using chat authentication settings in Dynamics 365 Customer Service, Power Virtual Agents chatbots will be aware of whether the bot user is signed in, and won't ask them to sign in multiple times.

Core authoring

Overview

Creating a bot with Power Virtual Agents is easy to do with the no-code authoring canvas, and there are several ways you can manage how topics interact, how you want the conversation to flow, and what it should feel like.

It's easy to test the bot without having to fully deploy the bot whenever you make a small change. There are also lesson topics that guide you through topic authoring from simple to complex scenarios as well as default system topics. You can choose what language you want your bot to use, too. Variables and entities make your bot more capable of understanding your users, and rich content makes your bot more relatable and easier to use.

Start bot conversations with proactive triggers

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Apr 2022	-

Business value

Proactive triggers help make your bots more relevant to your customers' actual needs, reducing their frustration, and deflecting support calls.

Feature details

Today, bot interactions require an explicit trigger phrase from your customers (for example, a bot user might ask, "How many vacation days do I have left?").

In this wave, we will add the ability for your customers to proactively trigger bot conversations with their full context, based on external trigger events (such as page navigation or button clicks).

Proactive triggers let you build engaging conversations with your customers that start the conversation with relevant information. For example, the bot might say, "You have 3 days left to pick your benefits. Can I help answer any questions?".

Use connectors within Power Virtual Agents or author custom connectors

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Apr 2022	-

Business value

Using connectors directly in a topic means bot authors can easily call data connectors without the need to create and manage a Power Automate flow, making their workflow quicker and more efficient. Custom Connectors can also be authored with C#, providing a powerful extensibility option that lets your developers connect bots to your other services, and therefore increasing the scope of how you can help your customers.

Feature details

Bot authors can use [Microsoft Power Platform connectors](#) directly within Power Virtual Agent topics instead of having to call a Power Automate flow. This allows bot authors to easily call existing Power Platform pre-built connectors without having to create or manage a flow, and with lower latency for each call.

For scenarios where existing pre-built connectors don't exist, [Custom connectors](#) can also be authored, enabling bot authors to create connectors around REST APIs or Azure Functions. C# code can also be authored and executed within Power Platform, providing full control over your system integration tasks and unlocking a range of extensibility scenarios previously only possible within Bot Framework and Azure.

Notify Microsoft Teams users about updates to their queries

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	✓ Oct 29, 2021	Sep 2022

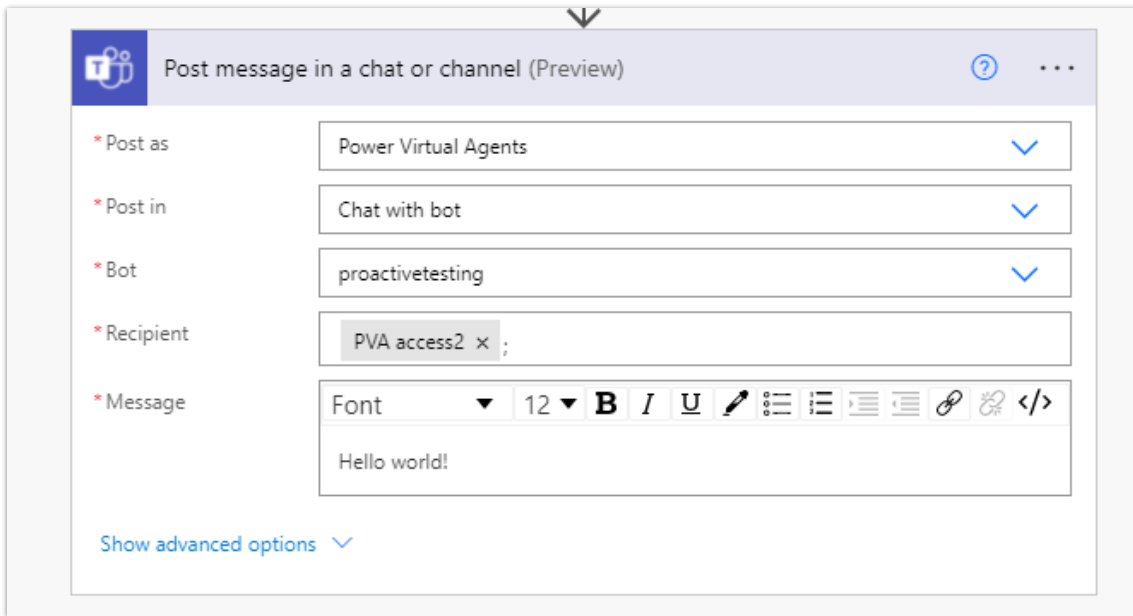
Business value

No more introvert bots. Let your bot reach users proactively. Notify them when a time-off request is approved or send reminders for daily health check-ins.

Feature details

We're adding the ability to send proactive messages from a bot to its users in a Teams chat by using a Power Automate workflow. For example, a bot user might ask the bot *Has my budget been approved?* to which the answer is *Not yet*.

Now, instead of the user having to ask the question again every day, you can create a Power Automate flow that notifies the user that the response to their question has changed, and what the new response is.



Post message action in Power Automate.

See also

[Send proactive messages and cards in Microsoft Teams](#) (docs)

Service and runtime

Overview

Power Virtual Agents continues to ensure it meets strict compliance and governance needs. Power Virtual Agents will be available for US Government customers in the Government Community Cloud (High) environment, as well as in our Germany and United Arab Emirates regions.

Power Virtual Agents will make it easier to govern your Microsoft Teams-based environments costs by offering inactivity-based environment deletion, cleaning up those environments that are in disuse, allowing your organization to focus on only active projects.

Create bots in Germany and United Arab Emirates datacenters

Enabled for	Public preview	General availability
Users, automatically	-	Sep 2022

Business value

Grow your business by creating bots in new locations that cater to that location's specific needs or scenarios.

Feature details

Power Virtual Agents can be [deployed into different Microsoft Azure datacenters \(also referred to as "regions"\)](#). You can create a bot in your tenant's location by default, or you can choose the datacenter you want to use when setting up your environment.

With this release, we're adding Germany and United Arab Emirates (UAE) to the list of datacenters that you can choose when creating an environment for your bot.

Microsoft Dataverse

Plan and prepare for Microsoft Dataverse in 2022 release wave 1

IMPORTANT The 2022 release wave 1 plan covers all new functionalities planned to be delivered to market from April 2022 to September 2022. In this article, you'll find the product overview and what's new and planned for **Microsoft Dataverse**.

Overview

Microsoft Dataverse is a low-code data platform that allows you to easily build scalable and interconnected applications, automations, and agents using common data, security, and business logic.

Deliver services with agility

Quickly add business value with an extensible data platform that uses out-of-the-box common tables, extended attributes, semantic meanings, and an open ecosystem enabled by Common Data Model.

Increase scale and efficiency

Boost productivity and reduce costs by quickly developing applications, processes, and reusable data schemes. Repeatably build, validate, and deploy your applications using GitHub and Azure DevOps.

Make your data work smarter

Get accurate insights by adding low-code AI tools to your process automation. Identify and resolve duplicated and conflicting data with a managed data platform that includes built-in business logic and rules.

