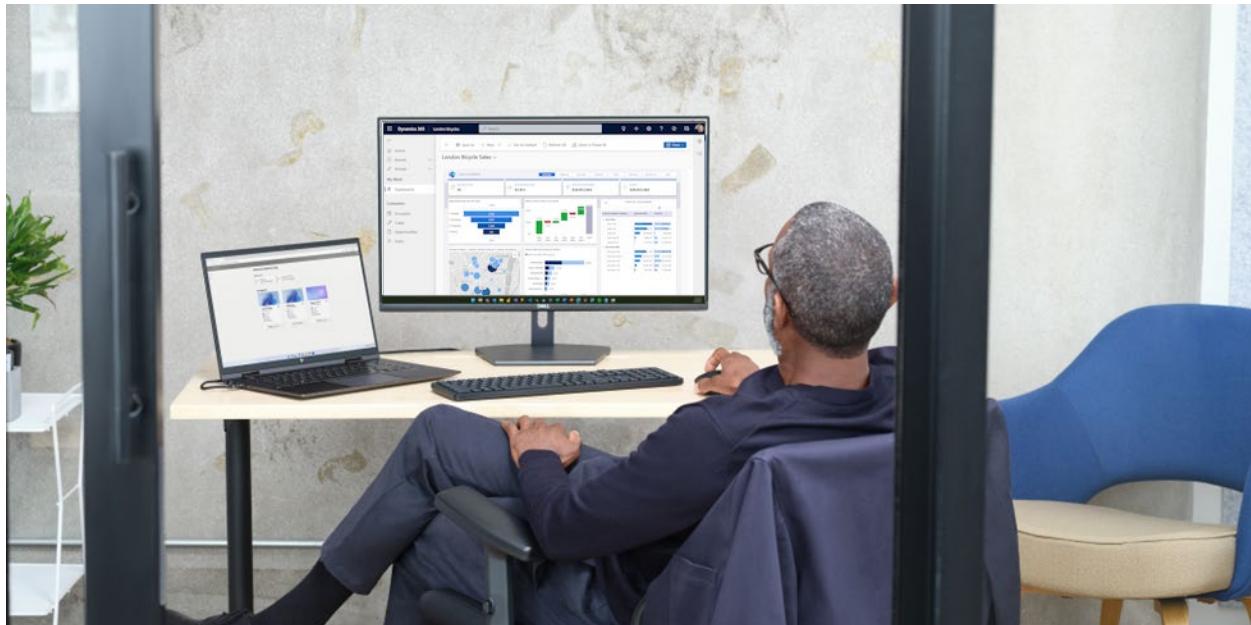




Dynamics 365  
Technology Specialist Environment



# Analytics & Reporting Demo Setup – Excel Data

*Authored by:*

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Fabric CAT

Version 4.8

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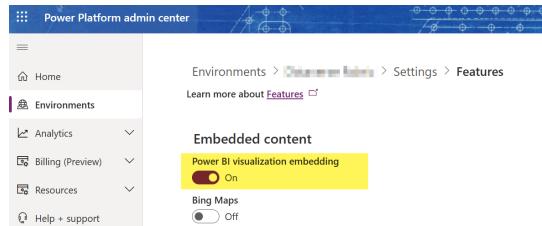
## Introduction

These assets are designed to help demonstrate the power of using Power BI analytics and reporting to expose the value of the data in a Dynamics 365 CE implementation. The sample data is sourced from Excel (originally exported from Dynamics) as a way of making them easy to transport from one demo environment to another and to allow for customization for different demo scenarios.

# Getting your environment ready

## Task 1: Enable the Environment to allow Power BI visualizations

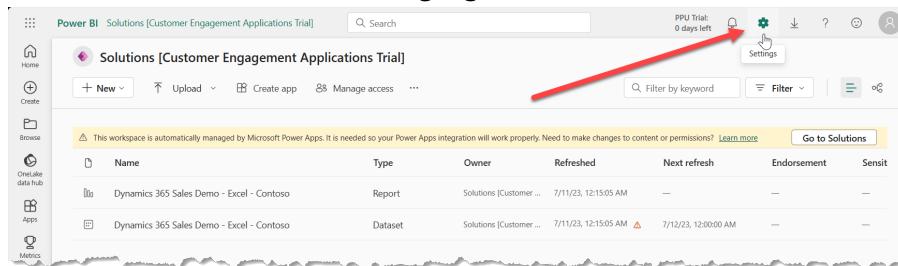
In Power Platform Admin Center navigate to “Settings/Product/Features.” Under “Embedded content”, ensure that the “Power BI visualization embedding” option is set to “On.” (Click Save)



## Task 2: Enable Azure Maps and Filled Visual Maps in Power BI

For any new environment you may need to enable the Azure Maps and “Maps and Filled Visuals” toggle switch. This is a tenant-wide setting, so you only need to set it once per organization.

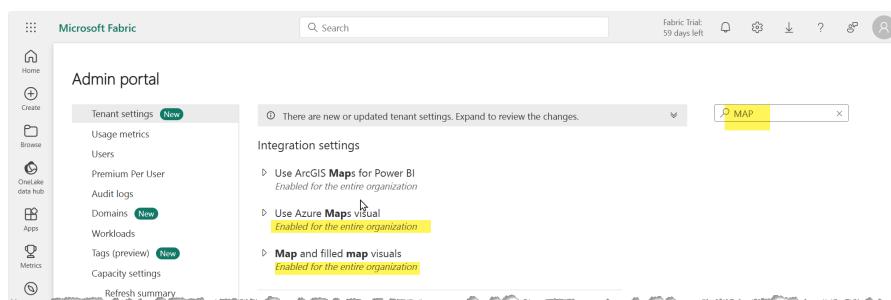
- In PowerBI.com, click the “Settings” gear icon



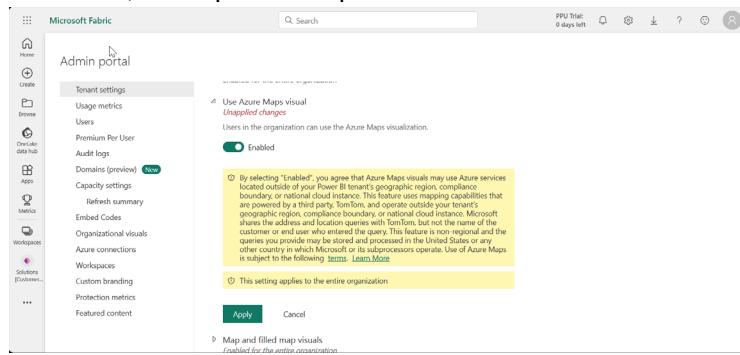
- Under “Governance and Insights” Select the “Admin portal”

- On the right, search for “Map”

Scroll down the list of Tenant settings until you find the “Use Azure Maps visual” setting (in the “Integration settings” section.) – You’ll want to ensure it’s ‘Enabled’ for both.

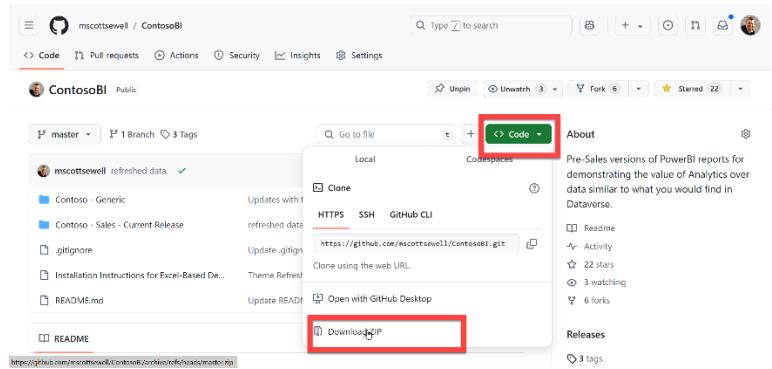


- d. If needed, set expand an option and set the value to “Enabled” and click “Apply”

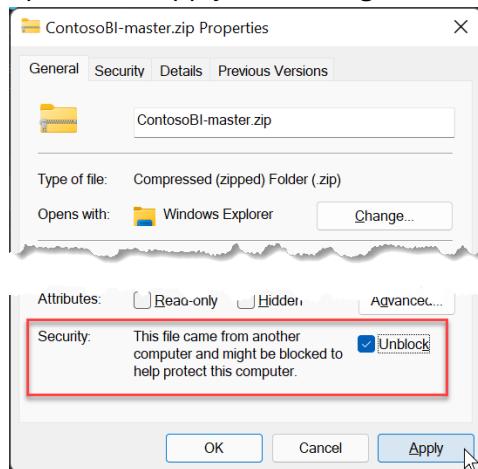


## Task 3: Create Local Copies of the Reports and Excel File

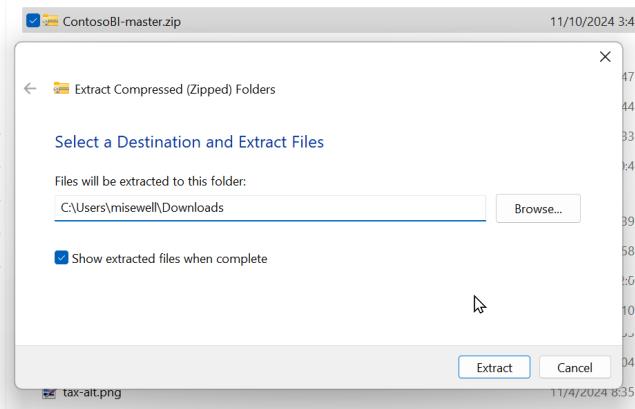
- Download the example files from the source: <https://github.com/mscottsewell/ContosoBI>  
(From the “Code” menu choose “Download Zip”)



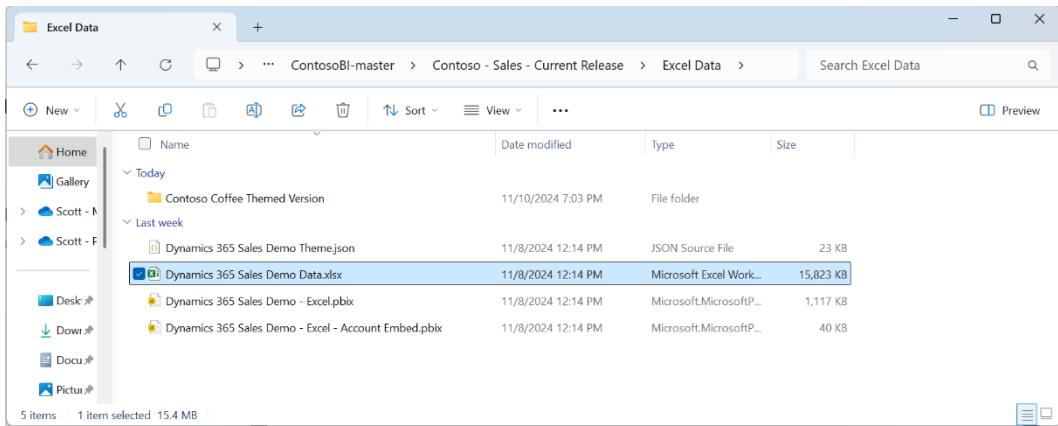
- Once Downloaded - right click on the file, select ‘Properties’ and then check the ‘unblock’ option and ‘apply’ that change.



3. Right click on the zip file and “extract” it to a temporary folder on your pc. – We’ll make a few changes before publishing it to your instance.



