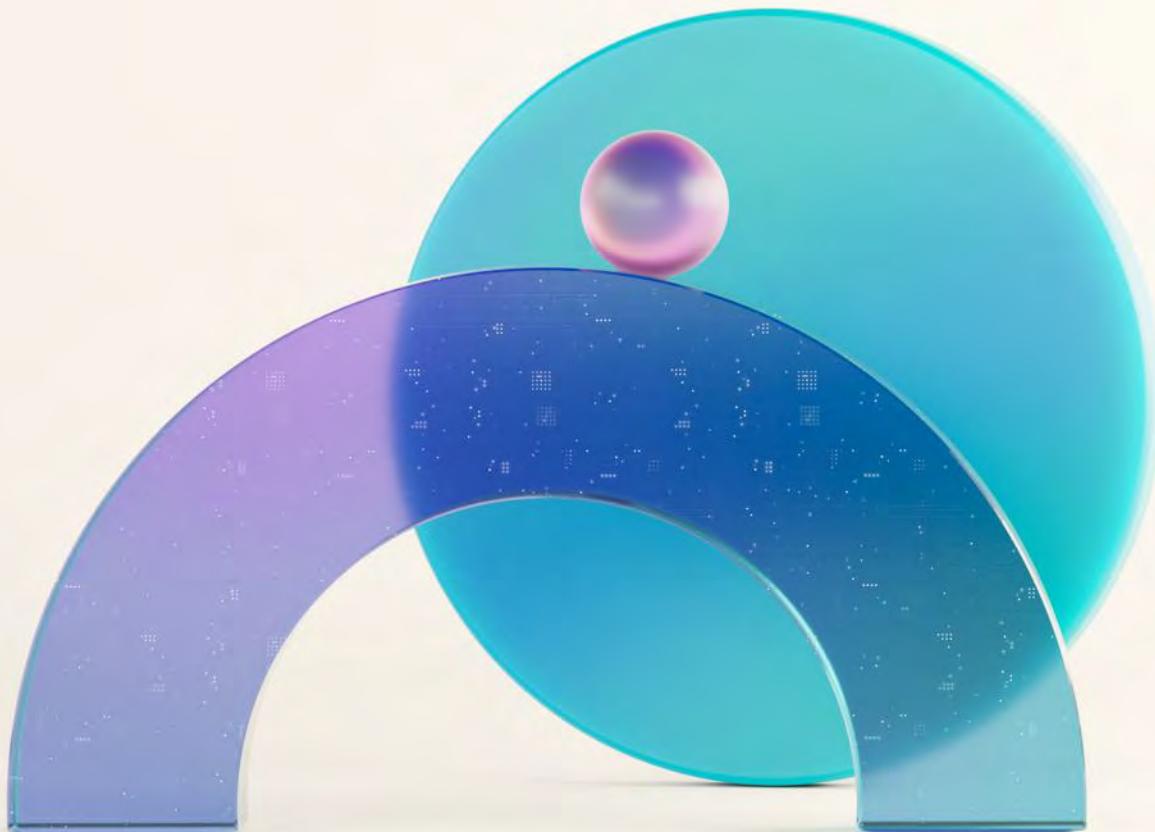
A minimalist abstract background featuring a large, translucent pink triangle on the left. In front of it is a smaller, semi-transparent teal rectangle. A single, smooth sphere sits atop the teal rectangle. The overall aesthetic is clean and modern, with soft lighting.

Microsoft Fabric Community Conference



Enhancing Data Protection with OneLake Security

Aaron Merrill
Cristian Petculescu

Intros



Aaron Merrill

Principal Product Manager –
Microsoft OneLake



Cristian Petculescu

Technical Fellow – Chief
Architect for Azure Data

Did Microsoft abandon OneSecurity?

I don't see it on any diagrams (even new diagrams from FabCon), any docs, and not a word about it across any of the announcement blogs today. Does this mean that data security will just continue to be managed and enforced differently for each engine (Power BI, Spark, Warehouse, KQL, etc.) ? If so, this is honestly pretty frustrating as one of the best parts of the original Fabric vision was "secure once".

Data management compliance - someone else said it but OneSecurity missing is a big thing. I got past it by telling my security team its "just Power BI" (which they already approved) but after that it took a few months with data engineering to get things locked down because you have to make sure things are secured with each engine and files and make sure no one has workspace contributor, etc. Once they set that up once though I've been alright



Nofarcastplz • 2mo ago

Don't forget **onesecurity**.. Without it, there is no way you can properly roll-out and manage on enterprise scale

↑ 12 ↓ Reply Award Share ...



Pawar_BI • 4mo ago

Microsoft MVP

You cannot. That's what OneSecurity will solve, sometime next year.

(-) ↑ 3 ↓ Reply Award Share ...

OneLake Catalog Governance - But is it really OneSecurity?

Community Share



Agenda

- | | | | |
|---|---------------------------|---|-----------------|
| 1 | Overview | 5 | Getting started |
| 2 | OneLake security concepts | 6 | Things to know |
| 3 | OneLake security features | 7 | OneLake catalog |
| 4 | Deep dive | 8 | What's next? |

OneLake for all data

“The OneDrive for data”



