



Deploying Microsoft Fabric with Dynamics 365 applications

Microsoft Fabric and Dynamics 365: Better Together

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DYNUG.NO

HØSTKONFERANSE 26. OG 27. NOVEMBER
AV BRUKERE - FOR BRUKERE



The need for businesses to link people, data, and processes is greater than ever before

71%

Businesses are not able to respond quickly enough to changing market conditions, with 71% reporting low agility¹

77%

Percentage of businesses that reported experiencing a skills shortage in 2023²

86%

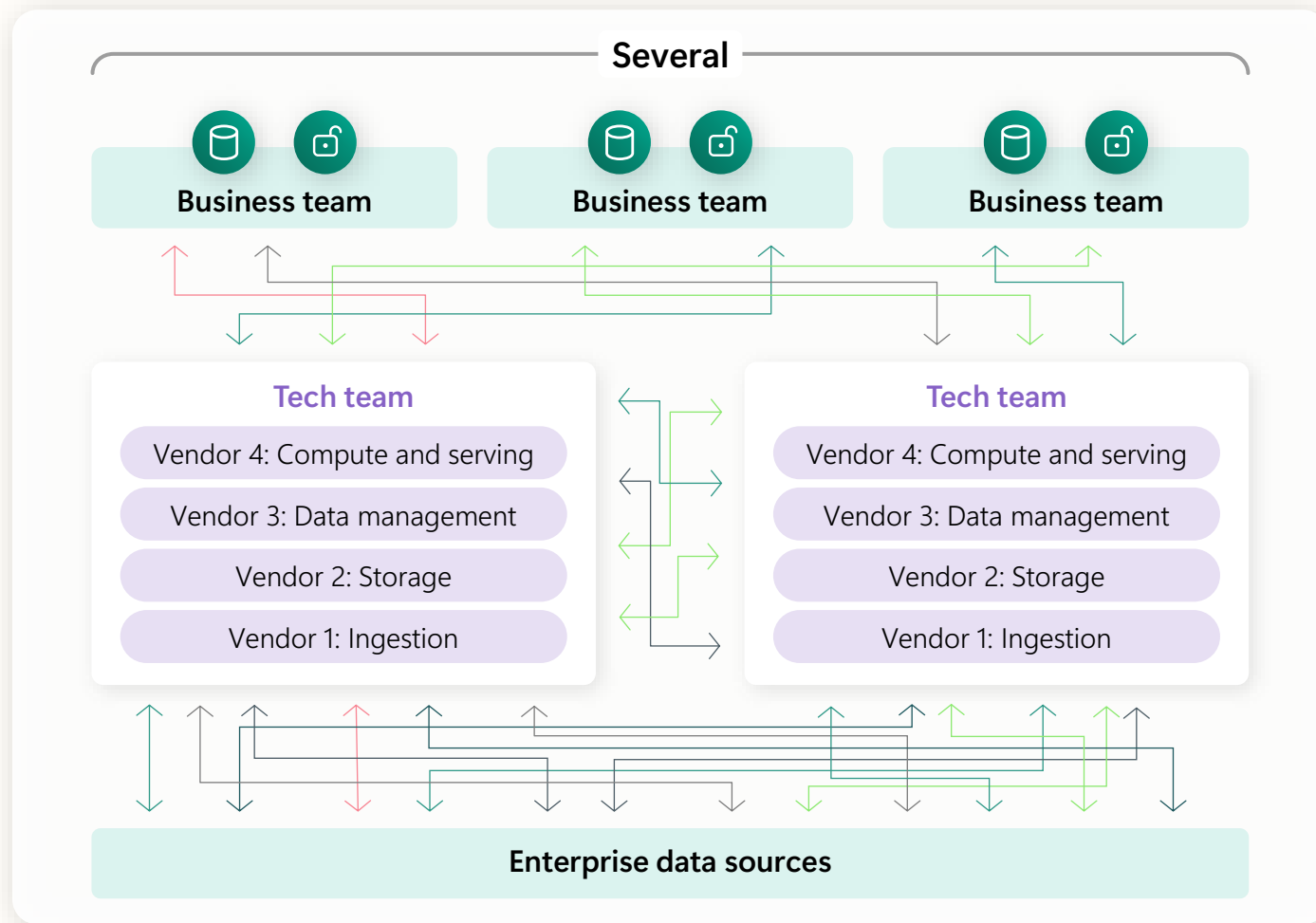
See scalability and the ability to grow and adapt with the business, as key to success¹

¹[Business Agility Institute](#)

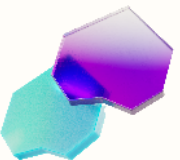
²[Forbes](#)

The starting line

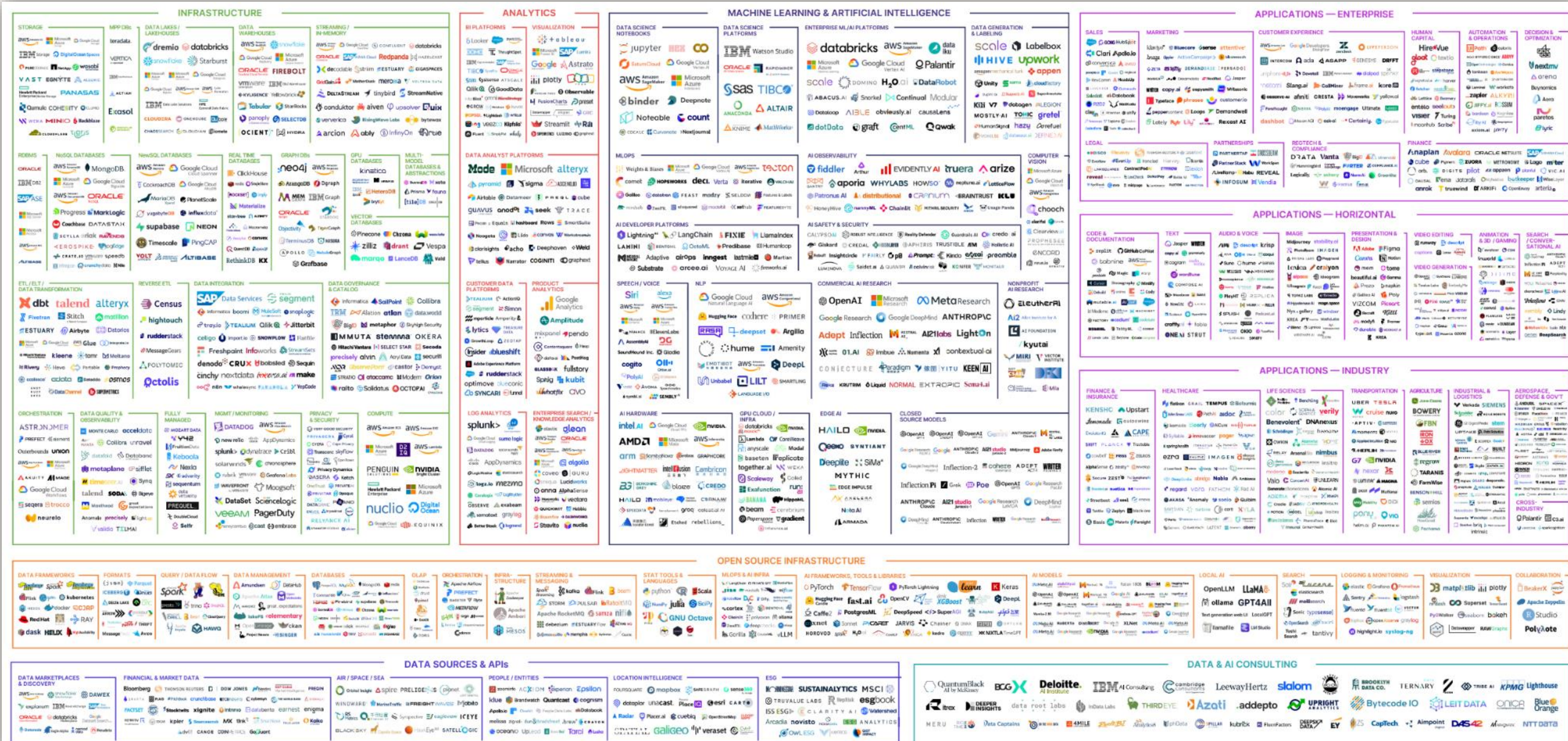
A complex, organically evolved data estate



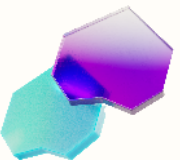
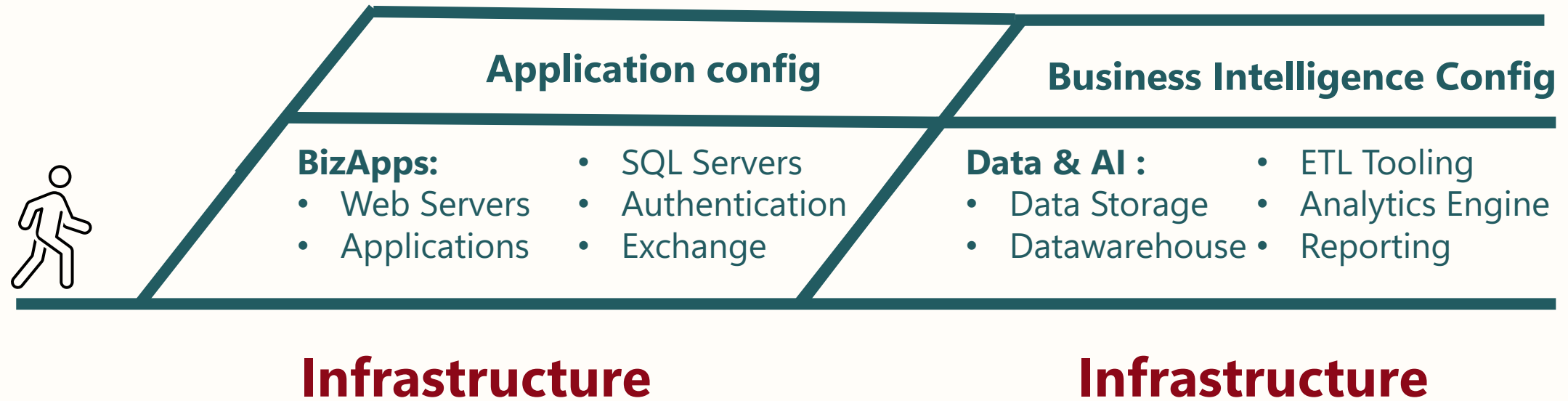
- 1 Data copies and infrastructure inefficiencies
- 2 Limited interoperability between vendor services
- 3 Data exposure risks



Customers enhancing their data estate face immense complexity



Value



Value

Business Intelligence Config

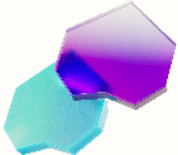
- Data & AI :**
- ETL Tooling
 - Data Storage
 - Datawarehouse
 - Analytics Engine
 - Reporting



Application config

SaaS

Infrastructure



Value

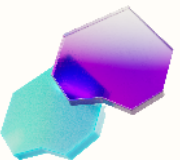


Application config

Business Intelligence Config

SaaS

SaaS





Microsoft Fabric



Data
Factory



Data
Engineering



Data
Warehouse



Data
Science



Real-Time
Intelligence



Power
BI



Partner &
Industry
workloads



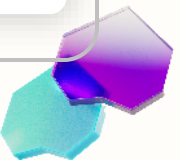
Copilot in Fabric



OneLake

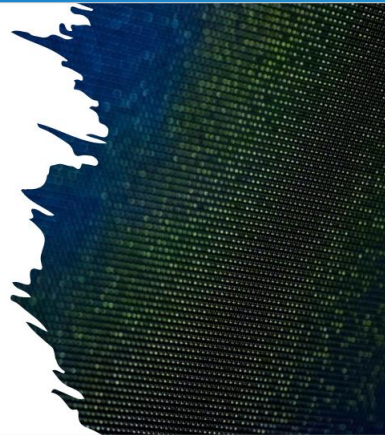


Microsoft Purview



Dataverse-Fabric Modules:

**Dataverse to
Fabric Options:**

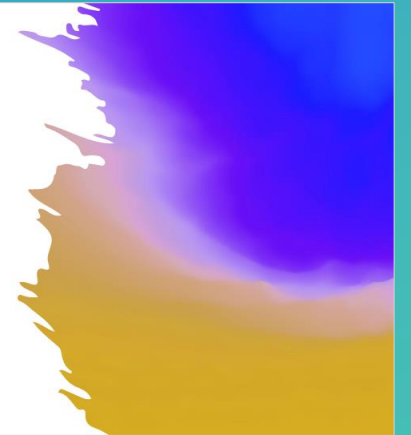


**Dataverse-
FabricLink
Configuration**



Explore the data

<https://github.com/MScottSevell/Dynamics365-Fabric-in-a-Day>



**Dataverse
Security
Considerations**



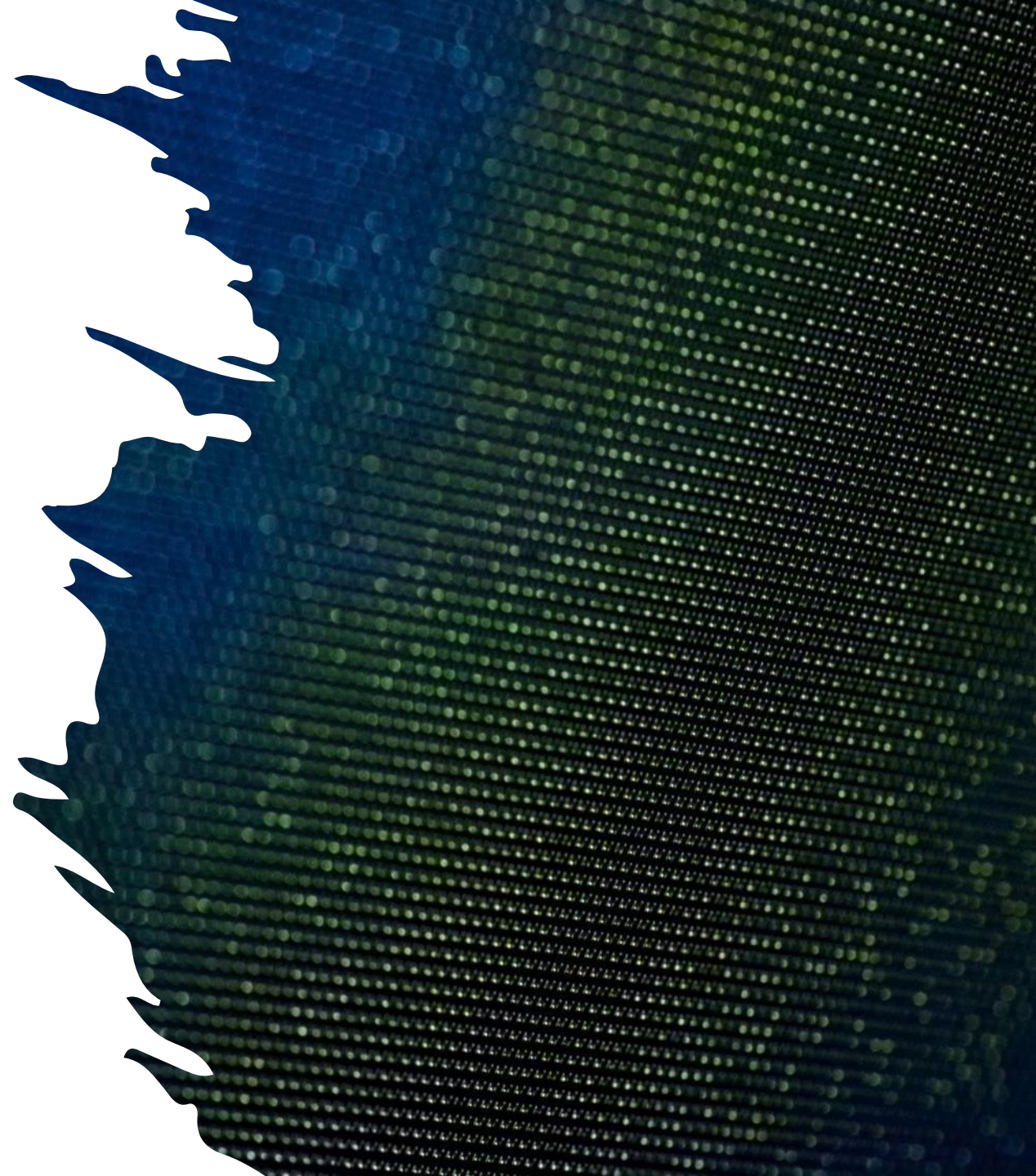
**Additional
Resources &
Special Topics**



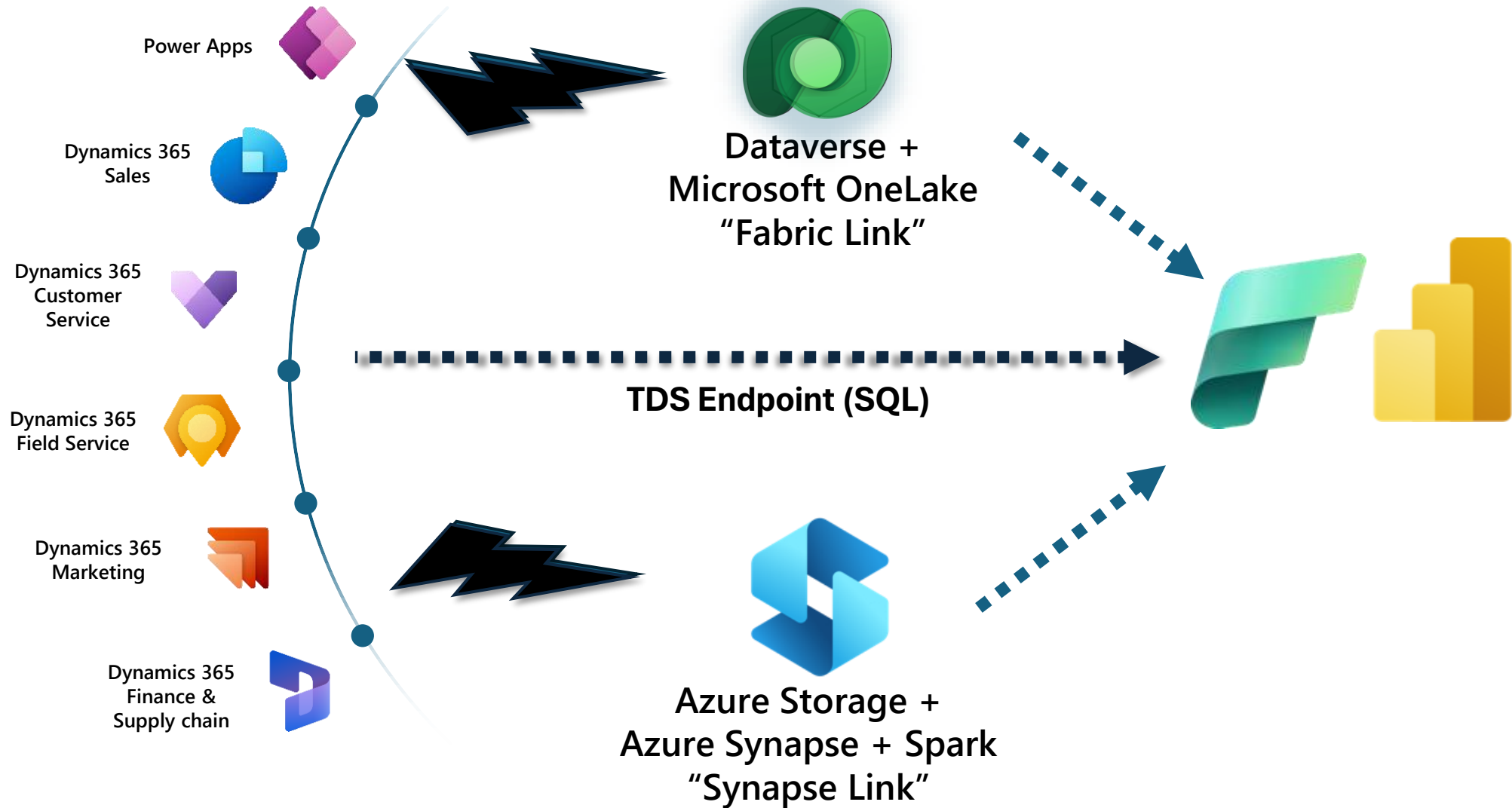
Demo – Fabric Link



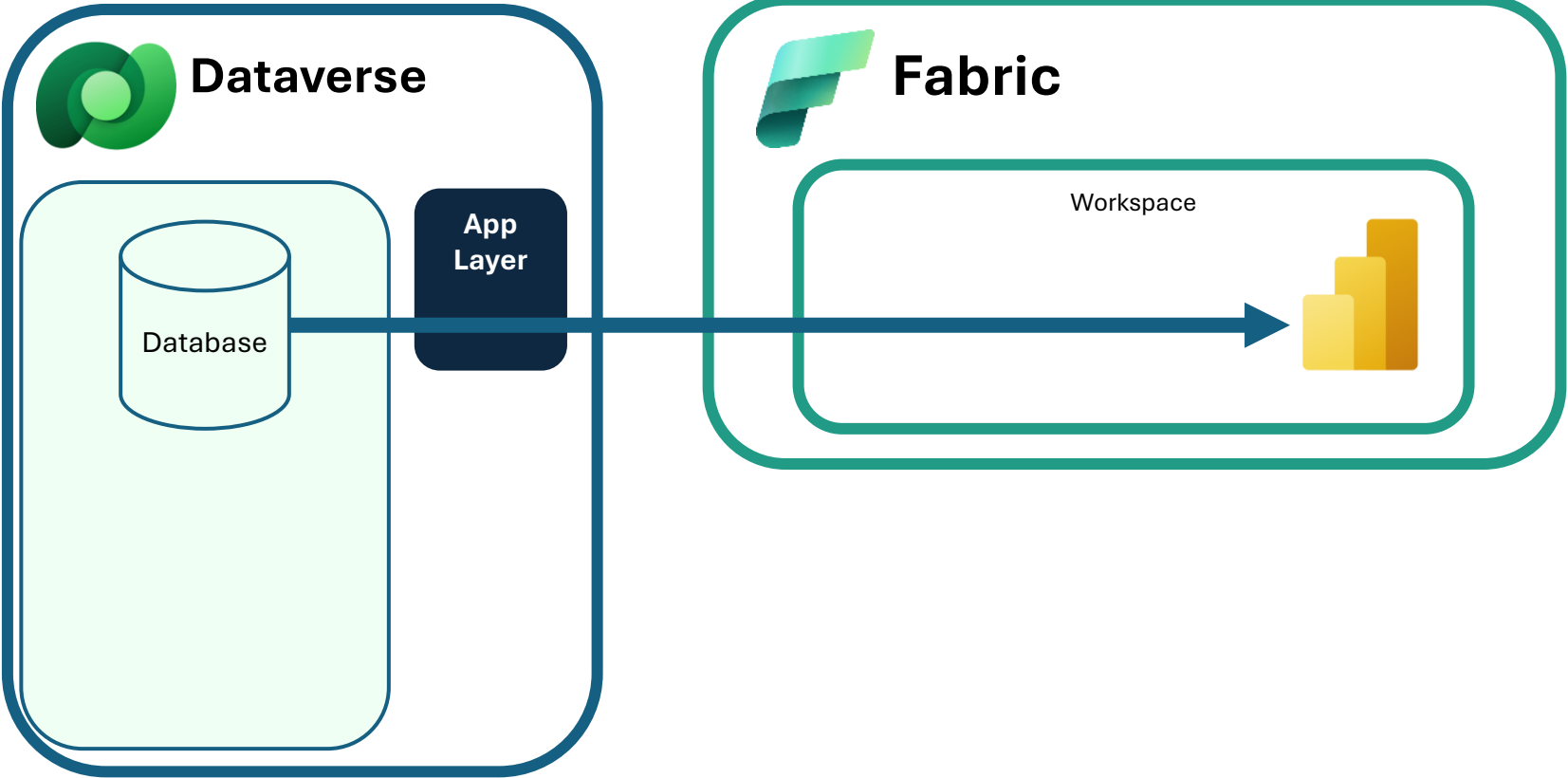
Dataverse to Fabric Options:



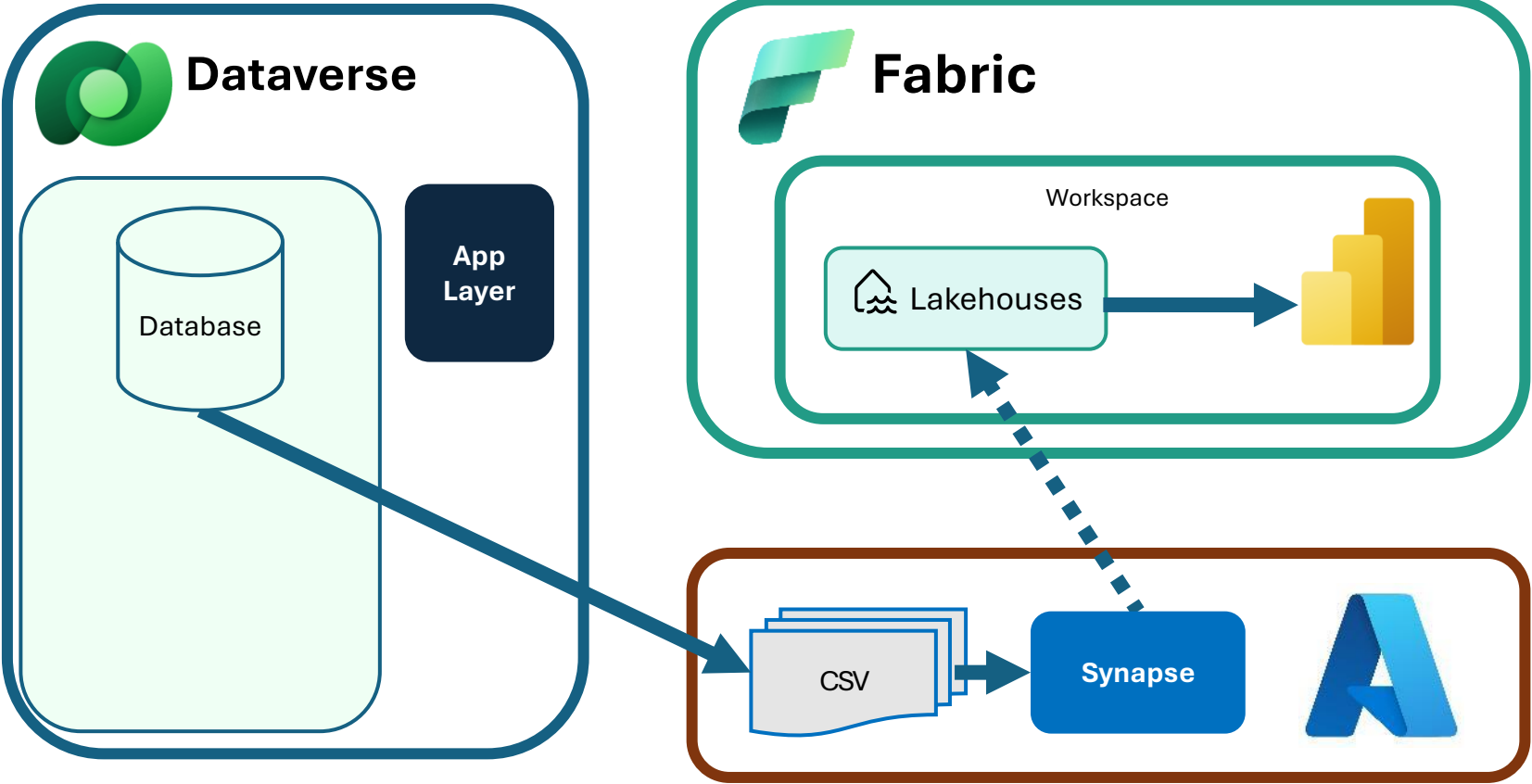
Three Options for Dataverse-Fabric



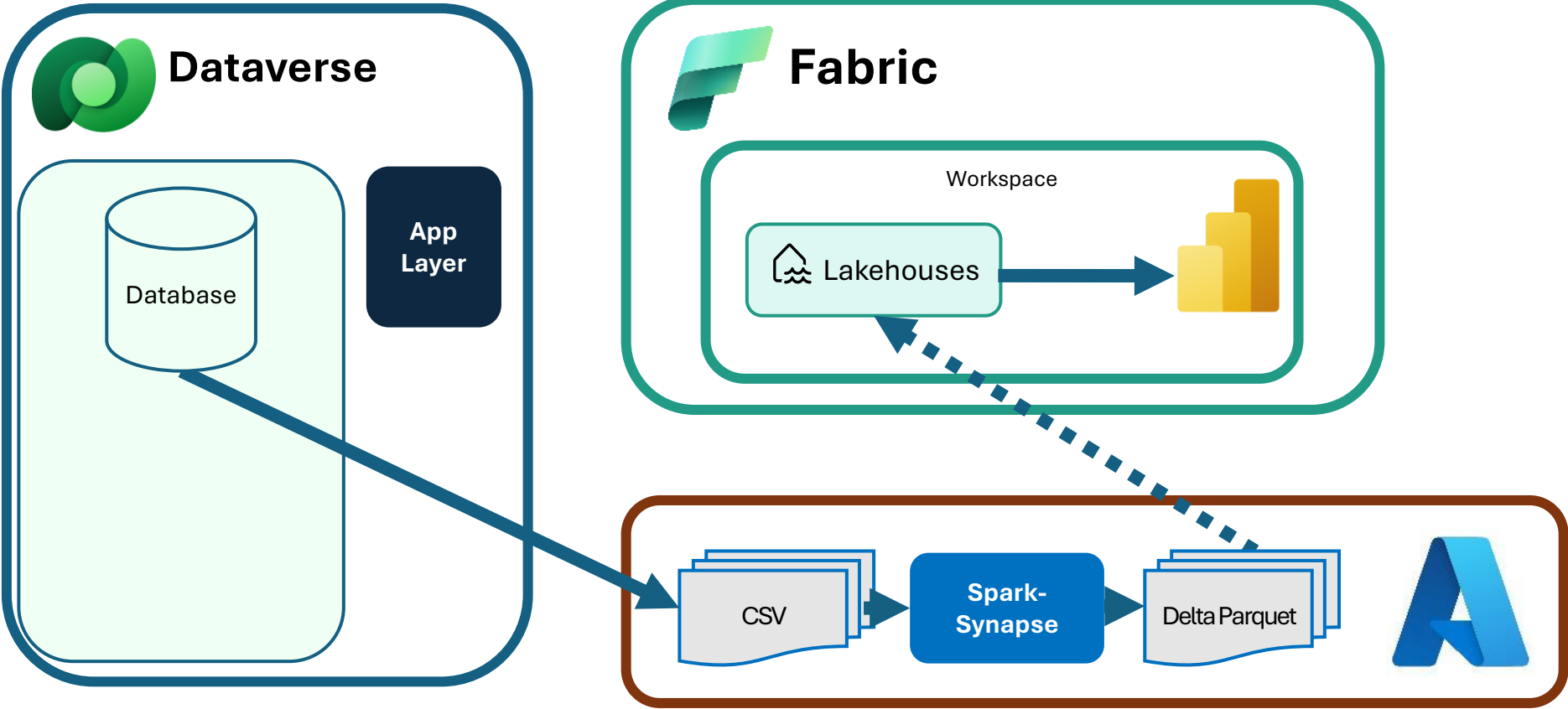
TDS Endpoint



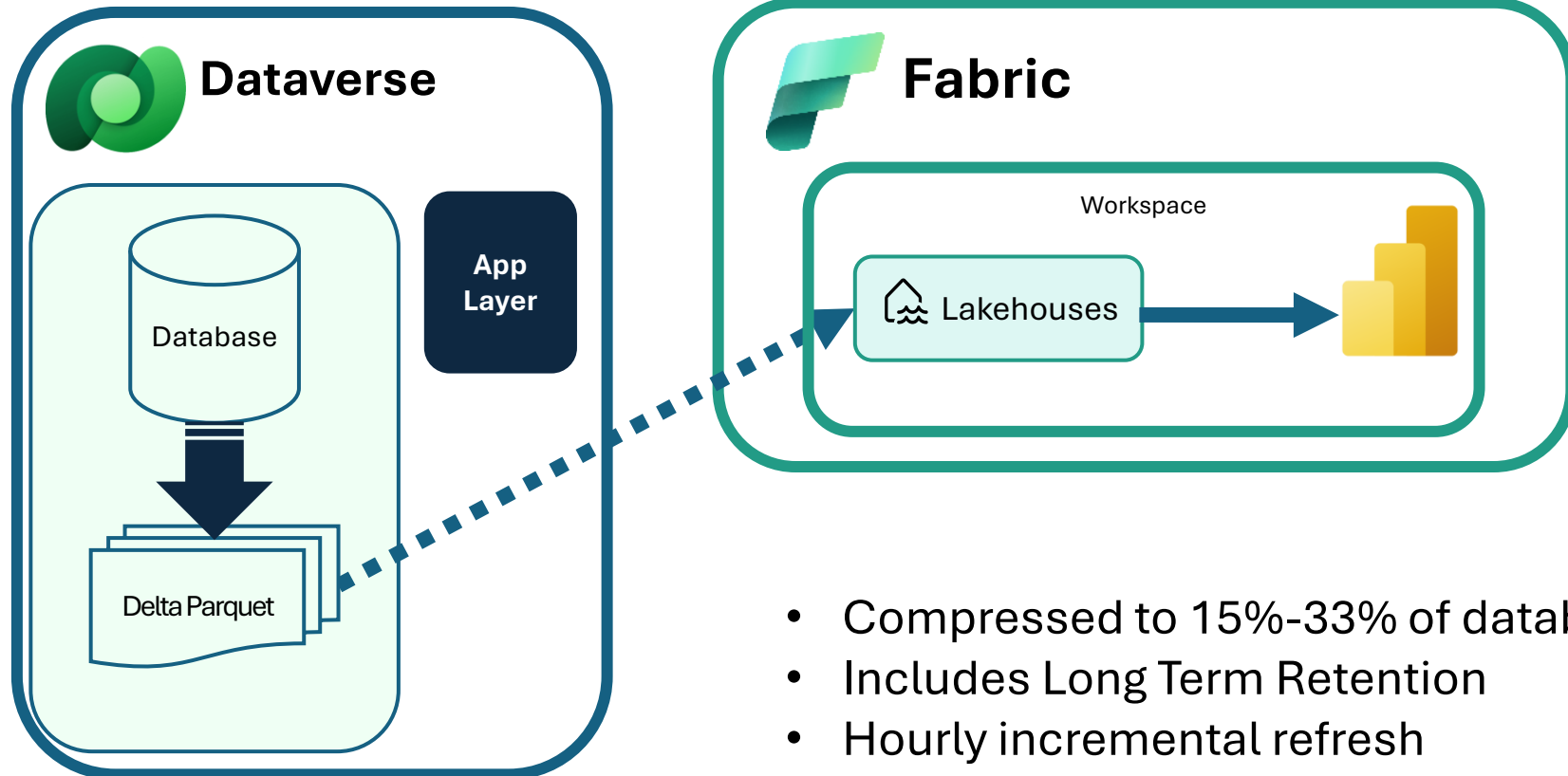
Azure Synapse Link – CSV Based



Azure Synapse Link – Delta Lake

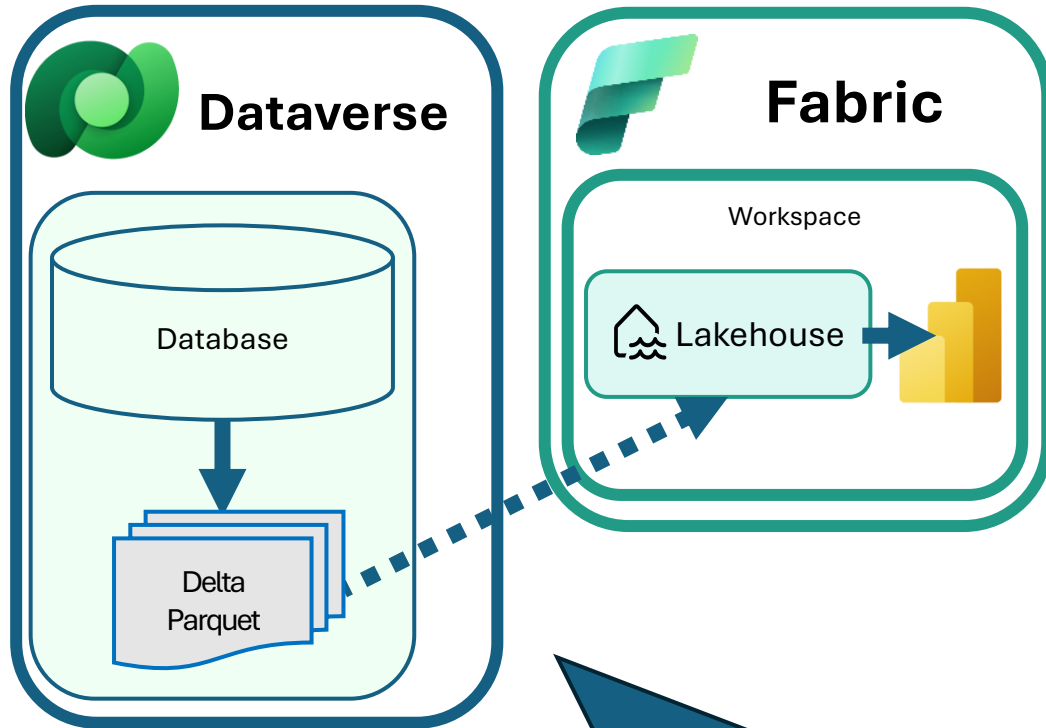


Fabric Link

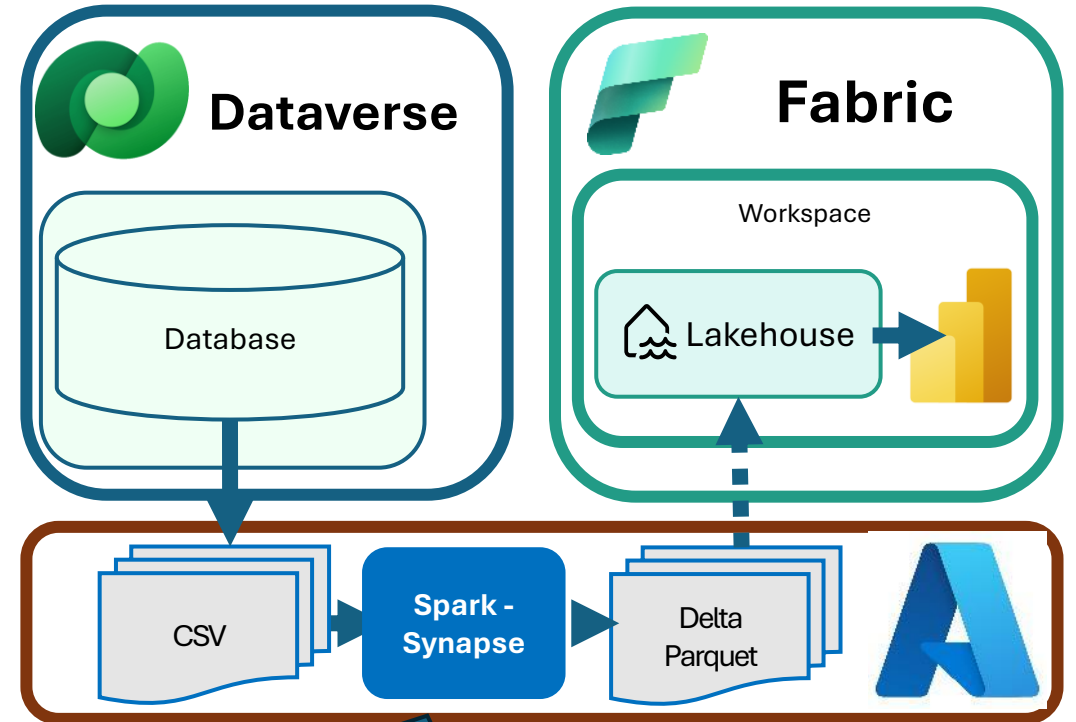


- Compressed to 15%-33% of database
- Includes Long Term Retention
- Hourly incremental refresh
- Compute is included in 'storage'
- No Azure resources consumed

Costs associated with Fabric Link vs Synapse Link

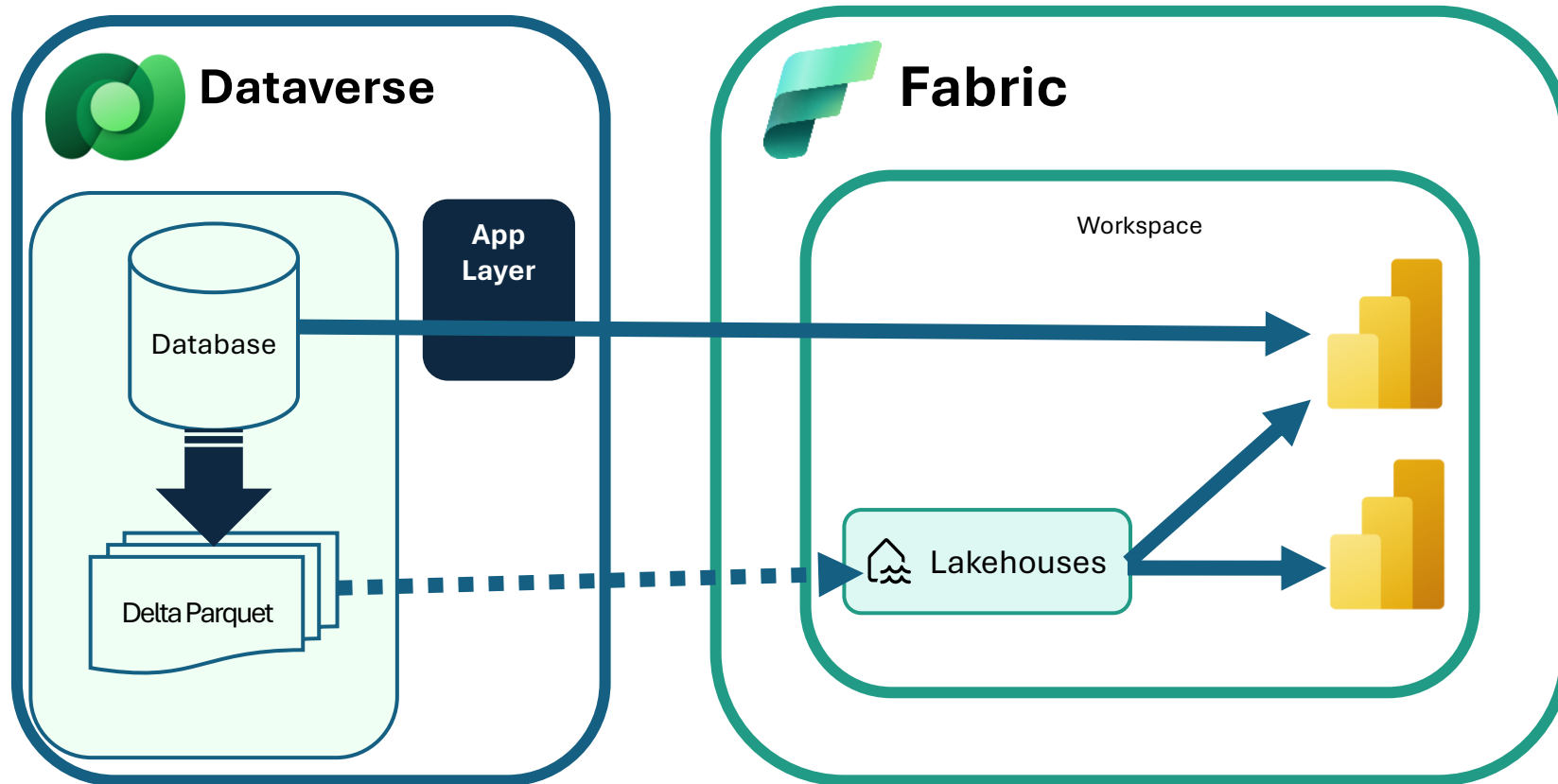


Billed as Dataverse “database” Storage (includes compute)

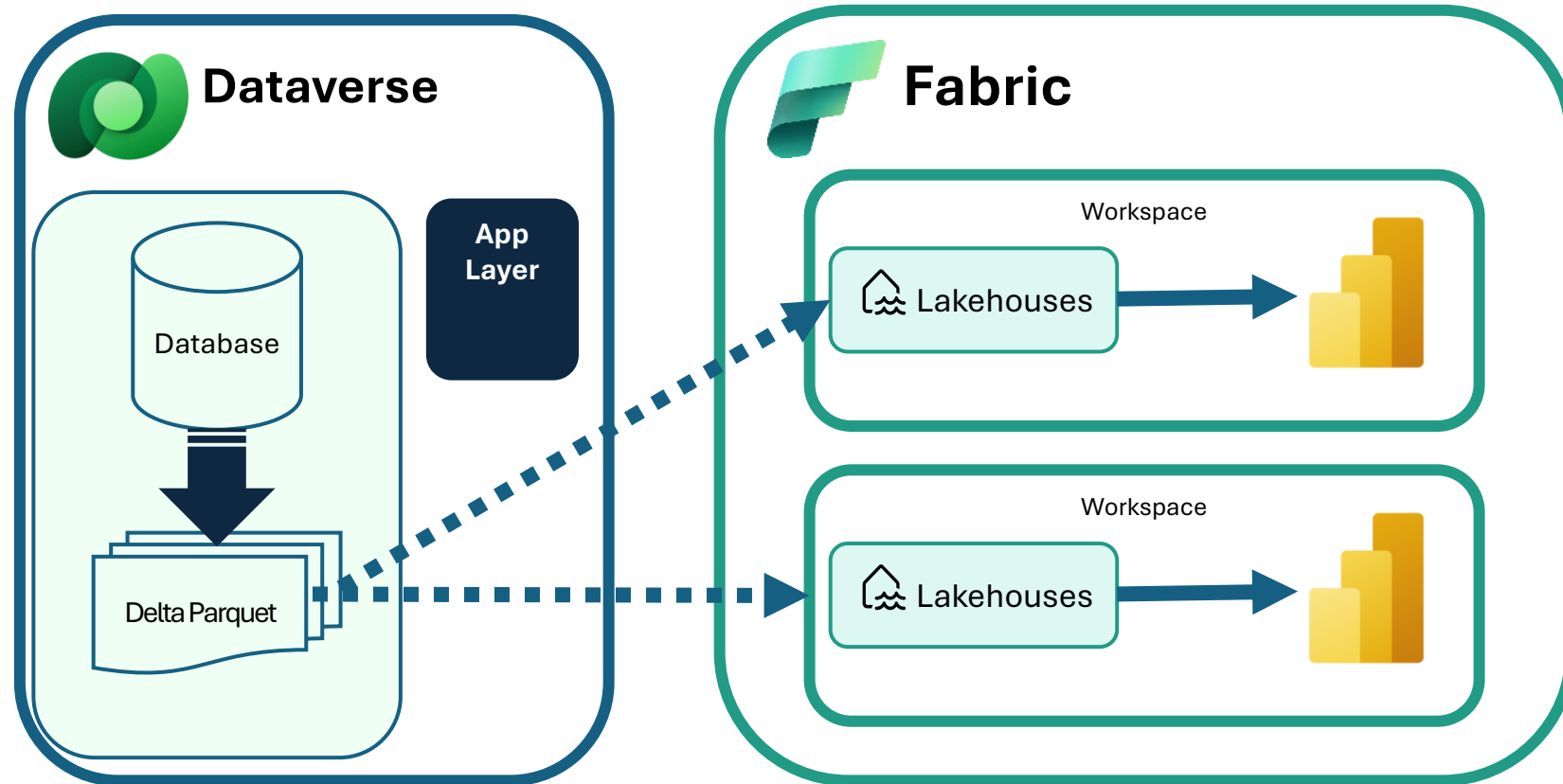


Compute and Storage billed by Azure + costs of customer’s own management of Azure.

