Please see our updated FAQ in the Power BI Knowledge Base [here](#).

POWER BI FAQ

Frequently asked questions about Power BI

TRAINING

Where can I get Power BI training?

The City has purchased a Udemy course on Power BI, available to all City staff. This is a tool-focused course aimed at staff completely new to Power BI. It includes 7 hours of on-demand video and practical activities using sample training data. Access to this course will never expire, and you can share it with colleagues as needed. You can find the course [here](), using the username `analyticsteam@boston.gov` and password `p0werbi2o23`.

The Analytics team hosted two peer-led learning cohorts that followed this course curriculum from September 19 to December 20, 2023. If you want to follow the pacing and activities (as well as access additional Power BI resources), you can follow the Wednesday cohort's learning sessions document [here]().

Will there be additional Power BI learning cohorts offered?

There are no additional Power BI learning cohorts scheduled at this time. However, the Analytics team is welcoming a Senior Data Product Manager, as well as a Power BI Implementation Lead, in January 2024. These roles will be tasked with identifying user pain points and long-term training options.

LICENSING

I need access to Power BI! How do I get that?

The full version of Power BI Desktop is available for download, with no license required, on the Company Portal application or via direct download from [Microsoft](). Feel free to experiment with the tool with or without a license! You can find full instructions on downloading Power BI [here]().

You only require a license for Power BI if you need to publish your dashboards on the [Power BI online service](). If you need a license, here's [how to request one](). If you'd like to view, not publish, dashboards on the Power BI service as a business user, we recommend the dashboard be hosted in a workspace with Premium capacity, and set to be shared with you, so you can view it without a license. More on sharing dashboards internally [here](). More on workspaces and Premium capacity [here]().

I need a Power BI License! Where can I request one?

If your City department's identity access is managed by the Department of Innovation and Technology (DoIT) and you need to publish Power BI reports for others to view, you can

request a license. We have a limited number of Power BI licenses we can assign on request. You can request a license by filling out this [form](#) with your name and use case for Power BI.

How do I check if my (or my colleagues') identity access and management (IAM) is managed by DoIT?

If you have a working username and password to [Access Boston](#), your profile will be findable to both assign a license to and to share reports with. City Departments whose identity is *not* managed by DoIT includes, but isn't limited to: Boston Public Schools (BPS), Boston Fire Department (BFD), Boston Police Department (BPD), Boston Public Library (BPL), Boston Public Health Commission (BPHC), and the Boston Planning and Development Agency (BPDA).

I'm in a City department not managed by DoIT. How do I get a license?

If your City department's identity access is not managed by DoIT, the Analytics Team is unfortunately unable to assign you a license at this time. Limited exceptions were made for staff participating in the learning cohorts in 2023, but no new licenses can be extended to staff outside of DoIT's identity access and management system moving forward.

We recommend checking with your department's dedicated IT team to see if you already have a Power BI instance available! (Some do.) If your department doesn't have its own Power BI instance, we hope to share an alternative process for licensing City users outside of DoIT's identity management in early 2024.

If I can't get a license at the moment, what can I do in the meantime?

Power BI Desktop is free to use without a license, so please do start building and testing your dashboards in the desktop application. Once your dashboard is ready to share, you have a few interim sharing options that do not require a license:

- Share the .pbix file with the colleagues you'd like to view your dashboard. They would need to have the Power BI desktop application installed in order to open the file. Instructions on how to download can be found [here](#).
  - Dashboards in the desktop application have similar functionality to those in the Power BI Service, with a few exceptions (e.g. you will need to hold CTRL while you click for a button to work as it would in the Power BI Service).
  - Data can be viewed in Power BI desktop without credentials as long as you do not need to use the Query Editor (e.g., to transform the data) or refresh the data (e.g. make sure the data is showing the most updated version).

- <u>Export the dashboard to .pdf, then share the PDF.</u> You can do this by clicking File >> Export >> Export to PDF in your desktop application. The dashboard would be a static picture without interactive features (e.g., filtering), but still viewable.

SHARING

How do I internally share my dashboards with my colleagues?

If you have a Power BI License and your recipients' identity access is managed by the Department of Innovation and Technology (DoIT), you can securely share your dashboards with them via the [Power BI online service](#). You can generate a password-protected share link by viewing the report in the Power BI service, navigating to the top-left ribbon, and clicking Share >> Apply >> Copy link. You can set the audience (e.g. access permissions) for the report at this stage as well. You can read Microsoft's documentation on how to share and set sharing permissions for dashboards internally [here](#). You can request a Power BI Service Workspace by filling out this [form](#).

This link will allow your colleagues to view your report if they meeting your sharing permissions AND they meet one of the following conditions:
- <u>Staff in City Departments managed by DoIT</u> **without a Power BI License** can only view dashboards shared with them if the dashboard is in a workspace with Premium capacity. More on workspaces and Premium capacity [here](#).
- <u>Staff in City Departments managed by DoIT</u> **with a Power BI License** can view all dashboards shared with them via direct link, regardless of whether the dashboard is in a workspace with Premium capacity. More on licensing to Power BI [here](#).

How do I share my dashboards with the public?

If you have a Power BI License and you'd like to make your dashboard viewable to anyone with the link (e.g. available to the public), you can create an open link to share publicly via the [Power BI online service](#). At the top of your published Power BI report, select File >> Embed Report >> Publish to web (public). You'll get a warning pop-up about the Publish to Web functionality, which you can click Continue. Another pop-up will follow about data security, after which you can click Publish. You can read Microsoft's documentation on publishing publicly [here](#).

You should treat any dashboard that is published this way as fully available to anyone with the link, and findable by those not in the dashboard's intended audience. If your data contains [Personally Identifiable Information (PII)](#) about any individual, or if it could be misused by bad actors to cause harm, it should not be published using this method.