4. Open “\ContosoBI-master\Contoso - Sales - Current Release\Excel Data”:



5. We'll use the files from this folder in the remaining steps.

## Task 4: Create a OneDrive ‘Shared Library’ for the Excel Data File

1. Open OneDrive (logged in with your demo admin credentials)

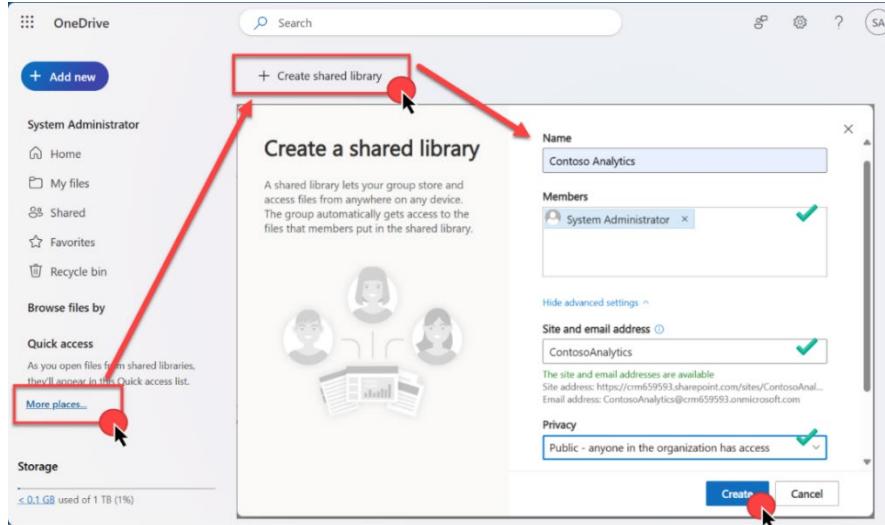
*Note: For this step, please log in through the <https://onedrive.com> page and not through Office – The ‘More places’ button isn’t always visible if you launch OneDrive from Office.*

Click on “More places”, Then “ + Create a shared library”

Name the new shared library “**Contoso Analytics**”

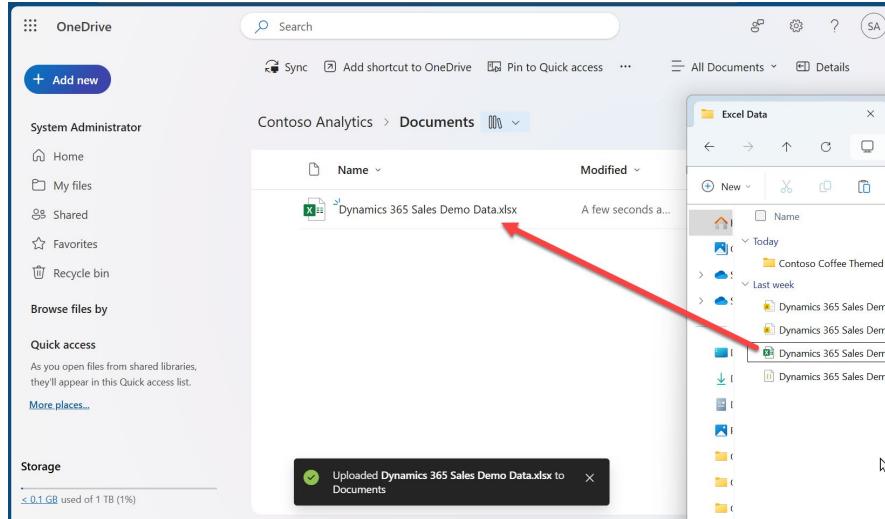
Add your **System Administrator** account as a member.

Set Privacy to “**Public** (anyone in the organization)”

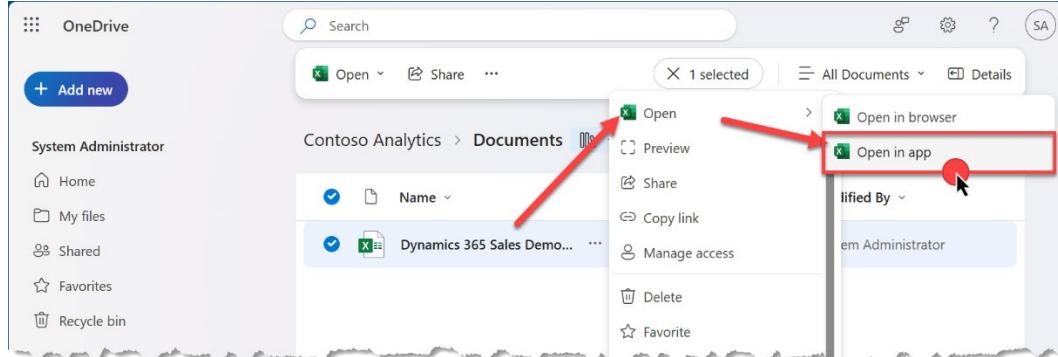


Then Click “**Create**”

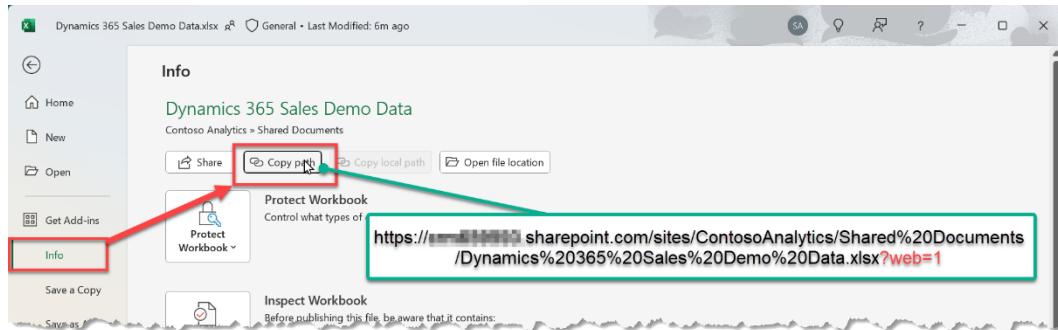
2. Drag the Excel file “Dynamics 365 Sales Demo Data.xlsx” downloaded earlier, up and into the new directory. “Contoso Analytics / Documents



3. Open the file from One Drive “In App” – (It’s important to open the file *from OneDrive* and not from the copy on your desktop.) – You may be prompted for your demo tenant admin name and password in order to allow Excel to open the file from OneDrive.



4. With the file open in Excel, click on “File” then “Info” and then “Copy Path”



You'll need this URL in a moment – so just paste it into somewhere handy such as notepad – we'll use it when importing the solution.

It will look something like:

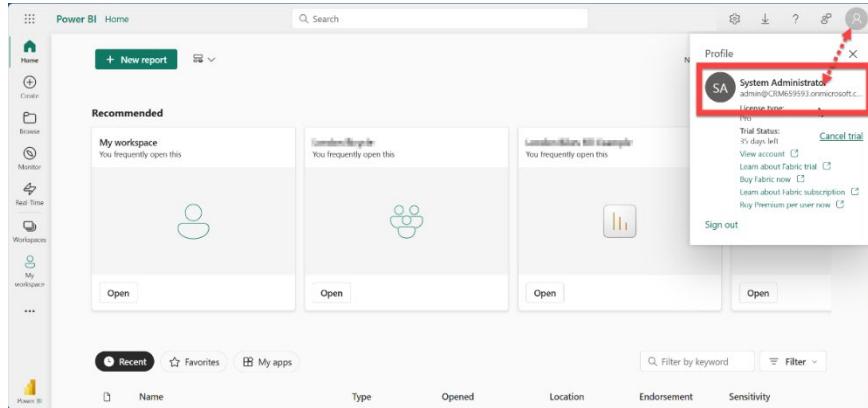
<https://d365demots0000.sharepoint.com/sites/ContosoAnalytics/Shared%20Documents/Dynamics%20365%20Sales%20Source%20Data.xlsx?web=1>

We'll need all **except** that last “**?web=1**”

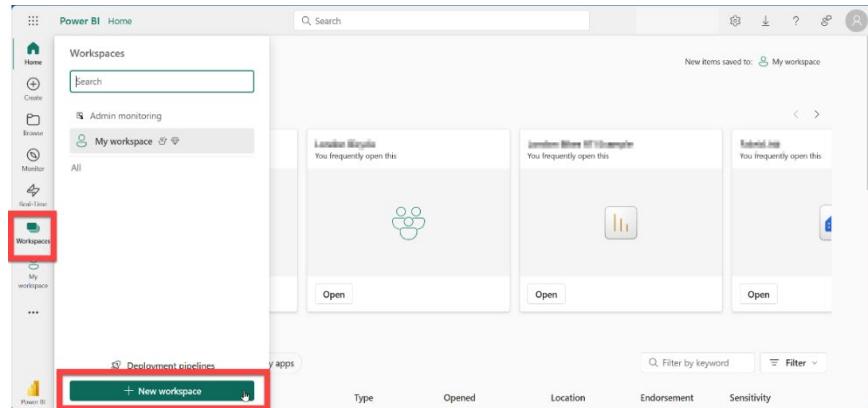
<https://d365demots0000.sharepoint.com/sites/ContosoAnalytics/Shared%20Documents/Dynamics%20365%20Sales%20Source%20Data.xlsx>

## Task 5: Set up Sales Enablement workspace in Power BI online

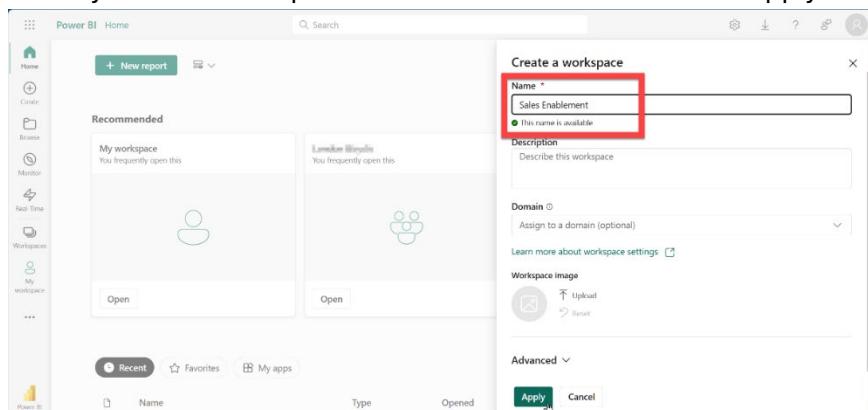
1. Open Power BI Online <https://app.powerbi.com/>  
(Ensure that you are signed in to your Online Demo Instance as an Admin)



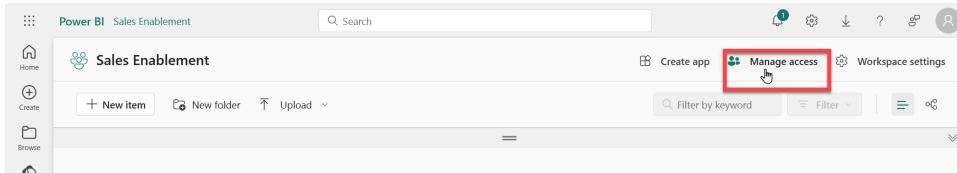
2. Navigate to Workspaces and select New Workspace.