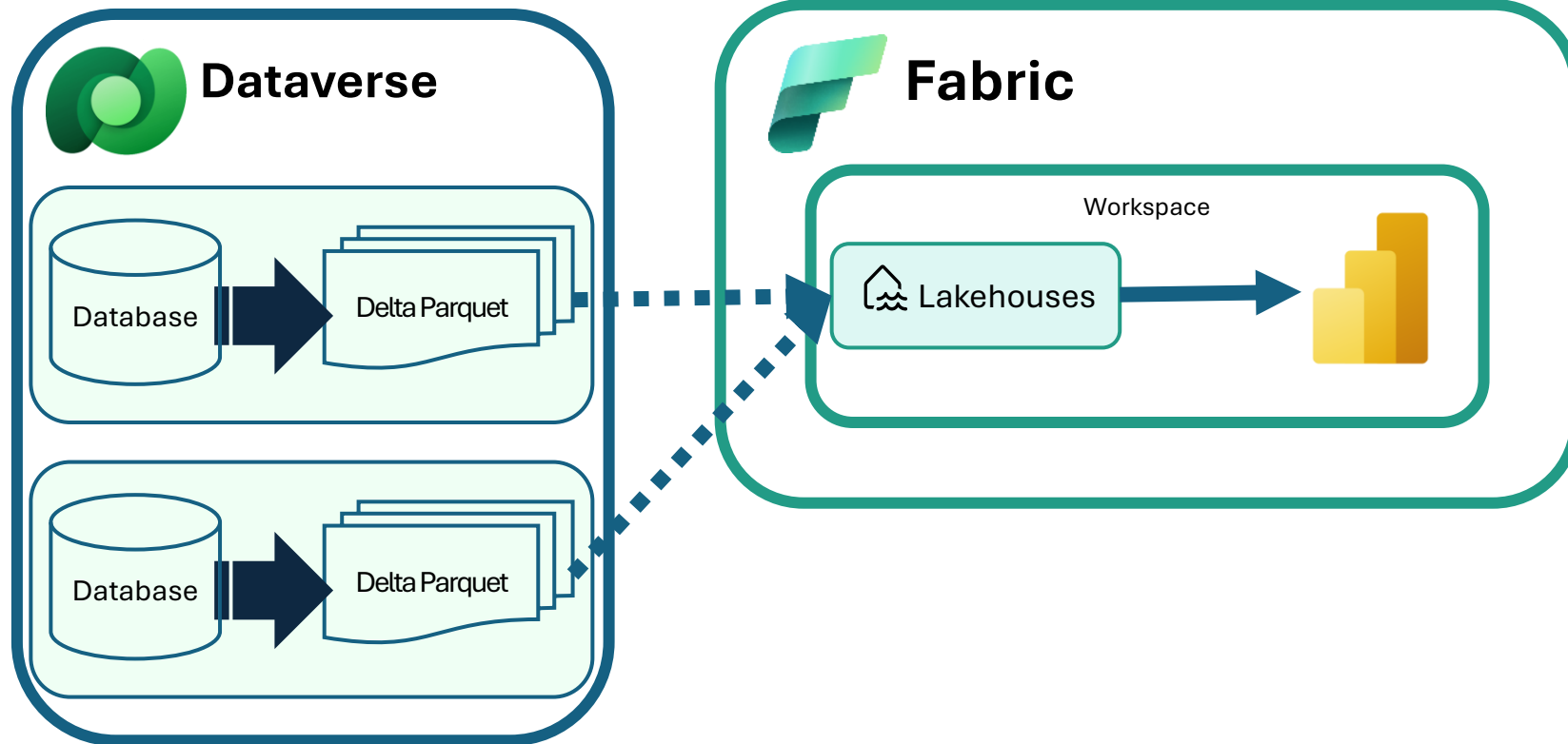
Fabric Link + TDS Endpoint



Fabric Links to multiple workspaces



Fabric Link from multiple environments



Dataverse- FabricLink Configuration



Creating the Microsoft OneLake / “FabricLink”

Pre-Requisites

○Dataverse

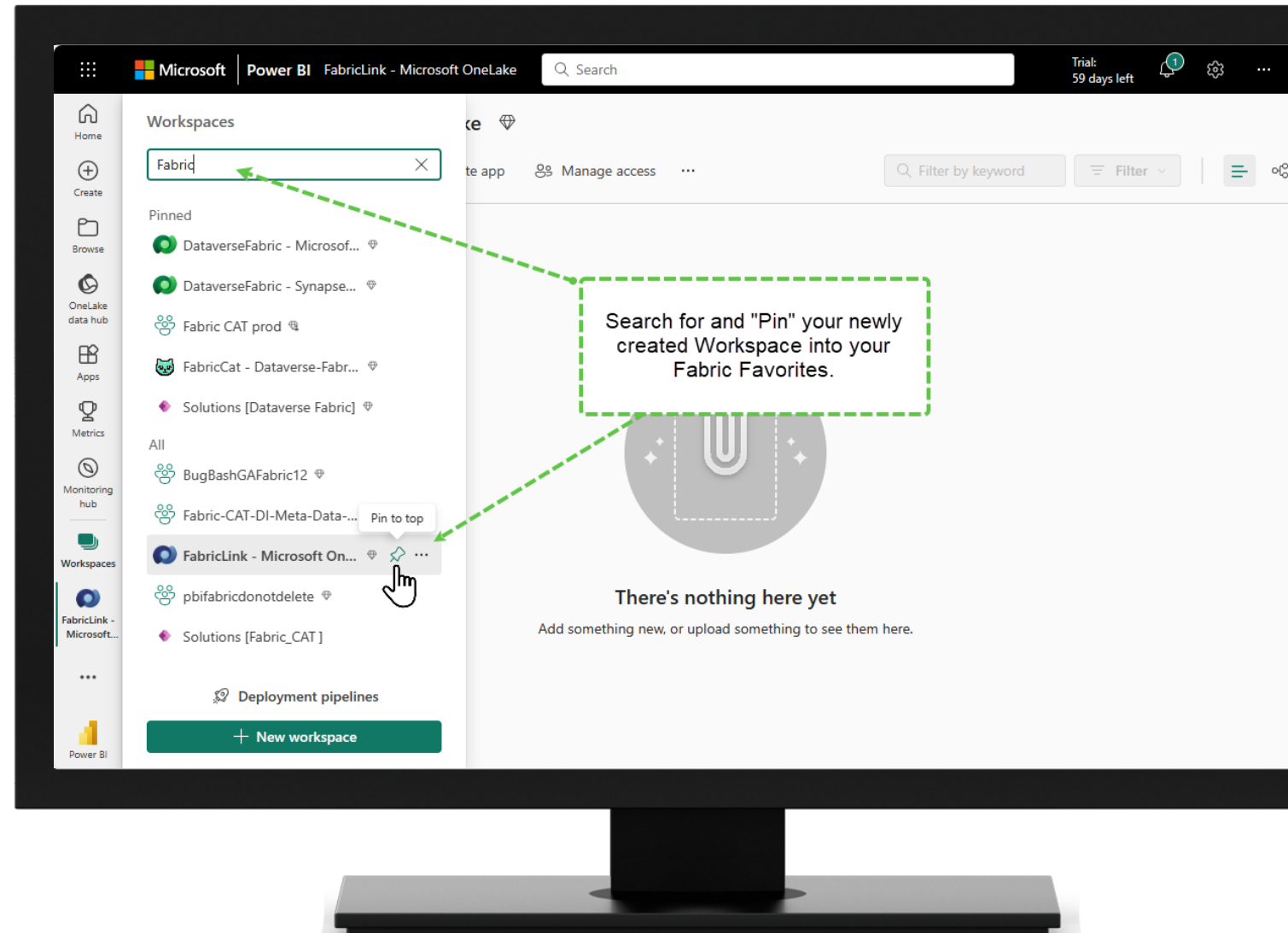
- You must have the **System Administrator security role in the Dataverse** environment.

○Fabric Capacity

- You must be an **administrator of the Power BI workspace**.
- Currently, the system supports these premium capacity SKUs: "P1", "P2", "P3", "P4", "P5", "F2", "F4", "F8", "F16", "F32", "F64", "F128", "F256", "F512", "F512", "F1024", "F2048", "DCT1", "FT1."

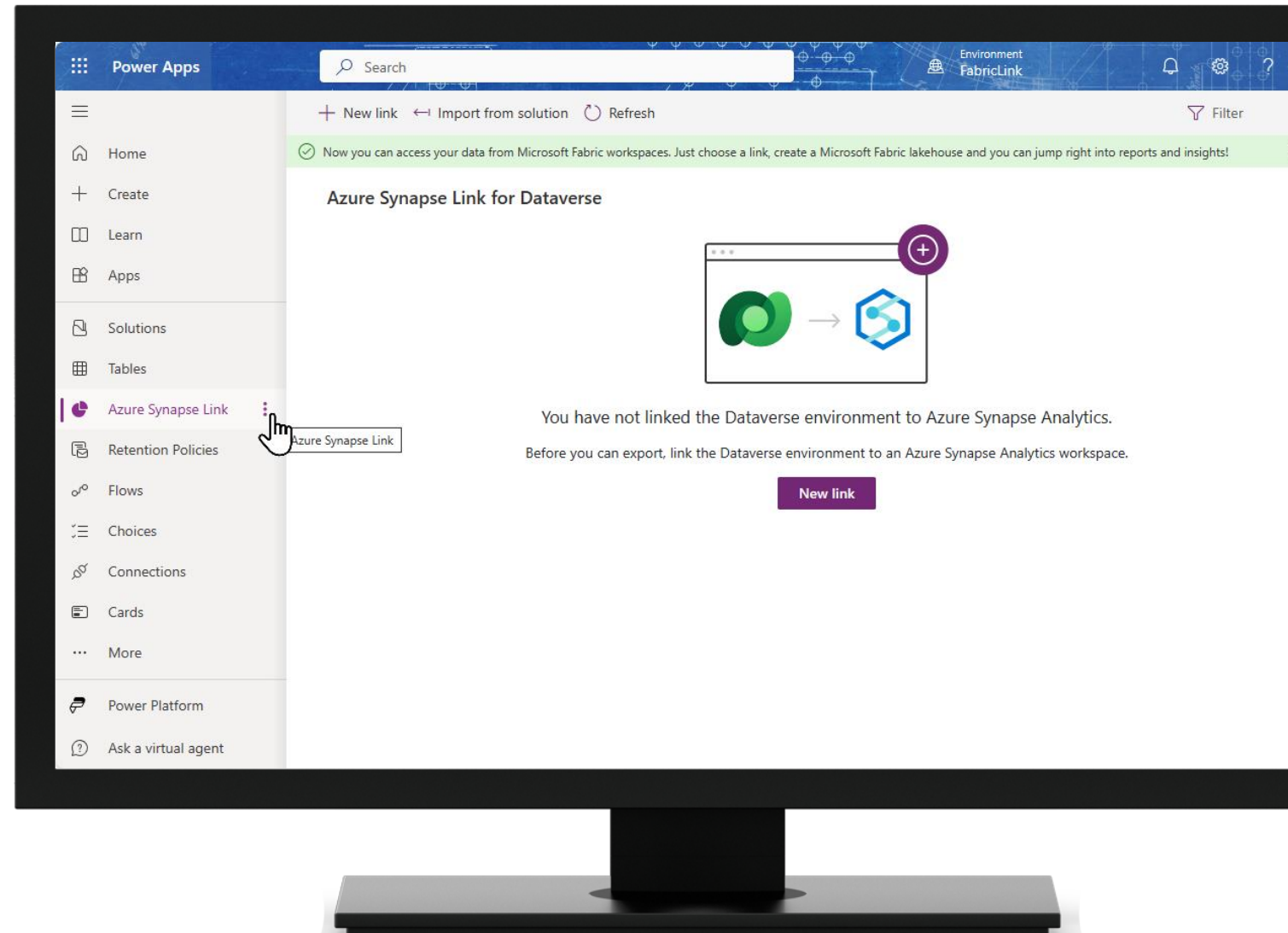
Setup Fabric Link – Create the Workspace

- Create a Fabric Workspace to hold the FabricLink Lakehouse.
- Name it / add an icon
- Ensure it's set to 'Trial' or 'Fabric'
- Pin your Workspace to your favorites



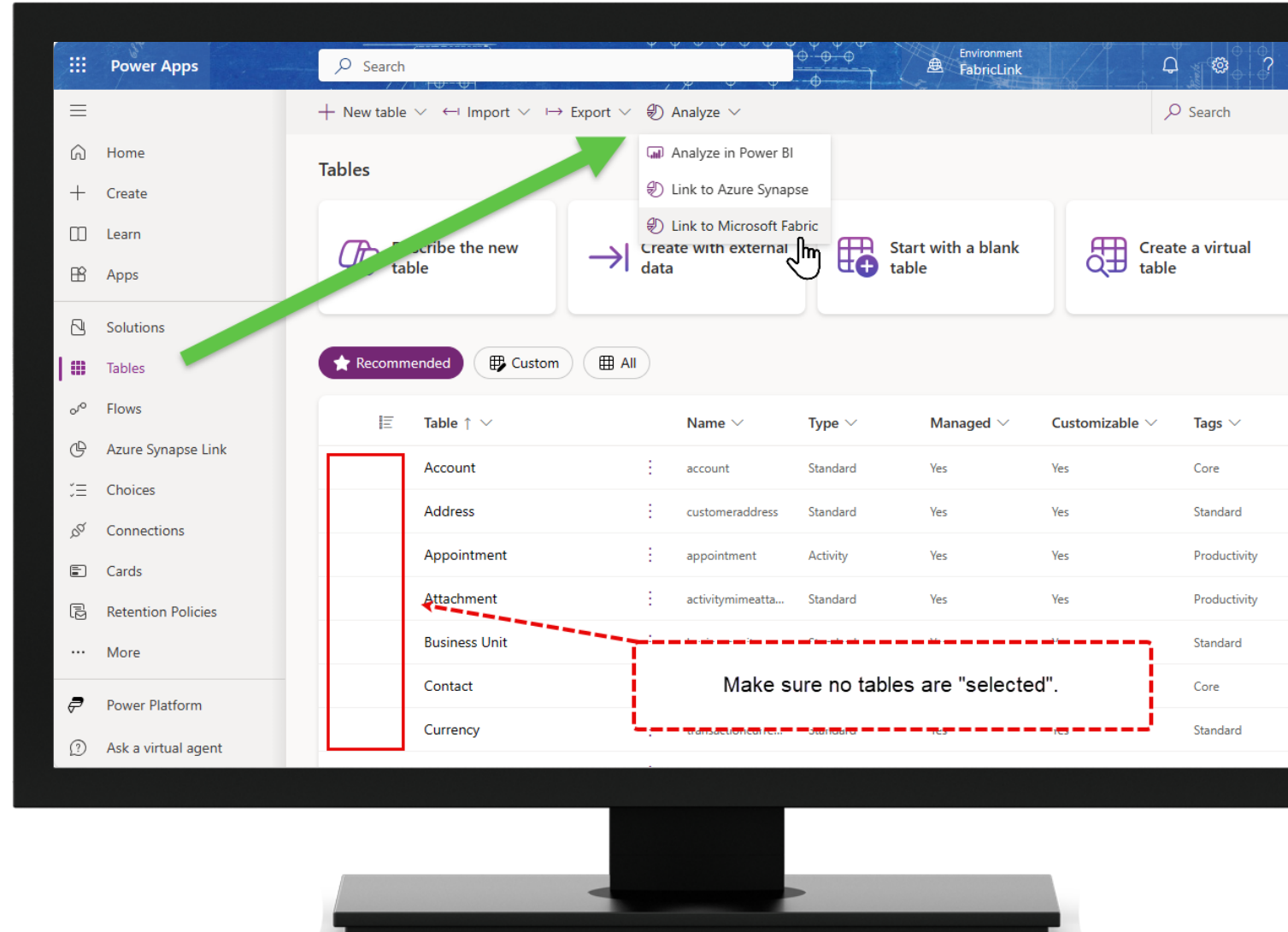
Pin the Azure Synapse Link in Maker App

- <https://make.powerapps.com>
- Add the Azure Synapse Link panel to your list of tools in the Maker Portal
- You can use the “New Link” to determine your Dataverse’s Region / Geo
- New link starts the “Azure Synapse Link” Wizard
- This page will be where we manage Fabric Link



Launch the Wizard

- Open the maker portal – ensure that you’re on the right Dataverse org.
- From “Tables” go to the “Analyze” menu and choose “Link to Microsoft Fabric”

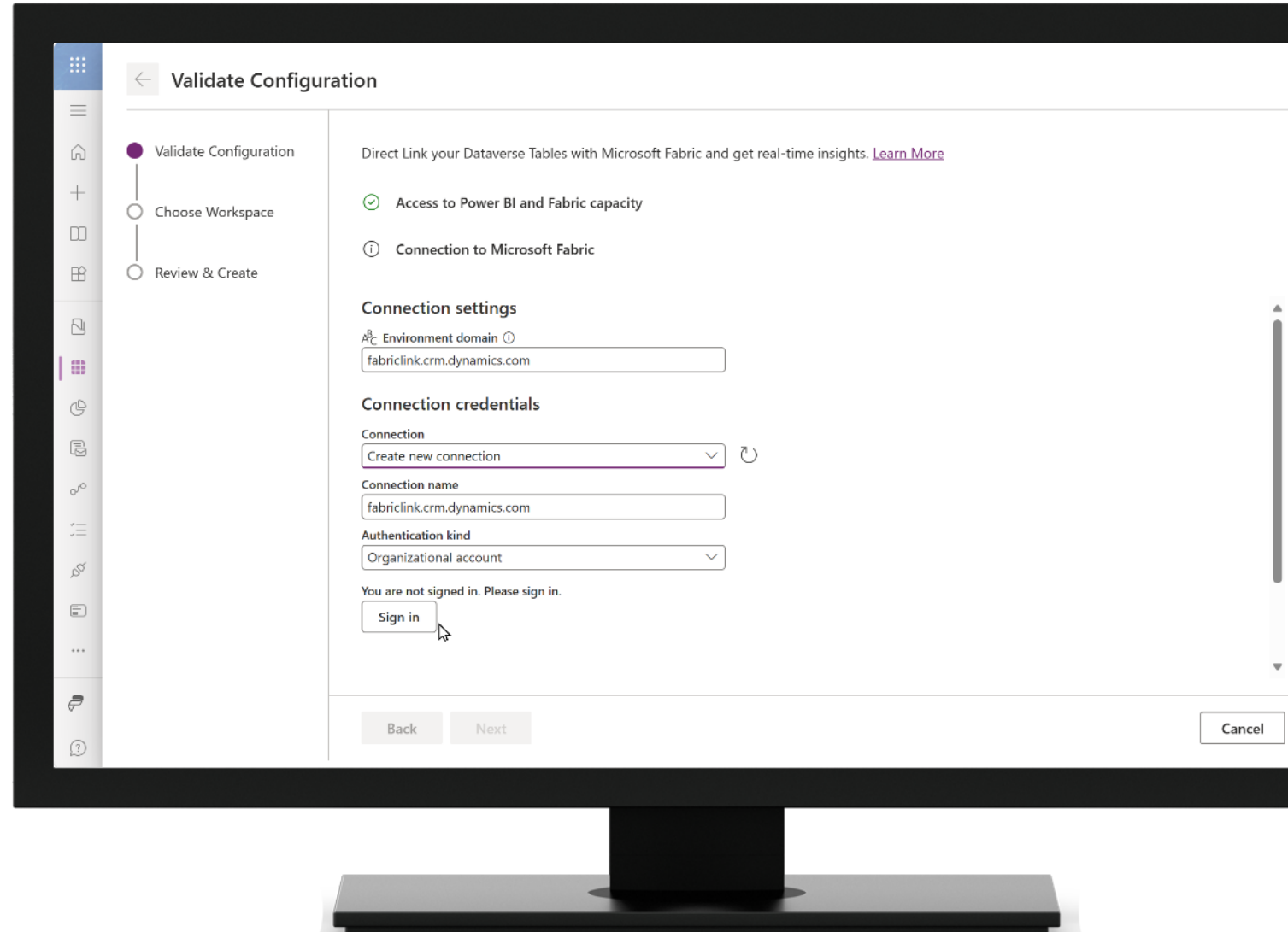


The screenshot displays the Power Apps maker portal interface. The left sidebar shows the navigation menu with 'Tables' selected. The main content area shows the 'Tables' section with a 'New table' button and an 'Analyze' dropdown menu. The 'Analyze' menu is open, showing options: 'Analyze in Power BI', 'Link to Azure Synapse', 'Link to Microsoft Fabric', and 'Create with external data'. A green arrow points from the 'Analyze' menu to the 'Link to Microsoft Fabric' option. Below the menu, there are buttons for 'Describe the new table', 'Start with a blank table', and 'Create a virtual table'. A table of existing tables is visible, with a red box highlighting the 'Attachment' row and a red dashed box around it containing the text 'Make sure no tables are "selected".'

Table	Name	Type	Managed	Customizable	Tags
Account	account	Standard	Yes	Yes	Core
Address	customeraddress	Standard	Yes	Yes	Standard
Appointment	appointment	Activity	Yes	Yes	Productivity
Attachment	activitymimeatta...	Standard	Yes	Yes	Productivity
Business Unit					Standard
Contact					Core
Currency					Standard

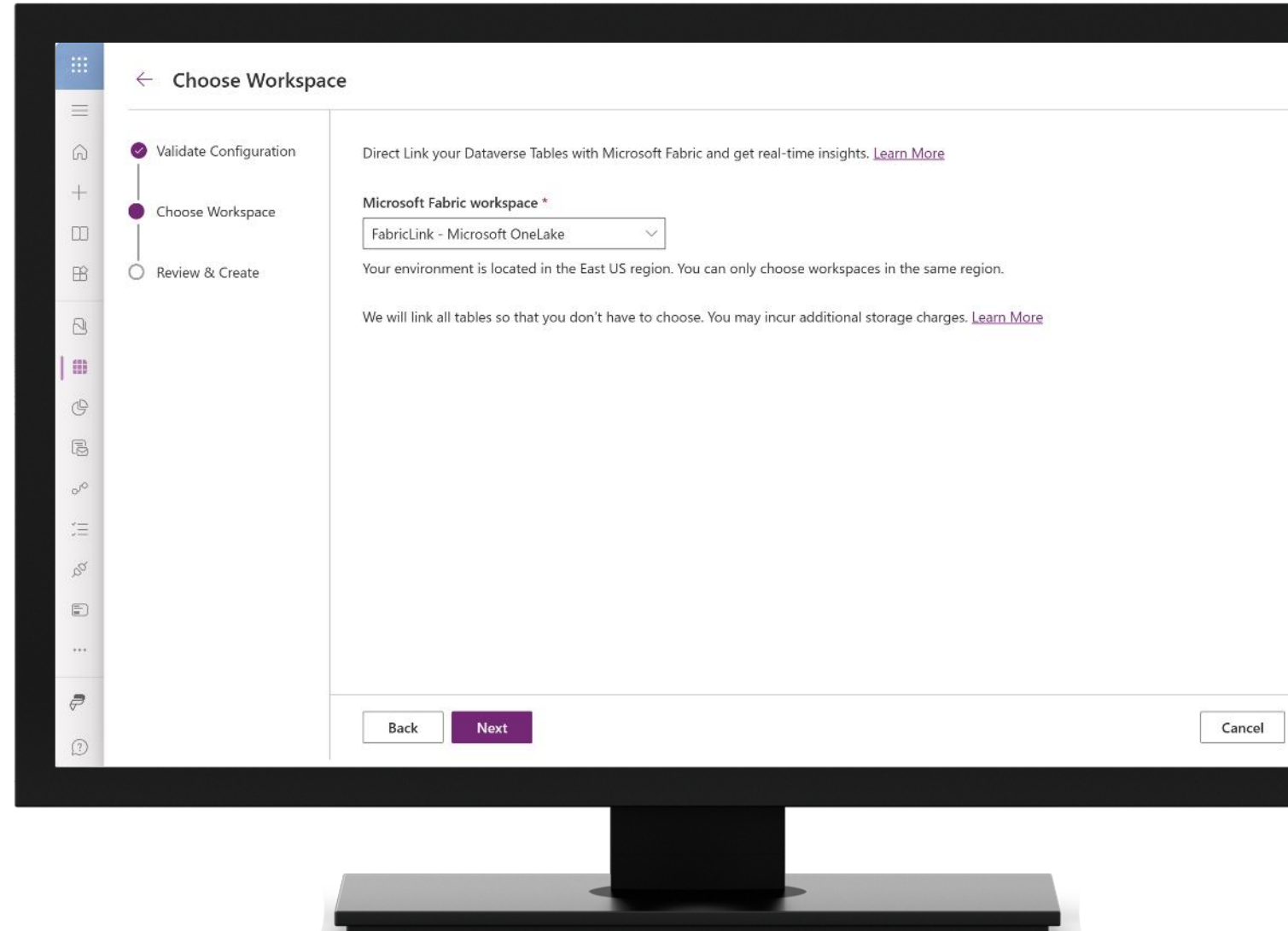
Setup Fabric Link – Connection Settings

- Organizational Account
- Sign in with your Entra ID



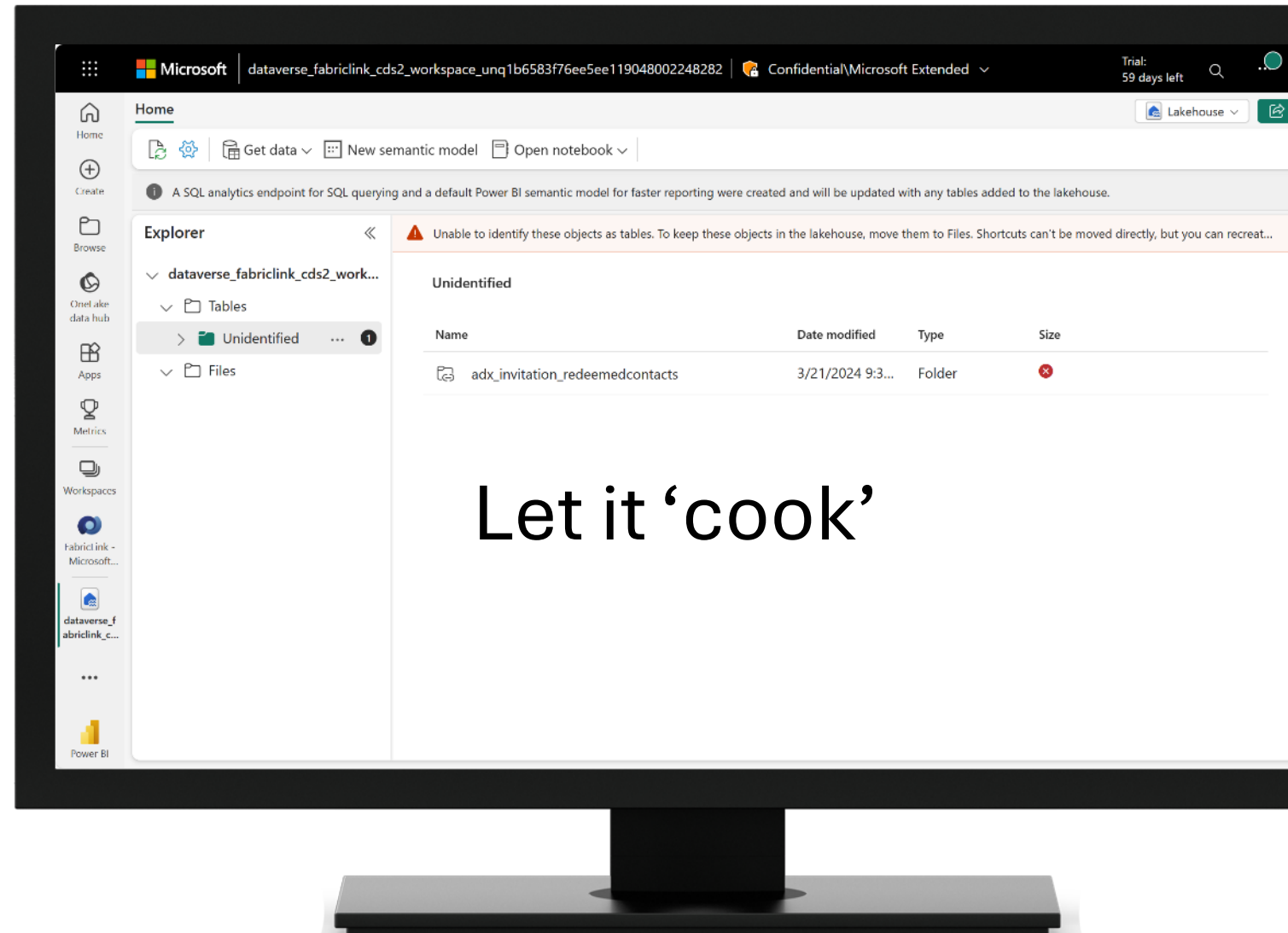
Setup Fabric Link – Choose Fabric Workspace