Rely on the security of a trusted platform

Protect your data with a robust security management infrastructure that provides critical security and compliance capabilities—advanced encryption, rich access control, and deep integration with Azure Active Directory.



What's new and planned

Microsoft Dataverse data

Microsoft Dataverse is the data store for Microsoft business applications and Power Platform. Dataverse allows the storage of many types of data in customizable tables. Depending on your data needs, it's possible to store structured and unstructured data in one or many environments. Dataverse provides extensive security, filtering, and search capabilities within environment bounds. The Dataverse API and logic capabilities are used to build and maintain workflows for your application needs.

Microsoft Dataverse provides a cloud-based storage option for your data with these benefits:

- **Easy to manage:** Both the metadata and data are stored in the cloud in Dataverse logical tables.
- **Easy to secure:** Data is securely stored so that users can see it only when you grant them access. Role-based security allows you to control access to information within your organization.
- **Access your Dynamics 365 data:** Dynamics 365 applications data is stored within Dataverse, allowing you to quickly build apps that use your Dynamics 365 data and extend your apps with Power Apps, Power Automate, and more.
- **Logic and validation:** Define calculated columns, business rules, workflows, and business process flows to ensure data quality and drive business processes.
- **Productivity tools:** Seamlessly connect data with Dynamics 365, Microsoft 365, Azure, Visual Studio, Excel Power Query, and third-party services.

Bridge Microsoft Power Platform to Azure data

Our customers have asked for a single, end-to-end way to work with data in Microsoft Dataverse, from running AI and machine learning and integrating with external datasets to slicing and dicing large volumes of Microsoft Dataverse data. Now, instead of using multiple tools to get the job done, you can accelerate time-to-insight with a single comprehensive solution Azure Synapse Link for Dataverse that can help you deliver on these goals end-to-end; something that is built-in and available out-of-the-box.

Azure Synapse Link for Dataverse enables Dataverse integration with Azure Synapse Analytics. With a few clicks, you can bring your Microsoft Dataverse data to Azure Synapse Analytics, visualize data in your Azure Synapse workspace, and rapidly start processing the data to discover insights using advanced analytics capabilities for serverless data lake exploration, code-free data integration, data flows for extract, transform, load (ETL) pipelines, and optimized Apache Spark for big data analytics. Seamless integration of Dataverse with Azure Synapse Analytics empowers our customers to analyze data in the lake.

Enterprise customers are now able to use the familiarity of T-SQL to analyze big data and gain insights from it, while optimizing their data transformation pipeline to leverage the deep integration of Azure Synapse with other Azure services such as Power BI Embedded, Azure Cosmos DB, and Azure Machine Learning.

Microsoft Dataverse API

Microsoft Dataverse APIs are the "glue" that binds Microsoft Power Platform together.

- The data APIs provide capabilities to work with business data in your Microsoft Dataverse tables and perform specialized operations on that data.
- The Dataverse search API makes it possible to easily find relevant information that can span multiple tables.

Microsoft Power Platform depends on APIs exposed by Microsoft Dataverse. Canvas apps, model-driven apps, and Microsoft Power Automate depend on Dataverse APIs. ISVs and customers use our APIs to create integrations and custom applications.

What's new and planned for Microsoft Dataverse

This topic lists features that are planned to release from April 2022 through September 2022. Because this topic lists features that may not have released yet, **delivery timelines may change and projected functionality may not be released**. For more information, go to [Microsoft policy](#).

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Bridge Microsoft Power Platform to Azure data

Bring Dynamics 365 data stored in Microsoft Dataverse into Azure.

Feature	Enabled for	Public preview	General availability
Export Dataverse data in Delta Lake format	Admins, makers, marketers, or analysts, automatically	Jun 2022	Sep 2022

Microsoft Dataverse API

Web services provide APIs that apps use to interact with Microsoft Dataverse and are the glue that binds Microsoft Power Platform together.

Feature	Enabled for	Public preview	General availability
Instantly revoke users and enforce IP restriction with CAE	Users by admins, makers, or analysts	May 2022	Jul 2022

Microsoft Dataverse data

Microsoft Dataverse is the default data store for Microsoft Power Platform. It provides extensive security, filtering, and search within environment bounds.

Feature	Enabled for	Public preview	General availability
Dataverse results in Microsoft Search	Users by admins, makers, or analysts	-	May 2022
Improvements to dual-write UI	Users, automatically	-	May 2022
Scan, classify, and label Dataverse data	Users by admins, makers, or analysts	Sep 2022	To be announced

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Overview

Our customers have asked for a single, end-to-end way to work with data in Microsoft Dataverse, from running AI and machine learning and integrating with external datasets to slicing and dicing large volumes of Microsoft Dataverse data. Now, instead of using multiple tools to get the job done, you can accelerate time-to-insight with a single comprehensive solution Azure Synapse Link for Dataverse that can help you deliver on these goals end-to-end; something that is built-in and available out-of-the-box.

Azure Synapse Link for Dataverse enables Dataverse integration with Azure Synapse Analytics. With a few clicks, you can bring your Microsoft Dataverse data to Azure Synapse Analytics, visualize data in your Azure Synapse workspace, and rapidly start processing the data to discover insights using advanced analytics capabilities for serverless data lake exploration, code-free data integration, data flows for extract, transform, load (ETL) pipelines, and optimized Apache Spark for big data analytics. Seamless integration of Dataverse with Azure Synapse Analytics empowers our customers to analyze data in the lake.

Enterprise customers are now able to use the familiarity of T-SQL to analyze big data and gain insights from it, while optimizing their data transformation pipeline to leverage the deep integration of Azure Synapse with other Azure services such as Power BI Embedded, Azure Cosmos DB, and Azure Machine Learning.

Export Dataverse data in Delta Lake format

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Jun 2022	Sep 2022

Business value

This feature enables users to query and analyze Microsoft Dataverse data efficiently with Parquet.

Feature details

Delta Lake is an open source, widely used data format that is built off the Parquet data format. Parquet was designed for efficient storage and high performance, especially for large datasets. It utilizes columnar data storage as opposed to a row-based format like CSV and uses a specific compression technique for each column based on the data type. It is

immutable, meaning that historical data is readily accessible, and provides flexibility with a wide variety of supported encoding types.

Delta Lake provides all the benefits of Parquet format in addition to guaranteed ACID (atomicity, consistency, isolation, and durability) transactions and time travel (data versioning). The ability to "undo" a change or go back to a previous version is one of the key features of transactions. Delta Lake provides snapshots of data enabling you to revert to earlier versions of data for audits, rollbacks, or to reproduce experiments.

With Azure Synapse Link for Dataverse, you can now efficiently store and query your Dataverse data in Azure Synapse Analytics with the Delta Lake format. This helps citizen developers and data engineers alike quickly query and analyze their Dataverse data, especially for large datasets.

Microsoft Dataverse API

Overview

Microsoft Dataverse APIs are the "glue" that binds Microsoft Power Platform together.

