

Choose a content distribution method

1. Introduction

<https://learn.microsoft.com/en-us/training/modules/choose-content-distribution-method/1-introduction>

Introduction

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Power BI provides powerful tools to share and distribute insights across your organization, ensuring the right people have access to the right data at the right time.

Imagine you're a business analyst responsible for delivering actionable insights to various teams in your organization. You've created a set of reports and dashboards that are critical for decision-making, but you're unsure of the best way to share them securely and effectively. Should you use workspace roles, item-level sharing, or Power BI Apps? How do you ensure your content adheres to governance policies while tracking its usage and performance?

In this module, you'll explore the different sharing models available in Power BI, including workspace roles, item-level sharing, and Power BI Apps. You'll learn how to create, update, and manage Power BI Apps, configure audiences, and apply data governance principles such as endorsing content and applying sensitivity labels. Additionally, you'll discover how to track reports and dashboards by subscribing to them, and monitoring usage metrics.

By the end of this module, you'll be able to confidently choose the right content distribution method in Power BI, ensuring secure, effective, and governed sharing of insights across your organization.

2. Understand sharing models

<https://learn.microsoft.com/en-us/training/modules/choose-content-distribution-method/2-understand-sharing-models>

Understand sharing models

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Data analysts often need to share Power BI content with different audiences while maintaining control over access and permissions.

In this unit, you'll explore how sharing in Power BI Service can help you manage access to reports, dashboards, and semantic models effectively. For example, a retail company might use workspace roles to collaborate internally, share specific reports with external partners through item-level sharing, and distribute curated content to a broader audience in the company using Power BI Apps.

Workspace roles

Power BI Service provides four distinct workspace roles: Viewer, Contributor, Member, and Admin. These roles determine the level of access and permissions a user has within a workspace. It's important to note that workspace roles operate on an all-or-nothing basis, meaning that users with access to a workspace can view or interact with all the reports, dashboards, and semantic models within it. You cannot selectively exclude specific items from being shared when using this approach.

Viewer

The Viewer role is the most restrictive role in a workspace. Users with this role can only view and interact with the content, such as reports and dashboards, but cannot make any changes. This role is ideal for stakeholders who need to consume data without modifying it.

This is also the only role where Row-Level Security (RLS) will be enforced. RLS ensures that users can only view the data they are authorized to see, based on the security rules defined in the dataset. This makes the Viewer role particularly useful for scenarios where sensitive or restricted data needs to be shared securely.

Contributor

The Contributor role allows users to create, edit, and delete content within the workspace, such as reports and semantic models. However, Contributors cannot manage workspace settings or assign roles to others. This role is suitable for team members who actively develop and maintain Power BI content.

Member

The Member role provides all the permissions of a Contributor, with the added ability to manage workspace settings and assign roles to others. Members can also publish apps from the workspace, making this role ideal for team leads or power users who need more control over the workspace.

Admin

The Admin role grants full control over the workspace. Admins can perform all actions, including managing permissions, deleting the workspace, and assigning roles. This role is typically reserved for

workspace owners or IT administrators who oversee the workspace's overall management.

Workspace roles can be assigned to individuals, security groups, Microsoft 365 groups, and distribution lists, making it easy to manage access for large teams or organizations.

Item level sharing

Item-level sharing in Power BI Service provides a more granular approach to sharing content compared to workspace roles. While workspace roles grant access to all items within a workspace, item-level sharing allows you to share specific reports or dashboards with selected individuals or groups. This method is particularly useful when you want to maintain tighter control over who can access sensitive or restricted content.

When you share a report or dashboard, recipients can view and interact with the content but cannot edit it. Additionally, they gain access to the underlying semantic model unless Row-Level Security (RLS) is applied. RLS ensures that users only see the data they are authorized to view, adding an extra layer of security for sensitive datasets.

Item-level sharing also offers flexibility in how you share content. You can share via links or directly grant access to specific individuals or groups. Sharing links can be configured to allow access to "People in your organization," "People with existing access," or "Specific people." Each option provides varying levels of control, enabling you to tailor access based on your organization's needs.

One of the key advantages of item-level sharing is that it overcomes the "all-or-nothing" limitation of workspace roles. For example, you can share a single report with external partners without exposing other workspace content. However, it's important to manage permissions carefully to ensure that only authorized users can access the shared content.

Power BI Apps

Power BI Apps provide a streamlined way to share collections of dashboards, reports, and other content with a larger audience without requiring them to be part of your workspace or sharing individual items separately. This approach is particularly useful for organizations that need to distribute curated content to specific groups or even the entire organization while maintaining control over access and updates.

One of the key advantages of Power BI Apps is the ability to package multiple pieces of content into a single, cohesive experience. This eliminates the need to manage permissions for individual items, simplifying the process for both content creators and consumers. Users can access the app through a direct link, the Apps marketplace or AppSource, or even have it automatically installed in their Power BI accounts if configured by an admin. This flexibility ensures that the right content reaches the right audience efficiently.