- Select from drop-down



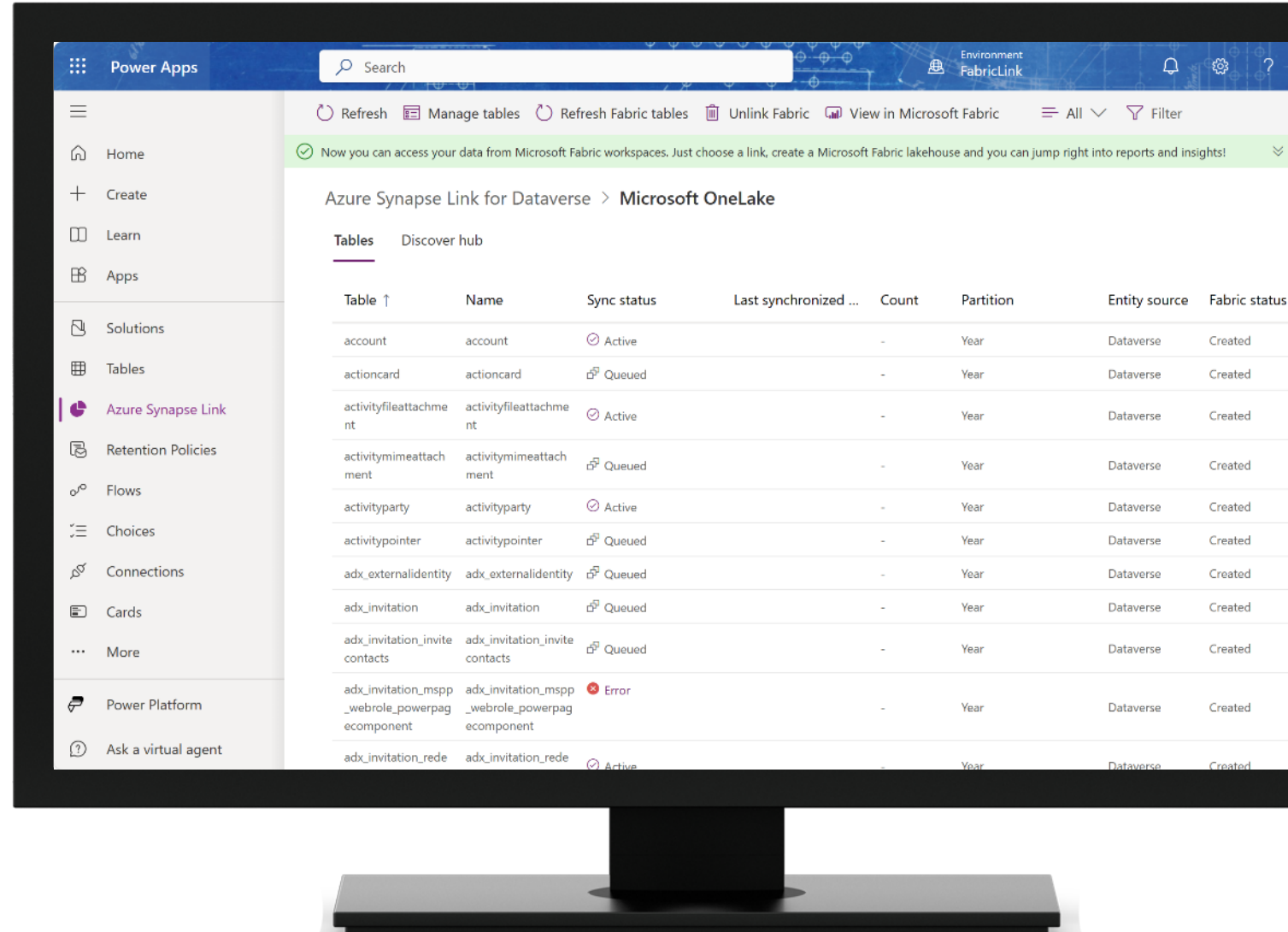
Setup Fabric Link – Review and create

- This can take time to complete – be patient.
- It will eventually open to the Fabric Workspace – but the shortcuts won't be finished being created – give it time.
- This first synch will take time – maybe even several hours if you have lots of data – Be patient.



Setup Fabric Link – Back to the Maker Portal

- On Azure Synapse Link, you'll now see the link to “Microsoft OneLake” – This is your gateway to your FabricLink environment.
- Click on Tables to view the list of tables and their status. – Again, this does take time if you're first setting it up.
- The toolbar here gives you
 - Refresh (this page)
 - Manage Tables
 - Refresh Fabric tables (update metadata in Fabric)
 - Unlink
 - View in Fabric

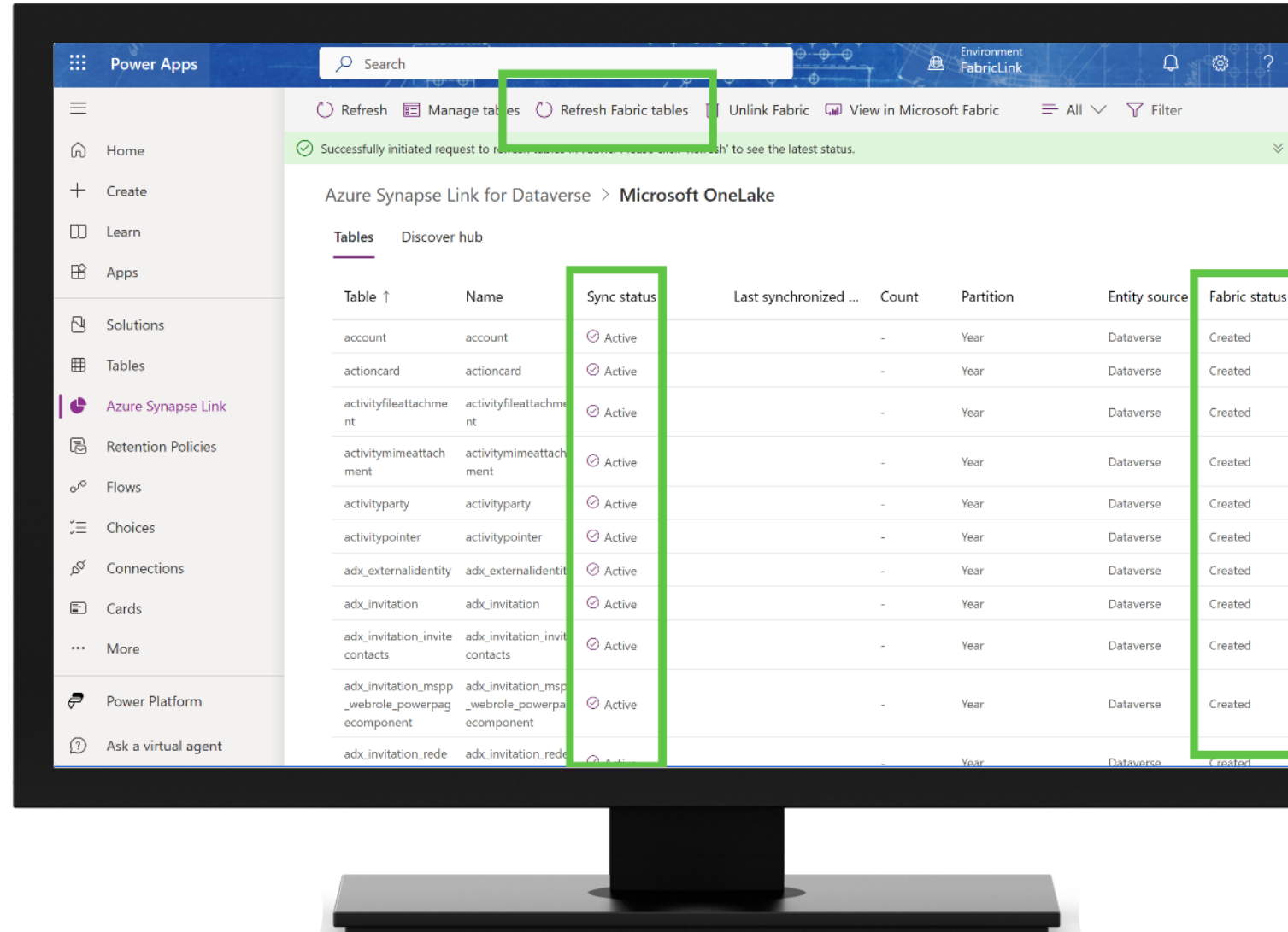


The screenshot shows the Microsoft Power Apps Maker Portal interface. The top navigation bar includes "Power Apps", a search bar, and "Environment FabricLink". The left sidebar contains navigation options: Home, Create, Learn, Apps, Solutions, Tables, Azure Synapse Link (highlighted), Retention Policies, Flows, Choices, Connections, Cards, More, Power Platform, and Ask a virtual agent. The main content area displays the "Azure Synapse Link for Dataverse" interface, showing a list of tables under the "Tables" tab. The table list includes columns for Table, Name, Sync status, Last synchronized, Count, Partition, Entity source, and Fabric status. The toolbar at the top of the main content area includes "Refresh", "Manage tables", "Refresh Fabric tables", "Unlink Fabric", and "View in Microsoft Fabric". A green notification banner at the top of the main content area states: "Now you can access your data from Microsoft Fabric workspaces. Just choose a link, create a Microsoft Fabric lakehouse and you can jump right into reports and insights!".

Table	Name	Sync status	Last synchronized ...	Count	Partition	Entity source	Fabric status
account	account	Active		-	Year	Dataverse	Created
actioncard	actioncard	Queued		-	Year	Dataverse	Created
activityfileattachme nt	activityfileattachme nt	Active		-	Year	Dataverse	Created
activymimeattach ment	activymimeattach ment	Queued		-	Year	Dataverse	Created
activityparty	activityparty	Active		-	Year	Dataverse	Created
activitypointer	activitypointer	Queued		-	Year	Dataverse	Created
adx_externalidentity	adx_externalidentity	Queued		-	Year	Dataverse	Created
adx_invitation	adx_invitation	Queued		-	Year	Dataverse	Created
adx_invitation_invi te contacts	adx_invitation_invi te contacts	Queued		-	Year	Dataverse	Created
adx_invitation_mspp _webrole_powerpag ecomponent	adx_invitation_mspp _webrole_powerpag ecomponent	Error		-	Year	Dataverse	Created
adx_invitation_rede	adx_invitation_rede	Active		-	Year	Dataverse	Created

Setup Fabric Link – Refresh Fabric Tables

- Once the Sync status is Active for tables, Click Refresh Fabric tables
- This might take waiting on another refresh cycle before the metadata is fully ready for Fabric.



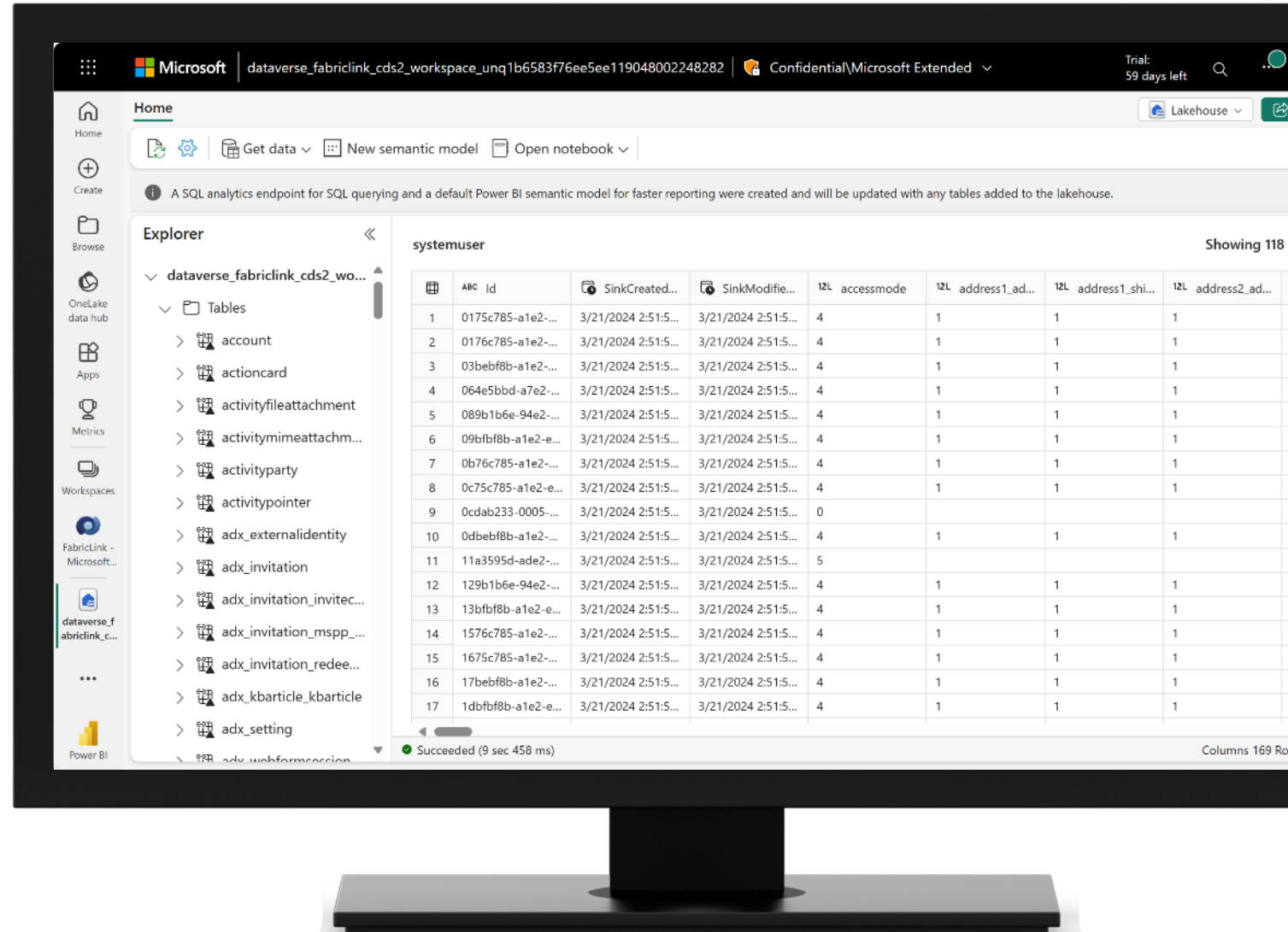
The screenshot displays the Microsoft Fabric interface. At the top, a navigation bar includes 'Power Apps', a search bar, and the 'Environment FabricLink'. Below this, a toolbar contains buttons for 'Refresh', 'Manage tables', 'Refresh Fabric tables' (highlighted with a green box), 'Unlink Fabric', and 'View in Microsoft Fabric'. A green notification banner states: 'Successfully initiated request to refresh tables. Click 'Refresh' to see the latest status.'

The main content area shows 'Azure Synapse Link for Dataverse > Microsoft OneLake'. Under the 'Tables' tab, a table lists various data sources. The 'Sync status' and 'Fabric status' columns are highlighted with green boxes. The 'Sync status' column shows 'Active' for all entries, and the 'Fabric status' column shows 'Created'.

Table ↑	Name	Sync status	Last synchronized ...	Count	Partition	Entity source	Fabric status
account	account	Active		-	Year	Dataverse	Created
actioncard	actioncard	Active		-	Year	Dataverse	Created
activityfileattachme nt	activityfileattachme nt	Active		-	Year	Dataverse	Created
activitymimeattachme nt	activitymimeattachme nt	Active		-	Year	Dataverse	Created
activityparty	activityparty	Active		-	Year	Dataverse	Created
activitypointer	activitypointer	Active		-	Year	Dataverse	Created
adx_externalidentity	adx_externalidentit	Active		-	Year	Dataverse	Created
adx_invitation	adx_invitation	Active		-	Year	Dataverse	Created
adx_invitation_invi te contacts	adx_invitation_invi te contacts	Active		-	Year	Dataverse	Created
adx_invitation_msp _webrole_powerpag ecomponent	adx_invitation_msp _webrole_powerpag ecomponent	Active		-	Year	Dataverse	Created
adx_invitation_rede	adx_invitation_rede	Active		-	Year	Dataverse	Created

Setup Fabric Link – Refresh Lakehouse in Fabric

- Unidentified = metadata hasn't been provided or refreshed yet.
- Click “Refresh” in the toolbar to have the lakehouse re-read the deltalake
- Now you should start seeing data

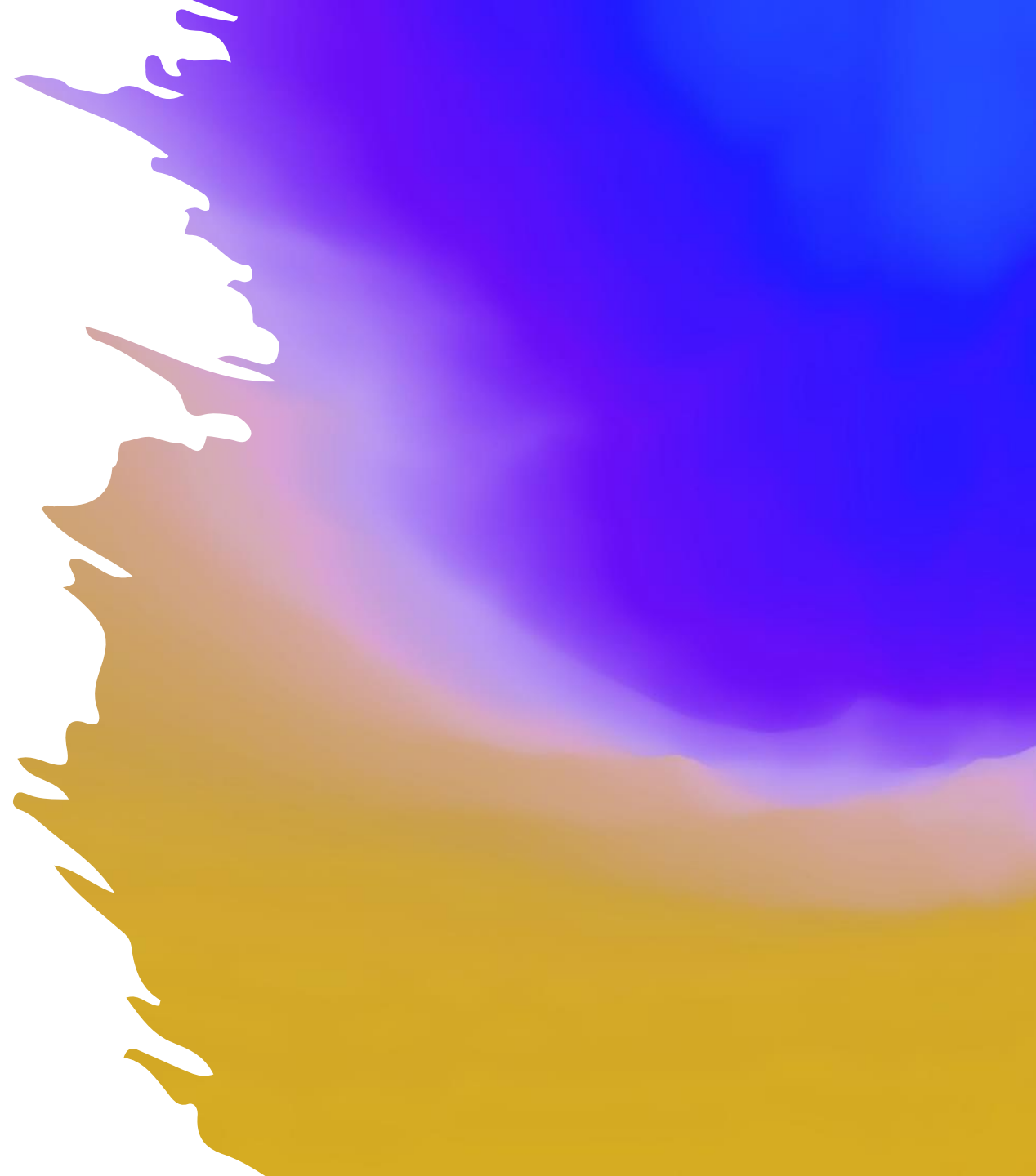


The screenshot shows the Microsoft Fabric Lakehouse Explorer interface. The top navigation bar includes the Microsoft logo, the workspace name 'dataverse_fabriclink_cds2_workspace_unq1b6583f76ee5ee119048002248282', and the user 'Confidential\Microsoft Extended'. The main content area is divided into an Explorer pane on the left and a data table on the right. The Explorer pane shows a tree view with 'dataverse_fabriclink_cds2_wo...' expanded to show a list of tables including 'account', 'actioncard', 'activityfileattachment', 'activitymimeattachm...', 'activityparty', 'activitypointer', 'adx_externalidentity', 'adx_invitation', 'adx_invitation_invitec...', 'adx_invitation_mspp...', 'adx_invitation_reddee...', 'adx_kbarticle_kbarticle', 'adx_setting', and 'adx_webformaction'. The data table on the right is titled 'systemuser' and shows 17 rows of data. The table has columns for 'ABC Id', 'SinkCreated...', 'SinkModifie...', '12L accessmode', '12L address1_ad...', '12L address1_shi...', and '12L address2_ad...'. The status bar at the bottom indicates 'Succeeded (9 sec 458 ms)' and 'Columns 169 Ro'.

	ABC Id	SinkCreated...	SinkModifie...	12L accessmode	12L address1_ad...	12L address1_shi...	12L address2_ad...
1	0175c785-a1e2-...	3/21/2024 2:51:5...	3/21/2024 2:51:5...	4	1	1	1
2	0176c785-a1e2-...	3/21/2024 2:51:5...	3/21/2024 2:51:5...	4	1	1	1
3	03bebf8b-a1e2-...	3/21/2024 2:51:5...	3/21/2024 2:51:5...	4	1	1	1
4	064e5bbd-a7e2-...	3/21/2024 2:51:5...	3/21/2024 2:51:5...	4	1	1	1
5	089b1b6e-94e2-...	3/21/2024 2:51:5...	3/21/2024 2:51:5...	4	1	1	1
6	09bfbf8b-a1e2-e...	3/21/2024 2:51:5...	3/21/2024 2:51:5...	4	1	1	1
7	0b76c785-a1e2-...	3/21/2024 2:51:5...	3/21/2024 2:51:5...	4	1	1	1
8	0c75c785-a1e2-e...	3/21/2024 2:51:5...	3/21/2024 2:51:5...	4	1	1	1
9	0cdab233-0005-...	3/21/2024 2:51:5...	3/21/2024 2:51:5...	0			
10	0dbebf8b-a1e2-...	3/21/2024 2:51:5...	3/21/2024 2:51:5...	4	1	1	1
11	11a3595d-ade2-...	3/21/2024 2:51:5...	3/21/2024 2:51:5...	5			
12	129b1b6e-94e2-...	3/21/2024 2:51:5...	3/21/2024 2:51:5...	4	1	1	1
13	13bfbf8b-a1e2-e...	3/21/2024 2:51:5...	3/21/2024 2:51:5...	4	1	1	1
14	1576c785-a1e2-...	3/21/2024 2:51:5...	3/21/2024 2:51:5...	4	1	1	1
15	1675c785-a1e2-...	3/21/2024 2:51:5...	3/21/2024 2:51:5...	4	1	1	1
16	17bebf8b-a1e2-...	3/21/2024 2:51:5...	3/21/2024 2:51:5...	4	1	1	1
17	1dbfbf8b-a1e2-e...	3/21/2024 2:51:5...	3/21/2024 2:51:5...	4	1	1	1

Explore the data

<https://github.com/MScottSewell/Dynamics365-Fabric-in-a-Day>

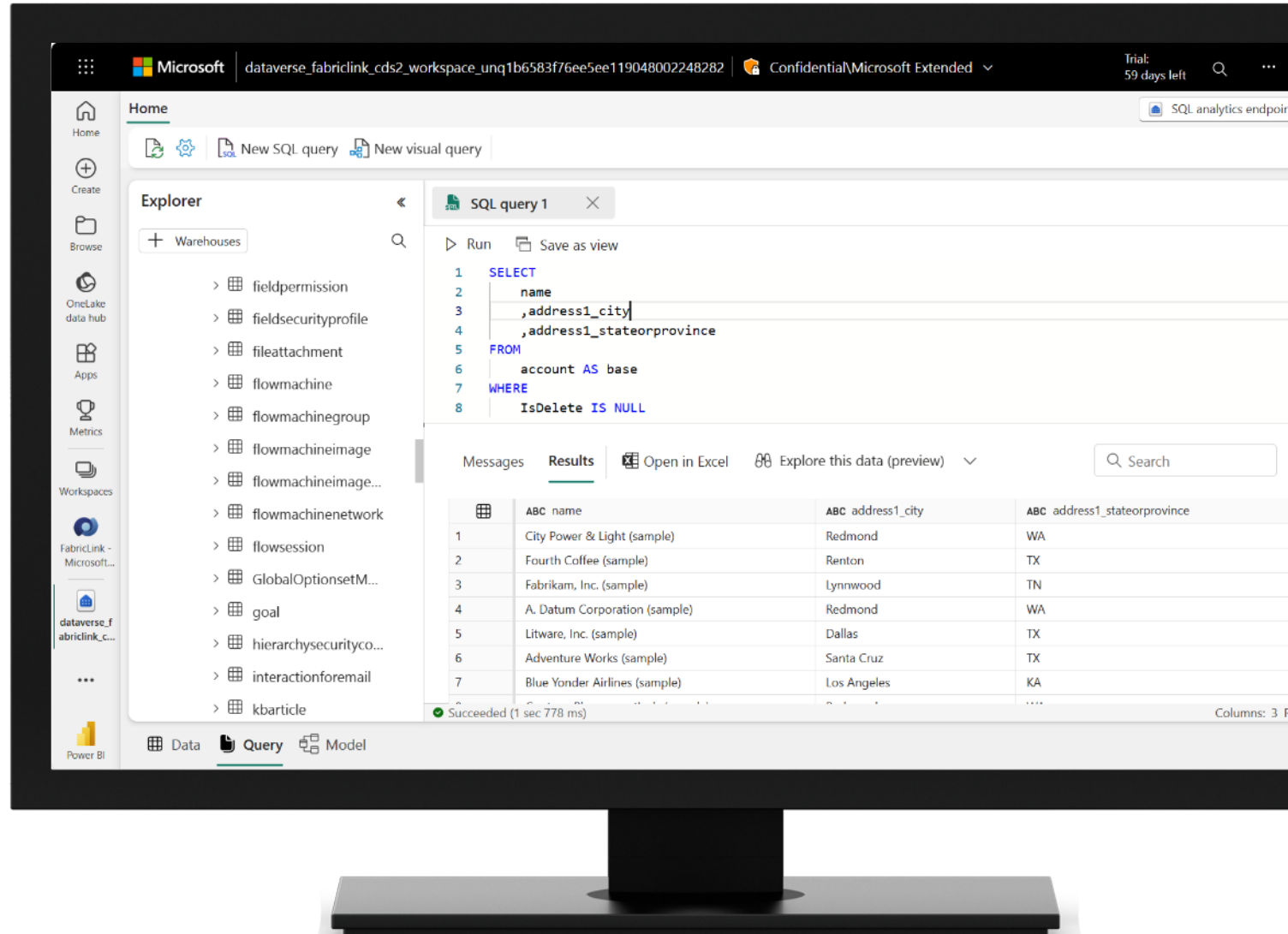


Explore the data in the Fabric SQL endpoint

You can use the query editor inside the Fabric SQL analytics endpoint

Things to note:

- Field and table names are CaSe SeNSiTiVe
- Filter on **(IsDelete IS NULL OR IsDelete = 0)** to eliminate deleted records
- If you have LongTermRetention turned on you, can filter out archived rows with: **(msft_datastate = 0 OR msft_datastate IS NULL)**



The screenshot displays the Microsoft Fabric SQL endpoint interface. The top navigation bar shows the Microsoft logo, the workspace ID 'dataverse_fabriclink_cds2_workspace_unq1b6583f76ee5ee119048002248282', and the user 'Confidential\Microsoft Extended'. The main interface is divided into three sections: Explorer, Query Editor, and Results.