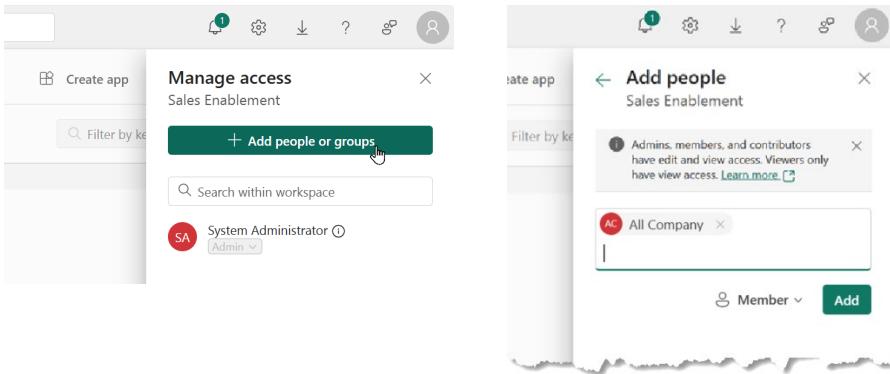
3. Name your new Workspace "Sales Enablement" and click "Apply"



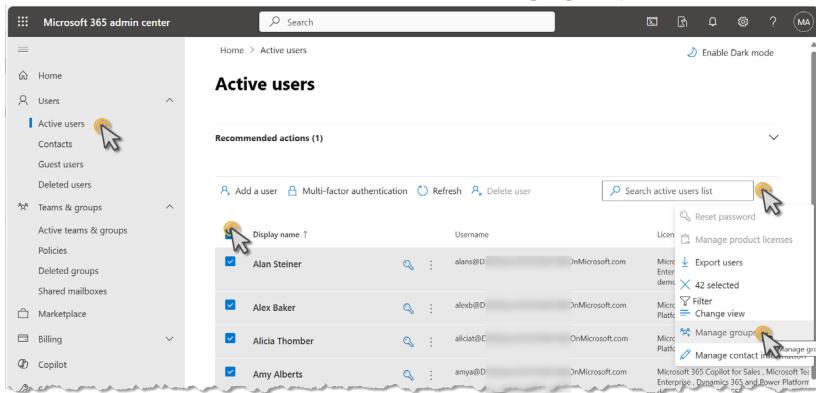
4. Once created, Power BI will open to that new workspace.  
Click on “Manage Access”



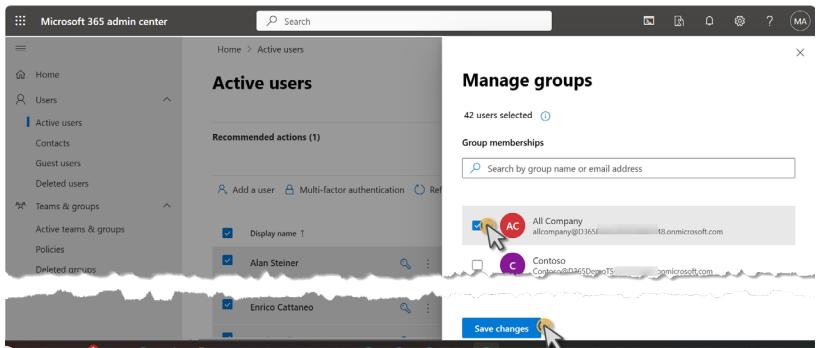
5. Then select “Add people or groups” and Add “All Company” as members.



6. In Portal.Office.Com – you may need to add your users to that group.  
Select all Active Users – then Click “Manage groups”



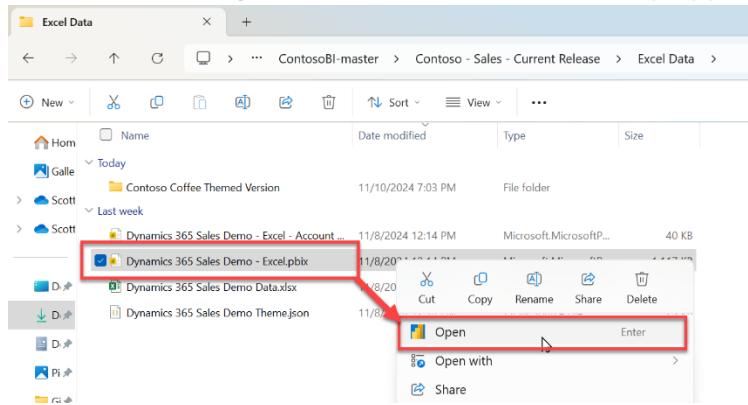
Add everyone to the “All Company” group and save changes.



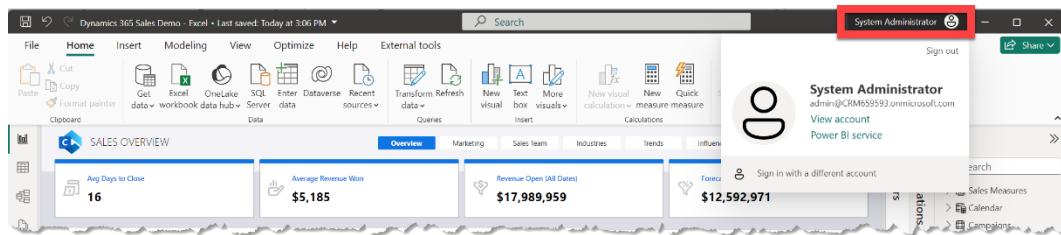
# Configure the Report in the Power BI service

## Task 1: Connect the Power BI report to the Excel Source

- From the folder you downloaded the files to earlier, open the “**Dynamics 365 Sales Demo - Excel.pbix**” file in the Power BI Desktop App.

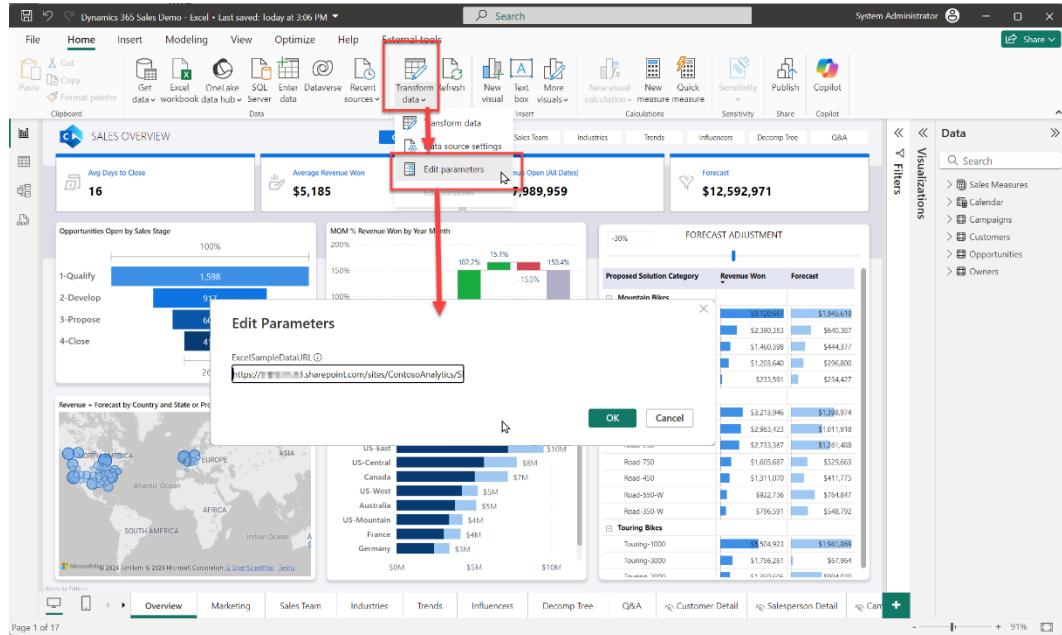


- Ensure you are logged into Power BI desktop with your Demo Tenant's admin credentials.

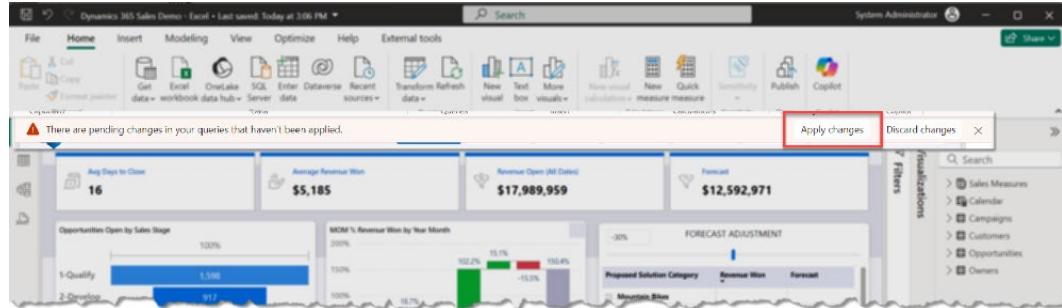


3. Update the data source, by selecting “Transform Data → Edit Parameters”

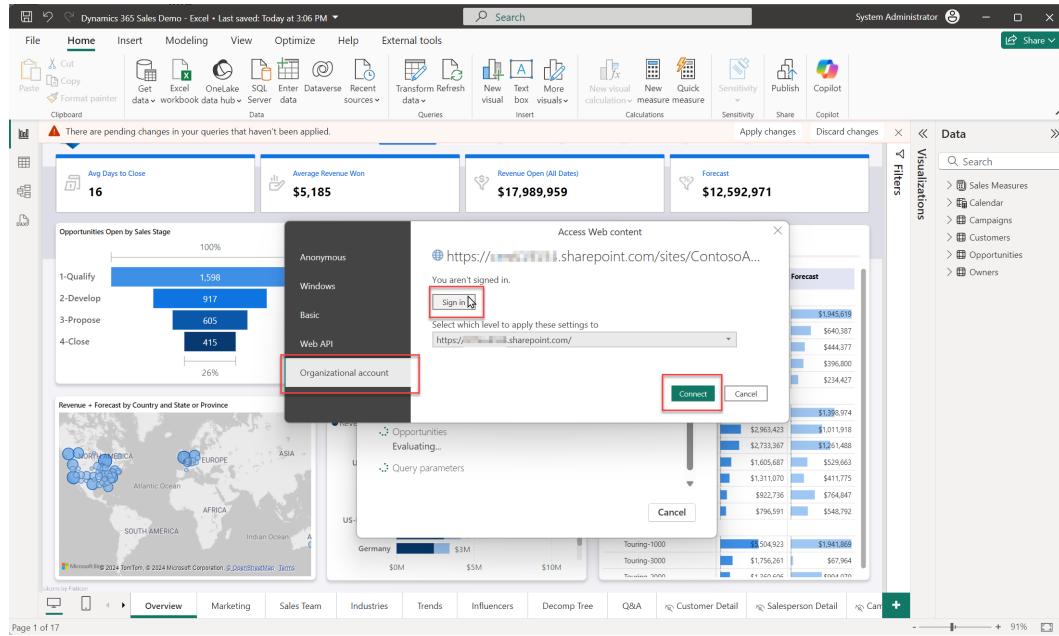
Then paste the path for source data that you copied from Excel (be sure to remove the ?web=1) into the “ExcelSampleDataURL” parameter.



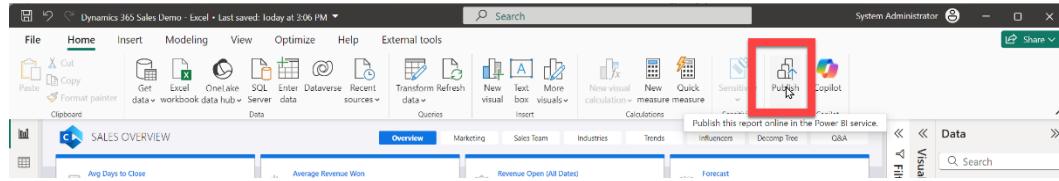
4. After Changing the source, you will see a banner pop on the top of the screen to Apply Changes. Select Apply Changes.