Another significant benefit of using Power BI Apps is the control it provides when updating content. The workspace acts as a staging area where changes can be made and tested without immediately affecting the published app. Once the updates are ready, the app can be republished, ensuring that

users only see the finalized version. This capability is invaluable for maintaining consistency and avoiding disruptions, especially in scenarios where reports and dashboards are frequently updated.

It's important to note that each workspace can only have one app, and the content included in the app must originate from that workspace. This limitation ensures that the app remains tightly coupled with its source workspace, simplifying management and ensuring consistency across shared content.

3. Create a Power BI app

<https://learn.microsoft.com/en-us/training/modules/choose-content-distribution-method/3-create-power-bi-app>

Create a Power BI app

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Organizations often rely on Power BI apps to distribute insights securely and efficiently to various teams. Imagine you're part of a team responsible for delivering data insights to both the sales and marketing departments. Each department requires access to specific dashboards and reports relevant to their goals. By mastering app management and audience customization, you'll ensure that every team gets the right data while maintaining control over access and visibility.

Here, you'll explore the steps to create and publish Power BI apps, update or delete existing apps, and configure multiple audiences to streamline content distribution.

Create, update, delete

To create, update, or unpublish a Power BI app, follow these steps:

Create a Power BI App

1. **Set up the app:** In the workspace, select **Create app**. Provide a name, description, and optional theme color. Add a support site link and contact information if needed.
2. **Add content:** On the Content tab, select **Add content** to include dashboards, reports, or other items from the workspace. Arrange the content in the desired order.
3. **Publish the app:** Once the setup and content are finalized, click **Publish app**. A shareable link will be generated for distribution.

Update a Power BI App

1. **Open the workspace:** Navigate to the workspace associated with the app. Select the **Edit app** pencil icon.

2. **Make changes:** Modify the app's content, setup, or other settings as needed. Changes remain in the workspace until republished.
3. **Republish the app:** Select **Update app** to apply the changes. Users with access will automatically see the updated version.

Unpublish a Power BI App

- **Unpublish the app:** In the workspace, select **More options (...)** > **Unpublish app**.

Note

Impact of unpublishing: This action removes the app from all users and deletes their customizations, such as bookmarks and comments. The workspace and its contents remain intact.

Audiences

Audiences in Power BI apps allow you to tailor the content visibility and access for different groups of users within your organization. This feature is particularly useful when you need to distribute specific dashboards, reports, or other content to distinct teams or departments while maintaining centralized control over permissions and visibility.

What is an Audience in Power BI Apps?

An audience in Power BI apps is a defined group of users who have access to a specific subset of content within an app. By creating multiple audiences, you can customize which content is visible to each group, ensuring that users only see the data relevant to their roles or responsibilities. For example, you might create separate audiences for sales, marketing, and finance teams, each with access to different reports and dashboards.

Why Use Audiences?

Using audiences simplifies content management and enhances security. Instead of creating multiple apps or workspaces for different teams, you can manage all content within a single app and control visibility at the audience level.

How to Use Audiences

To set up audiences in a Power BI app:

1. **Create an Audience Group:** On the Audience tab during app creation or editing, select **New Audience** and name the group.
2. **Customize Content Visibility:** Use the hide/show icons next to each item in the workspace to determine what content is visible to the audience. Hidden content won't appear in the app for that audience unless explicitly allowed via advanced settings.

3. **Assign Users or Groups:** In the Manage audience access pane, specify the users or groups who should belong to the audience. You can also configure advanced permissions, such as allowing users to share or build content with semantic models.
4. **Publish the App:** Once the audiences and their content visibility are configured, publish the app. Users will see only the content assigned to their respective audience groups.

Note

To create or update an app, you need a Power BI Pro or Premium Per User (PPU) license. For app users:

- If the workspace for this app is not in a Power BI Premium capacity, all users need Power BI Pro or PPU licenses to view the app.
- If the workspace is in a Power BI Premium capacity (F64 or higher Fabric capacity), users without Pro or PPU licenses can view the app content, but they cannot copy reports or create reports based on the underlying semantic models.

4. Apply data governance principles

<https://learn.microsoft.com/en-us/training/modules/choose-content-distribution-method/4-apply-data-governance-principles>

Apply data governance principles

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Ensuring the quality and security of your organization's data is critical. Power BI provides tools to help you manage and protect your content effectively. Let's explore two essential practices for maintaining trustworthy and secure Power BI content. The first one is about endorsing your content, which helps users identify high-quality data. The second practice involves applying sensitivity labels to protect sensitive information.

Endorse your content

Endorsing your Power BI content is a crucial step in ensuring that users can easily identify and trust high-quality, authoritative data. Power BI provides two types of endorsements: promotion and certification. These endorsements help users navigate through large volumes of content and locate reliable resources for their needs.

Promotion allows content owners or members with write permissions in a workspace to highlight content they believe is valuable and ready for broader use. This collaborative approach encourages the sharing of useful data across the organization. Promoted content is marked with a badge, making it easily recognizable in lists and searches.