Explorer: Shows a list of warehouses under the 'Warehouses' folder, including 'fieldpermission', 'fieldsecurityprofile', 'fileattachment', 'flowmachine', 'flowmachinegroup', 'flowmachineimage', 'flowmachineimage...', 'flowmachinenetwork', 'flowsession', 'GlobalOptionsetM...', 'goal', 'hierarchysecurityco...', 'interactionforemail', and 'kbarticle'.

Query Editor: Displays a SQL query titled 'SQL query 1'. The query is as follows:

```
1 SELECT
2     name
3     ,address1_city
4     ,address1_stateorprovince
5 FROM
6     account AS base
7 WHERE
8     IsDelete IS NULL
```

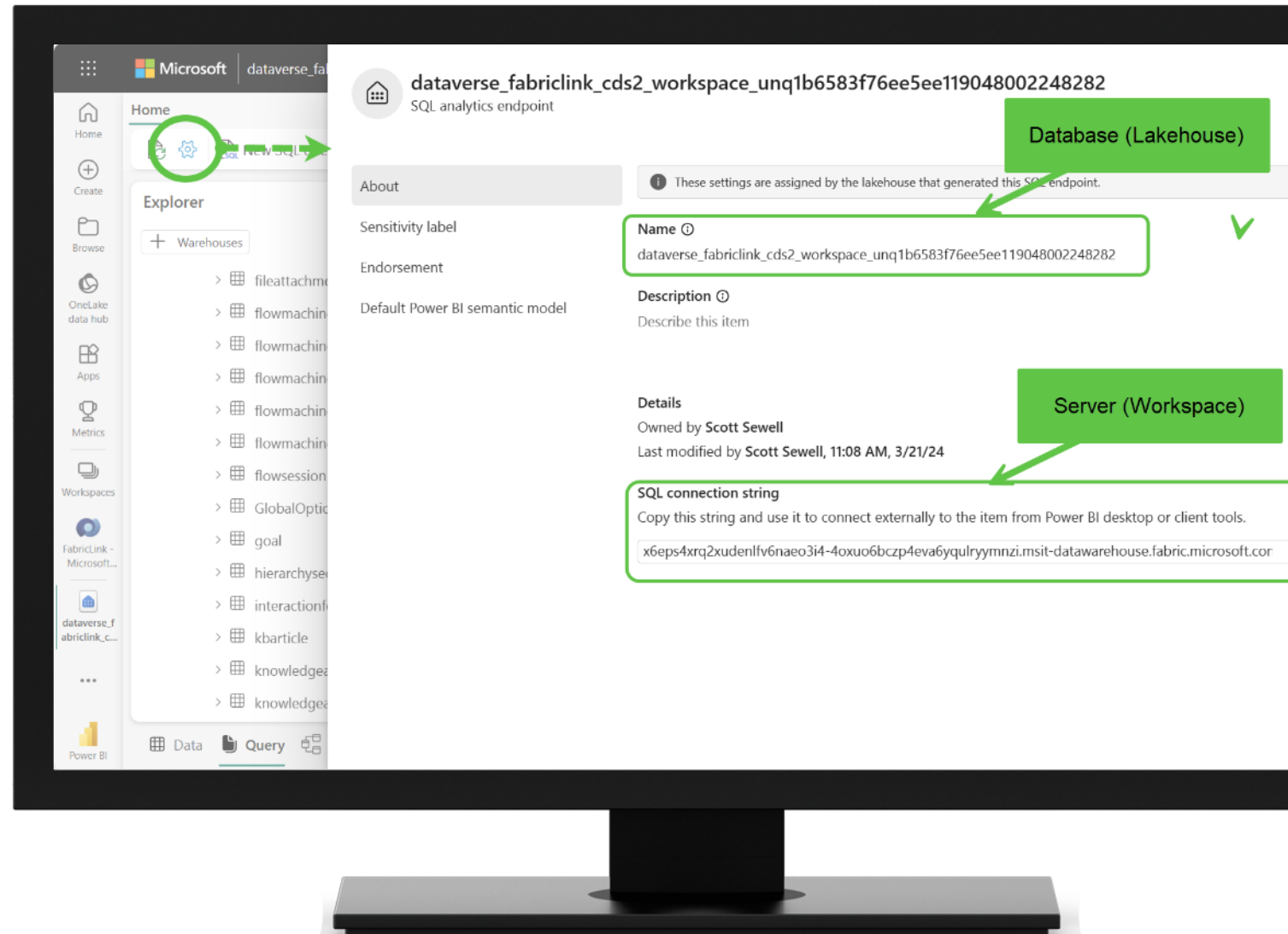
Results: Shows the output of the query in a table format. The table has three columns: 'ABC name', 'ABC address1_city', and 'ABC address1_stateorprovince'. The results are as follows:

ABC name	ABC address1_city	ABC address1_stateorprovince
City Power & Light (sample)	Redmond	WA
Fourth Coffee (sample)	Renton	TX
Fabrikam, Inc. (sample)	Lynnwood	TN
A. Datum Corporation (sample)	Redmond	WA
Litware, Inc. (sample)	Dallas	TX
Adventure Works (sample)	Santa Cruz	TX
Blue Yonder Airlines (sample)	Los Angeles	KA

The interface also includes a 'Messages' tab, a search bar, and a status bar at the bottom indicating 'Succeeded (1 sec 778 ms)'.

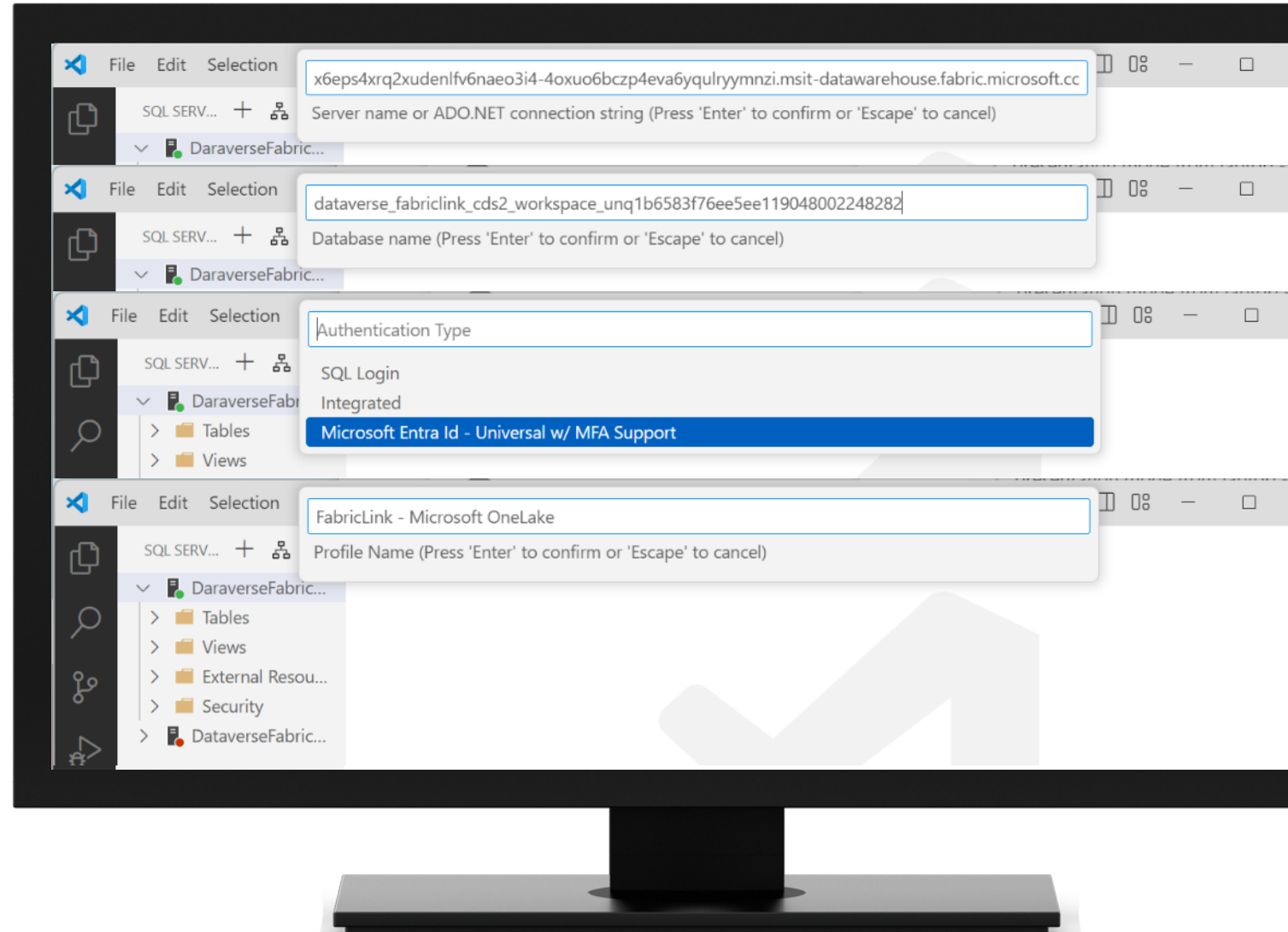
Explore the data in the Fabric SQL endpoint

- Click on the Blue Gear to open the settings
- The Lakehouse “Name” \approx SQL database
- The Workspace’s SQL Connection string \approx SQL Server



Explore the data in Visual Studio Code as SQL

- Prerequisite: Visual Studio Code with the SQL Server (MSSQL) extension installed.
- Create a new connection
- Add the Server Name (SQL connection)
- Add the Database Name (Lakehouse name)
- Set the Authentication as Microsoft Entra Id and select your credentials.
- Give it a friendly name for your convenience.

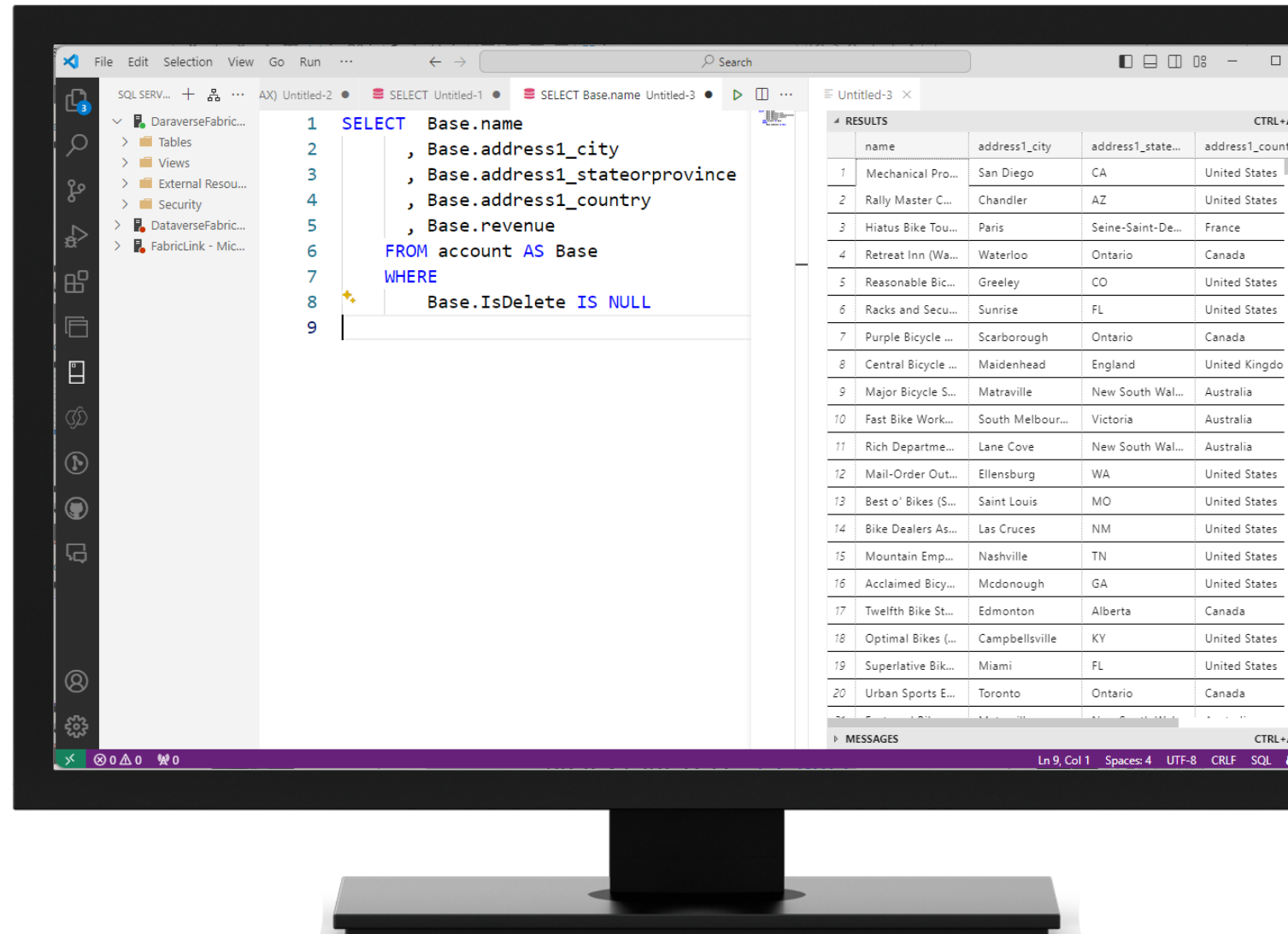


Explore the data in Visual Studio Code as SQL

- Click on the connection and choose “New Query”
- Write a quick query for a table to see the results

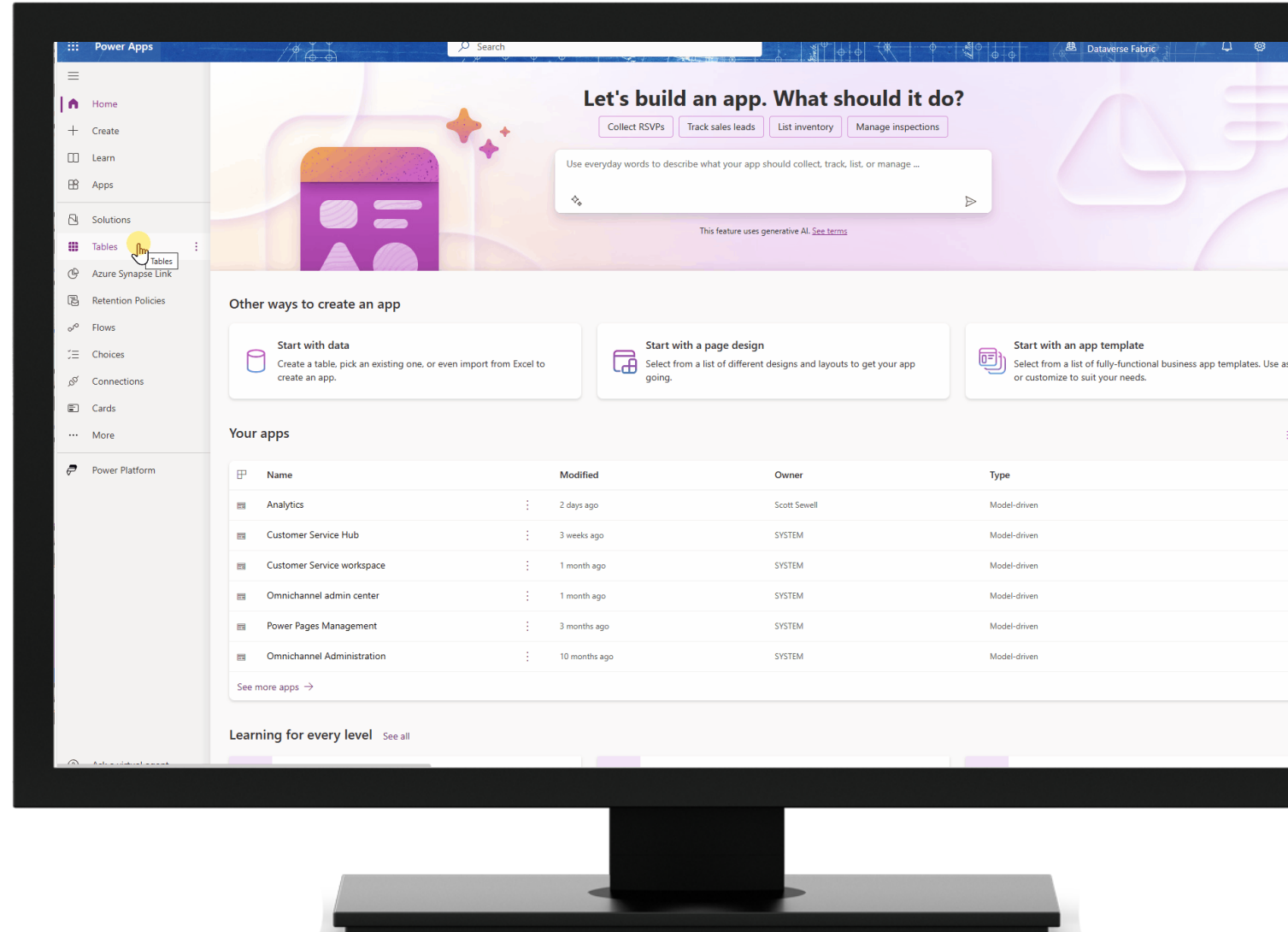
```
SELECT Base.name
      , Base.address1_city
      , Base.address1_stateorprovince
      , Base.address1_country
      , Base.revenue
FROM account AS Base
WHERE
      Base.IsDelete IS NULL
```

- Be sure to filter out the deleted rows (which are mostly blank) with the “**IsDelete IS NULL OR IsDelete =0**” clause
- Copilot IntelliSense is, at times, so good it’s creepy




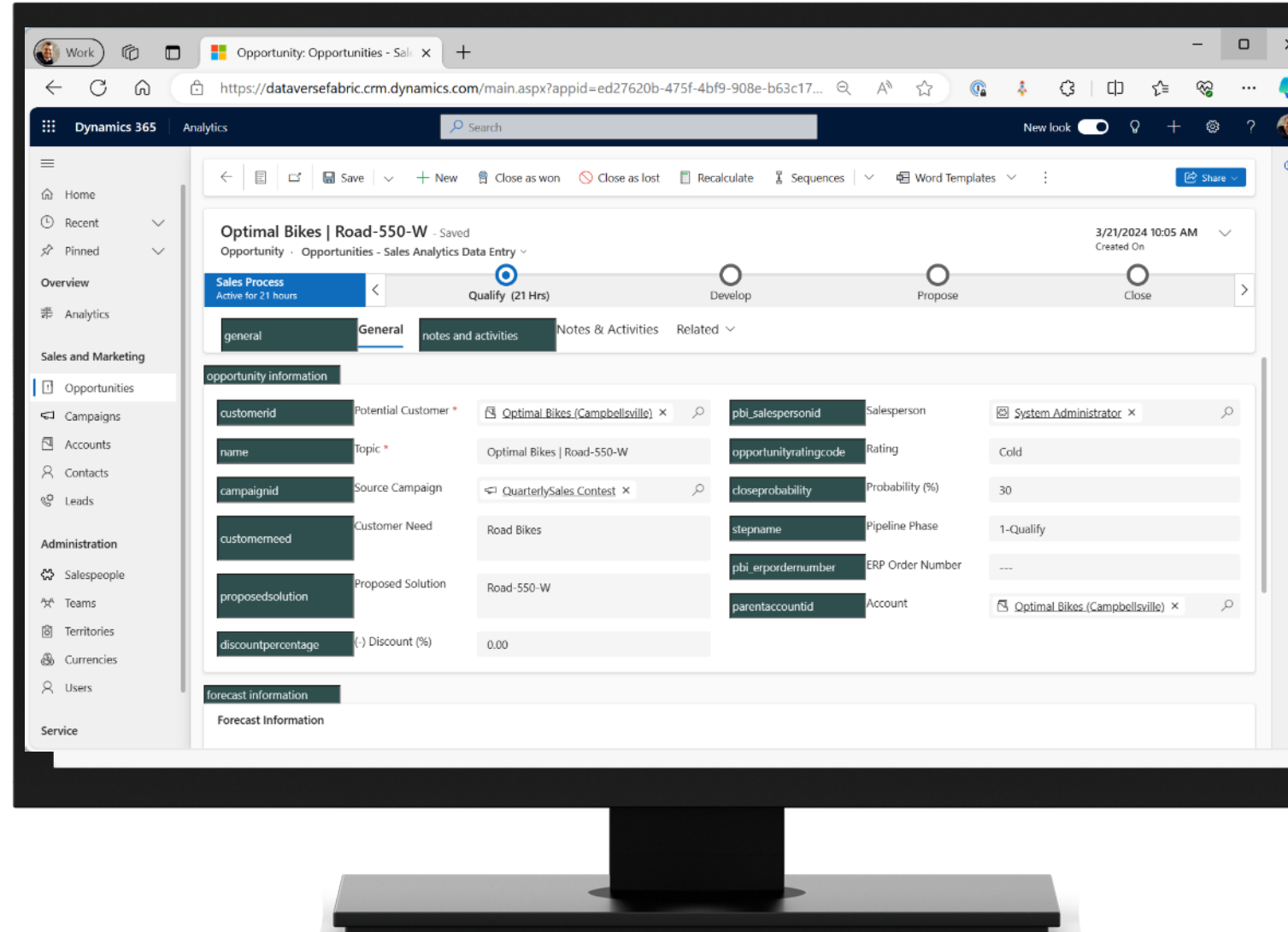
Bonus Topic – Logical field names for SQL Queries

- Use the Power Apps Maker Portal.
- Edit a field to see the logical name associated with a field.



Bonus, Bonus Topic – Logical field names for SQL

- Use the “Level up for Dynamics 365/Power Apps” Browser Plugin
- Click on the Rocket Icon  in the browser
- Choose to view Logical Field Names



Dataverse Security Considerations



Complex security configurations in
Dataverse are like beautiful
snowflakes...

...as long as you're not the
one holding the shovel.