OneDrive
for documents

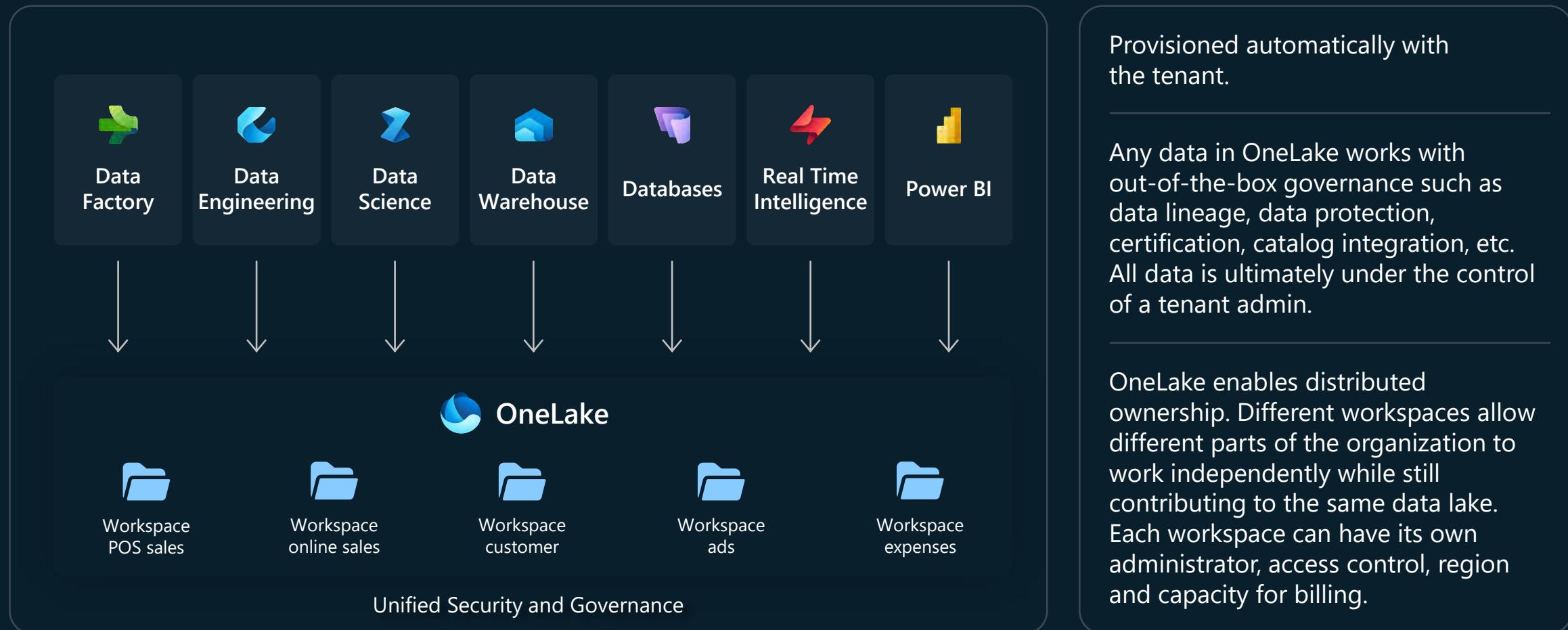


OneLake
for data

OneLake provides a data lake as a service
without you needing to build it

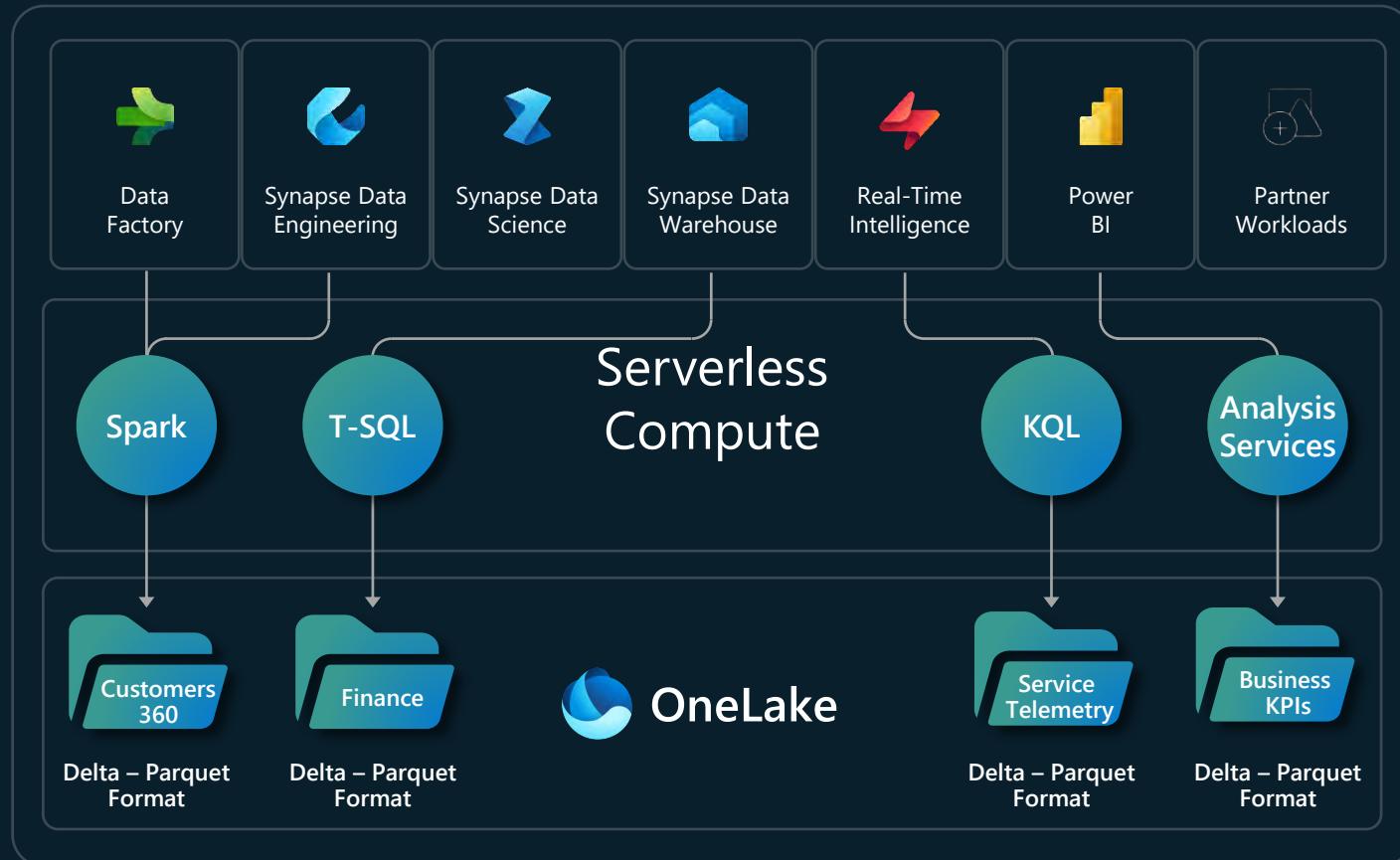
A single unified SaaS data lake

“No Silos”



One Copy for all computers

Real separation of compute and storage



All the compute engines store their data automatically in OneLake as data items.

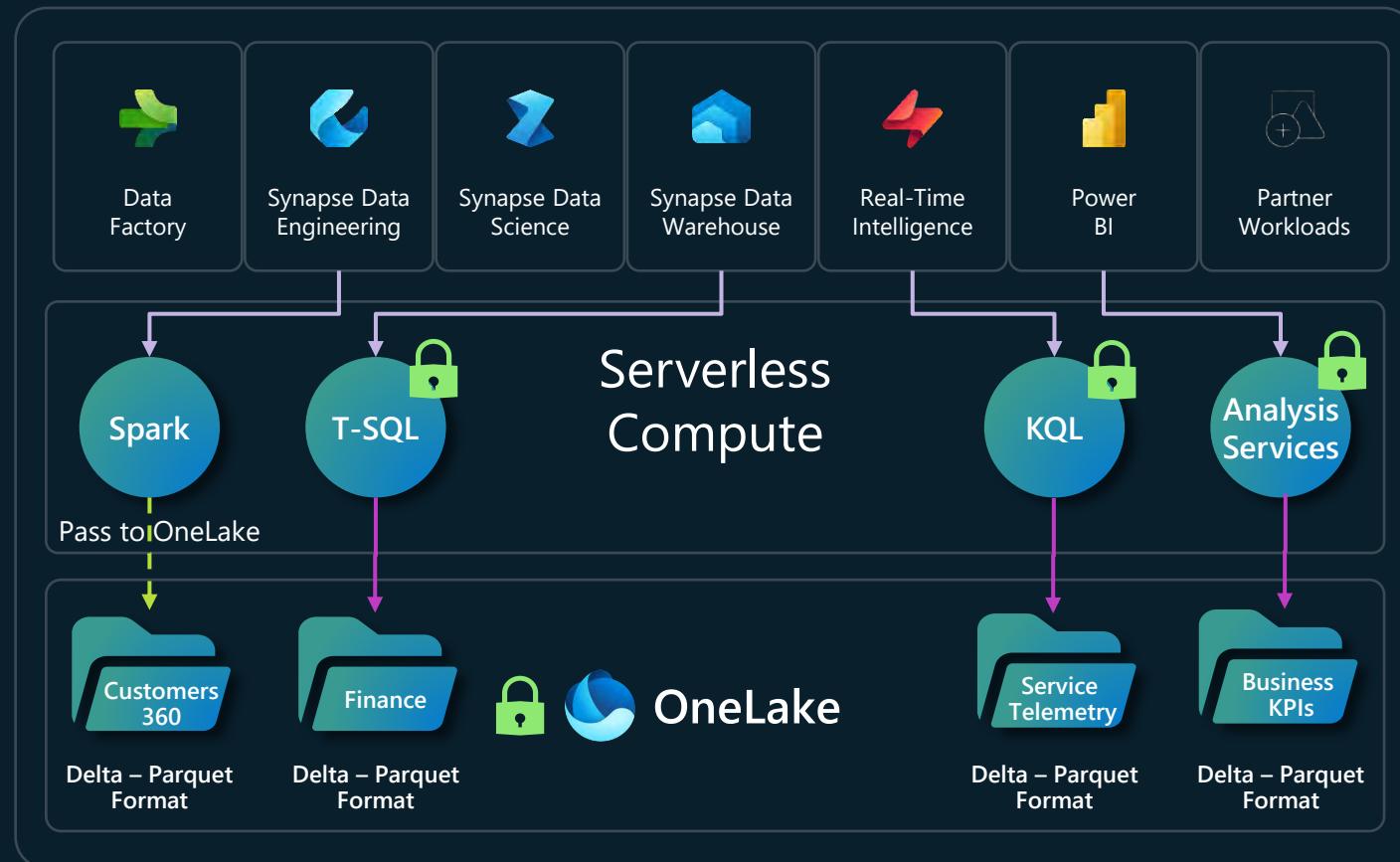
The data is stored in a single common format.