You can also use this workflow to embed your dashboard into a website (e.g., boston.gov) by selecting File >> Embed Report >> Website or portal.

What's a workspace?

Workspaces are a file organization system for Power BI data assets, similar to how you may organize different files in a folder in Google Drive. You can read Microsoft's documentation on workspaces [here](). You can request a workspace by filling this [form]().

What is a workspace with Premium capacity?

A workspace that has Premium capacity allows you to share files in that folder, or the whole folder itself, with staff who are in your organization without a license. We recommend all dashboards that need to be shared with business users (e.g., people who only need to view, not publish, dashboards) to be hosted in a workspace with Premium capacity. This ensures licenses can be reserved for staff who require publishing access. You can read Microsoft's documentation on Premium features [here]().

I need a workspace with Premium capacity! Where can I request one?

If you have a Power BI License, we can upgrade any workspace you manage to a Premium capacity. You can request this upgrade by sending an email to analyticsteam@boston.gov with your name and the name of the workspace you'd like to upgrade.

The City pays by required computing resources for workspaces with Premium capacity, not by total number of workspaces upgraded to Premium capacity. This means that the number of regularly-refreshed reports hosted in workspace with Premium capacity, as well as how large the datasets are that are being refreshed, are the limiting factor on use of workspaces with Premium capacity. Because of this, we recommend only creating refresh schedules for finalized, ready-for-viewing dashboards when using a workspace with Premium capacity.

I'm in a City department not managed by DoIT, but I participated in the cohorts, so I have a license. How do I share my dashboards?

As a licensed user, you have the ability to publish dashboards into the service, but will face obstacles when trying to securely share dashboards with colleagues whose [identity access is not managed by DoIT](). You have a few options for sharing dashboards to these colleagues:

1. Publish your dashboard publicly. If your data isn't sensitive, you can set the dashboard to be available with anyone with the link. More on publishing dashboards publicly [here]().

2. <u>Use sharing options that don't require licensing (for you or for your colleagues).</u> If your data is too sensitive to share publicly, you can share it using the options available to people without a license: as a .pbix file, or as a .pdf. More on sharing dashboards without a license [here](#).

DATA ACCESS

My data is in Civis. How do I connect Power BI to Civis?

Civis is the data warehouse that the Analytics' Engineering team manages. If you have a Civis username and password, you can connect to Power BI via the native Postgres connector. Instructions on setting up that connection can be found [here](#). If you'd like a general refresher on how to connect to data, please watch Video 9 in the Udemy course, "[Overview of Power BI Desktop](#)". Instructions on how to log-in into the Udemy course can be found [here](#).

The Analytics team was previously recommending using Microsoft's Open Database Connectivity (OBDC) connection, but has since discontinued this connection option. Setting up an ODBC connection requires more steps, and the connection itself is reported to be slower than the native connector. ODBC also does not offer the ability to execute a SQL query when making a connection, which may be useful to staff who want to reduce the amount of data loaded into Power BI when working with very large tables stored in Civis. If you believe you need to access Civis via ODBC, please reach out to us with your use case at analyticsteam@boston.gov.

I don't have a Civis username. How do I request one?

If you don't have a Civis username and password, you can request one via [this form](#).

My data isn't in Civis, but I'd like it to be. How do I do that?

If your data is not yet in Civis (and there are no plans to bring it into Civis), you can request it to be imported into Civis via the Analytics team's [project request form](#). Filling out this form will trigger a process to evaluate your data needs and determine if Civis is a good solution to those needs.

My data is stored outside of Civis. Any advice on how to connect to non-Civis data sources?

You can find a full list of compatible data sources available to connect to in Power BI in Microsoft's documentation [here](#). Once you've identified what data connector you require,

you can refer to specific instructions for that connector on Microsoft's documentation. Common connectors include [SQL Server](#) and Salesforce (both [Objects](#) and [Reports](#)).

- Please note that Salesforce limits the number of rows you can access in Salesforce Reports to 2000 rows, so if your data exceeds that, we'd recommend connecting to Salesforce Objects instead of Salesforce Reports.

How do I connect Power BI to Civis when I'm not connected to the City of Boston internet network?

You can connect Power BI to Civis outside of the City of Boston network in two ways:

- **Via Remote Desktop Protocol (RDP),** which connects directly to a computer or server that is based in the City of Boston network. You can follow instructions on connecting via Remote Desktop [here](#).
- **Via Citrix VPN,** which allows you to access City resources outside of the City of Boston internet network.
  - If you don't have access to the VPN (and your identity is managed by DoIT), you can request VPN access via [AgilePoint](#) on the [Access Boston](#) portal. Instructions on how to request VPN access can be found [here](#).
  - General instructions for connecting to the VPN can be found [here](#).

If your [identity is not managed by DoIT](#) and your data is stored in Civis, please reach out to us at analyticsteam@boston.gov. We may need to ask our vendor to whitelist your IP in order to access your data stored in Civis, so will work with you directly to ensure you can access your data.

How do I make sure my dashboards stay updated?

Ensuring your dashboards stay up-to-date without manual intervention requires setting up a refresh schedule in the [Power BI online service](#). You can find Microsoft's documentation on setting up a refresh schedule [here](#). If your data is in Civis, you will need to set up your refresh schedule using the data gateway set up by Analytics' Engineering team.

- This gateway should already be shared with all members of the learning cohorts with Civis access.
- If a data gateway connection doesn't show up automatically under "Gateway and cloud connections" (and you believe it should), please email a description of the problem and a screenshot of the "Gateway and cloud connections" section to analyticsteam@boston.gov.