Secure all of your OneLake Data

#FABCONSQLCON2026

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ATLANTA MARCH 16 - 20, 2026

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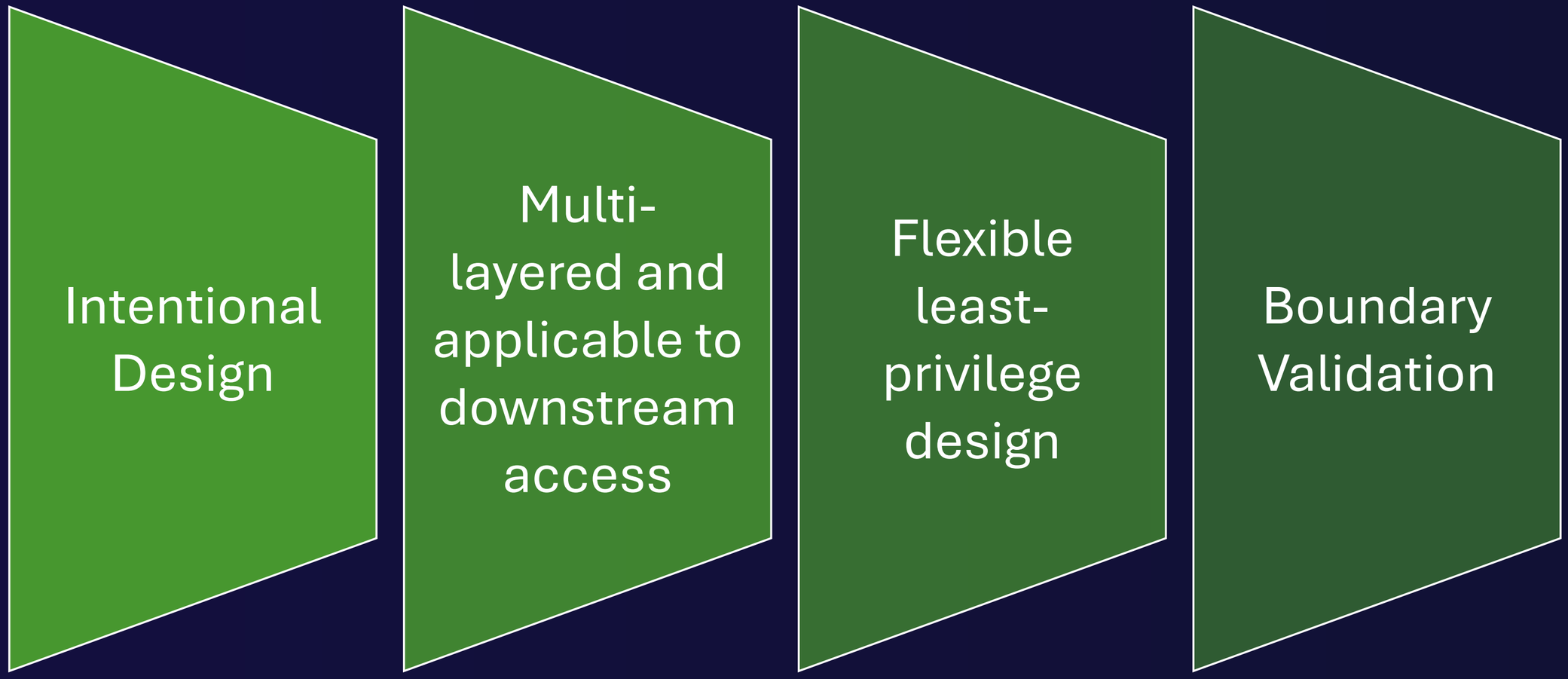
Data Security in Fabric

- Review of important elements
- SQL Security in Fabric
- OneLake security in Fabric
- Desing Least privilege security architecture for all of One Lake

Foundations of Data Security in Modern Data Platforms



Foundations of Data Security in Fabric

- Incorporating Entra Security Groups
- Workspace Security
- SQL Security
- OneLake Security*
- Sharing

OneLake Security

Security Options

- Sharing
- SQL Security

OneLake Security

- Implements RBAC Security on OneLake Data
- Includes both Row Level security and Object level security