Delta – Parquet, an open standards format, and it is the storage format for all tabular data in Fabric.

All the compute engines have been fully optimized to work with Delta Parquet as their native format.

One Copy, many security definitions

Enabling fine-grained security at each engine



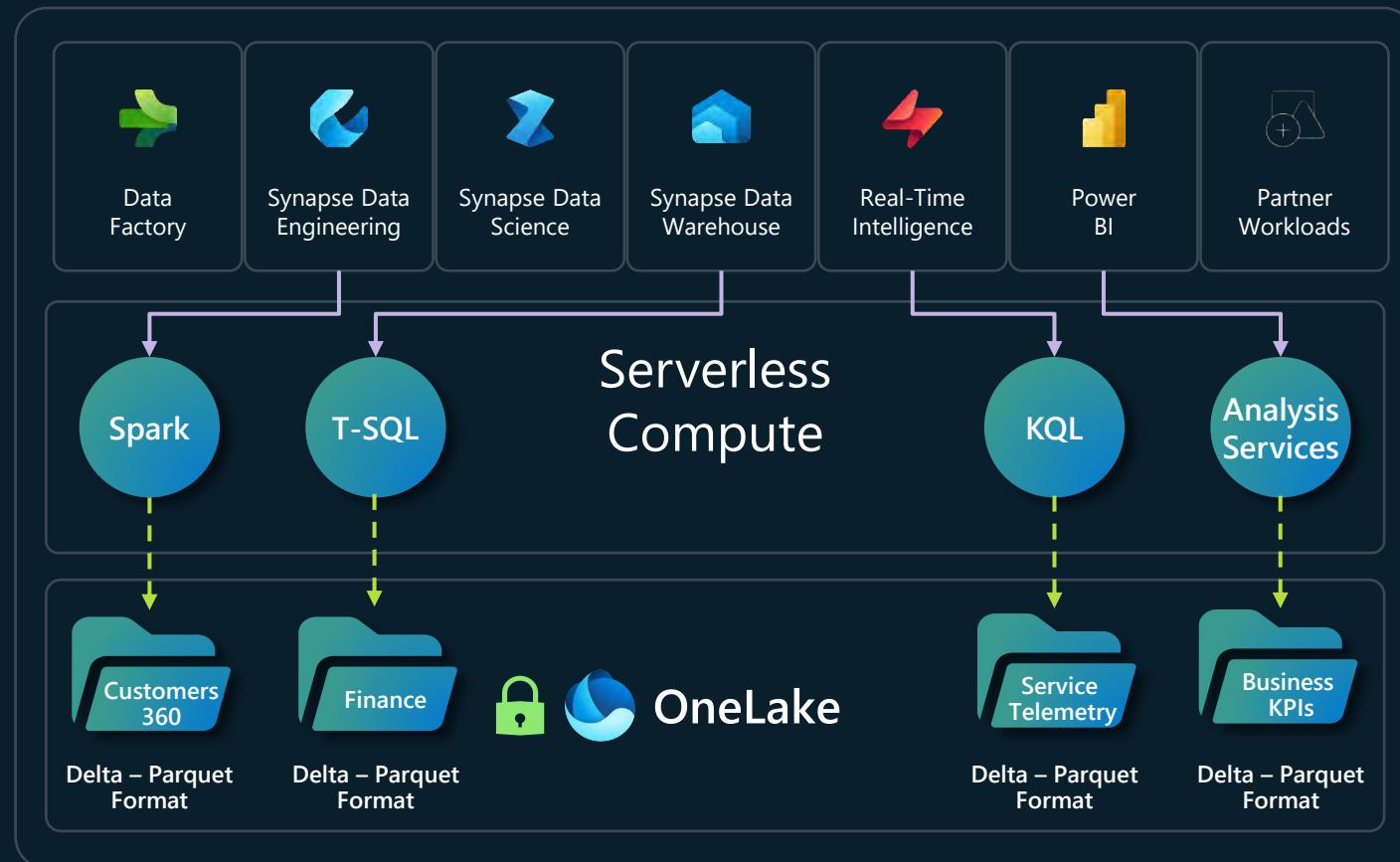
Each engine in Fabric provides its own robust set of security capabilities.

OneLake also brings data lake security, applicable to engines like Spark.

Each Fabric engine relies on one of two modes when reading data from OneLake.

One Copy, One Security Definition

A single place to define and manage security



OneLake now has a complete set of fine-grained security features:

Table/folder security
Column level security
Row level security
+ more coming soon...

Engines can then switch to using passthrough mode as the primary security model.

Security is now centrally defined and enforced consistently across all engines.

Home

Lakehouse Share

Get data New semantic model Open notebook Manage OneLake data access (preview)

Explorer < Orders Showing 830 rows

Search schemas and tables

NorthwindTest

- Tables
 - dbo
 - Customers
 - Employees
 - EmployeeTerritories
 - OrderDetails
 - Orders
 - Products
 - Regions
 - Shippers
 - ShortcutOrders
 - Suppliers
 - Territories
 - Files