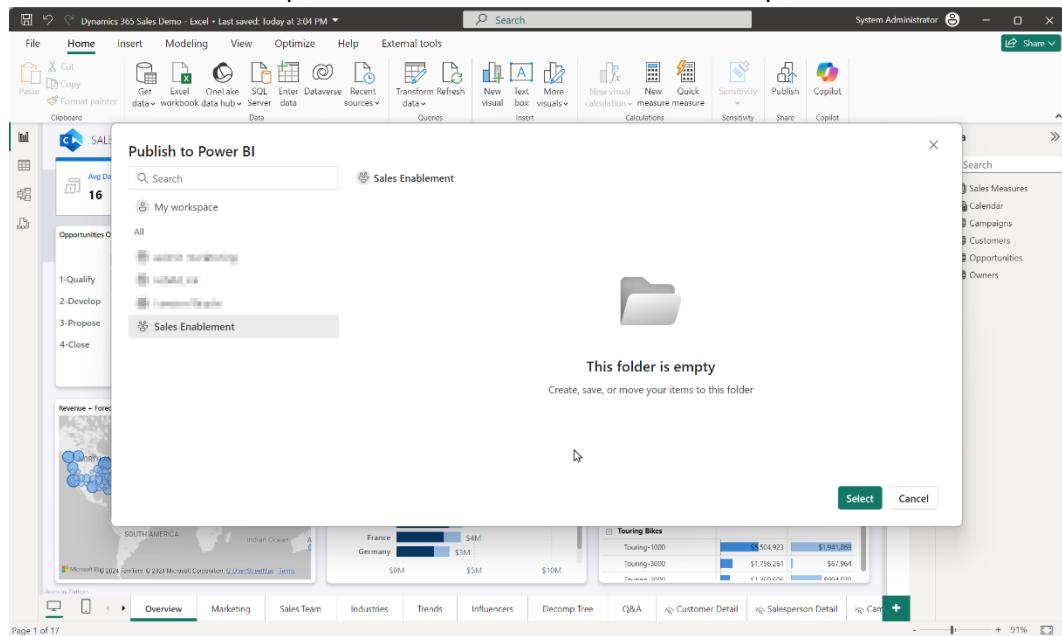
5. For the report to read the Excel file, it will need credentials to connect –  
The “Access web content” dialog should appear. – possibly behind the Load dialog  
Click on it to bring it to the front.-  
Choose “Organizational account”  
Click on “Sign in”, then provide it with your Demo Tenant’s Admin account. (You may also be prompted to authenticate via your phone.)  
Then click “Connect”



6. Give the report a moment to load the data from the Excel file, then click “Publish” in the ribbon to publish the Power BI report to your new Workspace in Power BI Online (If you haven’t ‘saved’ yet, it will prompt you.)

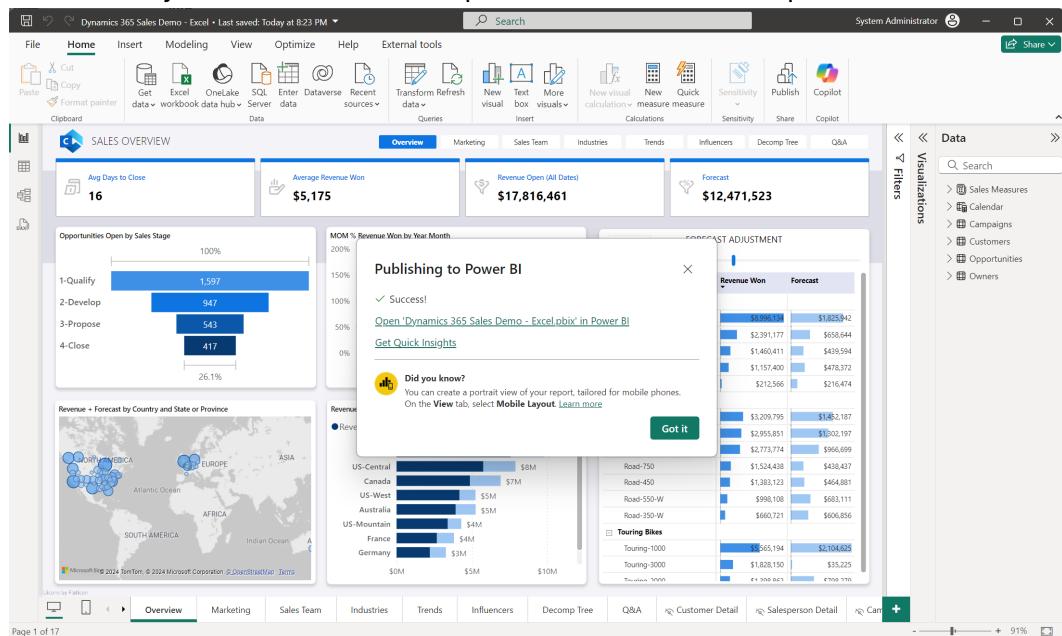


7. Select Power BI workspace that was created in Section 3 Step 3 above.



Click "Select"

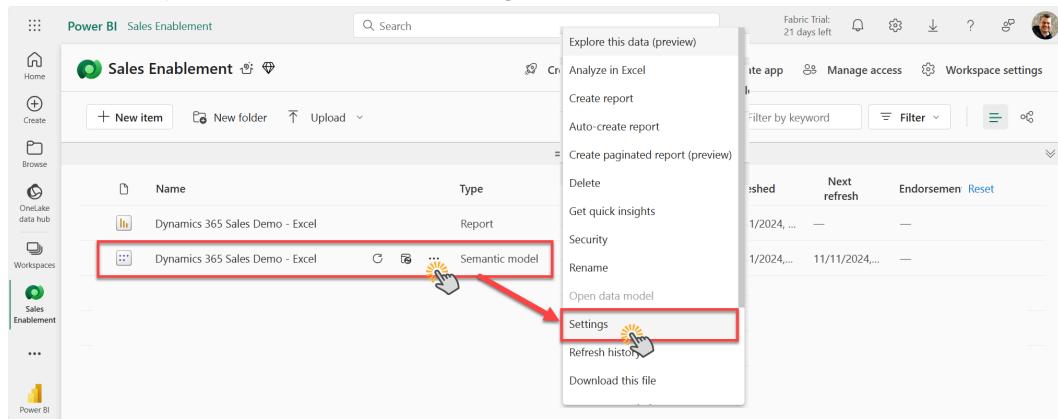
8. On success you'll see a link to the report. Click "Got it" to complete.



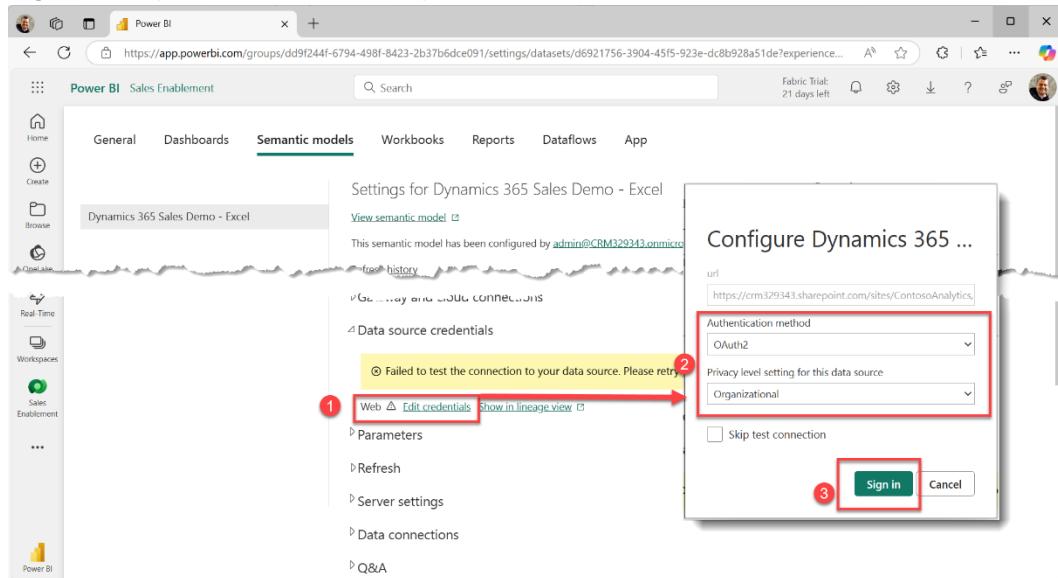
## Task 2: Set up the automatic refresh of the report

Once you have published the report into the Power BI service, you'll need to set up the credentials for it to connect to the Excel file as well as set a refresh schedule for it in the service.

1. Open the Power BI service to the workspace where the report was published.  
Highlight the Semantic model for the report. (The “Semantic model” contains both the data and the data model definitions for the report.)  
Click the ellipse “...” and choose “Settings”



2. In the “Data source credentials” section in the Settings, Click on “Edit Credentials” and then Sign in with your demo tenant’s System Administrator’s credentials.



3. Open the “Refresh” section to set up a daily refresh of the data. (In this demo environment, we refresh the data daily not because the data itself is changing, but because we want the dates in the report to be current to today.)

Settings for Dynamics 365 Sales Demo - Excel

[View semantic model](#)

**Refresh**

Time zone

Time zone configuration is applied not only to determine the schedule refresh time but also to establish the current date and time for incremental refresh models during on-demand and API refreshes. [Learn more](#)

(UTC) Coordinated Universal Time

Configure a refresh schedule

Define a data refresh schedule to import data from the data source into the semantic model. [Learn more](#)

On

Refresh frequency

Daily

Time

Add another time

Send refresh failure notifications to

Semantic model owner

These contacts:

Enter email addresses

Apply Discard

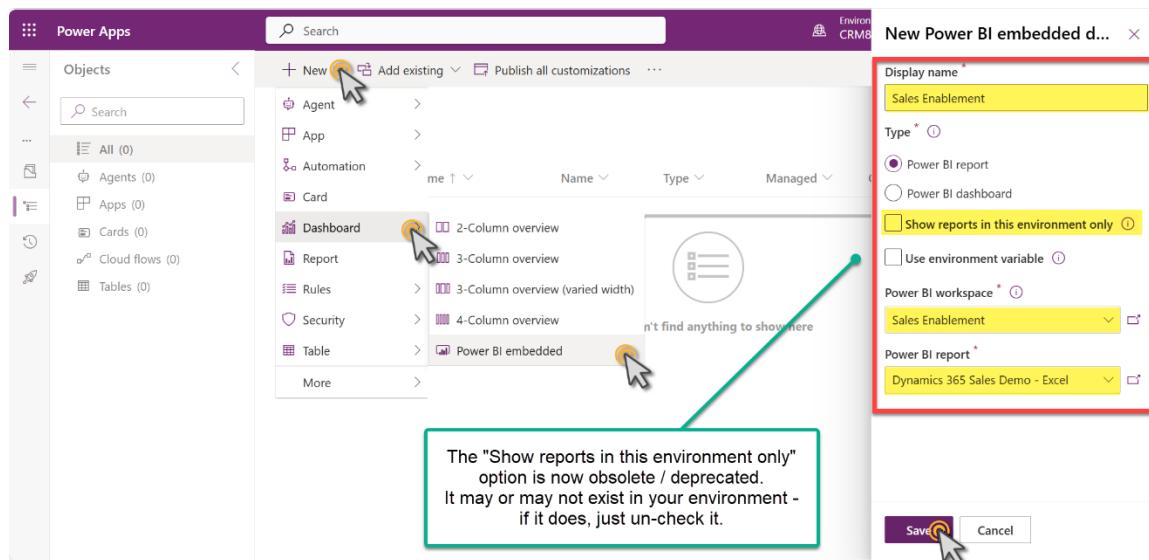
4. The report will now refresh daily – if you want to ‘Force’ a refresh immediately, such as after you’ve updated the product list in the dashboard, Open the Workspace and click on the ‘Refresh’ button beside the Semantic model – you’ll see the refresh take place and the ‘last refresh date’ update once complete.