Entra Groups for Users Access

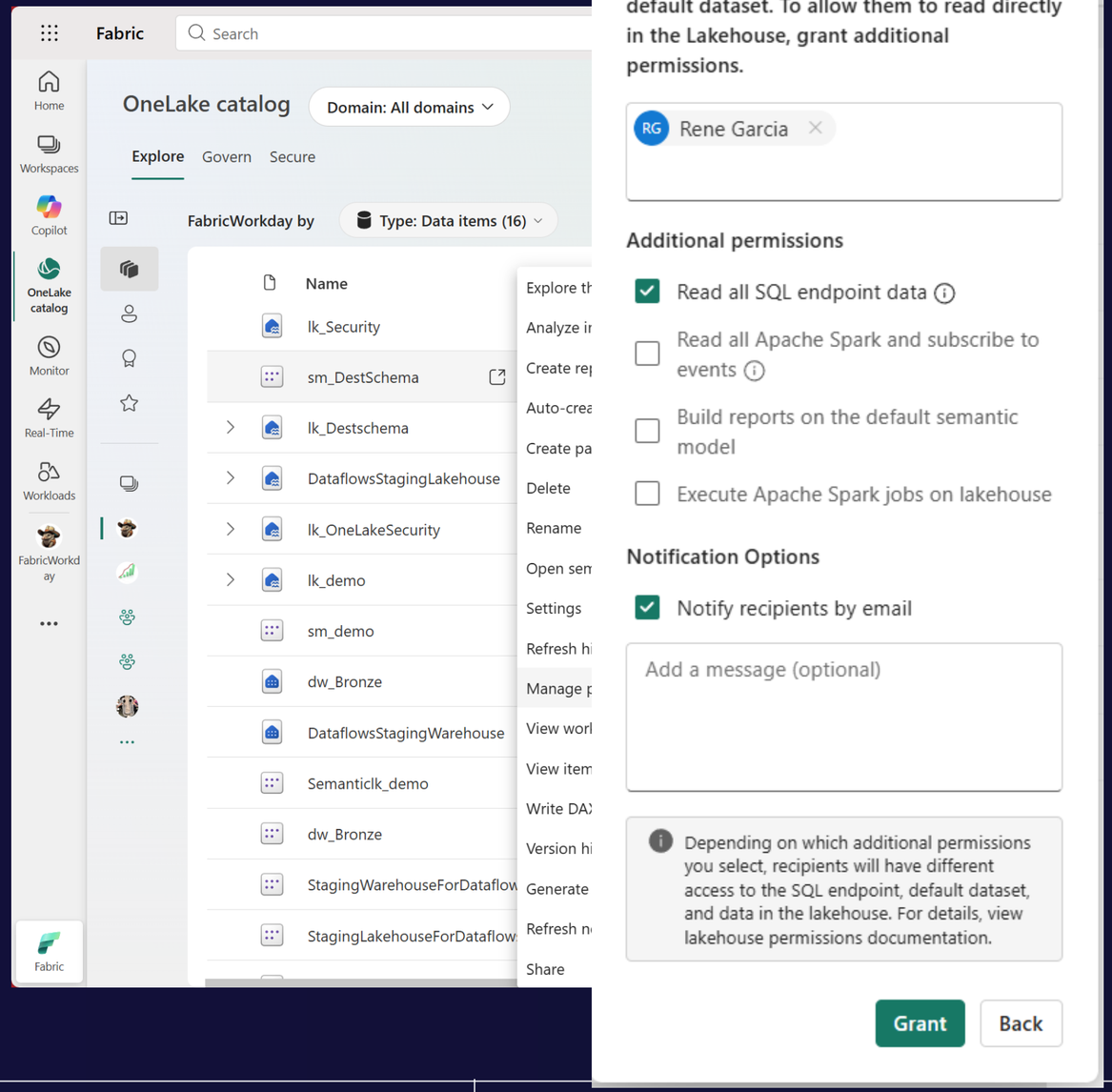
- Entra Security Groups need to be the basis for everything
- Fabric designed to provide access through sharing
- Do not need to give access to the workspace

Workspace Security

- Most users have access everything
- Only view permissions apply security
- Best plan is to not add people to workspaces
- How do you give people access to the data and not the workspace

Sharing Data

- Best managed in the OneLake Catalog
- Best Practice is granted to the objects themselves, not workspace
- Provide limited rights



SQL Security

- Same as used in SQL Server for years
- Create using SQL Statements
- Create roles, permissions and assign them to groups
- There is no Impersonate, which makes testing difficult
- It is called SQL Security, not Power BI security, so it will not grant access to create semantic model
- If there is a semantic model based on data