Columns 14 Rows 830

	orderID	customerID	employeeID	orderDate	requiredDate	shippedDate	shipVia	freight	shipName	shipAddress	shipCity	shipRegion	shipPostalC...
1	10257	HILAA	4	7/16/1996 12:00:00...	8/13/1996 12:00:00...	1996-07-22 00:00:00...	3	81.91	HILARION-Abast...	Carrera 22 con A...	San Cristóbal	Táchira	5022
2	10262	RATTC	8	7/22/1996 12:00:00...	8/19/1996 12:00:00...	1996-07-25 00:00:00...	3	48.29	Rattlesnake Can...	2817 Milton Dr.	Albuquerque	NM	87110
3	10268	GROSR	8	7/30/1996 12:00:00...	8/27/1996 12:00:00...	1996-08-02 00:00:00...	3	66.29	GROSELLA-Rest...	5 ^a Ave. Los Palos...	Caracas	DF	1081
4	10269	WHITC	5	7/31/1996 12:00:00...	8/14/1996 12:00:00...	1996-08-09 00:00:00...	1	4.56	White Clover Ma...	1029 - 12th Ave....	Seattle	WA	98124
5	10283	LILAS	3	8/16/1996 12:00:00...	9/13/1996 12:00:00...	1996-08-23 00:00:00...	3	84.81	LILA-Supermerc...	Carrera 52 con A...	Barquisimeto	Lara	3508
6	10287	RICAR	8	8/22/1996 12:00:00...	9/19/1996 12:00:00...	1996-08-28 00:00:00...	3	12.76	Ricardo Adocica...	Av. Copacabana ...	Rio de Janeiro	RJ	02389-890
7	10290	COMMI	8	8/27/1996 12:00:00...	9/24/1996 12:00:00...	1996-09-03 00:00:00...	1	79.7	Comércio Mineiro	Av. dos Lusíadas...	Sao Paulo	SP	05432-043
8	10296	LILAS	6	9/3/1996 12:00:00...	10/1/1996 12:00:00...	1996-09-11 00:00:00...	1	0.12	LILA-Supermerc...	Carrera 52 con A...	Barquisimeto	Lara	3508
9	10305	OLDWO	8	9/13/1996 12:00:00...	10/11/1996 12:00:00...	1996-10-09 00:00:00...	3	257.62	Old World Delic...	2743 Bering St.	Anchorage	AK	99508
10	10309	HUNGO	3	9/19/1996 12:00:00...	10/17/1996 12:00:00...	1996-10-23 00:00:00...	1	47.3	Hungry Owl All...	8 Johnstown Road	Cork	Co. Cork	NULL
11	10316	RATTC	1	9/27/1996 12:00:00...	10/25/1996 12:00:00...	1996-10-08 00:00:00...	3	150.15	Rattlesnake Can...	2817 Milton Dr.	Albuquerque	NM	87110
12	10317	LONEP	6	9/30/1996 12:00:00...	10/28/1996 12:00:00...	1996-10-10 00:00:00...	1	12.69	Lonesome Pine ...	89 Chiaroscuro ...	Portland	OR	97219
13	10324	SAVEA	9	10/8/1996 12:00:00...	11/5/1996 12:00:00...	1996-10-10 00:00:00...	1	214.27	Save-a-lot Mark...	187 Suffolk Ln.	Boise	ID	83720
14	10330	LILAS	3	10/16/1996 12:00:00...	11/13/1996 12:00:00...	1996-10-28 00:00:00...	1	12.75	LILA-Supermerc...	Carrera 52 con A...	Barquisimeto	Lara	3508
15	10338	OLDWO	4	10/25/1996 12:00:00...	11/22/1996 12:00:00...	1996-10-29 00:00:00...	3	84.21	Old World Delic...	2743 Bering St.	Anchorage	AK	99508
16	10346	RATTC	3	11/5/1996 12:00:00...	12/17/1996 12:00:00...	1996-11-08 00:00:00...	3	142.08	Rattlesnake Can...	2817 Milton Dr.	Albuquerque	NM	87110
17	10347	FAMIA	4	11/6/1996 12:00:00...	12/4/1996 12:00:00...	1996-11-08 00:00:00...	3	3.1	Familia Arquibal...	Rua Orós 92	Sao Paulo	SP	05442-030
18	10349	SPLIR	7	11/8/1996 12:00:00...	12/6/1996 12:00:00...	1996-11-15 00:00:00...	1	8.63	Split Rail Beer &...	P.O. Box 555	Lander	WY	82520
19	10355	AROUT	6	11/15/1996 12:00:00...	12/13/1996 12:00:00...	1996-11-20 00:00:00...	1	41.95	Around the Horn	Brook Farm Strat...	Colchester	Essex	C07 6JX
20	10357	LILAS	1	11/19/1996 12:00:00...	12/17/1996 12:00:00...	1996-12-02 00:00:00...	3	34.88	LILA-Supermerc...	Carrera 52 con A...	Barquisimeto	Lara	3508
21	10373	HUNGO	4	12/5/1996 12:00:00...	1/2/1997 12:00:00...	1996-12-11 00:00:00...	3	124.12	Hungry Owl All...	8 Johnstown Road	Cork	Co. Cork	NULL
22	10379	QUEDE	2	12/11/1996 12:00:00...	1/8/1997 12:00:00...	1996-12-13 00:00:00...	1	45.03	Que Delícia	Rua da Panificad...	Rio de Janeiro	RJ	02389-673
23	10380	HUNGO	8	12/12/1996 12:00:00...	1/9/1997 12:00:00...	1997-01-16 00:00:00...	3	35.03	Hungry Owl All...	8 Johnstown Road	Cork	Co. Cork	NULL
24	10381	LILAS	3	12/12/1996 12:00:00...	1/9/1997 12:00:00...	1996-12-13 00:00:00...	3	7.99	LILA-Supermerc...	Carrera 52 con A...	Barquisimeto	Lara	3508
25	10383	AROUT	8	12/16/1996 12:00:00...	1/13/1997 12:00:00...	1996-12-18 00:00:00...	3	34.24	Around the Horn	Brook Farm Strat...	Colchester	Essex	C07 6JX
26	10386	FAMIA	9	12/18/1996 12:00:00...	1/1/1997 12:00:00...	1996-12-25 00:00:00...	3	13.99	Familia Arquibal...	Rua Orós 92	Sao Paulo	SP	05442-030
27	10393	SAVEA	1	12/25/1996 12:00:00...	1/22/1997 12:00:00...	1997-01-03 00:00:00...	3	126.56	Save-a-lot Mark...	187 Suffolk Ln.	Boise	ID	83720
28	10394	HUNGC	1	12/25/1996 12:00:00...	1/22/1997 12:00:00...	1997-01-03 00:00:00...	3	30.34	Hungry Coyote I...	City Center Plaza...	Elgin	OR	97827
29	10395	HILAA	6	12/26/1996 12:00:00...	1/23/1997 12:00:00...	1997-01-03 00:00:00...	1	184.41	HILARION-Abast...	Carrera 22 con A...	San Cristóbal	Táchira	5022
30	10398	SAVEA	2	12/30/1996 12:00:00...	1/27/1997 12:00:00...	1997-01-09 00:00:00...	3	89.16	Save-a-lot Mark...	187 Suffolk Ln.	Boise	ID	83720
31	10401	RATTC	1	1/1/1997 12:00:00...	1/29/1997 12:00:00...	1997-01-10 00:00:00...	1	12.51	Rattlesnake Can...	2817 Milton Dr.	Albuquerque	NM	87110
32	10405	LINOD	1	1/6/1997 12:00:00...	2/3/1997 12:00:00...	1997-01-22 00:00:00...	1	34.82	LINO-Delicatessen	Ave. 5 de Mayo ...	I. de Margarita	Nueva Esparta	4980
33	10406	QUEEN	7	1/7/1997 12:00:00...	2/18/1997 12:00:00...	1997-01-13 00:00:00...	1	108.04	Queen Cozinha	Alameda dos Ca...	Sao Paulo	SP	05487-020
34	10410	BOTTM	3	1/10/1997 12:00:00...	2/7/1997 12:00:00...	1997-01-15 00:00:00...	3	2.4	Bottom-Dollar ...	23 Tsawassen Bl...	Tsawassen	BC	T2F 8M4

Succeeded (7 sec 28 ms)

Columns 14 Rows 830



Introducing OneLake security in Fabric



Secure once and enforce across engines

Define security once in OneLake, and all engines will enforce it uniformly as they process queries and jobs, streamlining data security management and optimizing processes.