- The data APIs provide capabilities to work with business data in your Microsoft Dataverse tables and perform specialized operations on that data.
- The Dataverse search API makes it possible to easily find relevant information that can span multiple tables.

Microsoft Power Platform depends on APIs exposed by Microsoft Dataverse. Canvas apps, model-driven apps, and Microsoft Power Automate depend on Dataverse APIs. ISVs and customers use our APIs to create integrations and custom applications.

Instantly revoke users and enforce IP restriction with CAE

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	May 2022	Jul 2022

Business value

Comply with Azure Active Directory (Azure AD) identity policy for user revocation and conditional access IP enforcement policy using Continuous Access Evaluation (CAE).

Feature details

Provides instant revocation of user in Microsoft Dataverse when an administrator revokes a user from Azure AD. Supports Conditional Access IP restriction policy to allow instant enforcement when IP address falls outside of approved IP ranges. In addition, this feature

provides resiliency to Azure AD outages where logged in users can continue to work in an event of an Azure AD outage.

Microsoft Dataverse data

Overview

Microsoft Dataverse is the data store for Microsoft business applications and Power Platform. Dataverse allows the storage of many types of data in customizable tables. Depending on your data needs, it's possible to store structured and unstructured data in one or many environments. Dataverse provides extensive security, filtering, and search capabilities within environment bounds. The Dataverse API and logic capabilities are used to build and maintain workflows for your application needs.

Microsoft Dataverse provides a cloud-based storage option for your data with these benefits:

- **Easy to manage:** Both the metadata and data are stored in the cloud in Dataverse logical tables.
- **Easy to secure:** Data is securely stored so that users can see it only when you grant them access. Role-based security allows you to control access to information within your organization.
- **Access your Dynamics 365 data:** Dynamics 365 applications data is stored within Dataverse, allowing you to quickly build apps that use your Dynamics 365 data and extend your apps with Power Apps, Power Automate, and more.
- **Logic and validation:** Define calculated columns, business rules, workflows, and business process flows to ensure data quality and drive business processes.
- **Productivity tools:** Seamlessly connect data with Dynamics 365, Microsoft 365, Azure, Visual Studio, Excel Power Query, and third-party services.

Dataverse results in Microsoft Search

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	-	May 2022

Business value

Users can see search results from Microsoft Dataverse in Microsoft 365 (Bing.com, Office.com, Sharepoint.com).

Feature details

Dynamics 365 federation with Microsoft Search provides a cohesive search experience with Dynamics 365 to intelligently help businesses search users as well as find, learn, operate, and navigate their customer and business relevant information.

Improvements to dual-write UI

Enabled for	Public preview	General availability
Users, automatically	-	May 2022

Business value

We've simplified the dual-write user interface (UI) by adding more information.

Feature details

In 2022 release wave 1, we'll address numerous dual-write UI issues. Some of these issues are:

- Improvements to mapping
- Improvements to error detection
- More detailed status information

Scan, classify, and label Dataverse data

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	Sep 2022	To be announced

Business value

This feature will comply with Microsoft information protection and data governance.

Feature details

This feature onboards administrators to Azure Purview. Purview provides Microsoft Dataverse administrators the capability to perform these tasks:

- Register the data
- Scan the data
- Auto classify the data
- Add a label
- Set the data protection policy

AI Builder

Plan and prepare for AI Builder in 2022 release wave 1

IMPORTANT The 2022 release wave 1 plan covers all new functionalities planned to be delivered to market from April 2022 to September 2022. In this article, you'll find the product overview and what's new and planned for **AI Builder**.

Overview

AI Builder will be investing in two main areas as part of this release:

- **Document automation:** The ability to process unstructured documents (for example, contracts and emails). By extracting insights from the semantic understanding of the text in unstructured documents, we'll be able to extract key information from documents, and process them automatically in an end-to-end flow using Power Automate.
- **Model ops:** Increased capabilities to effectively manage the governance and lifecycle of AI models. We'll focus on building a *feedback loop* process, which enables improvement of model accuracy by retraining models with data processed in production.



What's new and planned

Model ops

Model ops focuses on the governance and lifecycle management of AI Builder models. It orchestrates the model lifecycle across different environments in the enterprise. Model ops give users the necessary tools to evaluate model performance, test, improve, and deploy models according to governance rules.

Key themes for model ops include feedback loop for improving model performance, continuous retraining, automated deployment, co-authoring, and model monitoring.

We'll focus on enabling a feedback loop mechanism so that users can understand when their models are not performing as expected in production, and how to improve them. We'll also

support model versioning for increased deployment flexibility, build enhanced monitoring tools, and enable co-authoring of models (share for edit).

Content intelligence

Microsoft Power Platform is intelligent and capable of leveraging AI to read content for understanding and using it in your apps and flows. In 2022 release wave 1, we'll focus on document processing excellence and improving model operations. We'll also improve our unstructured document processing capabilities, giving users the ability to interpret text and extra key information from a wide variety of unstructured documents.

What's new and planned for AI Builder

This topic lists features that are planned to release from April 2022 through September 2022. Because this topic lists features that may not have released yet, **delivery timelines may change and projected functionality may not be released**. For more information, go to [Microsoft policy](#).

In the **General availability** column, the feature will be delivered within the month listed. The delivery date can be any day within that month. Released features show the full date, including the date of release.

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Content intelligence

Content intelligence features make it easy to use AI to read content for understanding in apps and flows.

Feature	Enabled for	Public preview	General availability
Support for unstructured documents	Admins, makers, marketers, or analysts, automatically	Apr 2022	-
Customize prebuilt models	Admins, makers, marketers, or analysts, automatically	Sep 2022	

Model ops

These features are related to the lifecycle and governance of AI Builder models.

Feature	Enabled for	Public preview	General availability
Feedback loop improves models by raising confidence scores in AI Builder	Admins, makers, marketers, or analysts, automatically	Apr 2022	
Model monitoring	Admins, makers, marketers, or analysts, automatically	Apr 2022	
Collaborative authoring of AI models	Admins, makers, marketers, or analysts, automatically	Jun 2022	
Models support versioning	Admins, makers, marketers, or analysts, automatically	Jun 2022	

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Overview

Microsoft Power Platform is intelligent and capable of leveraging AI to read content for understanding and using it in your apps and flows. In 2022 release wave 1, we'll focus on document processing excellence and improving model operations. We'll also improve our unstructured document processing capabilities, giving users the ability to interpret text and extra key information from a wide variety of unstructured documents.

Support for unstructured documents

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Apr 2022	-

Business value

Documents like contracts, statements of works, and letters are common in any business. With this update, you can now train an AI model to extract the data you need from these unstructured documents. This expands support beyond the structured and semi-structured documents—like invoices, tax forms, certificates, and many others—that were already supported in AI Builder.

Feature details

In AI Builder you can now create a custom document processing model to extract information on any type of document, structured or semi-structured (for example, invoices) or unstructured (for example, contracts). With support for unstructured documents, you can use this capability to extract entities like amounts, dates, names, and terms and conditions from legal covenants where each document is different.

You can then use custom models that you train in any automation process in flows in Power Automate or apps in Power Apps.