Three types of security in a Dataverse-Power BI report

- **Direct Query through TDS**
 - Data retrieved from Dataverse at run-time using the user's credentials
- **Row-Level in Semantic Layer**
 - Visibility is controlled through attributes and rules in the report (RLS)
 - Test against a territory/owner/division etc. associated with the viewer.
- **Report Level**
 - If the user can see the report, they can see any data in it.
 - Reports can be restricted to individual users or groups
 - Reports might only show data at aggregate levels

Beware of any open-ended, unqualified
“Just duplicate Dataverse security” Requirement

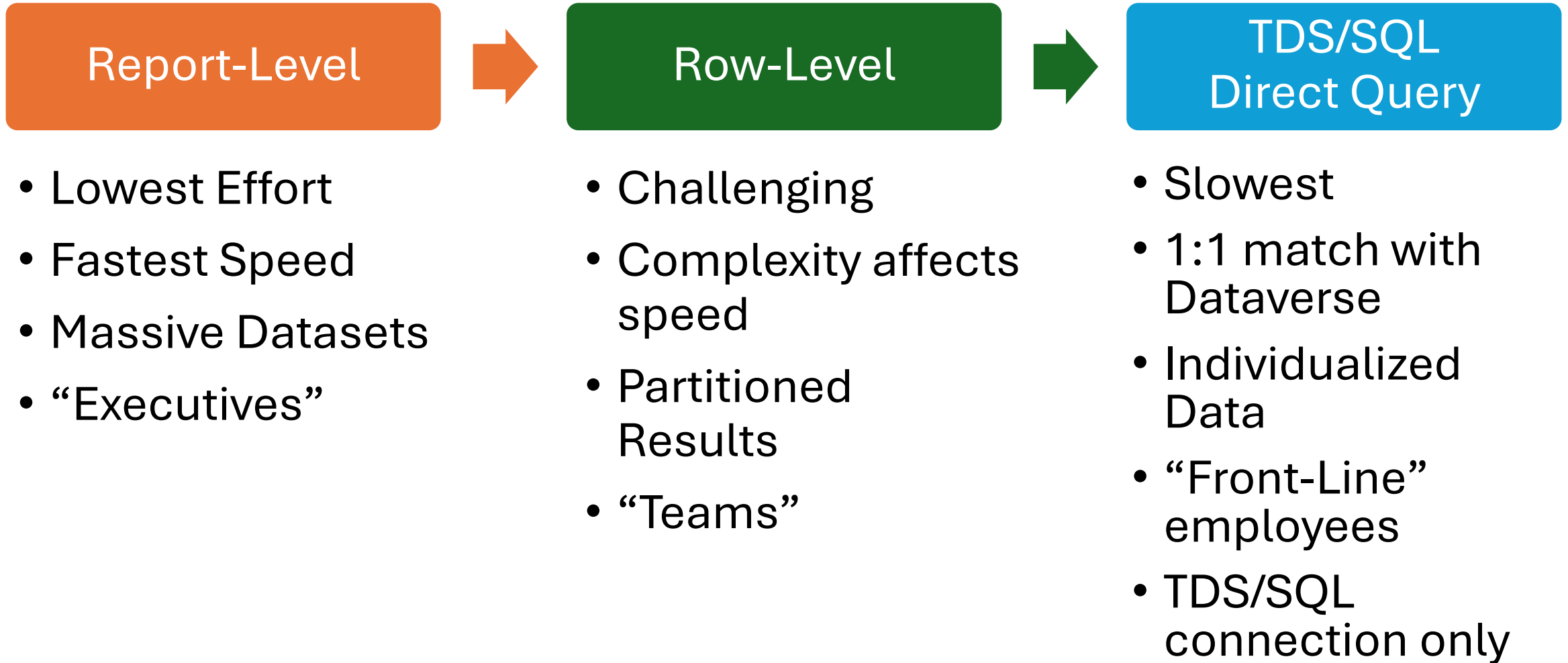
Row-Level Security Demo

- Filters engaged by comparing the logged on user's `UserPrincipleName()` to a value (domainname) in a table, then applying a rule with that value.

The screenshot displays the Microsoft Power BI Desktop interface. A 'Manage security roles' dialog box is open, allowing the user to define row-level security. The dialog includes a 'Roles' section with a '+ New' button and a list of existing roles. The 'Select tables' section shows a list of tables, with 'SystemUser' selected. The 'Filter data' section contains a text area with the DAX expression: `1 [domainname] == userprincipleName()`. Below the text area, a note explains: 'Filter the data that this role can see by entering a DAX filter expression that returns a True/False value. For example: [Entity ID] = "Value"'. The dialog has 'Save' and 'Close' buttons at the bottom right. In the background, a data table is visible with columns for user names and various metrics.

User	Metric 1	Metric 2	Metric 3	Metric 4	Metric 5
Scott					
Philip					
Mark					
Philippe					
Dave					
Doug					
Cillian					
Darren					
Jennifer					
Mike					
Miguel					
Evan	166	534	364	\$1,019,899	\$1,849,427
Amir	180	441	216	€1,049,356	€1,892,208

Security in Dataverse-Power BI Reports



Demo – Fabric Link



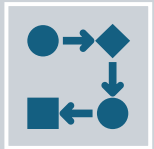
Building Your Power BI Report on Dataverse- Fabric Data



Step 1 – Gather Requirements



Focus, Focus, Focus



Start small and iterate

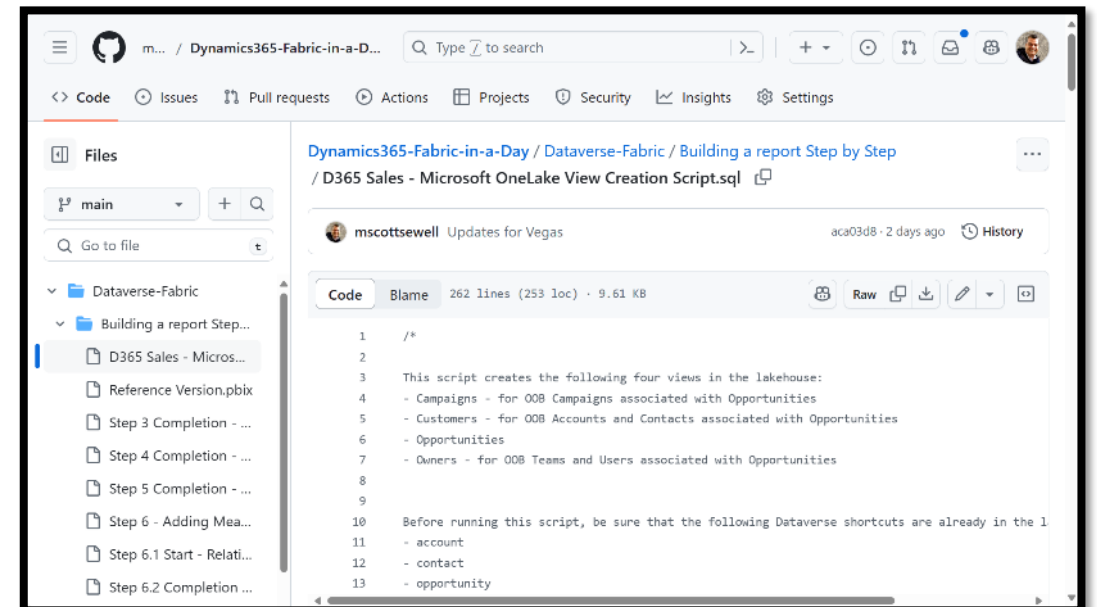


Try to anticipate re-usability

Step 2 – Create the views

Build views to return only the data you want, formatted and named for end-user convenience

- Limit the number of fields to only required ones
- Any field presented to the user, alias it with the friendly name
- Add DateTime conversion to a Date-Only in your Time zone
- Ensure you're using Currency _base fields
- Join the stringmap to get choice values
- Filters:
 - Exclude Deleted
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 - Date Boundaries for report scope
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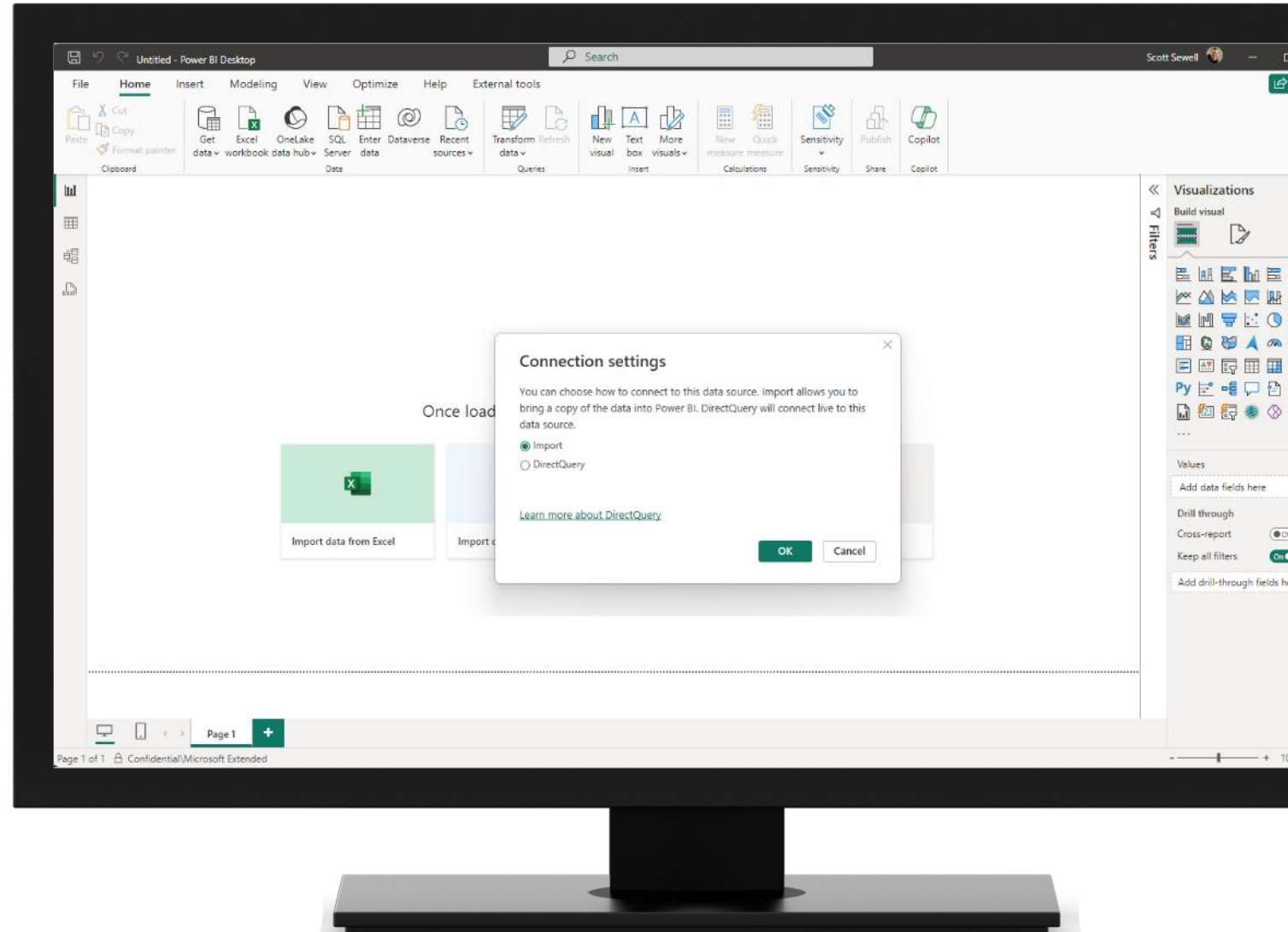