Define granular security for secure sharing

Create roles within a data item that grants access only to granular items with a lakehouse. This includes tables and folders or rows (RLS) and columns (CLS)



Centrally manage all permissions in Fabric

Use OneLake security to centrally manage roles and their permissions across all domains and workspaces in Fabric.

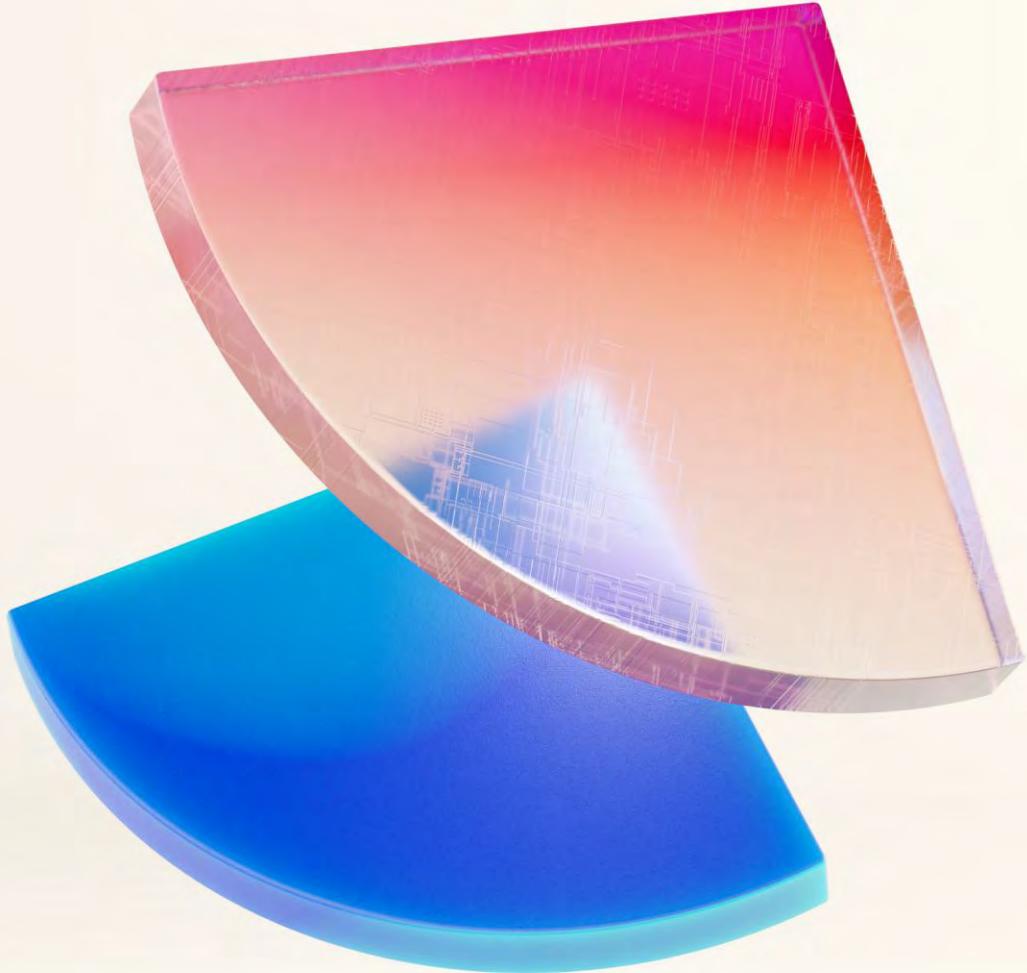
All Lakehouse roles > CustomersRLS

CustomersRLS

Data in role Members in role

+ Add data

Data	Type	Permissions	Data access
Tables			
dbo	Schema	Read	
Customers	Table	Read	



OneLake
security
concepts

Data Security - Workspace

Workspace

Collaborative environment for building solutions

Data Security – Workspace Permissions

Workspace Permissions

Define access to all items in the workspace



Fabric workspace permissions



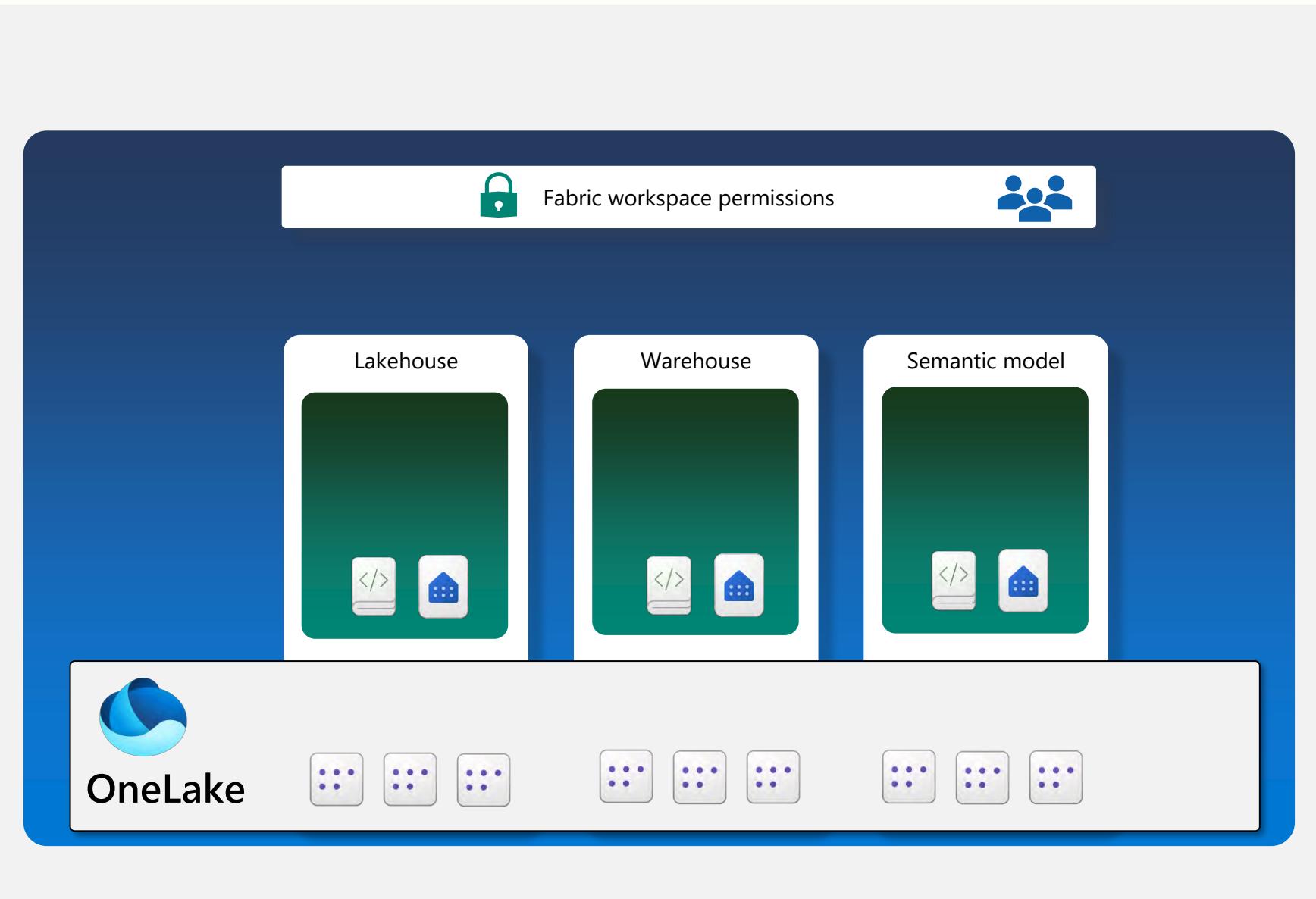
Role	Can add admins?	Can add members?	Can write data and create items?	Can read data?
Admin	Yes	Yes	Yes	Yes
Member	No	Yes	Yes	Yes
Contributor	No	No	Yes	Yes
Viewer	No	No	No	Yes