Customize prebuilt models

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Sep 2022	-

Business value

Instead of having to create a new custom AI model from scratch, users will be able to iterate on an existing pre-trained model to add specific fields that interest the business. This will speed up the training process for users. Instead of customizing, training, and maintaining an entirely new model, users will be able to add new fields to an existing model. Doing this will make it even easier for a maker to customize models to fit the needs of a unique business process.

Feature details

Makers will be able to customize a prebuilt model (for example, invoices, receipts) in AI Builder. These pre-trained models are already set up to detect and process typical fields that you would generally find in an invoice or receipt. If your business requires you to process specific fields that are not present in these pre-trained models, you'll be able to iteratively

add those fields to the pre-trained model. This way, you won't have to start an entirely new custom model from scratch. For makers, this will simplify the training process. This will make it easier to customize an AI Builder document processing model to a company's unique set of business requirements.

Model ops

Overview

Model ops focuses on the governance and lifecycle management of AI Builder models. It orchestrates the model lifecycle across different environments in the enterprise. Model ops give users the necessary tools to evaluate model performance, test, improve, and deploy models according to governance rules.

Key themes for model ops include feedback loop for improving model performance, continuous retraining, automated deployment, co-authoring, and model monitoring.

We'll focus on enabling a feedback loop mechanism so that users can understand when their models are not performing as expected in production, and how to improve them. We'll also support model versioning for increased deployment flexibility, build enhanced monitoring tools, and enable co-authoring of models (share for edit).

Feedback loop improves models by raising confidence scores in AI Builder

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Apr 2022	-

Business value

After AI Builder models are trained and deployed to production, it's possible that customers will use the model with new data sets that are not optimized for the model. With the feedback loop feature, documents that didn't yield sufficient confidence scores when analyzed by AI Builder will be flagged and sent back to the AI Builder training wizard queue for re-training. The maker will be able to view the set of documents that require re-training and update the model to take into account these new documents. This will ensure that AI Builder models maintain an optimal level of quality over time.

Feature details

The feedback loop feature is a key element of ensuring optimal quality of AI Builder document processing models over time.

When an AI Builder model is used to process a document and extract its information, the model may return a low probability score. The score is indicative of a possible failure in the

accuracy of the extracted content. This input will be sent to the maker in charge of the model, who will verify and correct the result if necessary.

Users will be able to view documents that were not processed correctly by AI Builder in their training wizard. They will be able to correctly re-tag the documents and update the AI Builder model to support similar documents moving forward. This will ensure that an optimal level of performance is maintained over time as makers will be notified when their AI Builder models are not performing adequately. This will allow them to take corrective action.

Model monitoring

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Apr 2022	-

Business value

Companies will be able to monitor usage and performance of models. This will facilitate adoption of AI Builder in production scenarios.

Feature details

Preconfigured monitoring reports will be available in order to track where AI Builder models are getting used, how often they are getting used, and at what performance level. This ensures greater tracking capabilities and allows AI Builder models to deploy easier in a production setting.

Collaborative authoring of AI models

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Jun 2022	-

Business value

The collaborative authoring feature will unlock new possibilities for teams of makers that want to bring AI Builder models to production in a quicker and more robust manner. By allowing makers to collaboratively edit models, teams will be able to train a broader set of documents quicker. This will allow the models to reach optimal performance when teams train their AI Builder model.

Feature details

Previously, makers could only make their AI models shareable to others for use, but not for editing. With the new collaborative authoring feature, makers will be able to share their models for editing, allowing multiple makers to collaborate on the training process of a

model. When models require complex training processes, or feedback loops to ensure optimal performance, teams of makers will be able to collaborate in order to get models to market quicker with optimal performance. This will also allow teams that have access to unique data sets to update and retrain models created by others in order to reach and maintain an optimal level of performance for the model.

Models support versioning

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Jun 2022	-

Business value

Supporting multiple versions of the same model will enable makers to compare the performance of different models for the same scenario. This will facilitate enterprise adoption for production processes that require fine-tuning models based on new data.

Feature details

Makers will be able to iterate on different versions for the same model. This will allow them to fine-tune model performance and control which version of the AI builder model they want to deploy to different environments. You will also be able to rollback the model state to a previous version to restore the state of the training data and republish the previous version.

Governance and administration

Plan and prepare for Microsoft Power Platform governance and administration in 2022 release wave 1

IMPORTANT The 2022 release wave 1 plan covers all new functionalities planned to be delivered to market from April 2022 to September 2022. In this article, you'll find the product overview and what's new and planned for **Microsoft Power Platform governance and administration**.

Overview

Microsoft Power Platform offers a range of governance and administration capabilities that span Power Apps, Power Automate, Power Virtual Agents, and Microsoft Dataverse. These capabilities are designed to help administrators and IT professionals set up, secure, manage, govern, and monitor the use and adoption of Microsoft Power Platform and its components across the enterprise. In addition to the Power Platform admin center, which is the unified user experience we aim to provide for Microsoft Power Platform administrators, a unified API surface and rich tooling like PowerShell cmdlets are also available to provide fully automatable management capabilities beyond the out-of-box portal experience.

What's new and planned for Microsoft Power Platform governance and administration

This topic lists features that are planned to release from April 2022 through September 2022. Because this topic lists features that may not have released yet, **delivery timelines may change and projected functionality may not be released**. For more information, go to [Microsoft policy](#).

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Feature	Enabled for	Public preview	General availability
Purchase Dynamics 365 and Power Platform ISV offers from AppSource	Admins, makers, marketers, or analysts, automatically	Apr 2022	Jul 2022

Description of **Enabled for** column values:

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Purchase Dynamics 365 and Power Platform ISV offers from AppSource

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Apr 2022	Jul 2022

Business value

Currently, customers can discover Dynamics 365 and Microsoft Power Platform independent software vendor (ISV) offers on AppSource but not purchase them. This new feature will allow customers to purchase these products from AppSource.

Feature details

This new feature allows customers to be able to purchase user-based licenses for ISV products from AppSource. The licenses they purchase will appear in the Microsoft 365 portal, where they can be assigned to users.

Pro development

Plan and prepare for Microsoft Power Platform pro development in 2022 release wave 1

IMPORTANT The 2022 release wave 1 plan covers all new functionalities planned to be delivered to market from April 2022 to September 2022. In this article, you'll find the product overview and what's new and planned for **Microsoft Power Platform pro development**.

Overview

Microsoft Power Platform offers a rich spectrum of extensibility points and tooling capabilities that give the professional developer a great experience. In 2022 release wave 1, we'll be investing in the pro-developer experience to ensure the citizen developer has an improved experience and to make sure the enterprise can fully leverage all available application development skills. The upcoming feature investments include deeper integration with Microsoft Azure plus Visual Studio Code and Visual Studio extensions like Microsoft Power Platform Build Tools.



What's new and planned

Fusion development

Microsoft Power Platform is for every developer. Rich tooling and extensibility options are available for the professional developer to ensure that there are never any cliffs. With fusion development, which is where code first and low code come together, Microsoft Power Platform, Azure, GitHub, and Visual Studio Code/Visual Studio offer endless possibilities to scale application development.