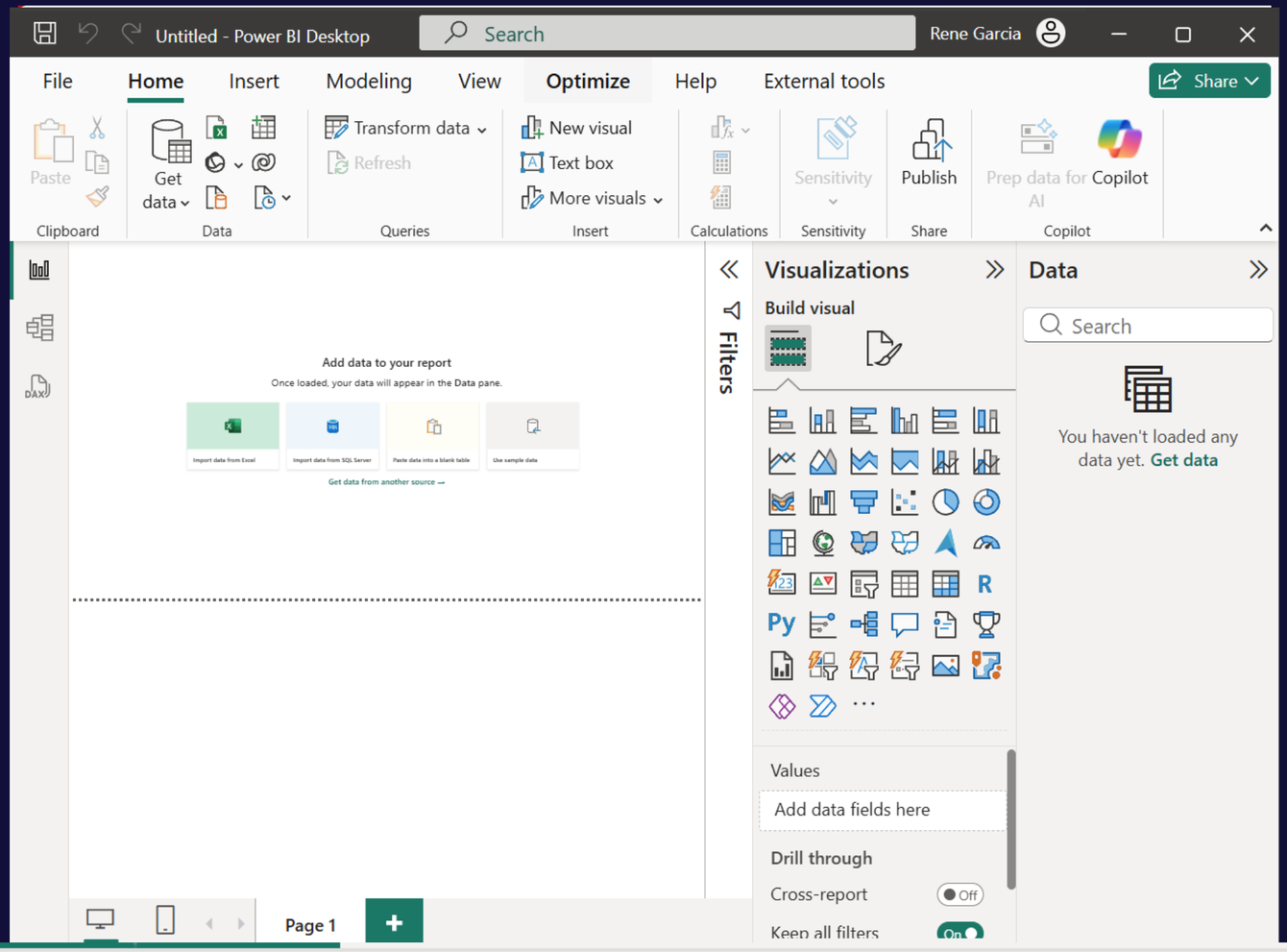
```
CREATE ROLE Limitdata
Grant Select to Limitdata
```

Configuration of SQL Security

- Create a role
- Grant SELECT ton the role
- DENY SELECT on columns and tables
- Create a function for Row Level security