Data Security - Items

Items

Capabilities bundled together
into a single component

* Data item



The diagram illustrates the OneLake Data Security Items. At the top, a header bar is shown with a lock icon, the text "Fabric workspace permissions", and a user icon. Below this, three items are displayed in separate boxes: "Lakehouse", "Warehouse", and "Semantic model". Each item box contains two small icons: a file with '</>' and a house. At the bottom, the OneLake logo is shown, along with a row of six smaller icons representing different security levels or components.

Fabric workspace permissions

Lakehouse

Warehouse

Semantic model

OneLake

Data Security – Item Permissions

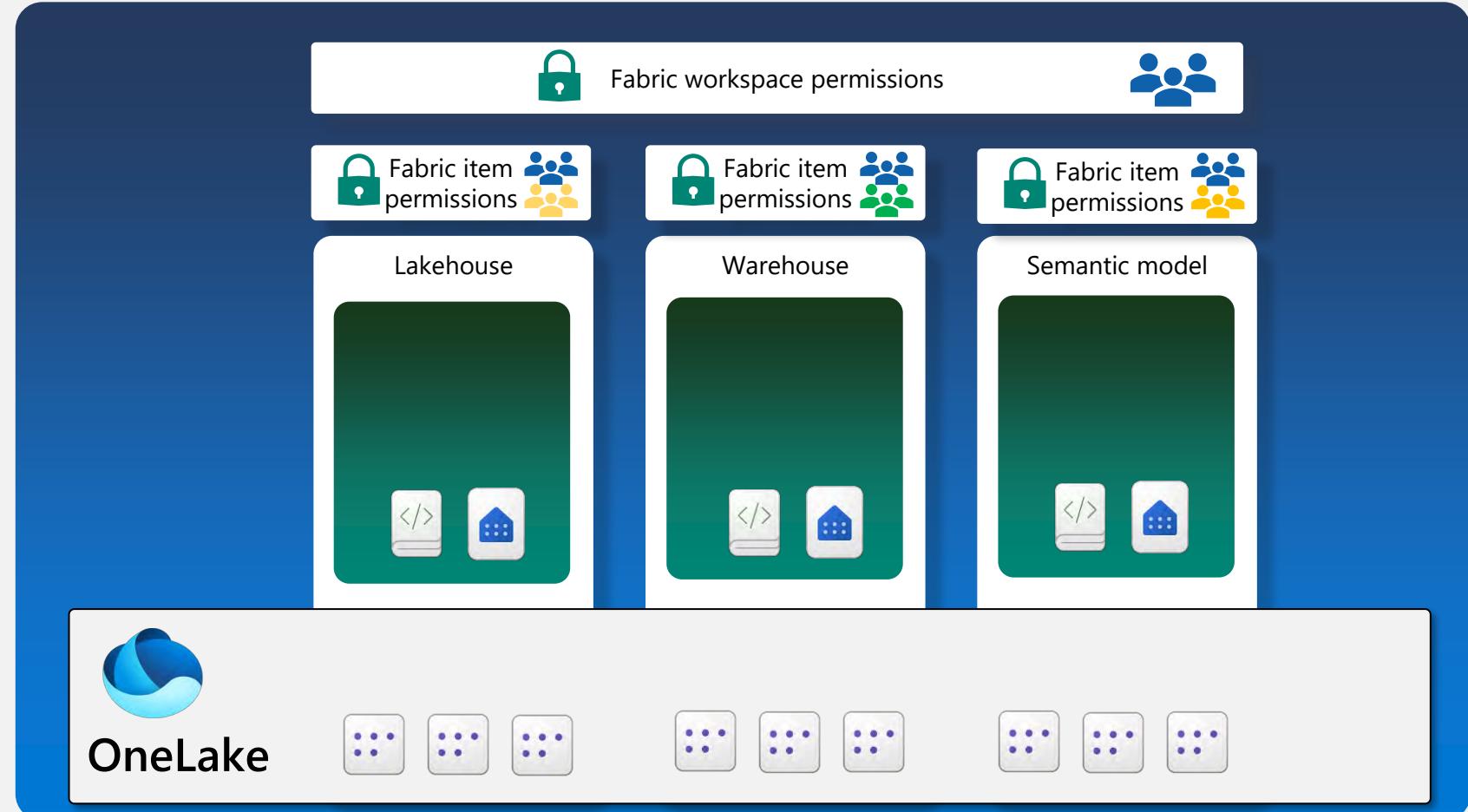
Item permissions

Control Plane

Grant access to connect to that item and which item endpoints the user can access

Derived from workspace permissions...