Name	Type	Task	Owner	Refreshed	Next refresh	Endorsement	Reset
Dynamics 365 Sales Demo - Excel	Report	—	Sales Enab...	11/11/2024, ...	—	—	—
Dynamics 365 Sales Demo - Excel	Semantic ...	—	Sales Enab...	11/11/2024, ...	11/11/2024, ...	—	—
London Bike Sales - Excel	Report	—	Sales Enab...	11/10/2024	—	—	—

# Add the report to Dynamics 365 as a Dashboard

## Task 1: Create the Power BI Embedded pointer in the Solution

1. Open the PowerApps maker portal <https://make.powerapps.com/> (Ensure that you are working in the correct environment where you want to make this modification)
2. Select a solution that you want to use to make these changes. (You can also create a new solution to host these reports and for this dashboard modification.)
3. Once within a solution, select New → Dashboard → Power BI Embedded
4. Name your D365 Dashboard something like “Sales Enablement” or whatever you want it named in the UI visible to the user.
  - ◆ Select Power BI report. (Uncheck the “Use environment variable” IF it’s shown/checked.)
  - ◆ Select the Power BI workspace (where you deployed it in above step)
  - ◆ The select the Power BI report
  - ◆ Click ‘Save’ once you have everything ready.



## Task 2: Add the report to the Application's Dashboard

1. Go to the PowerApps Home Page and select the D365 App where you want to publish this Dashboard. (We'll start with Sales Hub – but you can repeat this task for any app)

The screenshot shows the Power Apps Home Page. On the left, there's a navigation sidebar with options like Home, Create, Learn, Apps (which is selected and highlighted with a purple bar), Tables, Flows, Solutions, More, and Power Platform. The main area is titled 'Apps' and shows three cards: 'Start with Copilot', 'Start with data', and 'Start Select layout'. Below these cards is a list of apps. The 'Sales\_Hub' app is highlighted with a red box. Other apps listed are 'Customer Insights - Journeys' and 'Customer Service Hub'. The list includes columns for Name, Modified, and Owner.

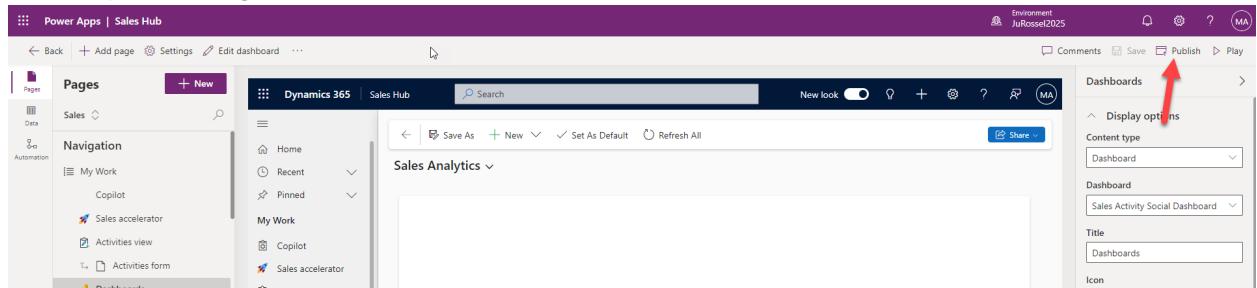
2. Select the Ellipsis and Switch to Classic

The screenshot shows the 'Power Apps | Sales Hub' page. At the top, there are navigation links for Back, Add page, Settings, Edit dashboard, and an ellipsis menu (indicated by a red arrow). To the right of the ellipsis is a 'Switch to classic' button (also indicated by a red arrow). The main area has sections for Pages, Data, and Automation. On the right, there's a preview of the 'Sales Activity Social Dashboard'.

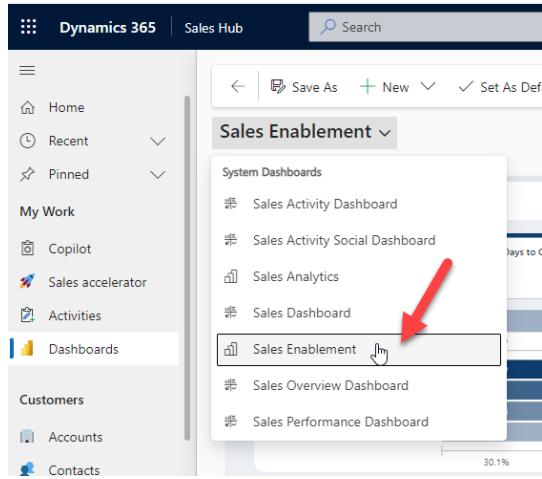
3. From The App Designer Select Dashboards → Scroll to the bottom on the right-hand side and select the dashboard just created. → Save and Close

The screenshot shows the 'App Designer' interface for the 'Sales Hub' app. The top navigation bar includes 'Power Apps', 'App Designer', 'Sales Hub \*', and buttons for Save, Save And Close (highlighted with a red circle), Validate, Publish, and Play. The main area has tabs for Site Map, Site Map (selected), and a canvas view. On the left, there's a sidebar with 'Dashboards' (selected) and 'Entity View (51)'. The 'Dashboards' list shows several items, with 'Sales Enablement' highlighted with a red box. On the right, there's a 'Components' pane with a 'Select Dashboards' dropdown and a 'Properties' pane. A red arrow points to the 'Sales Enablement' item in the 'Components' list.

#### 4. Publish your Changes



#### 5. Validate the Dashboard now shows in the dashboard dropdown.



# Add the In-Context/Filtered Report to the Account Form

We can add a Power BI report to the Account form to give the user an expanded view of both the data inside Dynamics 365 related to that Account, but also data from outside of Dynamics 365 related to the current record.

It's an incredibly productive feature, as well as a proven driver for user adoption when Dynamics 365 has such rich data pre-filtered and presented within the context of the current record.

The report can be presented as a full tab on the form:

This screenshot shows the Dynamics 365 Account form for 'Blythe Road Wheelhouse'. The 'Account Analytics' tab is selected. A large Power BI report is displayed, containing several visualizations: a card for 'Close %' (36%), a card for 'Revenue Open' (\$36,351), a card for 'Lifetime Revenue Won' (\$29,312), and a bar chart titled 'Opportunities Open by Sales Stage' showing 5 opportunities in '1-Quality' and 2 in '3-Propose'. Below these are two tables: one for 'Revenue Won' and another for 'Revenue Open'.

Or in a section on a page of the form:

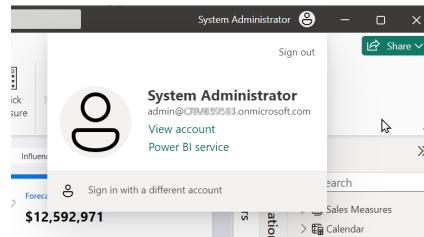
This screenshot shows the Dynamics 365 Account form for 'Blythe Road Wheelhouse'. The 'Summary' tab is selected. On the left, there is a 'ACCOUNT INFORMATION' section with fields for 'Account Name' (Blythe Road Wheelhouse), 'Account Number' (1020), and 'Parent Account'. To the right of this is a 'Relationship Analytics' section containing a Power BI report. This report includes a card for 'Close %' (36%), a card for 'Revenue Open' (\$36,351), a card for 'Lifetime Revenue Won' (\$29,312), and a bar chart for 'Opportunities Open by Sales Stage'.

In both cases, notice how the report is dynamically filtered to the current record.

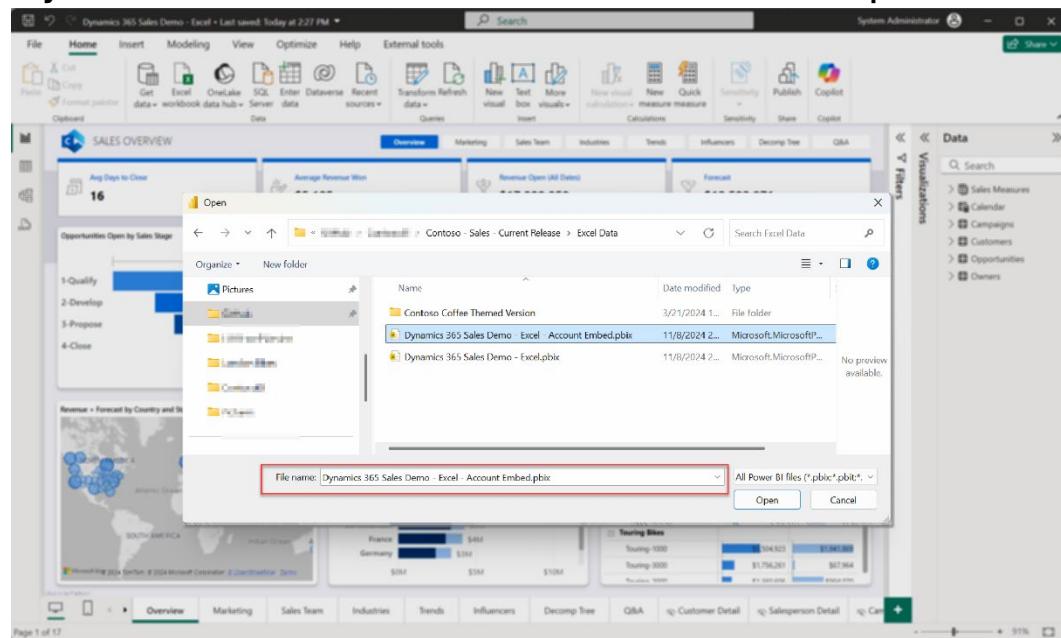
In this section, we'll import a new report that references the existing report's dataset. It ensures that all the queries and measures come from a single source of truth between the overall report at the dashboard and the individual, contextual report in the account form.

## Task 1: Publish the Account-specific Report to Power BI

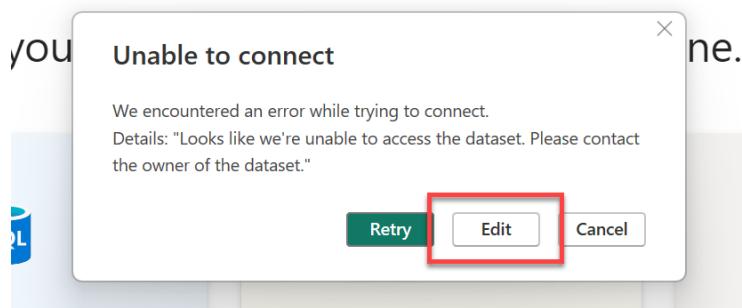
1. Open Power BI Desktop. Be sure that you are logged into the Power BI desktop app using the administrator account for the destination environments (both Fabric and Dataverse)



2. From within Power BI Desktop, Choose File, Open to open the Account report, named: "**Dynamics 365 Sales Demo - Excel - Account Embed.pbix**".