Use OneLake Catalog to share the semantic model

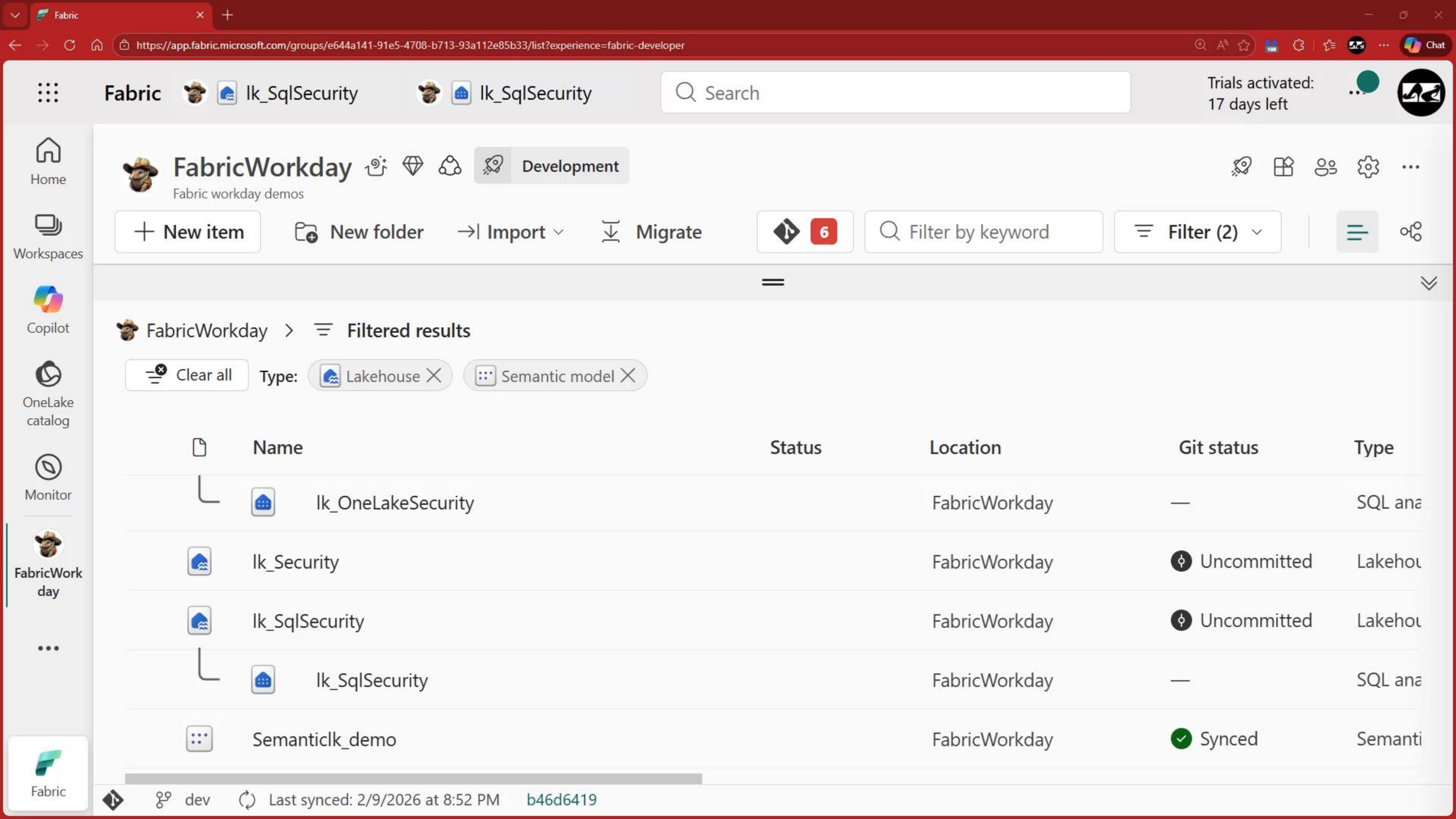
- Workspace users with Admin or Member access have the permission to share
- They can share the semantic model to users who do not have access to the workspace
- The user can access the semantic model from within the Power BI Desktop, but they won't be able to see the data



Connected live to the Power BI semantic model: sm_DestSchema in FabricWorkday

Demonstration

SQL Security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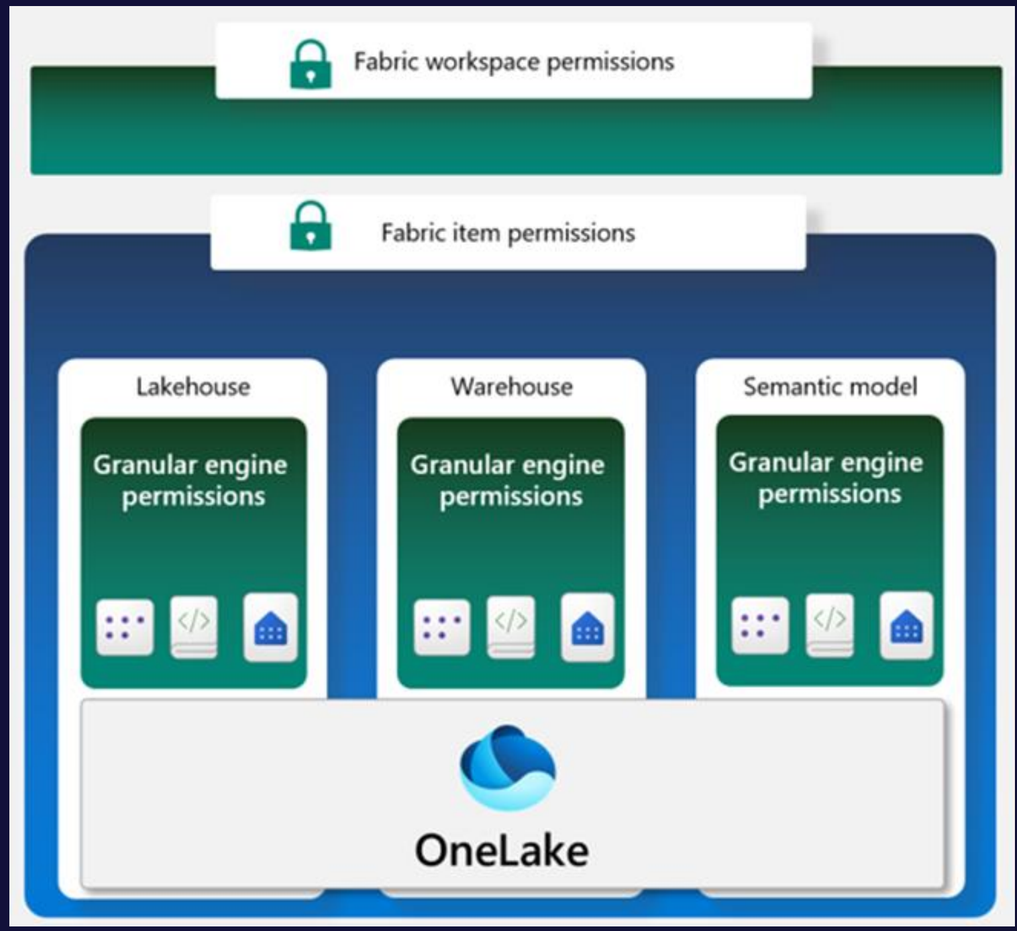
OneLake security