... but also, from explicit assignments

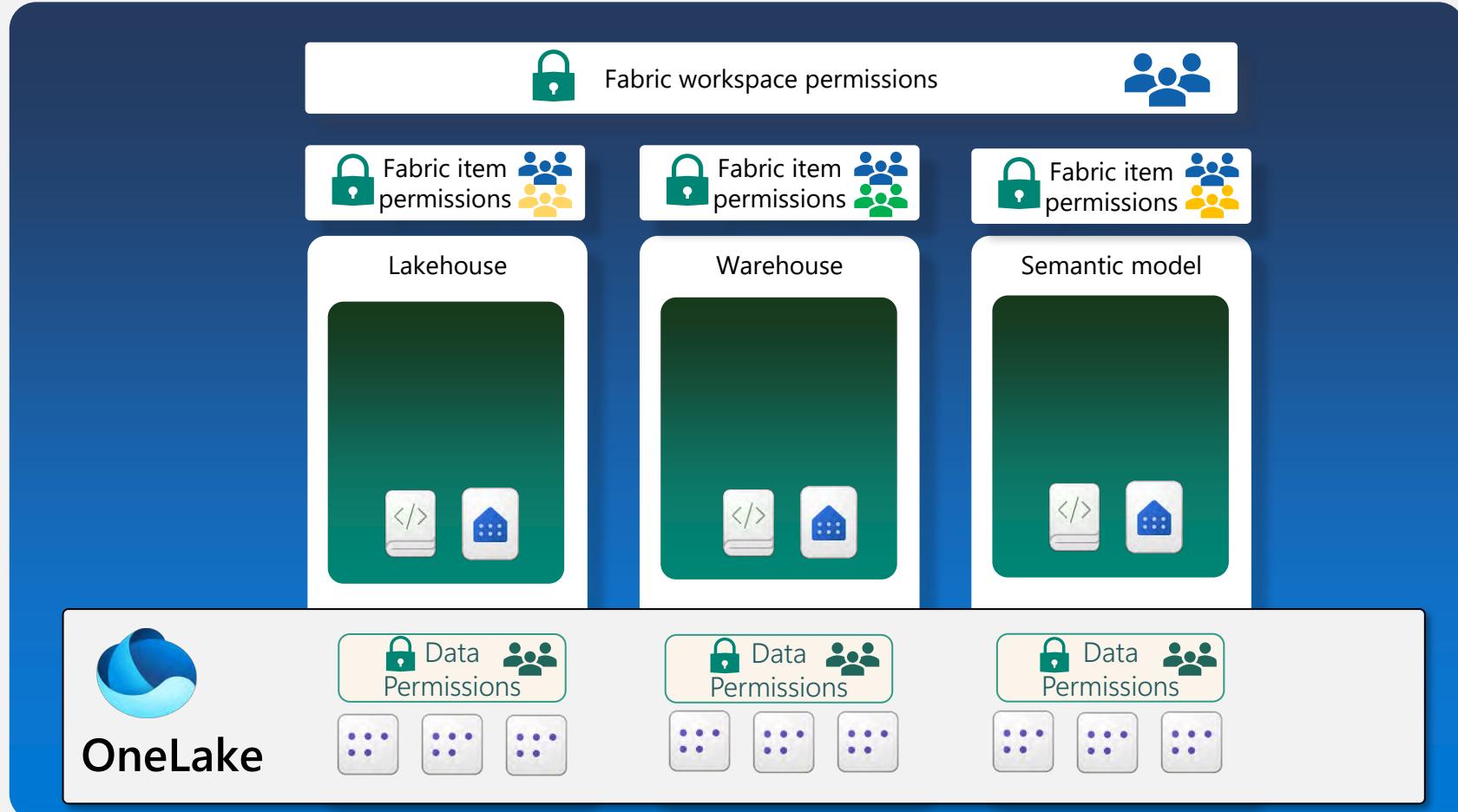


Data Security – Data Permissions

Data permissions

Data Plane

Grant access to what subitem content various users have access to

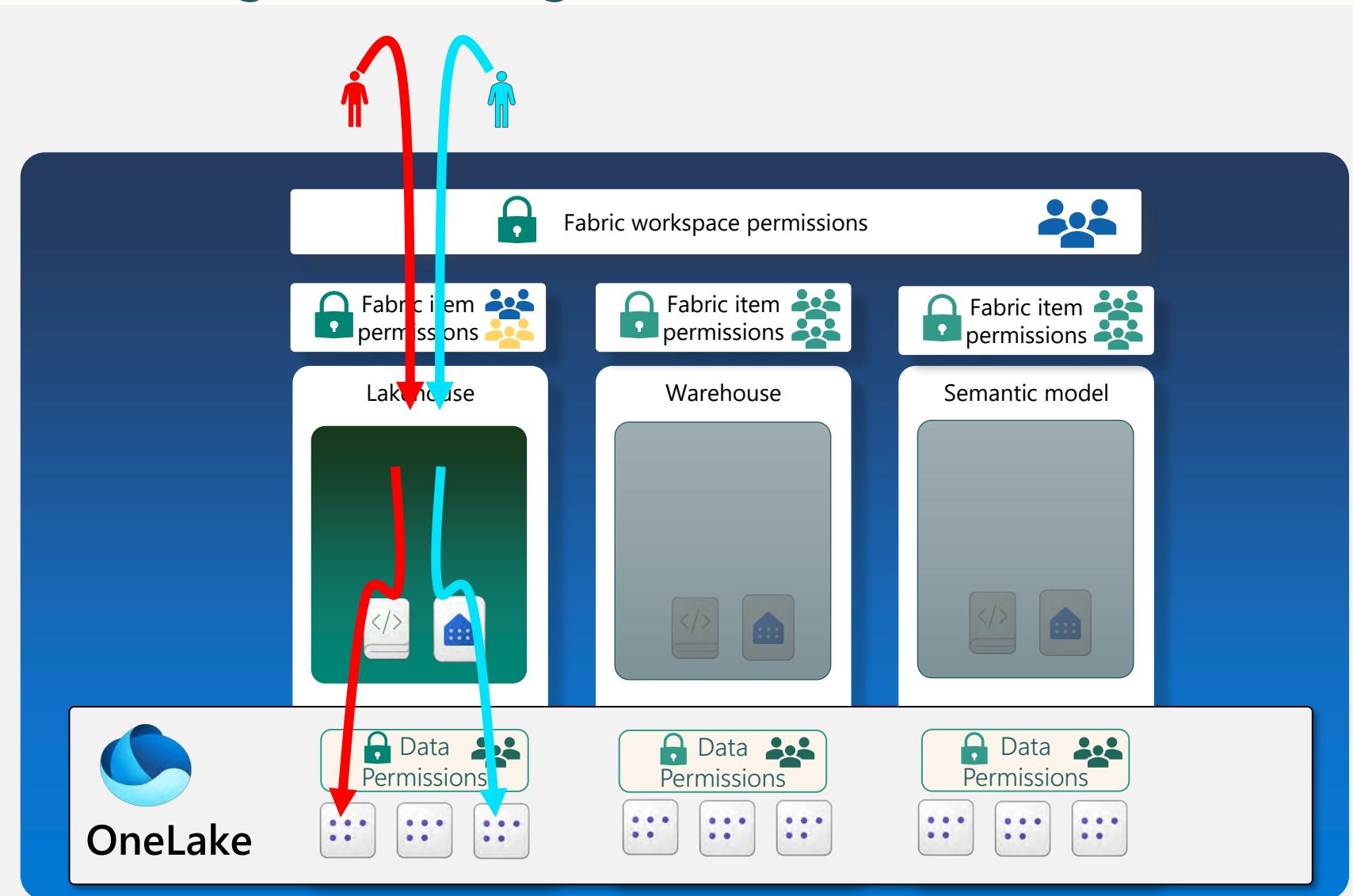


Data Security – Passthrough vs Delegated

Passthrough

Access to the artifact endpoints (control plane) – as the user

Access to the data (data plane) – as the user



Data Security – Passthrough vs Delegated

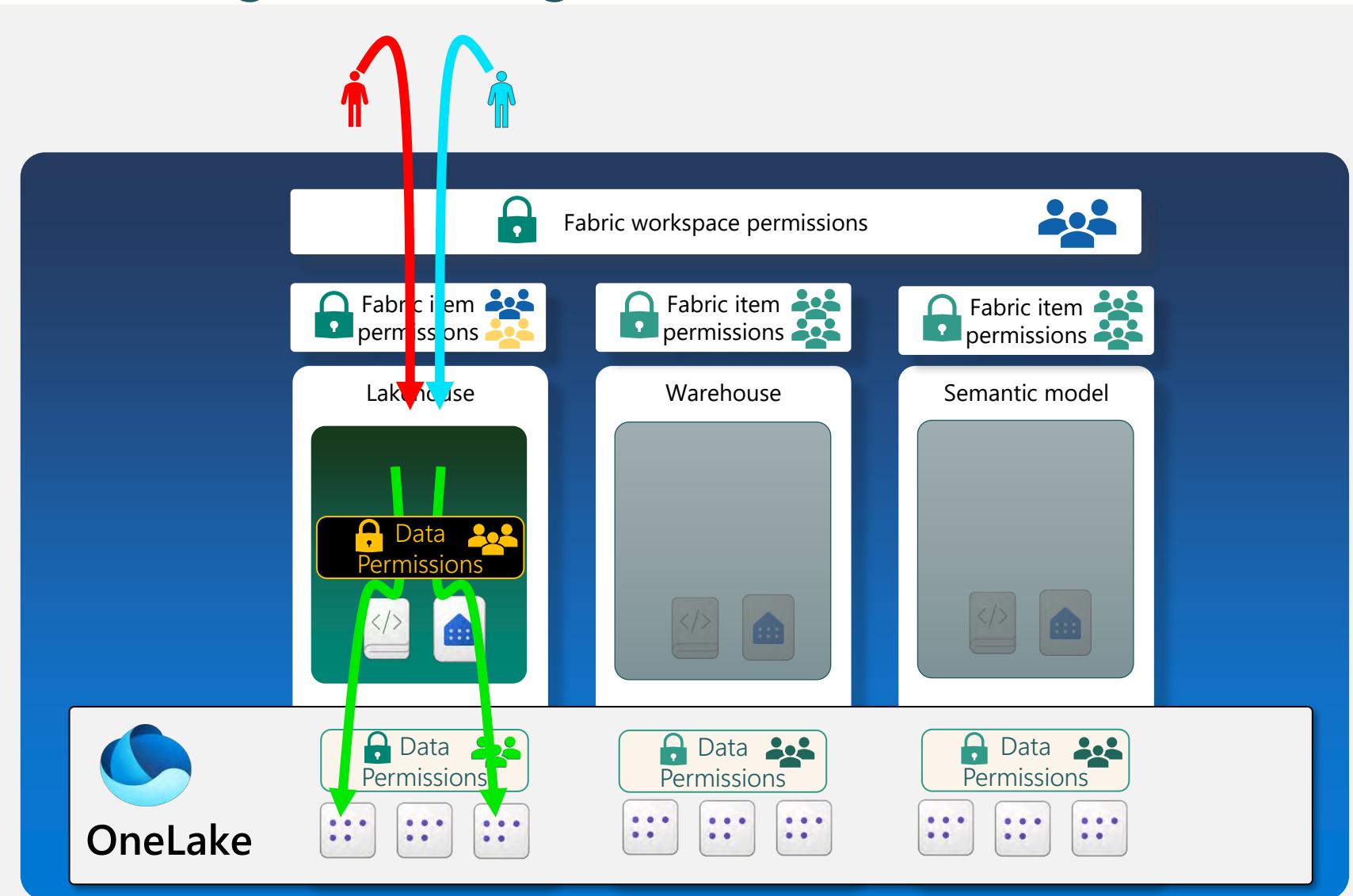