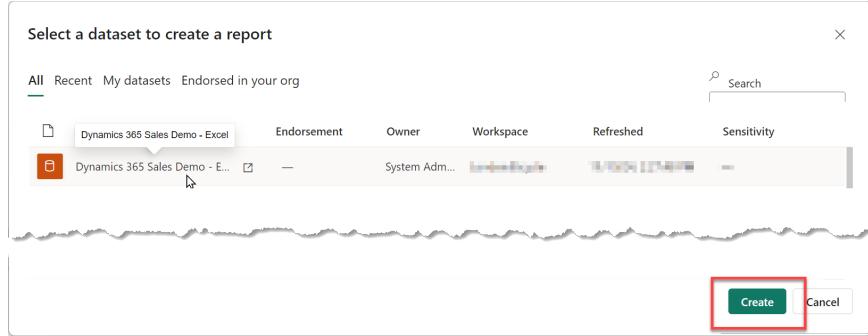


3. You'll be presented with an error message like this:

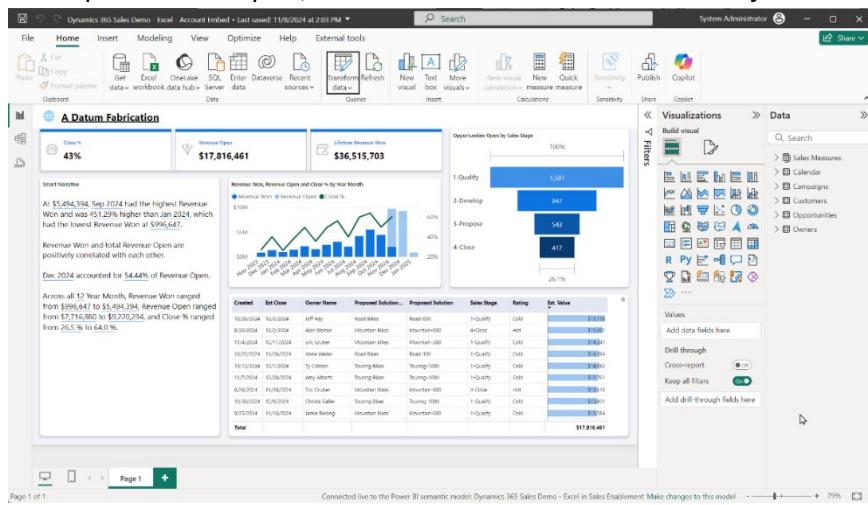


Click "Edit"

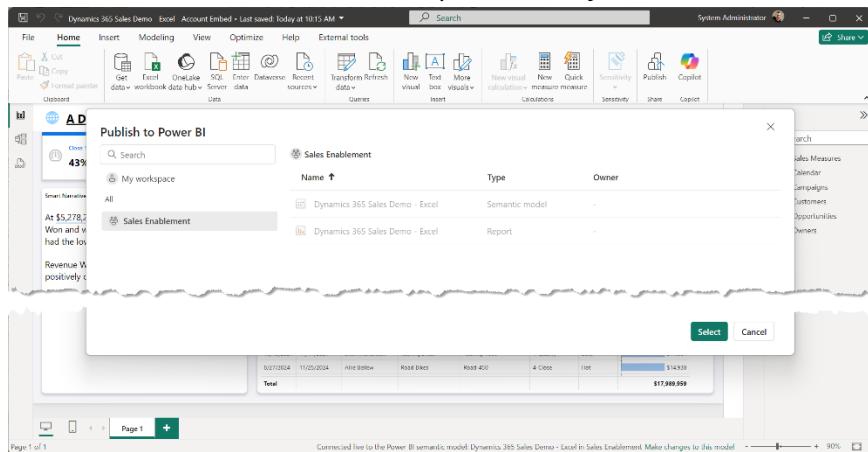
4. Choose the dataset (or semantic model) of the “**Dynamics 365 Sales Demo - Excel**” report we imported earlier.) Then click “**Create**”



5. The report should open, connected to the dataset online in your workspace in Power BI.

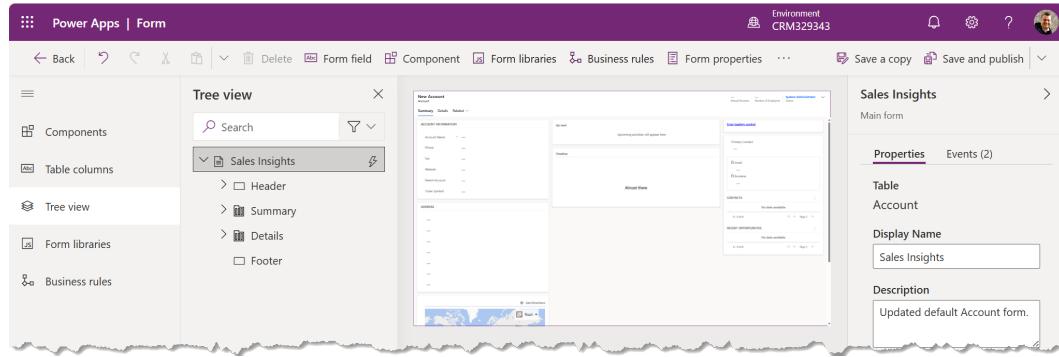


6. Click Publish and select the workspace already created.



## Task 2: Add a Power BI placeholder section to an Account Form

1. In <https://make.powerapps.com>, open an account form to add a Power BI report placeholder.

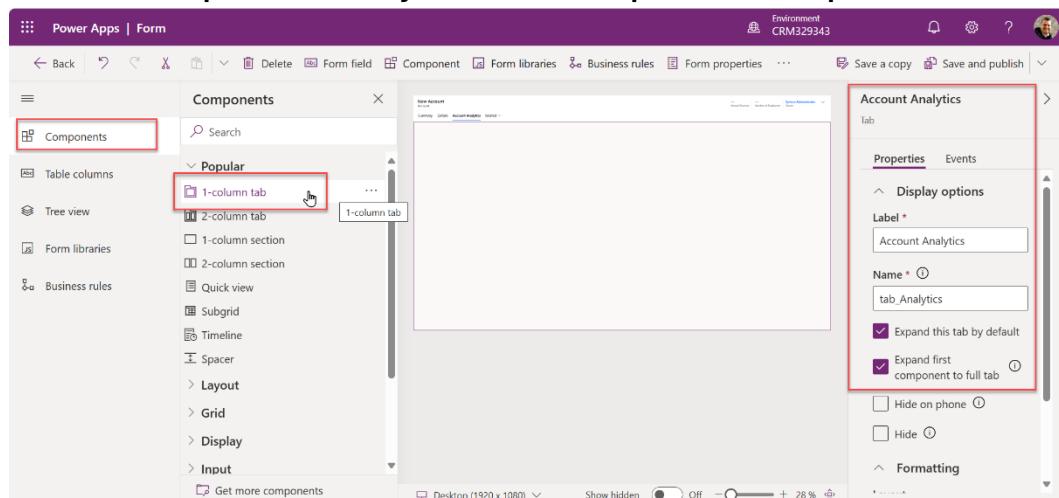


2. From “Components” add a new 1-column tab.

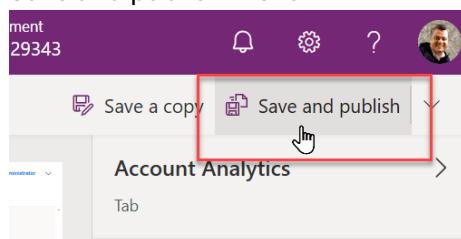
**Label:** “Account Analytics”

**Name:** “tab\_Analytics”

Select both “Expand this tab by default” and “Expand first Component to full tab”



3. Save and publish the form.



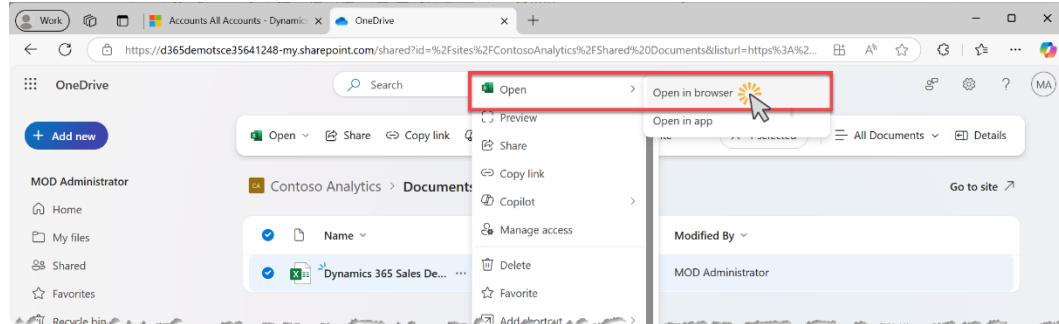
4. Close the form.

# Configure source data and add report to Account form

## Task 1: Update the Excel source data's accounts to match your data

For this demo configuration, we want the account list in Excel to contain the corresponding account names and IDs from Dynamics. – This enables the embedded report to be filtered and display relevant data for that account. In a production environment, the data in the report would be imported directly from Dynamics.

1. Open “Dynamics 365 Sales Demo Data.xlsx” from your OneDrive folder in the browser –

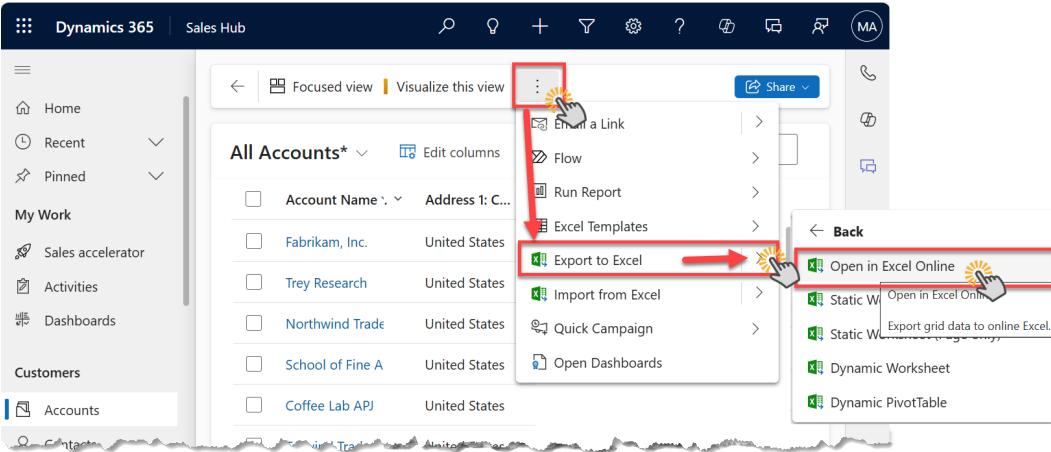


and select the “Account” Tab

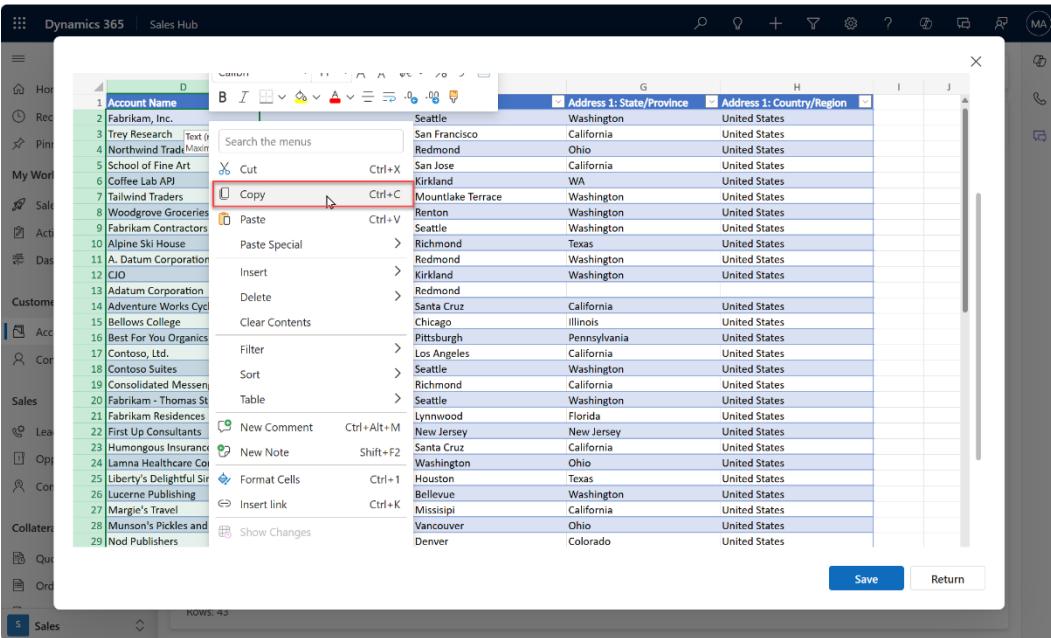
(We'll use this in a moment.)

2. Open a second browser tab to the “All Accounts” view and temporarily add/remove fields to include the following: Account Name, Account Number, City, State/Province, and Country/Region.