OneLake Security access control

- OneLake data access controls
- Item Permissions
- Workspace permissions
- Compute or granular permissions



OneLake Security - Preview

- Everything uses Entra
- Method for securing all of the data inside of OneLake
- Data is secured no matter how it is accessed
- Granular role-based security
- Enforces security on the data layer
- Shortcut Security
- Only applies to users with view permissions or where the data item is shared
- Manage in OneLake Catalog

OneLake security roles

Roles grant people access to data

- Data
- Permission
- Members
- Constraints

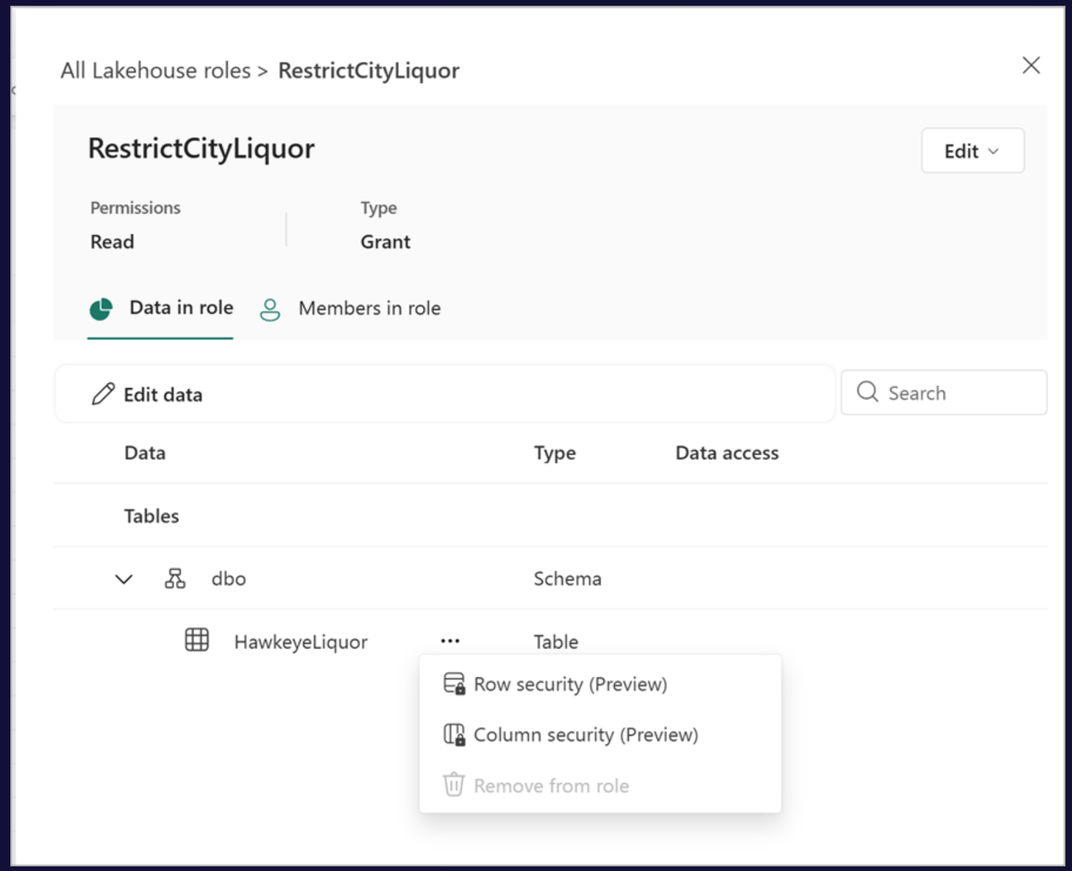
Works on Tables only, not views or stored procedures