Microsoft Power Platform Build Tools and GitHub Actions are designed to allow the pro developer to set up fully automated CI/CD pipelines for Power Apps and Power Automate solutions. Microsoft Power Platform Build Tools and GitHub Actions will support working

with connection references and environment variable features, and we'll make GitHub Actions for Microsoft Power Platform generally available.

The Microsoft Power Platform CLI (command line interface) will become cross-platform compatible, and a Visual Studio Code extension will be made available and supported in GitHub Codespaces, which greatly simplifies the experience of installing and working with Microsoft Power Platform CLI.

Microsoft Power Platform connectors

Microsoft Power Platform provides connectivity to over 600 external data sources. The connector platform has two key objectives:

- Providing a platform that allows partners and customers to develop connectors efficiently.
- Providing a rich set of connectors for customers.

As part of platform investments, we provide a rich set of tools, samples, and documentation to help partners and customers build connectors. In this release, we invest in enabling seamless application lifecycle management for custom connectors and connections to ease the rollout of various solutions to different environments. We also invest in our certification processes and tools for connectors so partners can get their connectors certified and make them available on the platform. A key investment here is also geared towards leveraging the larger community through the Independent Publisher connector program.

Along with strengthening the ISV community's ability to create their own connectors, we plan to continue to invest in enterprise-grade data connectors like SQL Server, SAP, Oracle Database, and Outlook.

What's new and planned for Microsoft Power Platform pro development

This topic lists features that are planned to release from April 2022 through September 2022. Because this topic lists features that may not have released yet, **delivery timelines may change and projected functionality may not be released**. For more information, go to [Microsoft policy](#).

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Fusion development

Rich tooling is available for the professional developer to easily extend Microsoft Power Platform and provide for a true no-cliffs application development and automation experience.

Feature	Enabled for	Public preview	General availability
Provide the ability to create and update custom connectors using Power Platform CLI	Users, automatically	May 2022	Jun 2022
Application dependencies management	Users, automatically	May 2022	Jul 2022

Microsoft Power Platform connectors

The connector platform provides a rich set of connectors for customers, and lets partners and customers develop connectors efficiently.

Feature	Enabled for	Public preview	General availability
Azure Key Vault secrets can be used in custom connectors using environment variables	Admins, makers, marketers, or analysts, automatically	Apr 2022	
Service principal support for connectors	Users, automatically	Jun 2022	
Support for custom code in connectors	Admins, makers, marketers, or analysts, automatically	-	Apr 2022

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Fusion development

Overview

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Microsoft Power Platform Build Tools and GitHub Actions are designed to allow the pro developer to set up fully automated CI/CD pipelines for Power Apps and Power Automate solutions. Microsoft Power Platform Build Tools and GitHub Actions will support working with connection references and environment variable features, and we'll make GitHub Actions for Microsoft Power Platform generally available.

The Microsoft Power Platform CLI (command line interface) will become cross-platform compatible, and a Visual Studio Code extension will be made available and supported in GitHub Codespaces, which greatly simplifies the experience of installing and working with Microsoft Power Platform CLI.

Provide the ability to create and update custom connectors using Power Platform CLI

Enabled for	Public preview	General availability
Users, automatically	May 2022	Jun 2022

Business value

Organizations that want to leverage custom connectors as part of their broader application lifecycle management (ALM) strategy would now have simplified interfaces to create and update those connectors using the developer tooling available from Power Platform.

Feature details

Custom connectors are developed and implemented in a way that is not amenable to pro-code developers or enterprises that have implemented ALM control. Engaging the pro developer in environments they are comfortable with is an essential attribute for fusion development. This feature will allow developers to have the ability to create and update custom connectors using the following tools:

- Command line interface (CLI)
- Visual Studio Code
- GitHub Actions

- Azure DevOps tasks

Now, pro developers will be able to create, update, and remove custom connectors in their Power Platform environment using their favorite set of tools and support their organization's ALM controls.

Application dependencies management

Enabled for	Public preview	General availability
Users, automatically	May 2022	Jul 2022

Business value

The application dependency management feature provides app developers (publishers) the ability to declare, publish, and enable installation behavior for their applications inclusive of dependencies. This feature provides further automation of customer and partner CI/CD pipelines to enable not just the installation of a given application (by using a public API, Microsoft Power Platform CLI, or Azure DevOps actions) but also the discovery and install of application dependencies. Support for application dependencies ensures appropriate prerequisite applications are already available or installed in the environment before even attempting to install the target application. This improves the overall install success rates and environment readiness for developers thereby reducing friction and improving uptake of Microsoft Power Platform for pro developers.

Feature details

Application publishers have long wanted to define applications that need to be installed as prerequisites before their published application can be installed in a target environment. Currently, there is no way for a publisher to articulate these dependencies resulting in a less than desirable installation experience. While publishers do their best to document dependencies in public documents and/or training materials, not having a systematic ability to declare and capture these dependencies by enabling their discovery and automated installation is a big gap in the Microsoft Power Platform ALM story.

This feature supports the following capabilities:

- Developers are enabled to declare dependencies as part of app package creation. The dependencies declared in the app will be validated and registered during the publish process.
- Discovery of application dependencies is enabled as well as installation behavior of the app inclusive of the dependencies.
- Installation with dependencies will ensure dependencies are present ahead of attempting the install of the application for which install is being requested, thereby reducing the likelihood of failed installs because of missing dependencies.

Microsoft Power Platform connectors

Overview

Microsoft Power Platform provides connectivity to over 600 external data sources. The connector platform has two key objectives:

- Providing a platform that allows partners and customers to develop connectors efficiently.
- Providing a rich set of connectors for customers.

As part of platform investments, we provide a rich set of tools, samples, and documentation to help partners and customers build connectors. In this release, we invest in enabling seamless application lifecycle management for custom connectors and connections to ease the rollout of various solutions to different environments. We also invest in our certification processes and tools for connectors so partners can get their connectors certified and make them available on the platform. A key investment here is also geared towards leveraging the larger community through the Independent Publisher connector program.

Along with strengthening the ISV community's ability to create their own connectors, we plan to continue to invest in enterprise-grade data connectors like SQL Server, SAP, Oracle Database, and Outlook.

Azure Key Vault secrets can be used in custom connectors using environment variables

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Apr 2022	-

Business value

Managing secrets securely is a prerequisite for any enterprise. The ability to manage secrets in secure storage like Azure Key Vault simplifies secret management.

Feature details

With this feature, you can now manage your secrets in Key Vault and use those secrets securely in a custom connector. You can now create an environment variable that links to a Key Vault secret. Once done, the environment variable can be used in a custom connector. This provides a safe and secure way to manage secrets, and the secret value isn't leaked or returned to the client. You don't need to update the value explicitly.

This feature also improves the application lifecycle management of custom connectors since the reference secrets can be updated using the environment variables.

Service principal support for connectors

Enabled for	Public preview	General availability
Users, automatically	Jun 2022	-

Business value

Application/service principal support in connectors allow customers to access data sources securely.