3. Open this Account view in Excel Online.



4. Select all the Account Names (without the header) and right-click to “Copy”.



5. Switch over to the Excel file Tab (opened in step 1) and highlight the first cell under “Account Name”, then right click and “Paste Special / Values Only” –

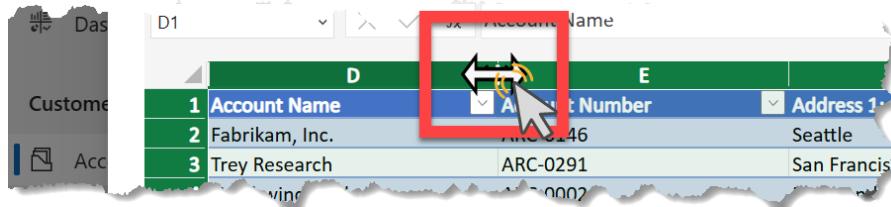
This will replace the account names in the sample data file with the account names in your Dynamics organization. – You can modify these in the future if you want to update one to your ‘hero’ account or something specific for a demo.

The screenshot shows a Microsoft Excel spreadsheet titled "Dynamics 365 Sales Demo Data". The "Table Design" ribbon tab is selected. A context menu is open over the first cell of the "Account Name" column (cell C2). The menu is titled "Paste Special" and includes options like "Cut", "Copy", "Paste", and "Paste Special". The "Paste Special" submenu is expanded, and the "Values only" option is highlighted with a red box. Other options in the submenu include "Formulas only", "Formatting only", "Link to source", "Clear Contents", and "Transpose Rows and Columns". The main table has columns for AccountSeq, AccountID, Account Name, City, State or Province, Country, Territory, and AccountOwner. The "City" and "State or Province" columns are currently being edited, with "Redmond" and "Washington" selected respectively. The "Country" column shows "United States" and "US-Central". The "Territory" column shows "United States" and "US-East". The "AccountOwner" column shows "A. Datum Corporation".

6. Now we need the accountid values from Dynamics that are in a hidden column. Change back to the Dynamics tab. Select the whole sheet by clicking in the upper left hand corner. Right-click to get the menu and choose “Unhide Columns”

The screenshot shows the Microsoft Dynamics 365 Sales Hub interface. The left sidebar shows navigation items like Home, Red, Pin, Sales, Leads, Opportunities, Contracts, Collateral, Quotes, Orders, Invoicing, and Projects. The main area is titled "All Accounts - Saved" and shows a list of accounts. A context menu is open over the first cell of the "Account Name" column (cell D1). The menu includes options like "Cut", "Copy", "Paste", "Paste Special", "Insert Copied Cells...", "Clear Contents", "Column Width...", "Row Height...", "Unhide Rows", "Format Cells", "Show Changes", and "Unhide Columns". The "Unhide Columns" option is highlighted with a red box. The main table has columns for Account Name, City, Address 1: State/Province, Address 1: Country/Region, and others. The "City" column shows "Redmond" and "Terrace". The "Address 1: State/Province" column shows "Washington", "California", "Ohio", "Washington", "WA", "Washington", "Texas", "Washington", "WA", "Washington", "California". The "Address 1: Country/Region" column shows "United States", "United States". The bottom status bar shows "Generated 11/12/2024, 1:05 PM" and "Average: 45608.63741 Count: 352 Sum: 1961171.409".

7. Hover over the bar that separates two columns until you see the double arrow, then double-click to expand all the columns.



8. Scroll to the left, to the newly un-hidden Column “A” and you’ll see the accountID values in a column titled “(Do not Modify) Account”

We need to copy those account IDs into the Excel Demo data worksheet.

9. Switch back to the Sample Data Excel tab and paste those values into the accountid column as “Values only”.

Excel might need a moment to refresh after pasting in the new data.

10. Back on the Dynamics tab, click ‘Save’ to close the Excel online view.

The screenshot shows the Microsoft Dynamics 365 Sales Hub interface. In the center, there is an Excel online view titled "All Accounts - Saved". The Excel ribbon is visible at the top, with the "Home" tab selected. The main area displays a grid of account data with columns for Account Name, Account Number, Address 1: City, and Address 1: State. A red arrow points to the "Save" button located in the bottom right corner of the Excel ribbon.

When it finishes, you can also close the Excel tab (it's auto-saved).

11. Let the import complete, you can ‘Track Progress’-- give it 2-3 minutes and click ‘refresh’ occasionally until you see that the account records are updated with the “Account Numbers” from the Excel Data source.

The account number field will be used to connect the Account in Dynamics 365 with the corresponding customer record in Power BI (imported from Excel) to filter the embedded report.

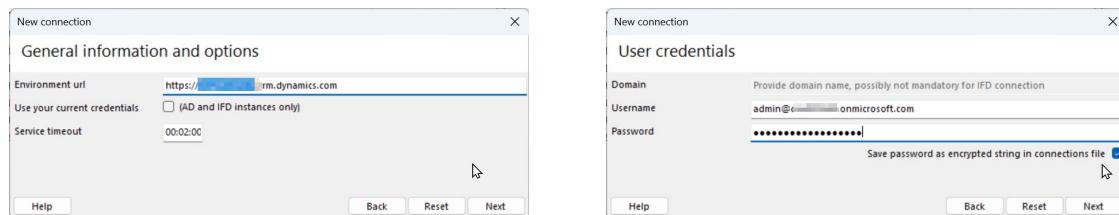
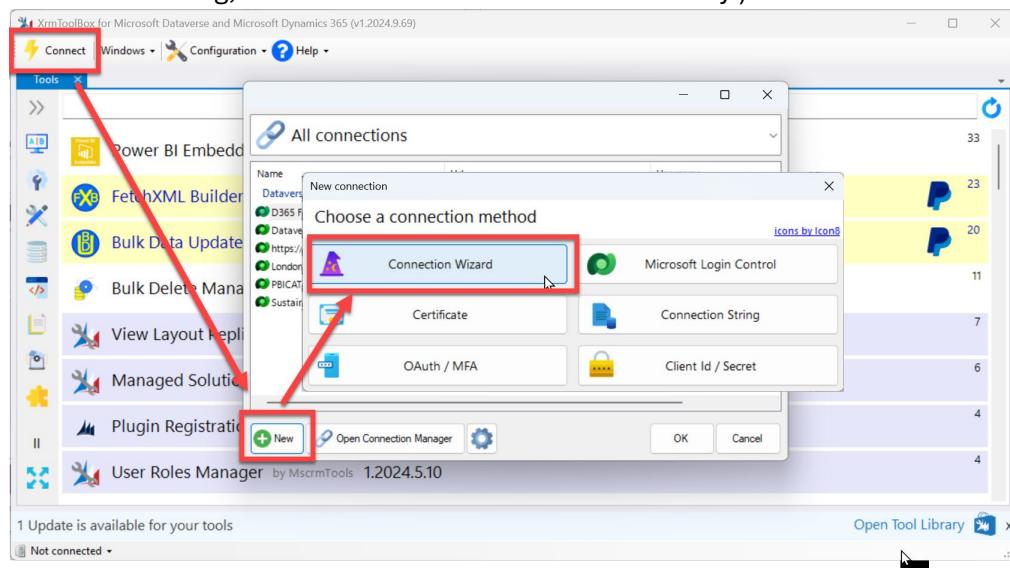
12. “Force” a refresh in Power BI’s semantic model to ensure it captures the updated data.

The screenshot shows the Power BI workspace under the "Sales Enablement" workspace. On the left, there is a navigation menu with options like Home, Create, Browse, OneLake data hub, Apps, Workspaces, and Power BI. The main area displays a semantic model named "Dynamics 365 Sales Demo - Excel". Below the model name, there are three columns: Type (Report, Semantic Model, Report), Owner (Sales Enab...), and Refreshed (11/11/2024, ...). To the right of the semantic model entry, there is a "Refresh now" button. A red arrow points to this button. At the bottom of the semantic model list, there is a "Refresh" button.

## Task 2: Use an XrmToolBox plugin to add the report to the Account form

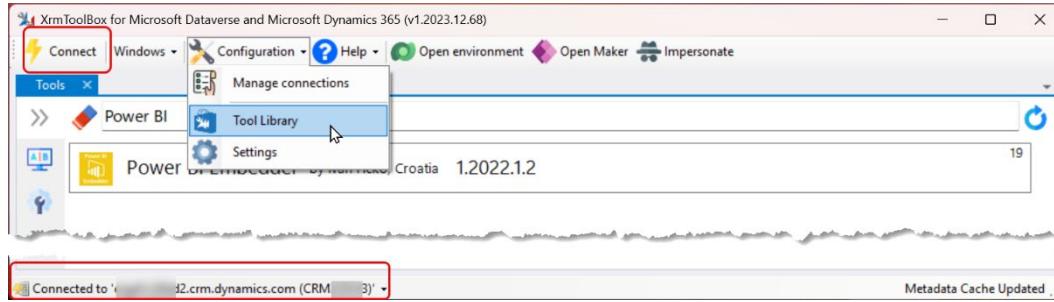
This task adds the report to the form using a free, community-supported tool created by Ivan Ficko, the “Power BI Embedder” ([Power BI Embedder · XrmToolBox](#)) hosted in the larger XrmToolbox - <https://www.xrmtoolbox.com/>. This utility is simply an easier way to implement the method documented here: [Embed a Power BI report in a model-driven app main form - Power Apps | Microsoft Learn](#)

1. Open the XrmToolBox and connect to your Dataverse environment.  
(Instructions for the setup and use of the XrmToolBox is available at the XrmToolBox homepage <https://www.xrmtoolbox.com/documentation> - review this if you’re not familiar with this amazing, collection of Dataverse utilities already.)

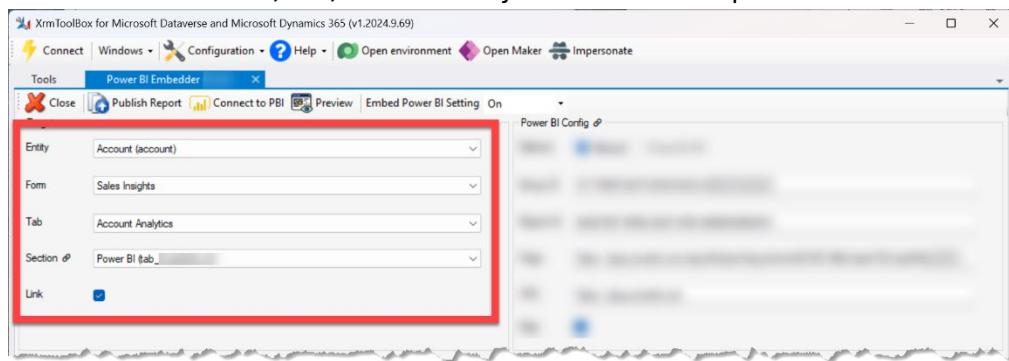


Note: If you had previously installed the XrmToolBox (last year) and have trouble connecting/authenticating – delete the installed version and re-download the tool from the website. There was an update to the connection dll that helped overcome some connection issues with the updated security of the environments.

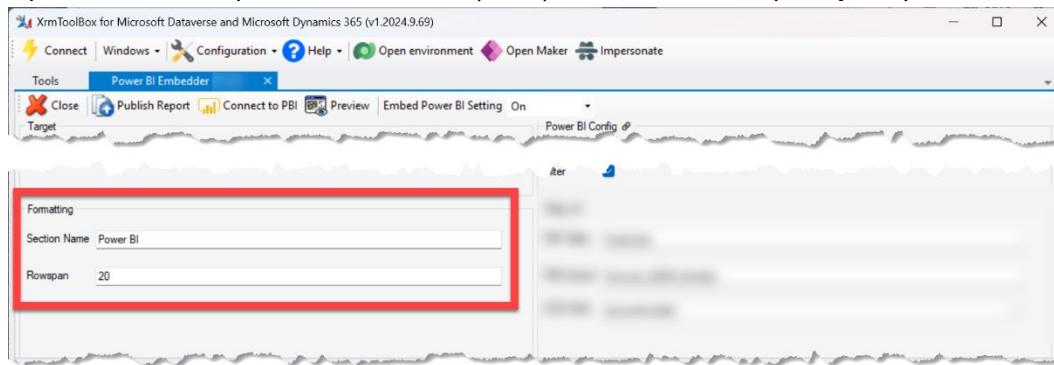
2. Once you've connected, search for the “Power BI Embedder” by Ivan Fiko – If it's not already installed, you'll need to add it from the Tool Library.