Remove the default role and create new ones

Available in Lakehouse and Azure Databricks Mirrored Catalog

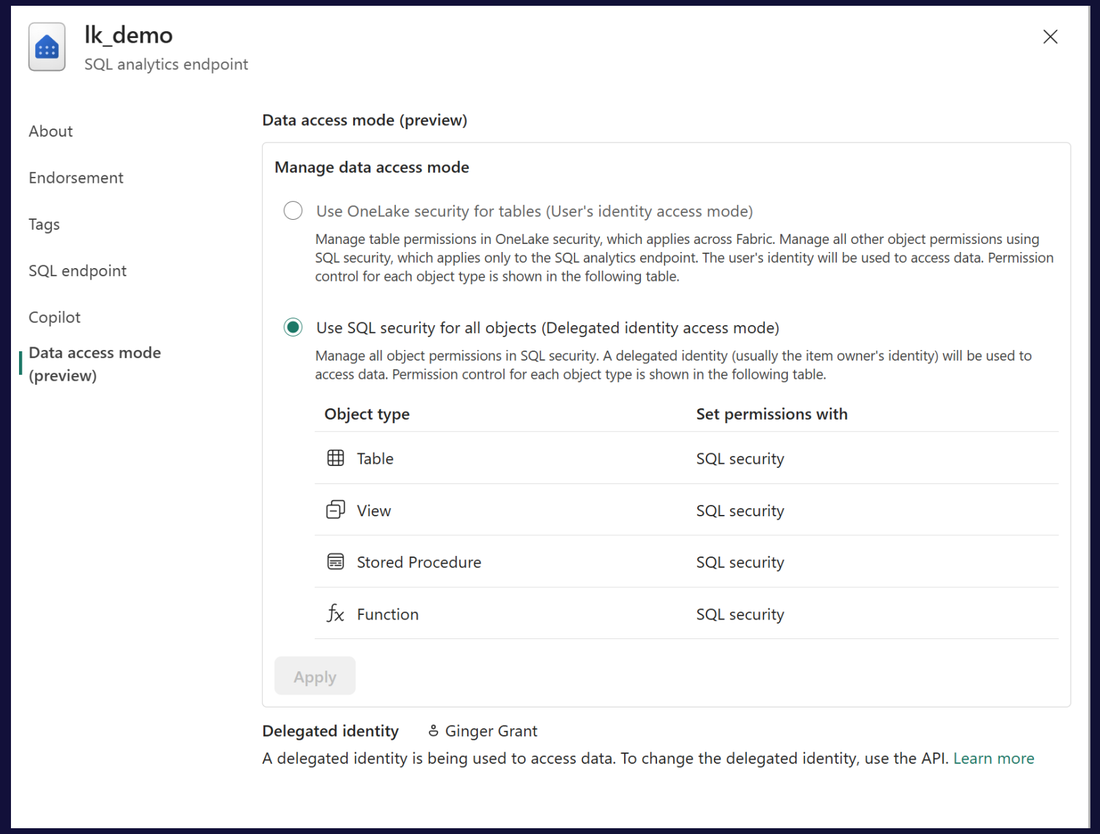
Roles in OneLake security

- Create the security on a lakehouse or a warehouse
- Delete the default role and add a new one
- Grant object and Row based security
- Select table then the Row and or Column