Feature details

With this release, you can now access data sources secured by Azure Active Directory (Azure AD) using an application or service principal. Using a service principal to access data sources has many benefits. It improves the security of the application, since the application identity can be provided with the least permissions necessary to access the data sources. It also enables background automation to not require a user identity to be present.

Customers can opt into using the service principal as an option when creating the connection to the data sources. This feature is now supported for most of the connectors that connect to services secured by Azure AD. This includes SQL Server Database, Azure Blob Storage, and many others.

Support for custom code in connectors

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Apr 2022

Business value

This feature unblocks customers who are building custom connectors by providing custom code support.

Feature details

This feature enables connector developers to use custom logic to send external requests and enable complex transformations. When building a connector, developers often want to provide a friendly experience for low-code makers. This requires the use of custom logic for many scenarios. So far, this has been the biggest platform gap for developers.

With support for C# based scripts, you can use any custom logic in your connectors, lighting up many scenarios previously not possible. These scenarios include:

- Supporting the transformation of outgoing and incoming payloads.
- Providing utility actions.

- Making multiple API calls to provide better functionality.
- Providing a dynamic schema.
- Implementing logic for triggers.



ISV experiences

Plan and prepare for Microsoft Power Platform ISV experiences in 2022 release wave 1

IMPORTANT The 2022 release wave 1 plan covers all new functionalities planned to be delivered to market from April 2022 to September 2022. In this article, you'll find the product overview and what's new and planned for **Microsoft Power Platform ISV experiences**.

Overview

Microsoft Power Platform ISV experiences provide a way to empower ISVs with the necessary tools and features they need to build, monitor, and manage their applications before and after publishing to Microsoft AppSource. Using [ISV Studio](#), an ISV can seamlessly monitor the success of their published apps while getting the information they need to increase customer growth and satisfaction.



What's new and planned

ISV scale

In 2022 release wave 1, we're making true scale possible for ISVs building on Microsoft Power Platform. We'll introduce the ability for ISVs to automatically update applications to customers—no more emailing zip files or expensive service engagements for updates. We'll also further simplify the publishing process with an option to automatically submit updates to the partner center from a release pipeline and make it even simpler to generate packages ready for AppSource.

What's new and planned for Microsoft Power Platform ISV experiences

This topic lists features that are planned to release from April 2022 through September 2022. Because this topic lists features that may not have released yet, **delivery timelines may**

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ISV scale

ISV experiences is focusing on optimizing how ISVs building on Microsoft Power Platform can better scale.

Feature	Enabled for	Public preview	General availability
Publish applications at org, tenant, or global level	Admins, makers, marketers, or analysts, automatically	Jun 2022	Jul 2022

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to the partner center from a release pipeline and make it even simpler to generate packages ready for AppSource.

Publish applications at org, tenant, or global level

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Jun 2022	Jul 2022

Business value

App developers would like to publish apps so others in their tenant can easily acquire them. This capability is required as it is inherent in the Dynamics 365 Finance and Operations platform and required to on-board their use cases.

Feature details

Today, while customers can utilize the package deployer tool to deploy an app into a target environment, this action does not catalog the application in our cataloging and publishing infrastructure. Hence, no subsequent actions are enabled that enable this application to be fed directly into our publishing pipeline.

Developers cannot just publish the app to an environment or tenant context. They have to instantiate a blank offer in the Partner Center and add relevant details before publishing the application to AppSource. A fair bit of information they need to populate in the Partner Center is already present in the environment. It can be used as a starting point to seed the publish, reducing friction.

This is especially useful for use cases that involve publishing within the boundaries of a tenant and large enterprise customers who want to install different application instances across departments or geographies.

This capability increases the proliferation of Power Platform apps as developers can make their apps available to others to discover and install with the click of a button with appropriate administrative controls. We believe both enterprise customers and ISVs will derive value from this capability.

We hope to enable a set of experiences via the admin center or an API, enabling developers to upload apps, populate cataloging information, and enable their discovery in the appropriate context. We're likely to first enable the environment and tenant-level constructs as part of this feature.

Data integration

Plan and prepare for data integration in 2022 release wave 1

IMPORTANT The 2022 release wave 1 plan covers all new functionalities planned to be delivered to market from April 2022 to September 2022. In this article, you'll find the product overview and what's new and planned for **data integration**.

Overview

Data integration is foundational for the Microsoft Data Cloud, enabling data connectivity, transformation, and integration across hundreds of critical enterprise cloud and on-premises data sources. Power Query enables users of Power BI, Excel, Power Apps, Insights Apps, and other Microsoft products and services to ingest and transform data from hundreds of sources.

In this upcoming release wave, we'll deliver improvements in our big data performance and high scale connectivity to Azure Synapse, Microsoft Dataverse, Snowflake, Databricks, BigQuery, and Redshift. You can expect several enhancements across connectors, gateway, and VNet. New capabilities will simplify data prep using the visual authoring environment and diagram view to create high-scale dataflows to Microsoft Cloud, supporting Power BI, Insights Apps, and Power Platform. We'll also deliver extract, transform, and load scenarios using Synapse Link to Dataverse, CosmosDB, and SQL.



What's new and planned

Power Query connectors

The ability to connect to a wide range of different data sources is one of the core features of Power Query. In 2022 release wave 1, we're continuing to invest heavily in adding new data sources and expanding the reach of the existing sources into new applications, on the desktop and online.

Dataflows

Dataflows provide a low-code self-service data preparation experience using Power Query, including orchestration, automation, and monitoring capabilities that enable users across Microsoft Power Platform, Dynamics 365, and Azure to integrate data for downstream use by many other users and applications.

Power Query Online

Power Query continues to be the primary data connectivity and data preparation experience for users across a wide variety of Microsoft products and services. For 2022 release wave 1, we'll continue to expand the scope of data sources available in Power Query and continue to add new features that provide an enhanced data preparation experience for users.

Azure Virtual Network data gateways

This feature provides the ability for enterprises who subscribe to Azure Virtual Network connectivity for their data services to use Microsoft Power Platform seamlessly.

What's new and planned for data integration

This topic lists features that are planned to release from April 2022 through September 2022. Because this topic lists features that may not have released yet, **delivery timelines may change and projected functionality may not be released**. For more information, go to [Microsoft policy](#).

In the **General availability** column, the feature will be delivered within the month listed. The delivery date can be any day within that month. Released features show the full date, including the date of release.

This check mark (✓) shows which features have been released for public preview or early access and for public preview, early access, and general availability.

Azure Virtual Network data gateways

Azure Virtual Network connectivity for Microsoft Power Platform using VNet data gateways.

Feature	Enabled for	Public preview	General availability
VNet connectivity for Power BI and Microsoft Power Platform dataflows	Admins, makers, marketers, or analysts, automatically	-	Sep 2022

Dataflows

Dataflows give users a low-code self-service data preparation experience using Power Query and enable them to integrate data across Power Platform, Dynamics 365, and Azure.

Feature	Enabled for	Public preview	General availability
Connections page now lists dataflows used by connection	Users, automatically	Apr 2022	
Unified dataflows platform across Power Platform and Power BI	Admins, makers, marketers, or analysts, automatically	Sep 2022	

Power Query connectors

Power Query connectors provide out-of-the-box connectivity to hundreds of sources.