Certification, on the other hand, signifies that the content meets the organization's quality standards and is deemed authoritative. Only authorized reviewers, as defined by the Power BI administrator, can certify content. Certification ensures that users can rely on the content for critical decision-making. Certified content is also labeled with a distinct badge and is prioritized in searches.

By endorsing content, whether through promotion or certification, organizations can foster trust and improve the discoverability of valuable Power BI resources. Badges are visible in Power BI Desktop when creating a new report and searching for existing semantic models. This visibility ensures that report creators can easily identify and select high-quality, endorsed datasets, streamlining the report-building process and promoting the use of trusted data sources.

Apply a sensitivity label

Applying sensitivity labels in Power BI is a key step in ensuring that sensitive data is appropriately classified and protected throughout its lifecycle. Sensitivity labels, powered by Microsoft Purview Information Protection, allow users to tag content with labels such as "Confidential" or "Highly Confidential," which help enforce data protection policies without hindering collaboration or productivity.

To apply a sensitivity label in the Power BI service, navigate to the desired report, dashboard, semantic model, or dataflow. Use the "More options" menu to access the settings, where you can select the appropriate sensitivity label from the dropdown list under the "Sensitivity label" section. Once applied, the label is visible in the workspace and persists when the content is exported to supported formats like Excel, PowerPoint, or PDF. This ensures that the protection settings associated with the label travel with the data, safeguarding it even outside Power BI.

In Power BI Desktop, sensitivity labels can be applied directly to .pbix files. Simply select the "Sensitivity" option from the toolbar and choose the appropriate label. The label is then displayed in the status bar and is applied to the file when saved. If the file is later published to the Power BI service, the label is inherited by the associated report and semantic model. Conversely, when downloading a labeled file from the service, the most restrictive label between the report and semantic model is applied to the .pbix file.

By applying sensitivity labels, organizations can ensure that their data remains secure and compliant with internal and external regulations, while also providing clear guidance to users on how to handle sensitive content.

5. Track report or dashboard usage

Track report or dashboard usage

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Organizations often need to distribute reports and dashboards effectively to ensure that critical insights reach the right audience at the right time. For example, a retail company might use subscriptions to send sales performance dashboards to store managers daily, while also monitoring usage metrics to identify which reports are most valuable to their teams.

Subscribe to a report or dashboard

Subscribing to a report or dashboard in Power BI allows users to stay informed about critical data and insights without needing to manually check for updates. By setting up subscriptions, users can receive regular email updates containing snapshots or attachments of reports or dashboards, ensuring they remain up-to-date with the latest information.

The subscription process is straightforward and highly customizable. In Power BI service, navigate to the report or dashboard and select the Subscribe option from the menu bar. Users can define the frequency of updates, such as hourly, daily, weekly, or monthly, and specify the time of delivery. Additionally, subscriptions can include a preview image, a link to the report or dashboard, and even attachments in formats like PDF or PowerPoint for reports hosted in Premium capacity workspaces. This flexibility ensures that users receive the information in a format and schedule that best suits their needs.

Track usage metrics and performance

Monitoring and tracking usage metrics and performance in Power BI is essential for understanding how your reports and dashboards are being utilized across your organization. By analyzing usage data, you can identify which reports are driving the most engagement and which may require updates or additional promotion. This insight allows you to prioritize your efforts and focus on creating content that delivers the most value.

Usage metrics reports provide detailed information about report views, unique viewers, and performance trends. For example, you can track how often a report is accessed, the number of unique users interacting with it, and the typical time it takes to load. These metrics help you identify high-performing reports and pinpoint potential bottlenecks or areas for improvement. Additionally, slicing the data by distribution method or platform can reveal how users are accessing your content, whether through the Power BI service, mobile devices, or embedded applications.

Performance metrics are equally important, as they highlight the user experience when interacting with your reports. By analyzing opening times and performance trends, you can detect issues such as

slow load times or browser-specific challenges. Addressing these issues ensures a smoother experience for your users, which can lead to increased adoption and satisfaction.

6. Check your knowledge

<https://learn.microsoft.com/en-us/training/modules/choose-content-distribution-method/6-knowledge-check>

Check your knowledge

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7. Summary

<https://learn.microsoft.com/en-us/training/modules/choose-content-distribution-method/7-summary>

Summary

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In this module, we tackled the complexities of securely and effectively sharing Power BI content within an organization. Business analysts often struggle to balance accessibility with governance, ensuring insights reach the right audience without compromising security. By exploring workspace roles, item-level sharing, and Power BI Apps, we provided actionable solutions to these challenges. We also delved into data governance practices, such as endorsing content and applying sensitivity labels, to foster trust and safeguard sensitive information.

Learn more

For more information about the topics discussed in this module, see:

- [Roles in workspaces in Power BI](#)
- [Apps in Power BI](#)
- [Endorsement - Promoting and certifying Power BI content](#)
- [Monitor usage metrics in the workspaces](#)
- [Email subscriptions for reports and dashboards in the Power BI service](#)