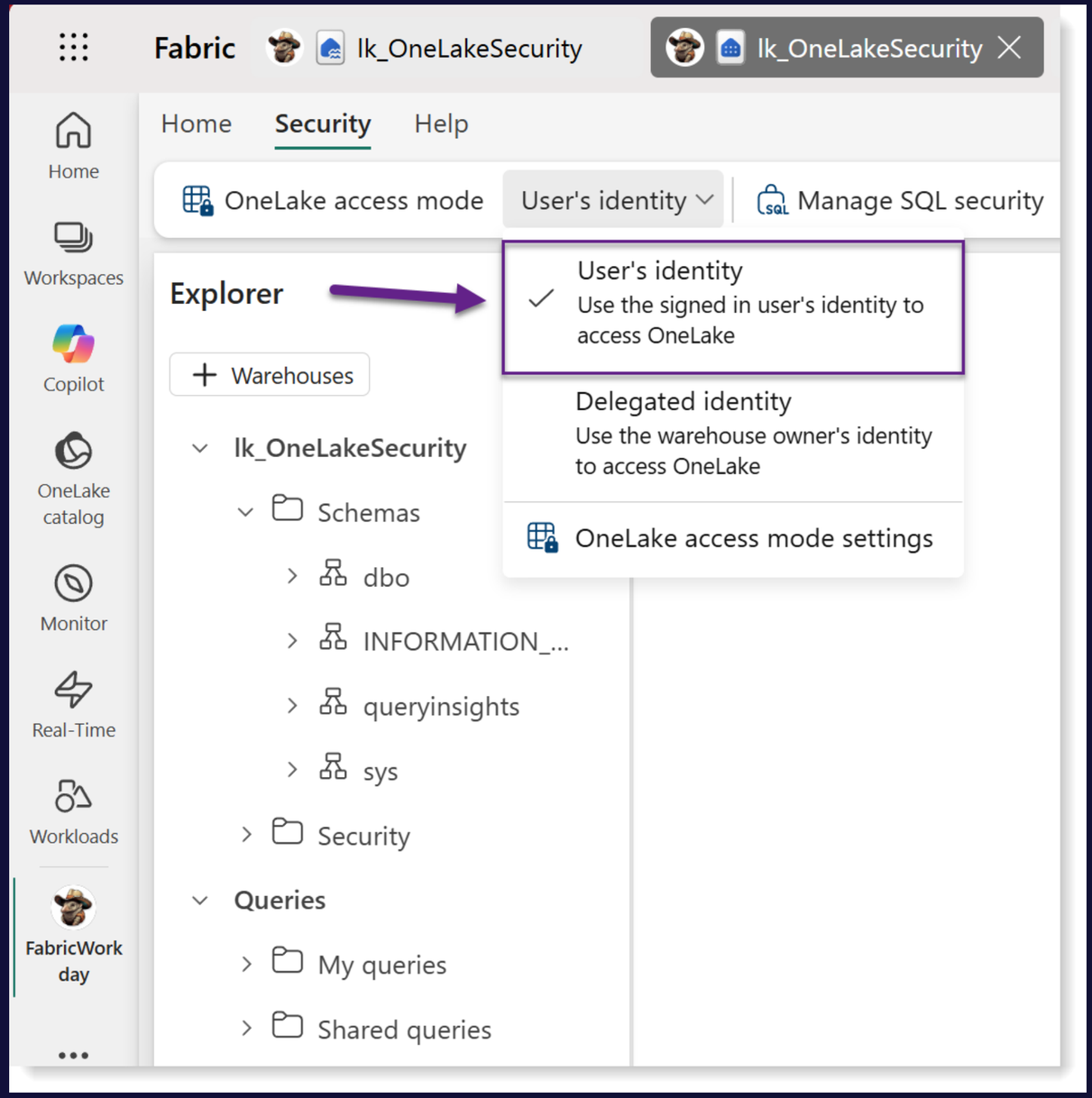
SQL Security Option Required

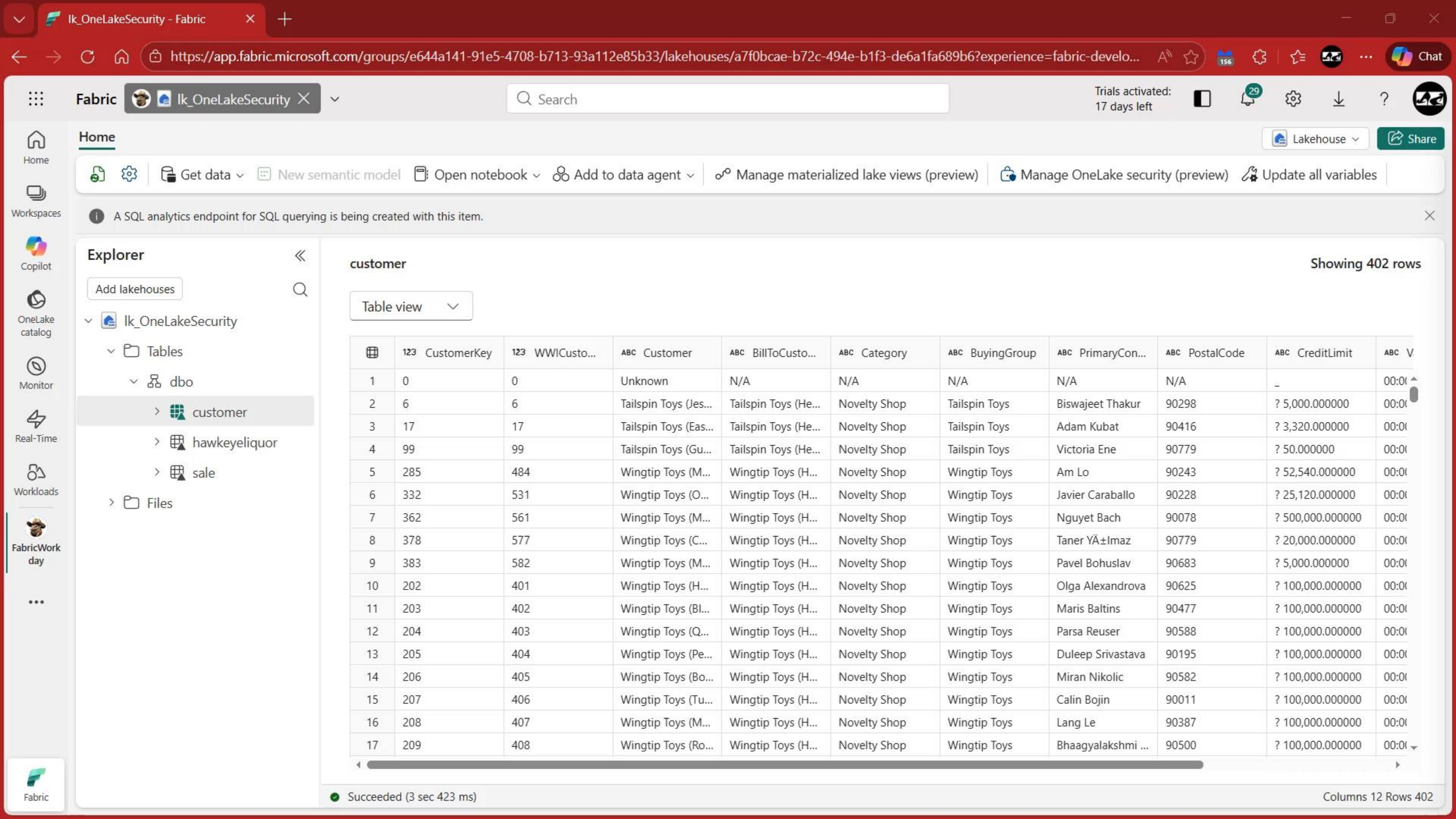
- Must select the SQL Security Option for SQL Endpoints
- This will remove any other security on the objects
- User’s identity provides data access