Feature	Enabled for	Public preview	General availability
Enhancements to the Azure Synapse Analytics connector	Admins, makers, marketers, or analysts, automatically	May 2022	
Azure HDInsight HDFS connector available in Power Query Online, dataflows	Admins, makers, marketers, or analysts, automatically	Sep 2022	-
Common Data Model folder view feature in Azure Data Lake Storage Gen 2 connector	Admins, makers, marketers, or analysts, automatically	Sep 2022	-
Dataverse support for native queries in Power Query Online and dataflows	Admins, makers, marketers, or analysts, automatically	Sep 2022	-
Hive LLAP connector available in Power Query Online and dataflows	Admins, makers, marketers, or analysts, automatically	Sep 2022	-
Snowflake support for native queries in Power Query Online and dataflows	Admins, makers, marketers, or analysts, automatically	Sep 2022	-
Support for native queries in import and DirectQuery mode in the Power Query SDK	Admins, makers, marketers, or analysts, automatically	Sep 2022	-
Azure Active Directory connector available in Power Query Online and dataflows	Admins, makers, marketers, or analysts, automatically	-	Sep 2022

Feature	Enabled for	Public preview	General availability
Certified connectors available in Power Query Online and dataflows	Admins, makers, marketers, or analysts, automatically	-	Sep 2022
Essbase connector available in Power Query Online and dataflows	Admins, makers, marketers, or analysts, automatically	-	Sep 2022
Hadoop Distributed File System (HDFS) connector available in Power Query Online and dataflows	Admins, makers, marketers, or analysts, automatically	-	Sep 2022
Informix connector available in Power Query Online and dataflows	Admins, makers, marketers, or analysts, automatically	-	Sep 2022
OLE DB connector available in Power Query Online and dataflows	Admins, makers, marketers, or analysts, automatically	-	Sep 2022
Support for custom connectors in Power Query Online through on-premises data gateway	Admins, makers, marketers, or analysts, automatically	-	Sep 2022
Support for system-level proxy in Power Query SDK	Users by admins, makers, or analysts	-	Sep 2022
Sybase connector available in Power Query Online and dataflows	Admins, makers, marketers, or analysts, automatically	-	Sep 2022
Vertica connector available in Power Query Online and dataflows	Admins, makers, marketers, or analysts, automatically	-	Sep 2022

Power Query Online

Power Query is the primary data connectivity and data preparation experience across Microsoft products and services.

Feature	Enabled for	Public preview	General availability
Improvements for connecting to files stored in SharePoint Online	Admins, makers, marketers, or analysts, automatically	May 2022	-

Feature	Enabled for	Public preview	General availability
Personal query gallery	Admins, makers, marketers, or analysts, automatically	May 2022	-

Description of **Enabled for** column values:

- **Users, automatically:** These features include changes to the user experience and are enabled automatically.
- **Admins, makers, marketers, or analysts, automatically:** These features are meant to be used by administrators, makers, marketers, or business analysts and are enabled automatically.
- **Users by admins, makers, or analysts:** These features must be enabled or configured by the administrators, makers, or business analysts to be available for their users.

For a list of the countries or regions where Dynamics 365 business applications are available, go to the [International availability guide](#). For more information about geographic areas and datacenters (regions), go to the [Dynamics 365 and Microsoft Power Platform availability page](#).

Azure Virtual Network data gateways

Overview

This feature provides the ability for enterprises who subscribe to Azure Virtual Network connectivity for their data services to use Microsoft Power Platform seamlessly.

VNet connectivity for Power BI and Microsoft Power Platform dataflows

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Sep 2022

Business value

This feature reduces the overhead of managing on-premises data gateways for virtual network (VNet) data sources.

Feature details

In 2022 release wave 1, we plan to make VNet connectivity for Power BI and Microsoft Power Platform dataflows to Azure data services, like Azure SQL, Synapse Analytics, and others, using VNet data gateways generally available.

VNet data gateways that are Microsoft managed eliminate the overhead of installing, updating, and monitoring on-premises data gateways for connecting to data sources associated with a VNet.

Dataflows

Overview

Dataflows provide a low-code self-service data preparation experience using Power Query, including orchestration, automation, and monitoring capabilities that enable users across Microsoft Power Platform, Dynamics 365, and Azure to integrate data for downstream use by many other users and applications.

Connections page now lists dataflows used by connection

Enabled for	Public preview	General availability
Users, automatically	Apr 2022	-

Business value

This feature provides visibility to users on where their data is used.

Feature details

The detail page of a connection now lists all the dataflows that use the connection. This provides visibility into which artifacts depend on the connector, and where the data flows. In addition, if you try to delete the connection, you're shown a warning if there are dependent dataflows.

Unified dataflows platform across Power Platform and Power BI

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Sep 2022	-

Business value

Today, dataflows are featured in multiple Microsoft products with slight experience and feature variance that in the coming wave we plan to converge into a singular dataflows experience. This convergence provides users with a consistent experience for dataflows that customers can easily work across. It enables us to service and deliver continued improvements on the dataflows experiences across all products they are featured in.

Feature details

Microsoft Power Platform and Power BI dataflows will soon share a similar and unified experience that will enable an accelerated rate of new feature delivery.

In addition to improved reliability, a unified platform benefits Power BI dataflow customers in the following ways:

- The autosave dataflow draft feature automatically saves any edits to dataflows. It also lets you pause an editing session at any moment and then resume later.
- Background query validation addresses top customer feedback to allow publishing a dataflow instantaneously, without waiting for the potentially lengthy validation process to complete. If any validation errors are encountered, they're reported through the dataflow experience.
- An improved dataflow debugging experience improves ease and speed of investigating any dataflow authoring and refresh errors by offering an in-portal experience and improved human-readable, actionable error messages.
- Support for loading dataflow output to new destinations, such as Azure Synapse, Azure SQL, OneDrive, and more.
- Support for loading data in data sources behind VNets.

Power Query connectors

Overview

The ability to connect to a wide range of different data sources is one of the core features of Power Query. In 2022 release wave 1, we're continuing to invest heavily in adding new data sources and expanding the reach of the existing sources into new applications, on the desktop and online.

Enhancements to the Azure Synapse Analytics connector

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	May 2022	-

Business value

We've made using the Azure Synapse Analytics connector in Power Query Online a simpler, friendlier experience.

Feature details

We're planning to improve the Azure Synapse Analytics connector with smart defaults based on Synapse metadata and semantics. This improvement makes it easier for you to select the data to perform downstream analytics.

Azure HDInsight HDFS connector available in Power Query Online, dataflows

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Sep 2022	-

Business value

Customers can connect to and load their business data from Azure HDInsight Hadoop Distributed File System (HDFS) for use in Power Query Online and dataflows.

Feature details

It's important to have similar experiences and functionalities in every Power Query instance. With this feature, you'll be able to use the HDFS connector in Power Query Online and dataflows, along with its availability in Power Query Desktop today.

Common Data Model folder view feature in Azure Data Lake Storage Gen 2 connector

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Sep 2022	-

Business value

You'll be able to use the Common Data Model folder view feature in the Azure Data Lake Storage Gen 2 connector as a generally available feature.