The screenshot shows a GitHub repository interface. The file explorer on the left shows the path: Dynamics365-Fabric-in-a-Day / Dataverse-Fabric / Building a report Step by Step / D365 Sales - Microsoft OneLake View Creation Script.sql. The main content area displays the SQL script code, which includes comments describing the views to be created: Campaigns, Customers, Opportunities, and Owners. The script also lists Dataverse shortcuts: account, contact, and opportunity.

```
1 /*
2
3 This script creates the following four views in the lakehouse:
4 - Campaigns - for OOB Campaigns associated with Opportunities
5 - Customers - for OOB Accounts and Contacts associated with Opportunities
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```

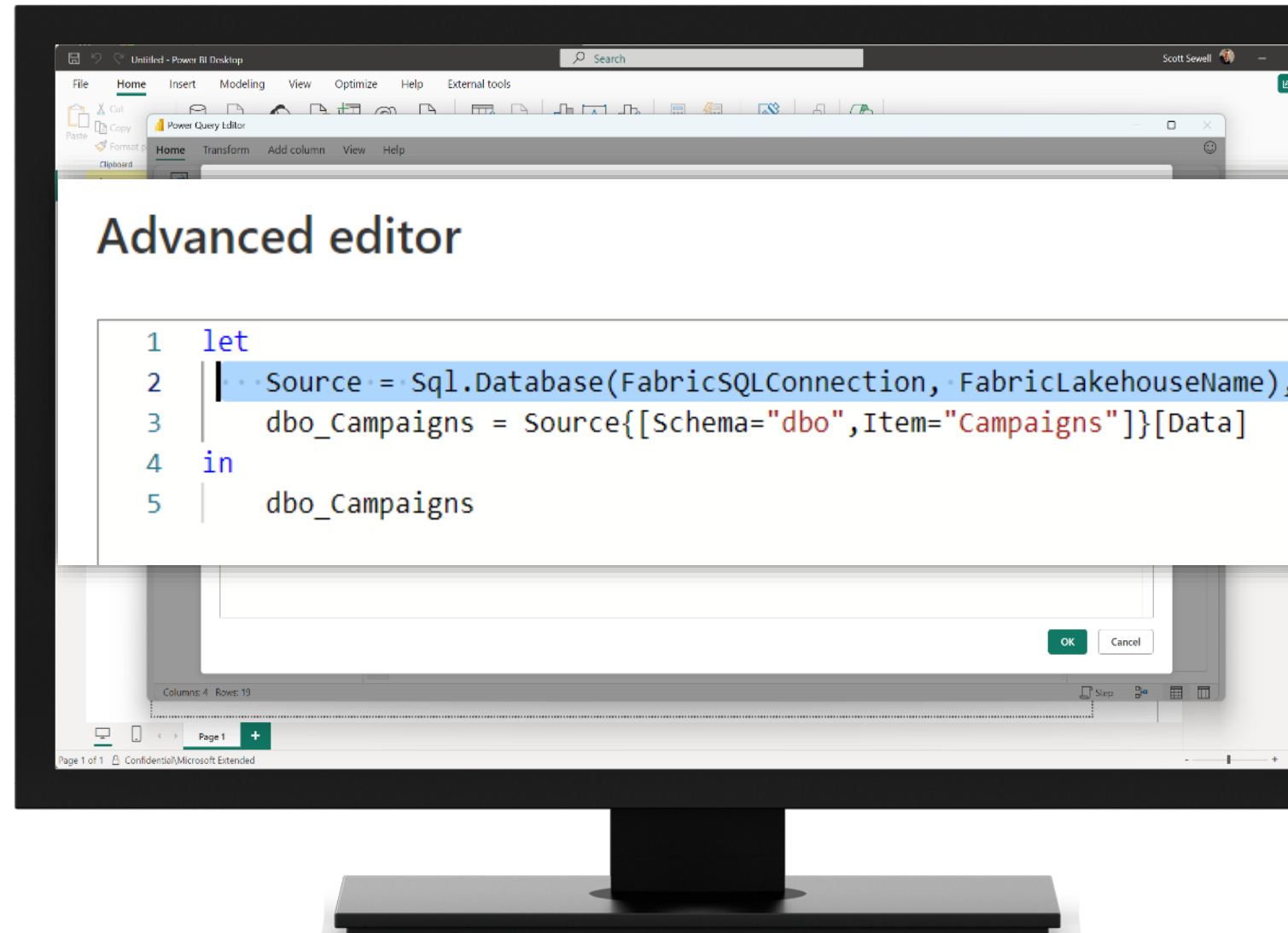
Create the Report from Power BI Desktop

- OneLake data Hub
- Select your lakehouse
- Connect to SQL endpoint
- Supply Credentials and wait---
- Choose the views
- Click Transform Data
- Select Import or DirectQuery



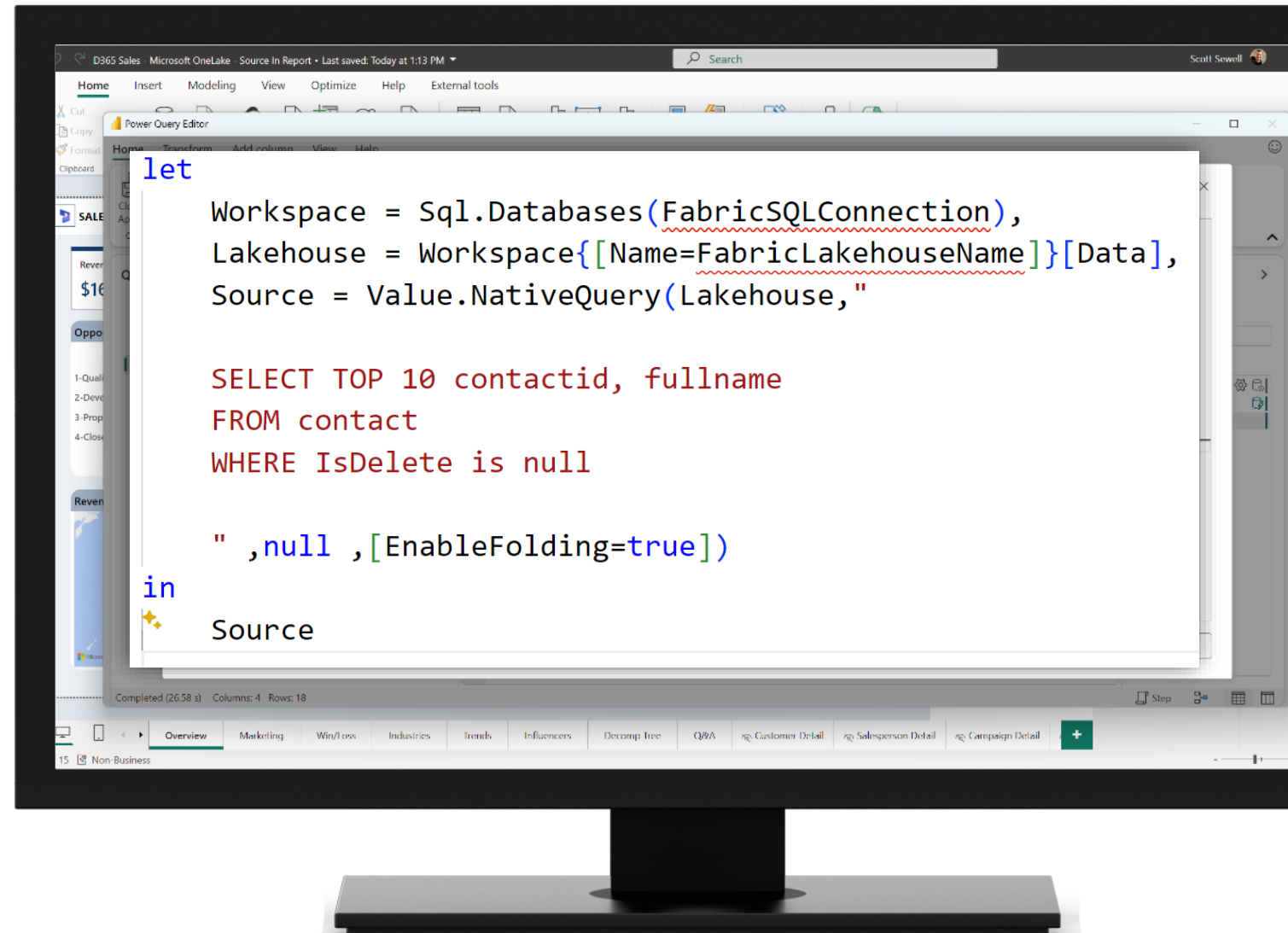
Suggested – Create Parameter for Lakehouse and Database

- Add 2 new parameters
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- Update the 2nd line of each query to use the parameters instead of hardcoding the values.



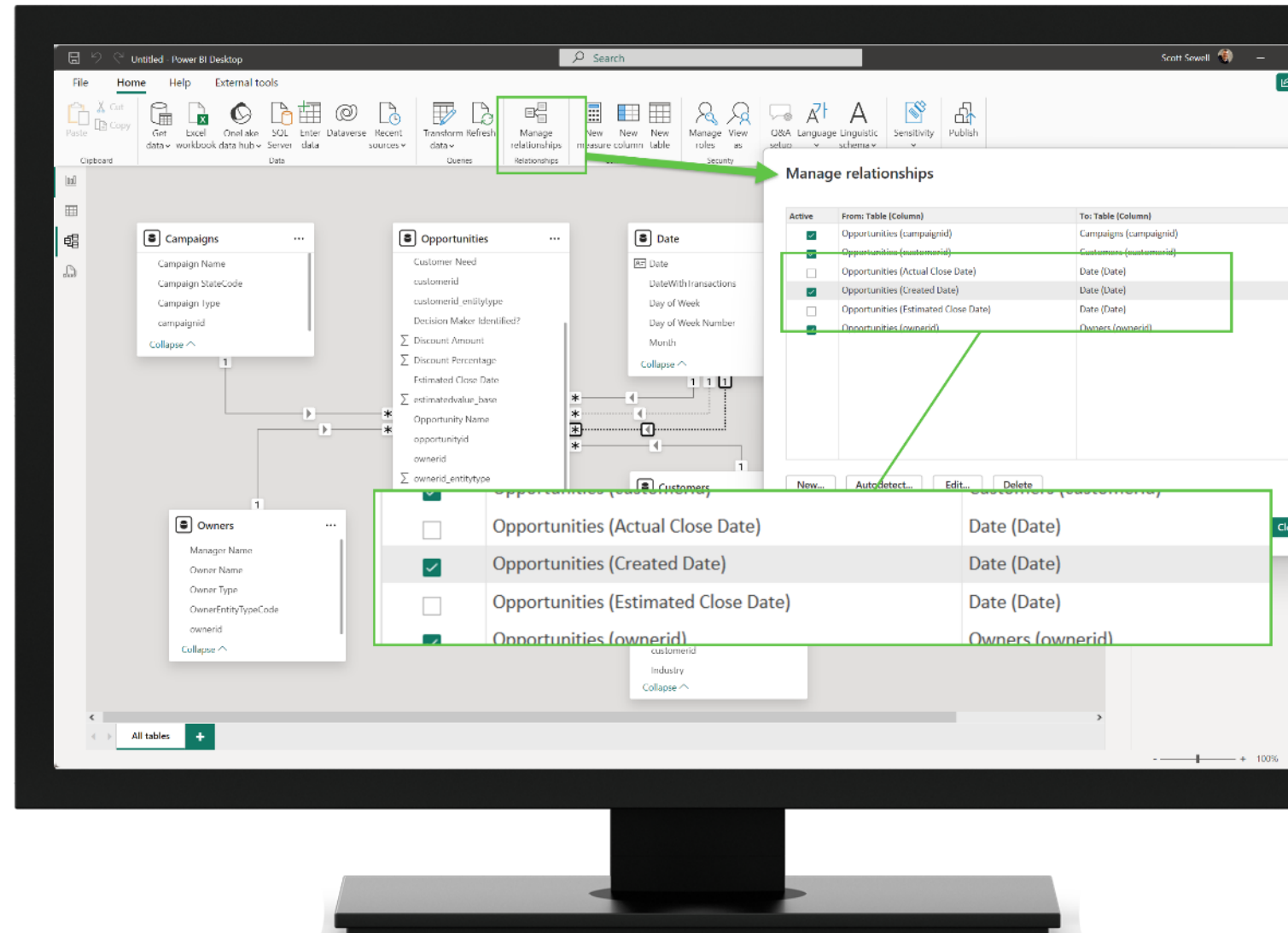
Alternate Approach – Embed the Query directly in the Report

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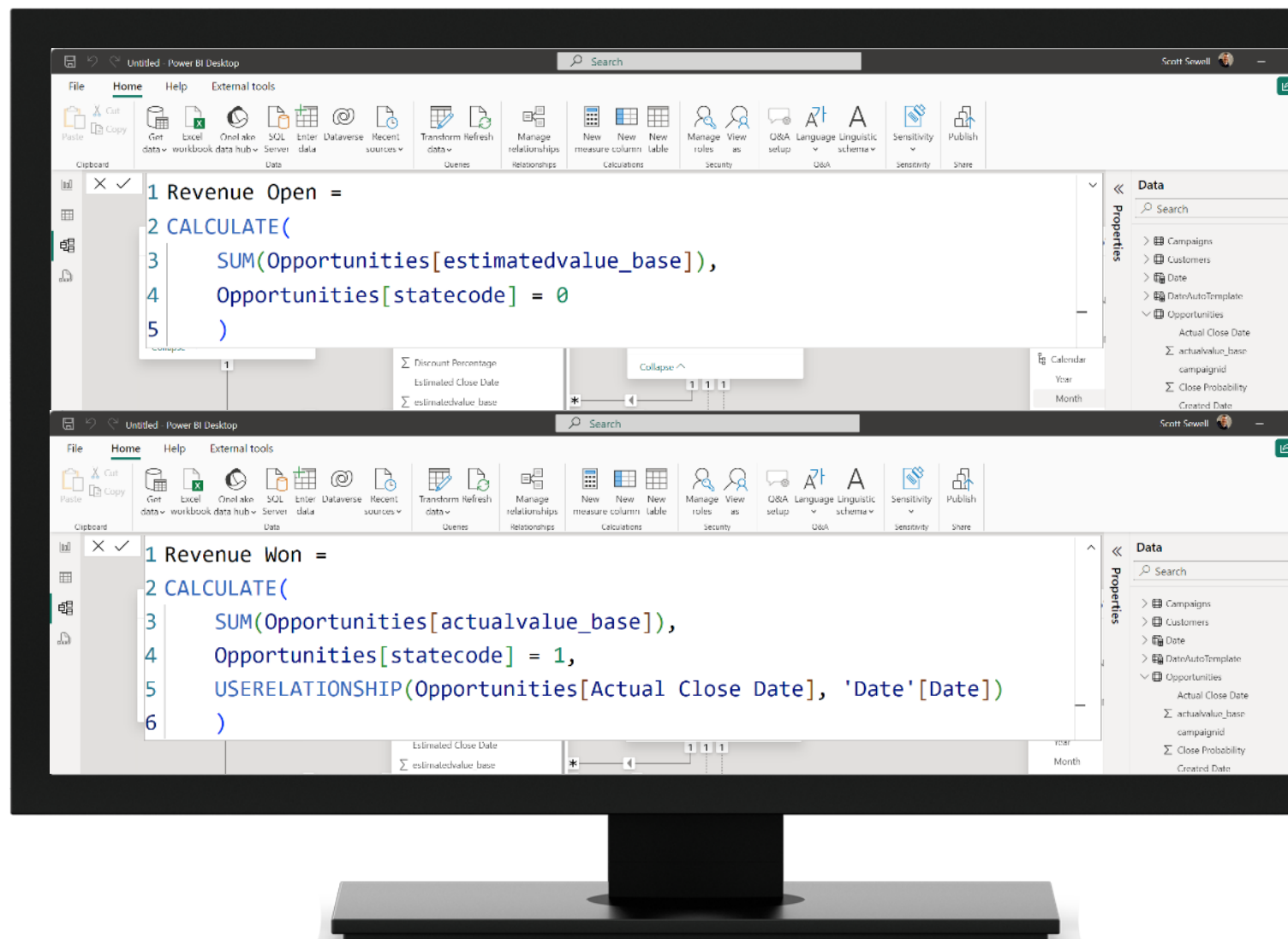
Add a Calendar -Download Bravo from <https://bravo.bi>

- Disable Auto date/time in Options for report (and as a default)
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Add basic measures

- Opportunity Count =
countrows(opportunities)
- Revenue Open
 - Sum estimatedvalue_base
 - Filter on statecode = 0
- Revenue Won
 - Sum
 - Filter on statecode = 1
 - Use date relationship of
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Cleanup / Copilot Pre-Flight

- Hide Non-user-facing Fields
- Validate Table and Field Names
- Set field formatting options
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Publish and add to a Model Driven App

- Publish report to a workspace
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- In model driven app solution, create “New” “Power BI Embedded” dashboard
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- Publish and enjoy!



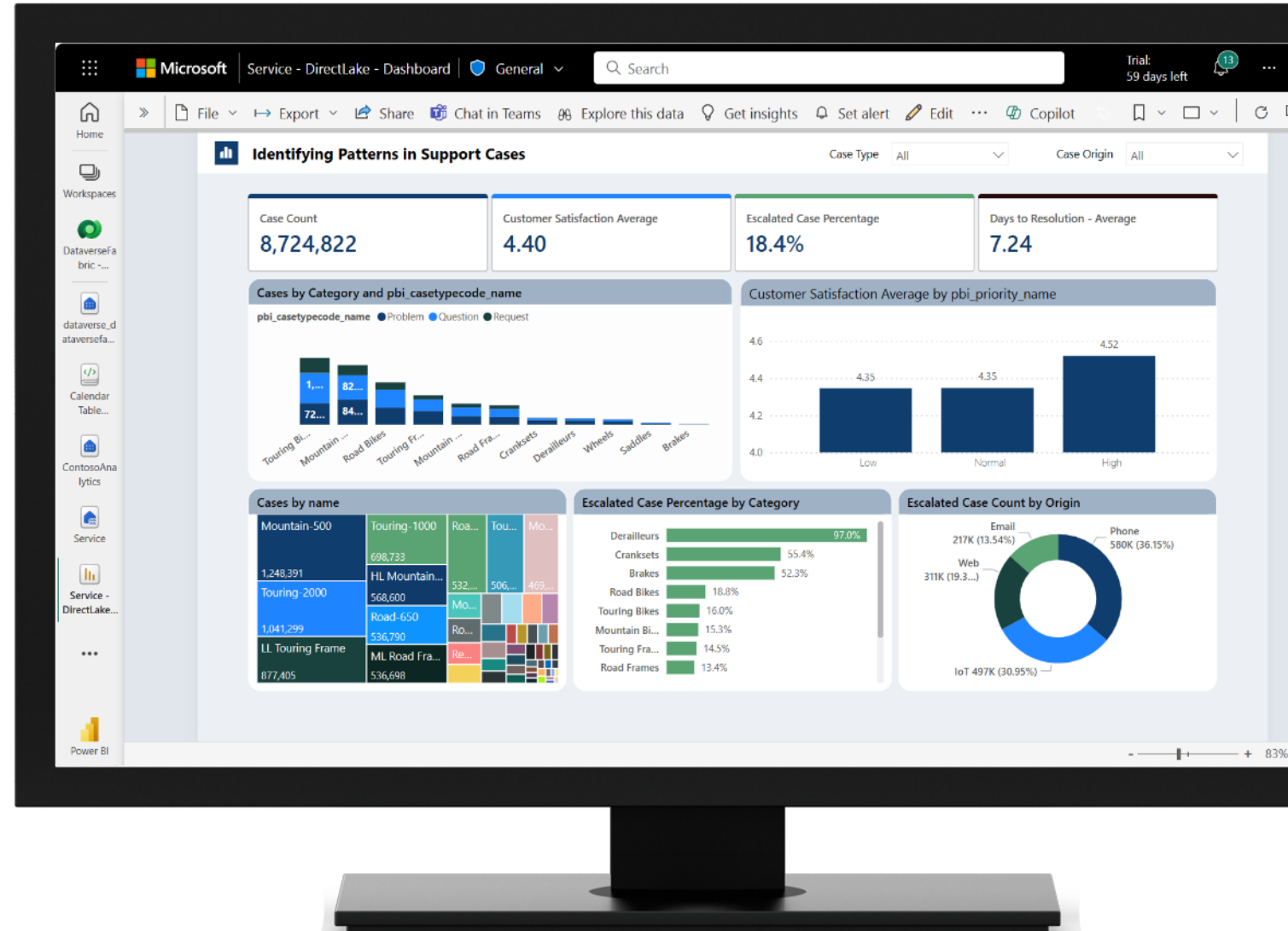
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- Strengths and weakness with each approach



DirectLake on D365

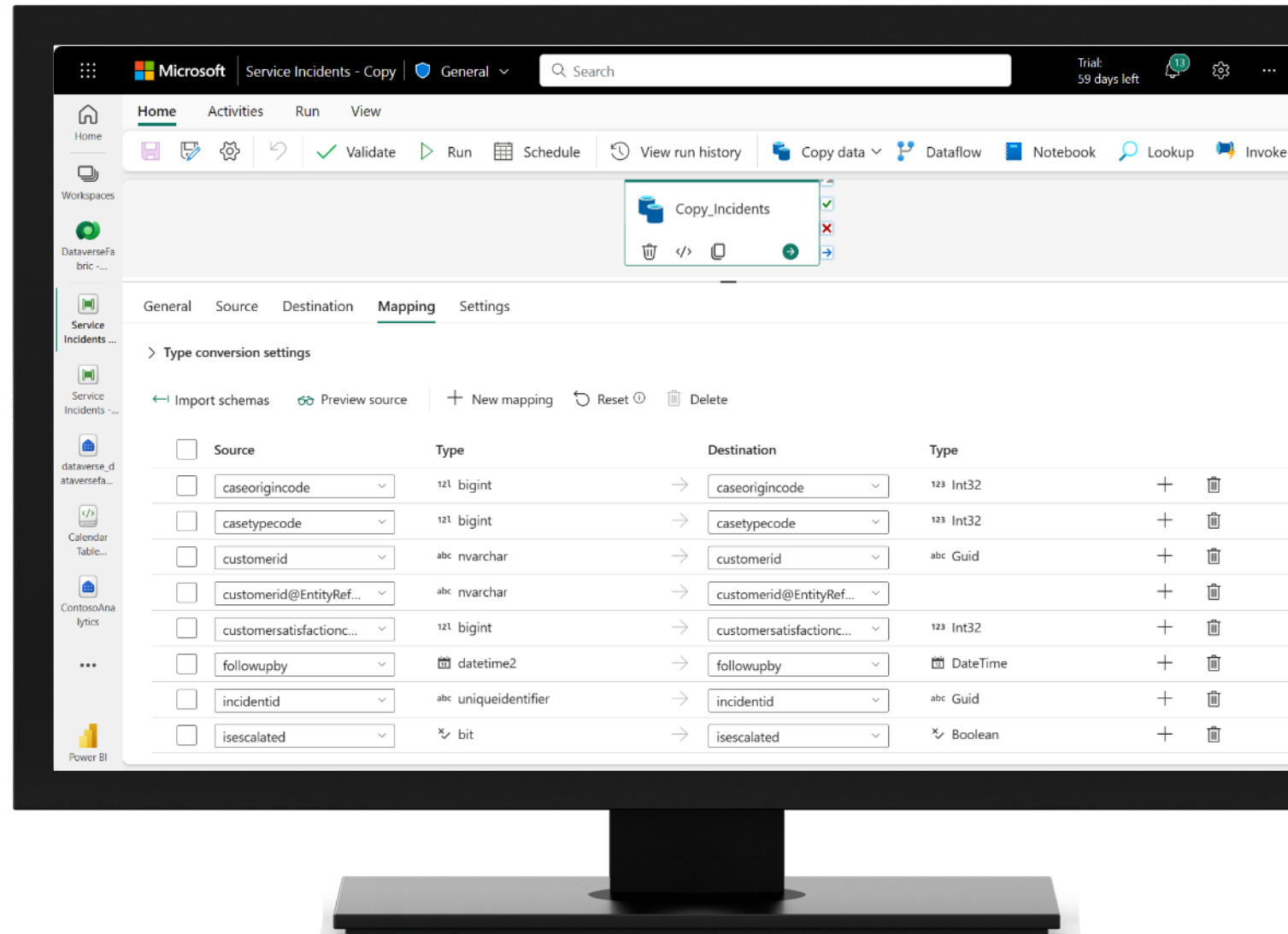
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Pipelines

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- You will need a SPN
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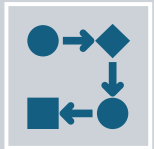
Demo Sales Report



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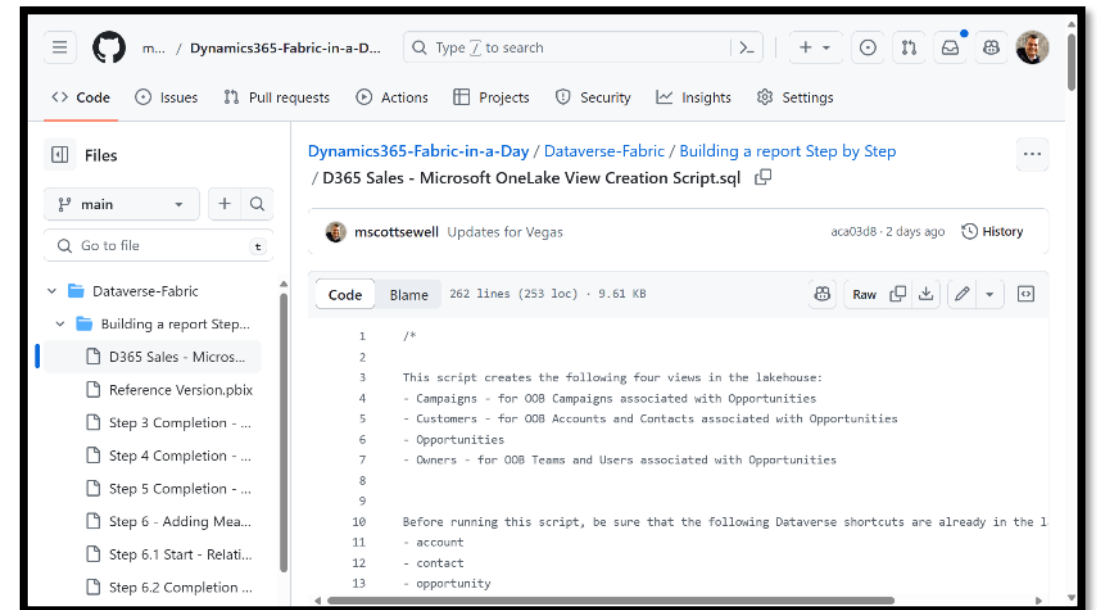


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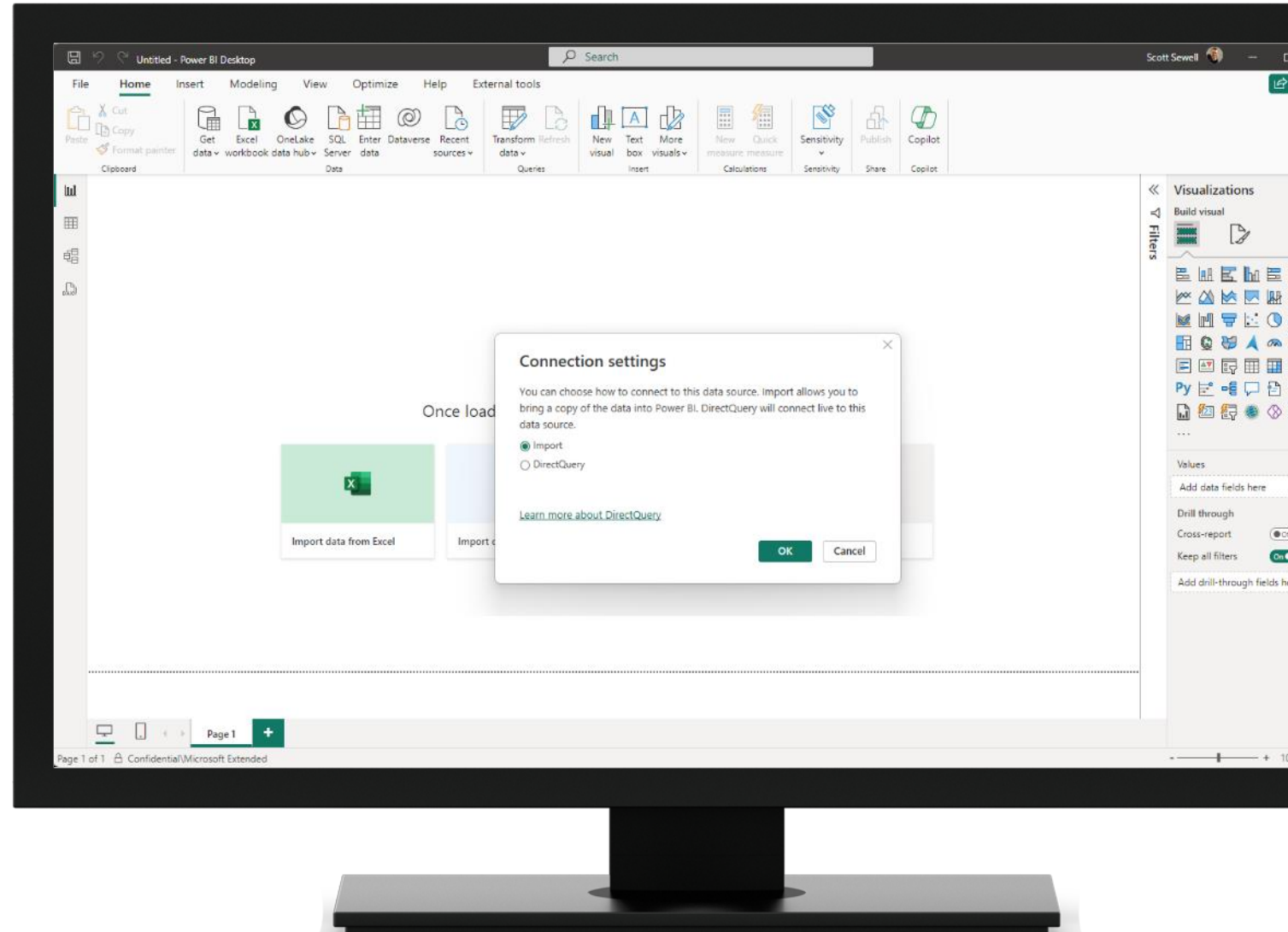


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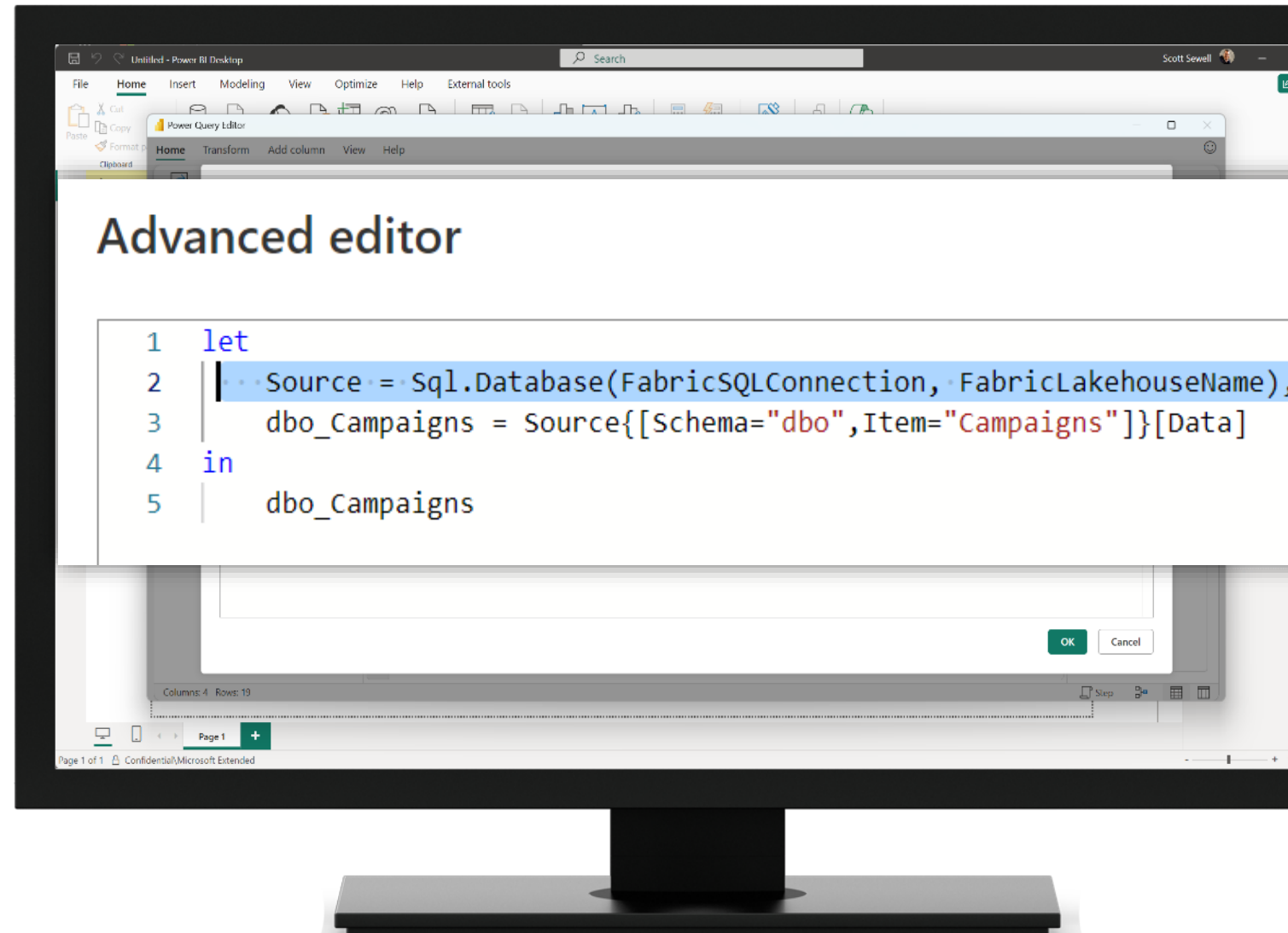
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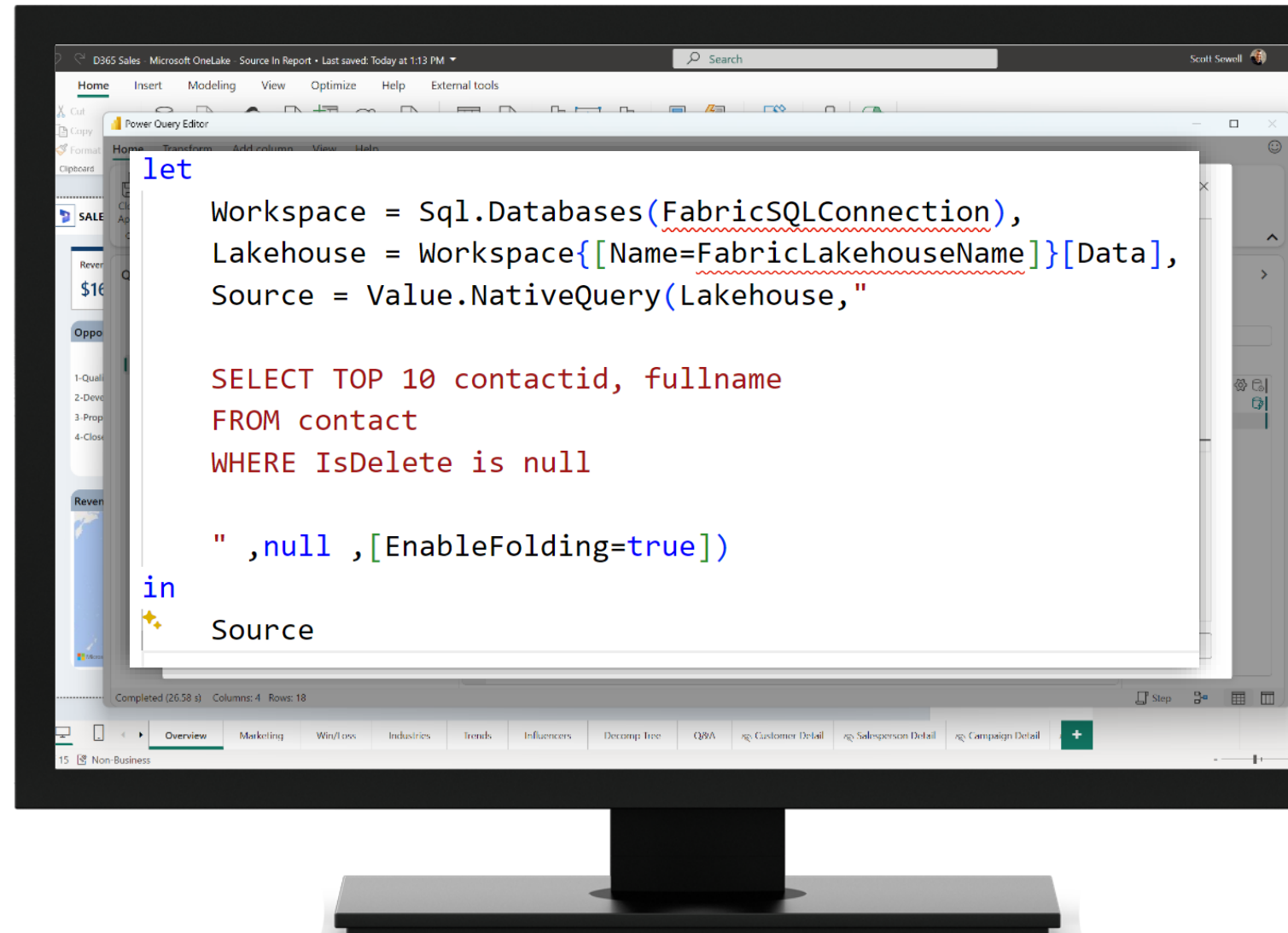
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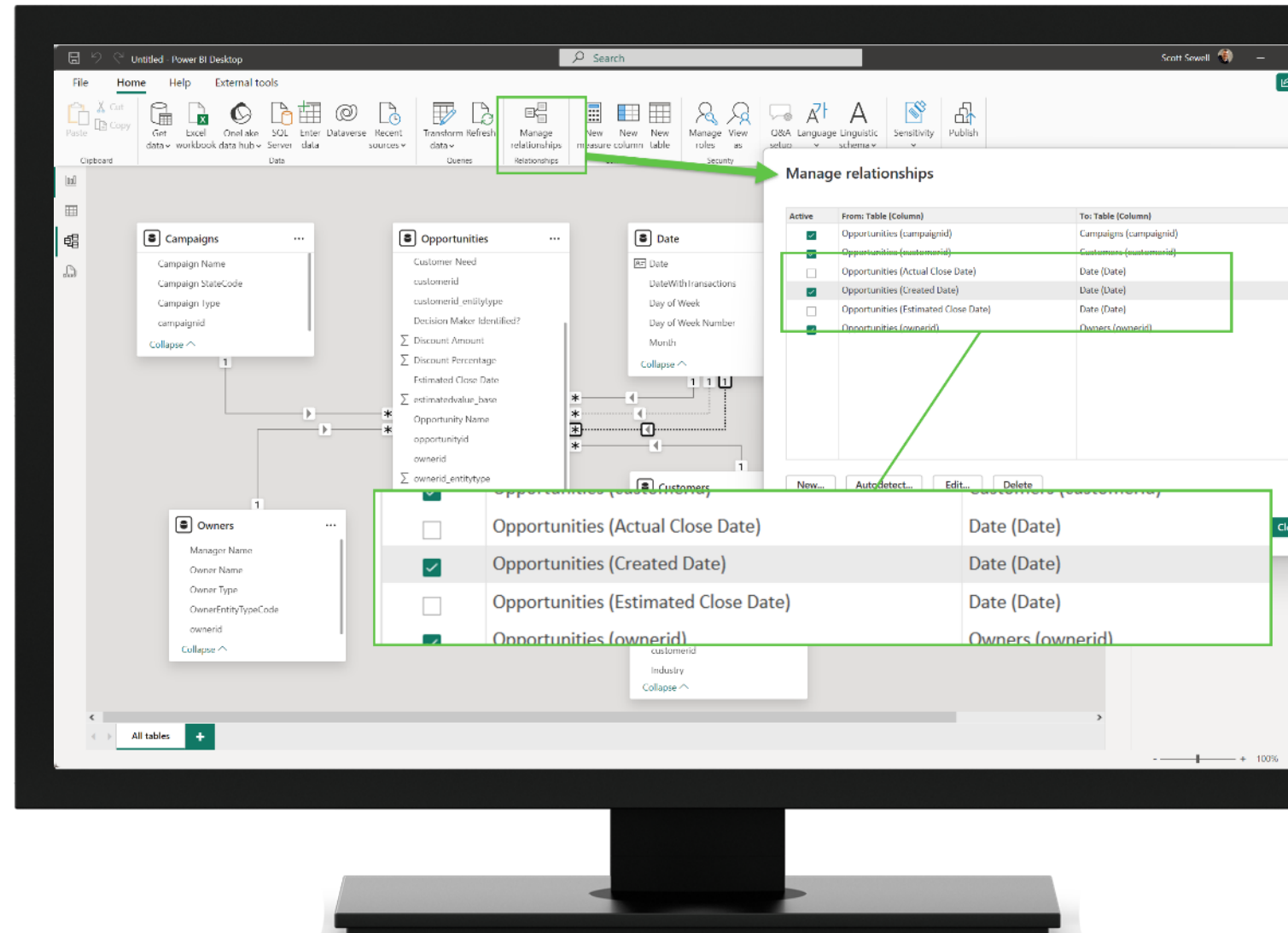
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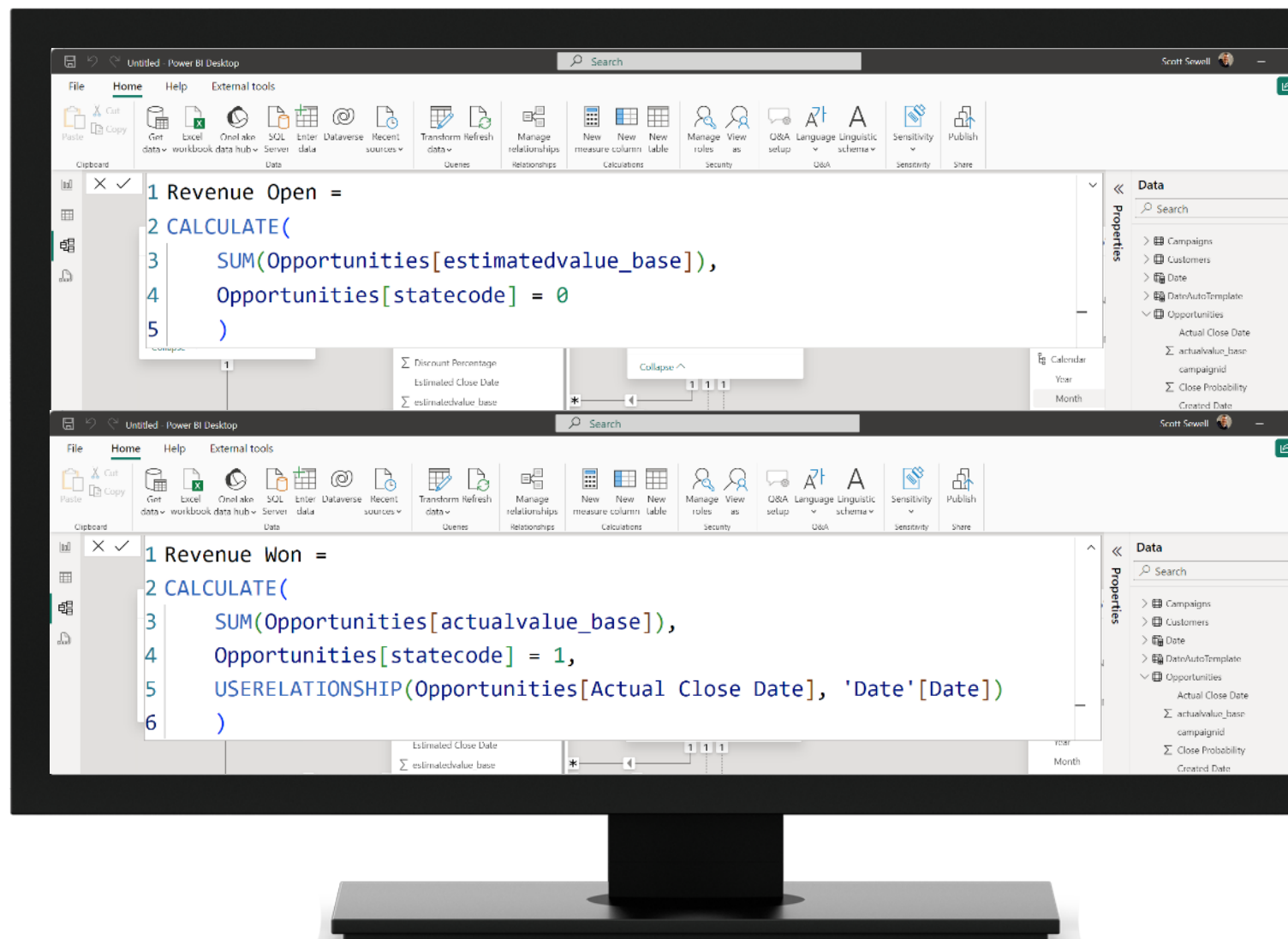
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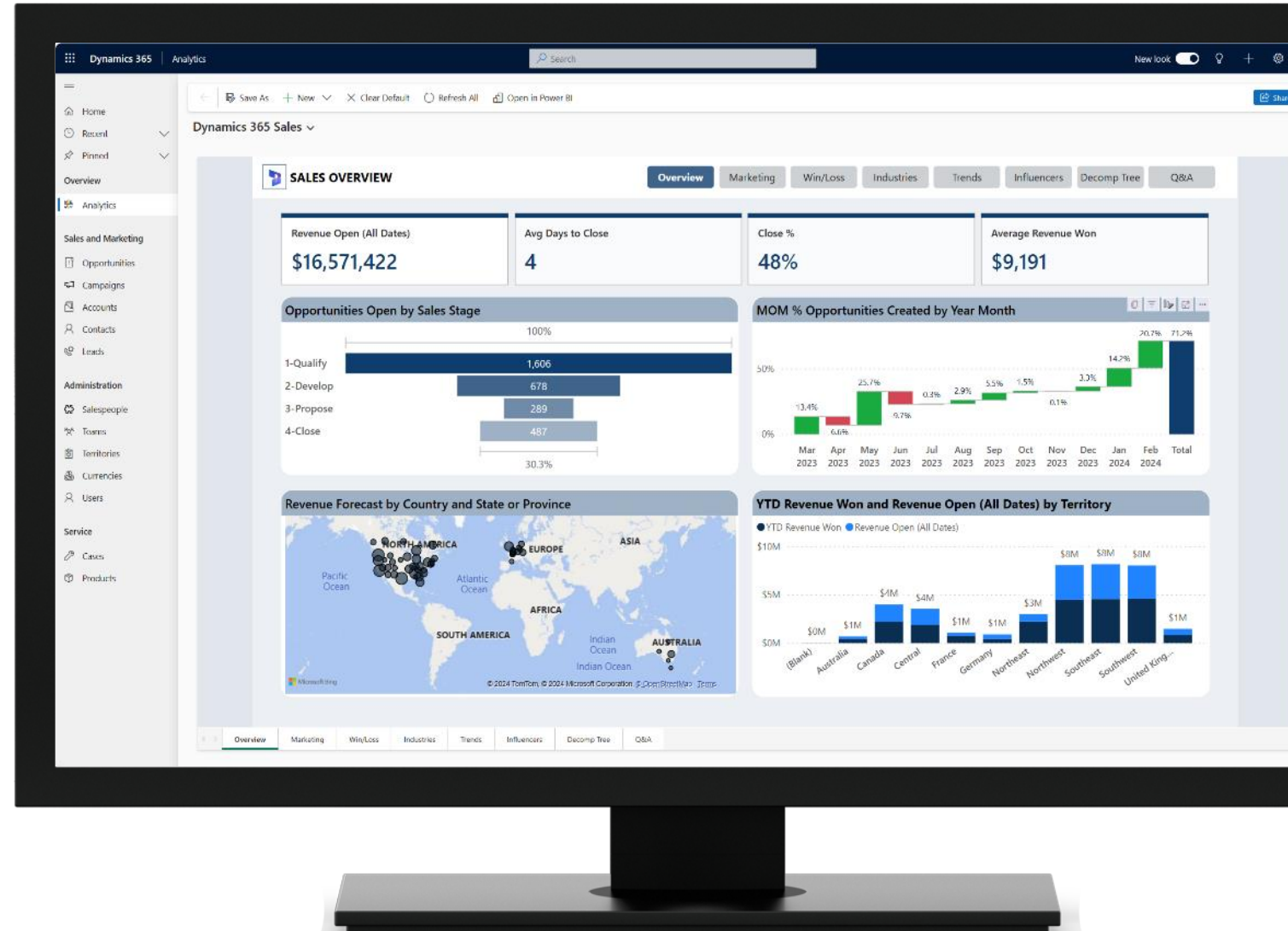
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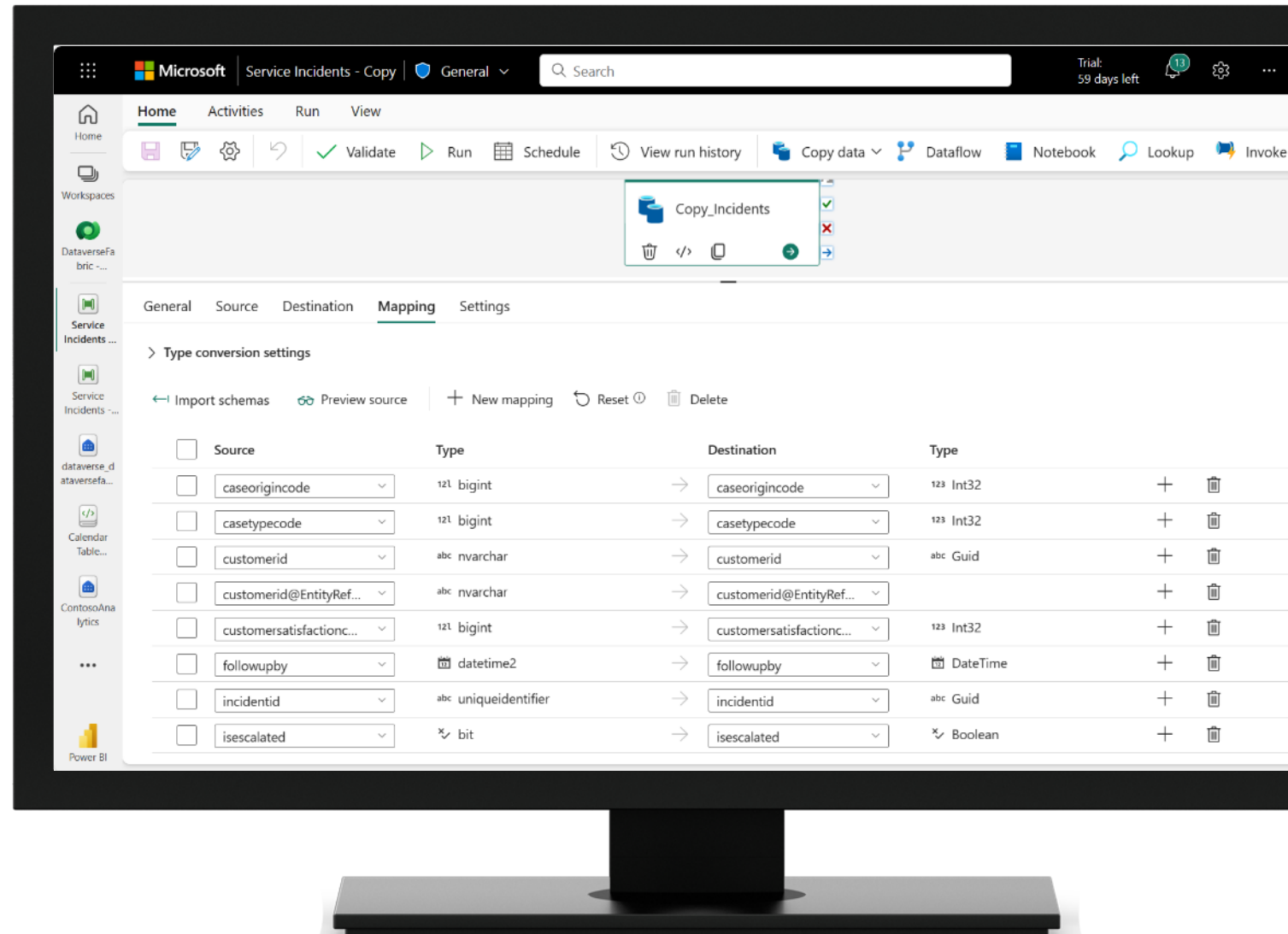
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Additional Resources & Special Topics



Resources For Customers & Insiders



Yammer Forum hosted by the Dataverse PG:

<https://aka.ms/SynapseLinkforDynamics>



Product Documentation introduction:

[Link Dataverse to Microsoft Fabric | Microsoft Learn](#)



YouTube playlist of setup / configuration videos:

<https://aka.ms/FabricForDataverse>



Dataverse-Fabric resources (including this deck):

<https://github.com/mscottsewell/Dynamics365-Fabric-in-a-Day>



Other Resources for F&O Migration to Fabric/Synapse Link:

<https://aka.ms/TransitionToSynapseLink>

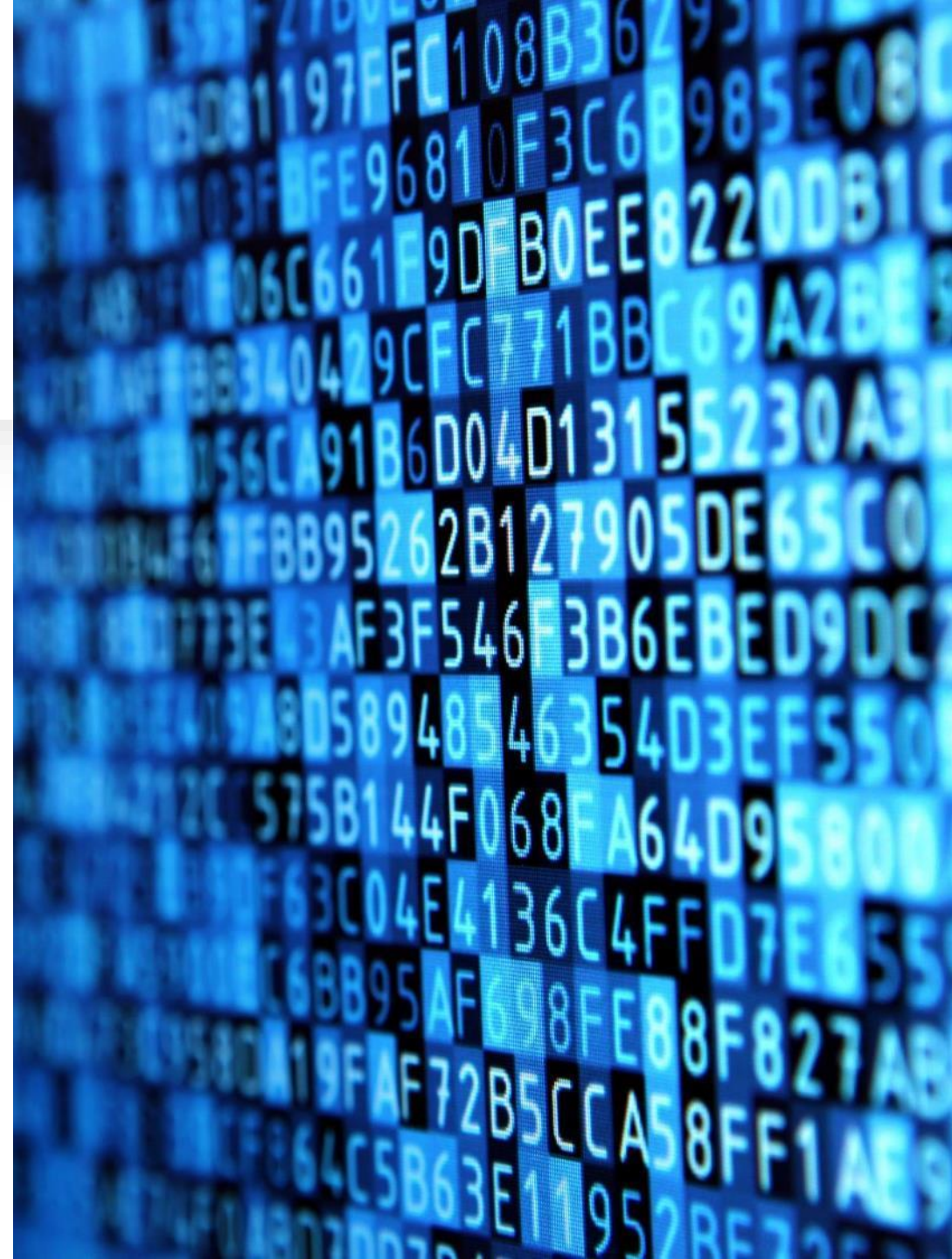
Handling DateTime and Currency fields in data from Dataverse

These seems like obscure topics, but almost everyone gets bitten by them the first time.

Dates in Dataverse are, for the most part, stored as DateTime in UTC format but displayed to the user based on their current application settings.

- **Convert Date-Times to a timezone standardized Date-Only field**
- **Filter/join/group on the Date-Only value**
- **If you have significant timezone spans in your organization, consider adding a process to materialize non-timezone dependent dates for important metrics inside Dataverse.**

Currency fields are stored with a “base” value and displayed in a converted currency field. – Combining the values of a field with multiple currencies would be invalid. – So, always reference the ‘base’ fields for any type of calculation where different currencies might be included.



Choice Values

Only the integer is stored in the row in Dataverse or FabricLink

It's joined at runtime in both places – smaller data and multi-language support

	name	statuscode	industrycode
1	Mechanical Products Ltd. ...	1	29
2	Rally Master Company Inc...	1	10
3	Hiatus Bike Tours (Paris)	1	29
4	Retreat Inn (Waterloo)	1	33
5	Reasonable Bicycle Sales (...)	1	33
6	Racks and Security System...	1	29

	name	Status	Industry
1	Mechanical Products Ltd. ...	Active	Specialty Realty
2	Rally Master Company Inc.	Active	Distributors, Di...
3	Hiatus Bike Tours (Paris)	Active	Specialty Realty
4	Retreat Inn (Waterloo)	Active	Wholesale
5	Reasonable Bicycle Sales (...)	Active	Wholesale
6	Racks and Security System...	Active	Specialty Realty

Dataverse Fabric - Choice Values

Here's my go-to snippet:

```
LEFT JOIN [dbo].[stringmap] AS [entityname_attributename]
  ON [entityname_attributename].langid = 1033
  AND [entityname_attributename].objecttypecode = ''
  AND [entityname_attributename].attributename = ''
  AND [entityname_attributename].attributevalue = [Base].choicefieldname
```

Guide to using the above snippet:

langid	= the language code of values needed - 1033 = US English
objecttypecode	= entity name
attributename	= choice value field name
attributevalue	= choice numeric value from the record
choicefieldname	= choice value field name

In the list of fields in the query, just reference it in this form:

```
[entityname_attributename].value AS [My Field Alias]
```

Multi-Select Choices

A concatenated list of integers is stored in the row in Dataverse or FabricLink

The screenshot displays the Microsoft Dynamics 365 interface for a contact record. The contact is Aaron Baker, a Decision Maker at the Bicycle Association. The interface includes a left-hand navigation pane, a top navigation bar, and a main content area with various data cards and charts. A multi-select choice for 'Channel Activities' is highlighted with a green box, showing a list of activity types such as Appointment, Email, Phone Call, Task, Service Activity, Social Activity, Teams chat, and Customer Voice alert. A 'less' button is visible at the bottom right of the selection list.

CONTACT INFORMATION

First Name: Aaron
Last Name: Baker
Account Name: Bicycle Association (De Witt)
Role: Decision Maker
Credit Hold: No

Channel Activities

- Appointment
- Email
- Phone Call
- Task
- Service Activity
- Social Activity
- Teams chat
- Customer Voice alert

Select or search options

less

Summary

Aaron Baker

Close %: 54%
YTD Revenue Won: \$10,543
Revenue Open: \$195,676
Lifetime Revenue Won: \$10,543

Smart Narrative

Revenue Won and total Revenue Open are negatively correlated with each other.

Feb 2024 had \$8,921 Revenue Won, Revenue Open, and 52.4 % Close %. Jan

Revenue Won and Revenue Open by Year Month

Revenue Won (blue bar), Revenue Open (red bar)

Revenue Open by Sales Stage

Sales Stage	Est. Value
4-Close	\$196K
4-Close	\$72,244
4-Close	\$55,798
4-Close	\$27,309
4-Close	\$19,402
4-Close	\$8,348
4-Close	\$3,570
4-Close	\$3,570
4-Close	\$2,511
4-Close	\$2,407

Dataverse Fabric – Multi-Select Choice Values

[Dataverse to Fabric OneLake - Part 8 - Multi-Select Fields \(youtube.com\)](#)

```
WITH CTE_contact_channelactivity AS
  (SELECT Base.contactid
    , STRING_AGG(contact_channelactivity.value, ', ') AS channelactivities_string
  FROM [dbo].[contact] AS Base
  CROSS APPLY string_split (Base.pbi_channelactivities , ';') AS string
  JOIN stringmap contact_channelactivity
    ON contact_channelactivity.attributename = 'pbi_channelactivities'
    AND contact_channelactivity.objecttypecode = 'contact'
    AND contact_channelactivity.langid = 1033
    AND contact_channelactivity.attributevalue = string.value
  WHERE
    Base.pbi_channelactivities IS NOT NULL
  GROUP BY
    Base.contactid )
SELECT Base.contactid
  , Base.fullname AS [Contact Name]
  , CTE_contact_channelactivity.channelactivities_string AS [Channel Activities]
FROM [dbo].[contact] AS Base
JOIN CTE_contact_channelactivity
  ON CTE_contact_channelactivity.contactid = Base.contactid
WHERE
  Base.pbi_channelactivities IS NOT NULL;
```

Dataverse Fabric – Multi-Select Choice Values

[Dataverse to Fabric OneLake - Part 8 - Multi-Select Fields \(youtube.com\)](#)

RESULTS			
	contactid	Contact Name	Channel Activities
1	02314130-1f51...	Aaron Collins	Phone Call, Task, Customer Voice survey response
2	1a354130-1f51...	Aaron Chen	Appointment, Email, Phone Call, Task, Service Activity, Social Activity, Teams chat, Customer Voice alert, Customer Voice sur...
3	34d64a1f-1f51-...	Aaron Campbell	Email, Task, Customer Voice survey invite
4	42d84a1f-1f51-...	Aaron Butler	Phone Call, Task, Customer Voice survey response
5	5a92810e-1f51...	Aaron Alexander	Email, Task, Customer Voice survey invite
6	683a4130-1f51...	Aaron Adams	Phone Call, Task, Customer Voice survey response
7	6c7f810e-1f51-...	Aaron Baker	Portal Comment, Invite Redemption, Copilot Transcript, Session, Conversation, Customer Voice survey response, Customer V...
8	76e60efe-1e51...	Aaron Bryant	Phone Call
9	84f74a1f-1f51-...	Aaron Evans	Appointment, Email, Phone Call, Task, Service Activity, Social Activity, Teams chat, Customer Voice alert, Customer Voice sur...
10	b690810e-1f51...	Aaron Allen	Session, Invite Redemption, Portal Comment
11	b88d810e-1f51...	Aaron Edwards	Session, Invite Redemption, Portal Comment
12	ee85810e-1f51...	Aaron Diaz	Email, Task, Customer Voice survey invite
13	fc324130-1f51-...	Aaron Carter	Session, Invite Redemption, Portal Comment

The background is a dark blue field filled with a complex pattern of elements. It includes numerous small white dots scattered throughout. Overlaid on this are several series of blue and green dots, some arranged in straight lines and others in more irregular, wavy paths. There are also thin, wavy lines in blue and green that meander across the space. A prominent feature is a series of overlapping, semi-transparent rectangular outlines in blue and green, arranged in a roughly parallel, slightly curved path that runs diagonally from the bottom left towards the top right. The overall effect is that of a dynamic, multi-layered digital or data visualization.

Thank you