User’s Identity

- OneLake security requires a change to to the security model
- From within the Lakehouse SQL Endpoint for OneLake Security you need to select User’s Identity
- The Default is Delegated Identity





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Security Best Practices

- Do not grant people workspace access to get access to data, use share for that
- Security policies are designed for share access, not workspace access
- Use OneLake catalog to manage and review access

Intentional Security by Design

- Data can dictate design
- Simplify the security model to avoid potential issues
- For example, do not include PII data with people

Semantic Modeling in Fabric

- If you create a Direct Lake connection to a Lakehouse, you do not have to refresh it, you get the data when the lakehouse is updated
- Currently, even if you create a Direct Lake model you cannot inherit the security if users are outside the workspace
- If you import the data, you will need to create the row level security or column level security inside the model

Summary

- If you want to restrict access to data accessed via a SQL Endpoint, use SQL based security
- If you need Row Level security inside a semantic model, you will need to create that as there presently isn’t any inheritance
- OneLake Security is not ready for production

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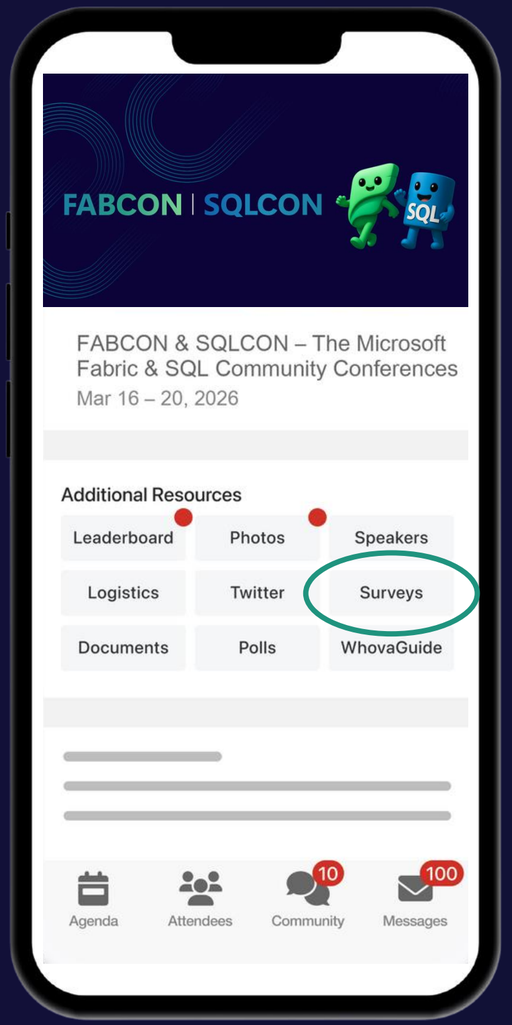

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