Feature details

The Common Data Model folder view feature in the Azure Data Lake Storage Gen 2 connector will be generally available for users. As a generally available feature, user support will be provided at a generally available level.

Dataverse support for native queries in Power Query Online and dataflows

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Sep 2022	-

Business value

Users will be able to use native queries to access their Microsoft Dataverse data.

Feature details

You can use native queries to access your Dataverse data in the Power Query Online and dataflows experiences, leveraging another query option for various business scenarios. More information on native queries can be found in [Import data from a database using native database query](#).

Hive LLAP connector available in Power Query Online and dataflows

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Sep 2022	-

Business value

Customers can connect to and load their business data from Hive LLAP for use in Power Query Online and dataflows.

Feature details

It's important to have similar experiences and functionalities in every Power Query instance. With this feature, you'll be able to use the Hive LLAP connector in Power Query Online and dataflows, along with its availability in Power Query Desktop today.

Snowflake support for native queries in Power Query Online and dataflows

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Sep 2022	-

Business value

Use native queries to access your data in Snowflake in Power Query Online and dataflows experiences, leveraging yet another query option for various business scenarios.

Feature details

You can use native queries to query your Snowflake data in Power Query Online and dataflows experiences. More information about native queries can be found in [Import data from a database using native database query](#).

Support for native queries in import and DirectQuery mode in the Power Query SDK

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	Sep 2022	-

Business value

Connector developers will be able to implement native query support for their connectors in both import and DirectQuery modes using the Power Query SDK. This will allow users to query their data using this functionality in Power Query experiences.

Feature details

A common user ask is the ability to use native queries (custom SQL) in various connectors on our platform. This feature empowers custom and certified connector developers to implement native query support in their connectors for users to leverage.

Azure Active Directory connector available in Power Query Online and dataflows

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Sep 2022

Business value

With the release of this connector in Power Query and dataflows, you can connect to and load your business data from Azure Active Directory.

Feature details

It's important to have similar experiences and functionalities in every Power Query instance. With this feature, you can now use the Azure Active Directory connector in Power Query Online and dataflows, along with its availability in Power Query Desktop today.

Certified connectors available in Power Query Online and dataflows

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Sep 2022

Business value

Certifying a custom connector will make it available by default in Power Query Online and dataflows in addition to Power BI Desktop.

Feature details

It's important to have similar experiences and functionalities across different Power Query experiences. With this feature, certified connectors will be available by default in Power Query Online and dataflows in addition to Power BI Desktop.

Essbase connector available in Power Query Online and dataflows

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Sep 2022

Business value

With the release of this connector in Power Query and dataflows, you can connect to and load your business data from Essbase.

Feature details

It's important to have similar experiences and functionalities across different Power Query experiences. With this feature, you can now use the Essbase connector in Power Query Online and dataflows, along with its availability in Power Query Desktop today.

Hadoop Distributed File System (HDFS) connector available in Power Query Online and dataflows

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Sep 2022

Business value

With the release of this connector in Power Query and dataflows, you can connect to and load your business data from Hadoop Distributed File Systems (HDFS).

Feature details

It's important to have similar experiences and functionalities across different Power Query experiences. With this feature, you can now use the HDFS connector in Power Query Online and dataflows, along with its availability in Power Query Desktop today.

Informix connector available in Power Query Online and dataflows

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Sep 2022

Business value

With the release of this connector in Power Query and dataflows, you can connect to and load your business data from Informix.

Feature details

It's important to have similar experiences and functionalities across different Power Query experiences. With this feature, you can now use the Informix connector in Power Query Online and dataflows, along with its availability in Power Query Desktop today.

OLE DB connector available in Power Query Online and dataflows

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Sep 2022

Business value

With the release of this connector in Power Query and dataflows, you can connect to and load your business data from OLE DB.

Feature details

It's important to have similar experiences and functionalities across different Power Query experiences. With this feature, you can now use the OLE DB connector in Power Query Online and dataflows, along with its availability in Power Query Desktop today.

Support for custom connectors in Power Query Online through on-premises data gateway

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Sep 2022

Business value

You'll be able to use your custom connectors in Power Query Online and dataflows experiences through the use of an on-premises data gateway.

Feature details

We're adding support for custom connectors in Power Query Online and dataflows through the use of an on-premises data gateway. This lets you validate and use your custom Power Query connector in Power Query Online and dataflows before certification.

Support for system-level proxy in Power Query SDK

Enabled for	Public preview	General availability
Users by admins, makers, or analysts	-	Sep 2022

Business value

Connector developers can implement system-level proxy support for their connectors using the Power Query SDK. This support will enable users to use internal proxy servers to connect to their data in Power Query experiences.

Feature details

A common user need today is to be able to use an internal proxy server to connect to various connectors on our platform. This feature empowers custom and certified connector developers to implement system-level proxy support in their connectors for users to leverage.

Sybase connector available in Power Query Online and dataflows

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Sep 2022

Business value

With the release of this connector in Power Query Online and dataflows, you can connect to and load your business data from Sybase.

Feature details

It's important to have similar experiences and functionalities across different Power Query experiences. With this feature, you can now use the Sybase connector in Power Query Online and dataflows, along with its availability in Power Query Desktop today.

Vertica connector available in Power Query Online and dataflows

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	-	Sep 2022

Business value

With the release of this connector in Power Query and dataflows, you can connect to and load your business data from Vertica.

Feature details

It's important to have similar experiences and functionalities across different Power Query experiences. With this feature, you can now use the Vertica connector in Power Query Online and dataflows, along with its availability in Power Query Desktop today.

Power Query Online

Overview

Power Query continues to be the primary data connectivity and data preparation experience for users across a wide variety of Microsoft products and services. For 2022 release wave 1, we'll continue to expand the scope of data sources available in Power Query and continue to add new features that provide an enhanced data preparation experience for users.

Improvements for connecting to files stored in SharePoint Online

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	May 2022	-

Business value

This feature enables users to browser SharePoint libraries and files directly in Power Query, which will increase customer satisfaction.

Feature details

Currently, when getting data from a file stored in SharePoint, you need to go through non-trivial steps to find the correct URL to use. In 2022 release wave 1, we're simplifying that process so, you'll have a way directly in Power Query to browse your SharePoint libraries and the files in them.

Personal query gallery

Enabled for	Public preview	General availability
Admins, makers, marketers, or analysts, automatically	May 2022	-

Business value

This feature will increase satisfaction by giving users the ability to personalize their Power Query experience by allowing them to curate their own gallery.

Feature details

You'll have the ability to tailor your Power Query experience by curating your own *query* gallery so you can easily reuse queries at a later time. This gallery makes reusing queries easier than ever directly within Power Query instead of needing to copy and paste from other sources or manage.

You'll have the ability to add, edit, and remove queries from the gallery.

Got feedback?

Share your feedback on a community forum for [Dynamics 365](#) or [Power Platform](#). We'll use your feedback to make improvements. To find out about updates to these release notes, follow us on Twitter [@MSFTDynamics365](#).