3. Open the Power BI Embedder tool and select the “Account” Entity.  
Then select the Form, Tab, and Section you created in the previous Task



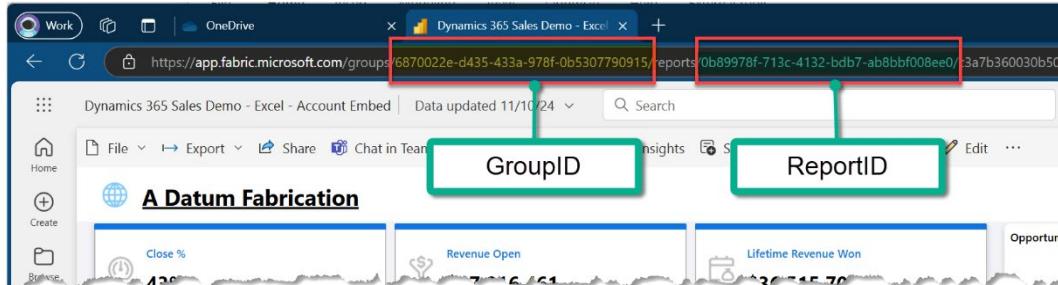
4. Update the “Rowspan” to 20 or more (rows) to ensure there’s plenty of space for the report.



5. Open the report in Fabric / Power BI and note the URL

The URL will include both a group and report ID – along with other information.

I'm showing the values from my demo environment, your values will be different.



In this example environment, the full URL is: (I've formatted it into rows for clarity)

<https://app.fabric.microsoft.com>

/groups/**6870022e-d435-433a-978f-0b5307790915**  
/reports/**0b89978f-713c-4132-bdb7-ab8bbf008ee0**  
/c3a7b360030b506cda6c?experience=power-bi

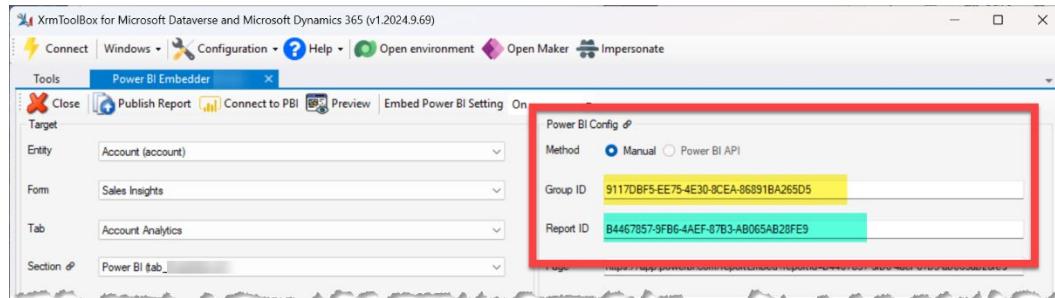
We'll ONLY use the groups ID and the reports ID – (without the "/" separator)

The values in your environment will be different – use the ones from your environment.

Group ID = **6870022e-d435-433a-978f-0b5307790915**

Report ID = **0b89978f-713c-4132-bdb7-ab8bbf008ee0**

6. Add the Group ID and the Report ID from **YOUR** environment to the Power BI Embedder

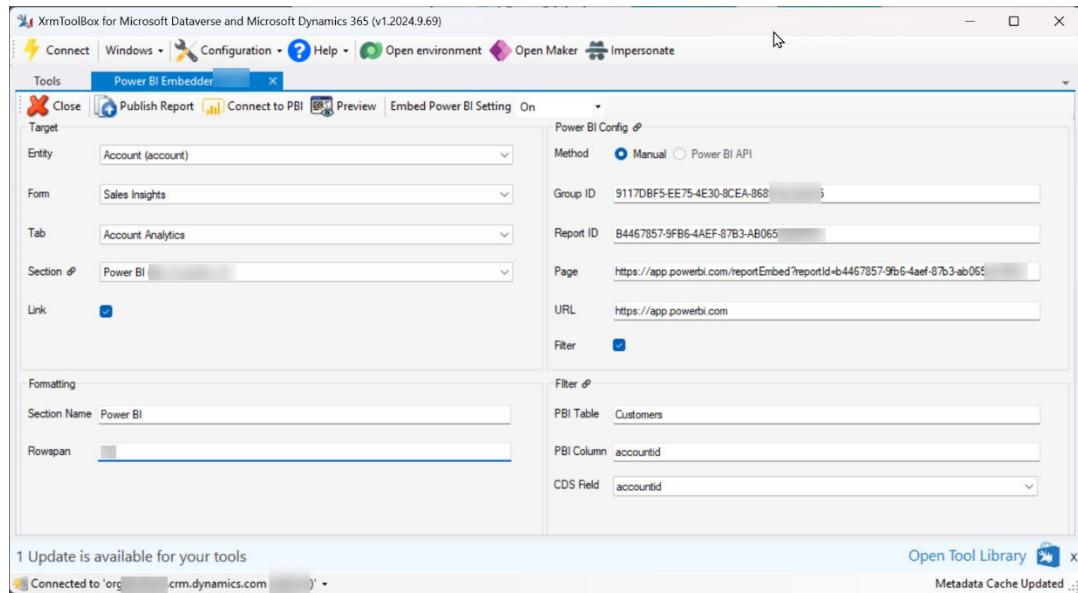


- Click the “Filter” checkbox and fill in the filter details – (Note: these values are Case Sensitive) and the data in the Account tab in Excel must match the data in your Dataverse account table.

PBI Table: **Customers**

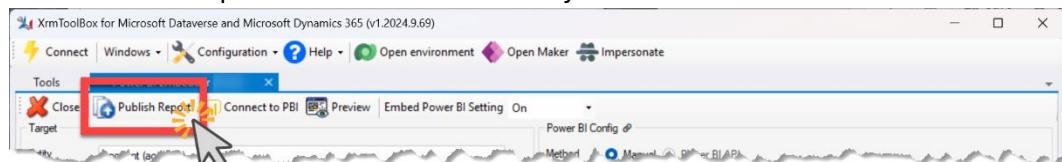
PBI Column: **accountid**

CDS Field: **accountid**



*Note: The “Page” value is automatically populated after publishing, you can ignore it.*

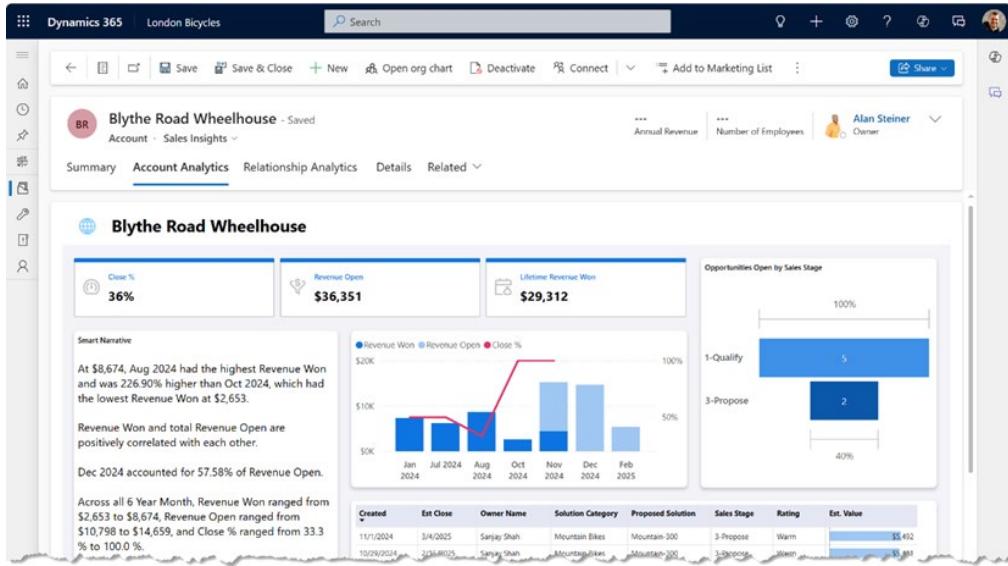
- Click ‘Publish Report’ to add this to the ‘Analytics’ section of the Account form.



(It may take a few minutes to complete – just be patient. Also, frequently it will time out during the first attempt to publish with a message about “the underlying connection” being “closed”, if it does, just click the Publish Report again.)

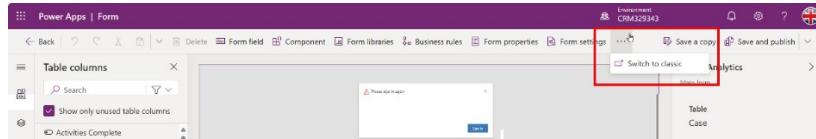
9. When the publish completes, open the Account form in Dynamics 365.

\*Be sure you've added it to the app you're using, and switch to the form if necessary.

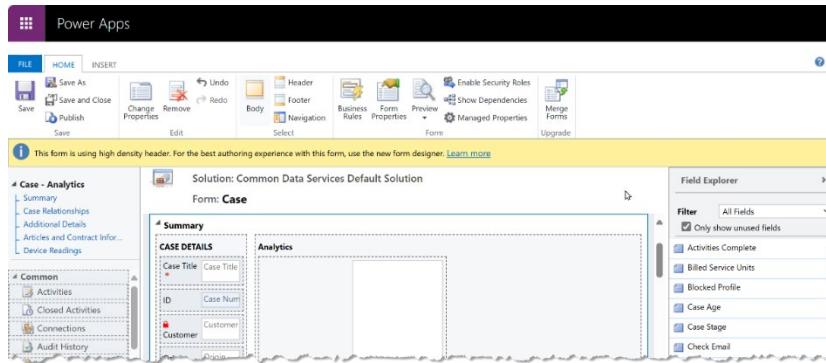


Also, a “Publish All” and a refresh of the browser window might be needed to ensure that the configuration updates are fully available.

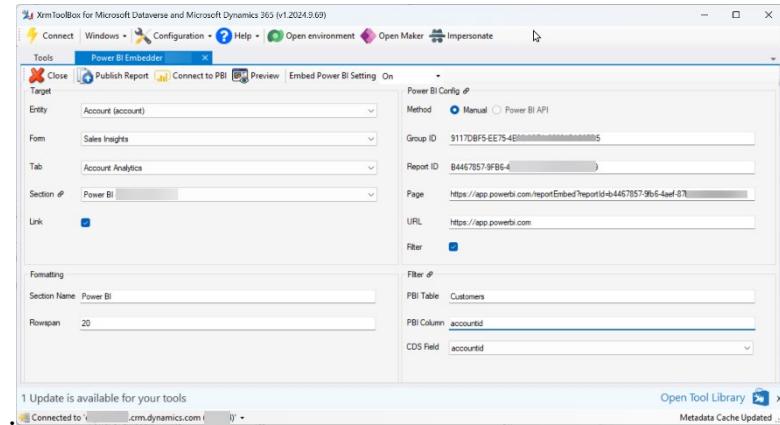
10. Once the report is embedded, you may have trouble editing the form in the current form editor in Power Apps - If you do, just switch to the classic editor.



You'll be able to edit in the classic editor –



For any changes to the embedded report configuration, use the XrmToolBox again to update changes to the way the embedding is configured (or to remove it.)



## Hints

1. No more than an hour before a demo it's a good idea to load the report once and click through everything just to warm up the cache.
2. If the report is open in a tab and sits idle for a period, it may time out – just click the browser's page refresh button. The 'Refresh All' button inside CRM does nothing to reload the report.