Delegated

Access to the artifact endpoints (control plane) – as the user

Access to the data (data plane) – as the delegated user (fixed user for the engine)

Engine identity needs to have permission on the data

Engine can customize permissions beyond what data permissions of lake security can offer



OneLake Security

Who

aaron@contoso.com

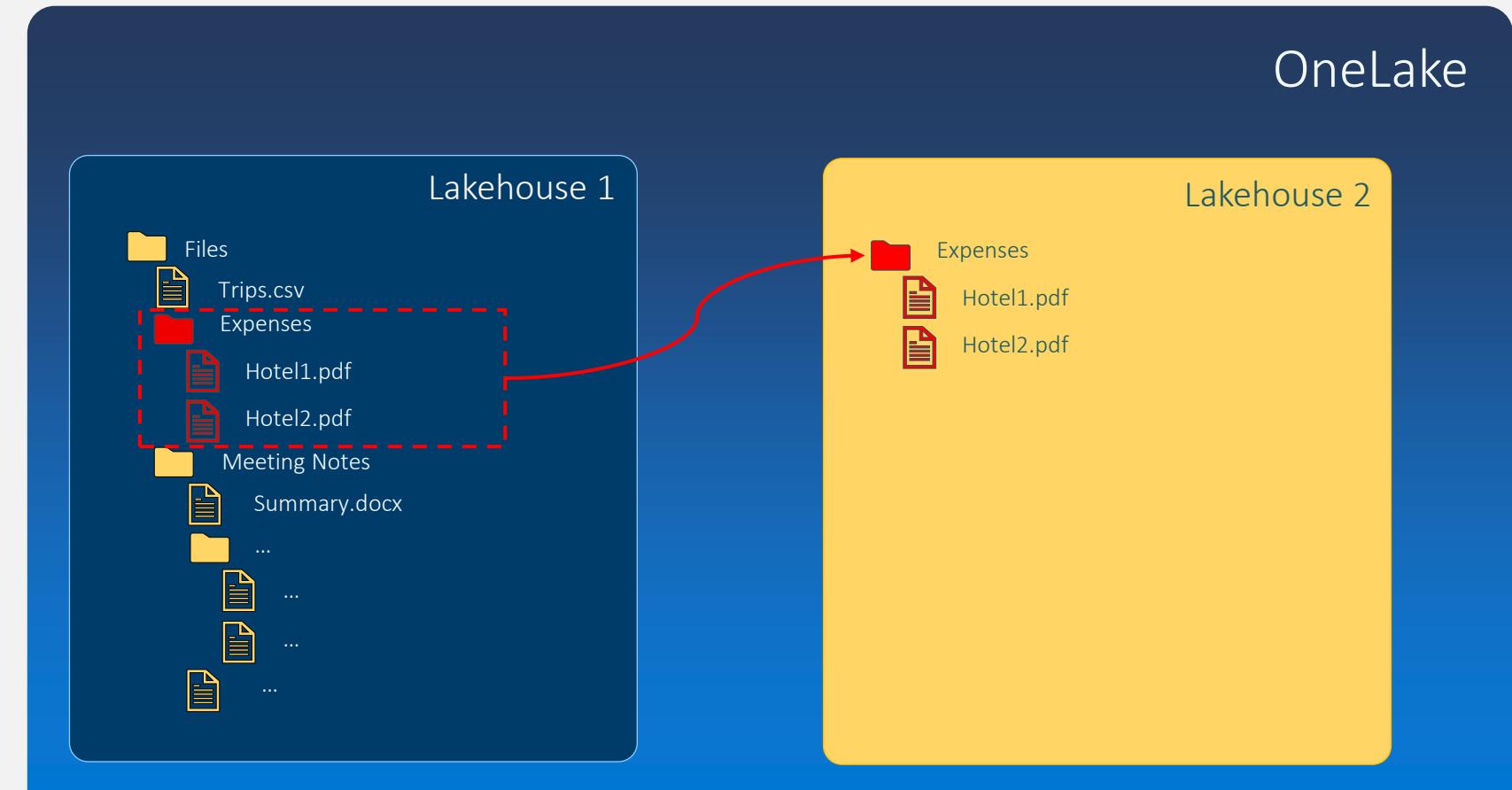
What
read

Target
Tables dbo/*

Shortcuts

Shortcuts

Internal shortcuts - equivalent to symbolic link in operating systems

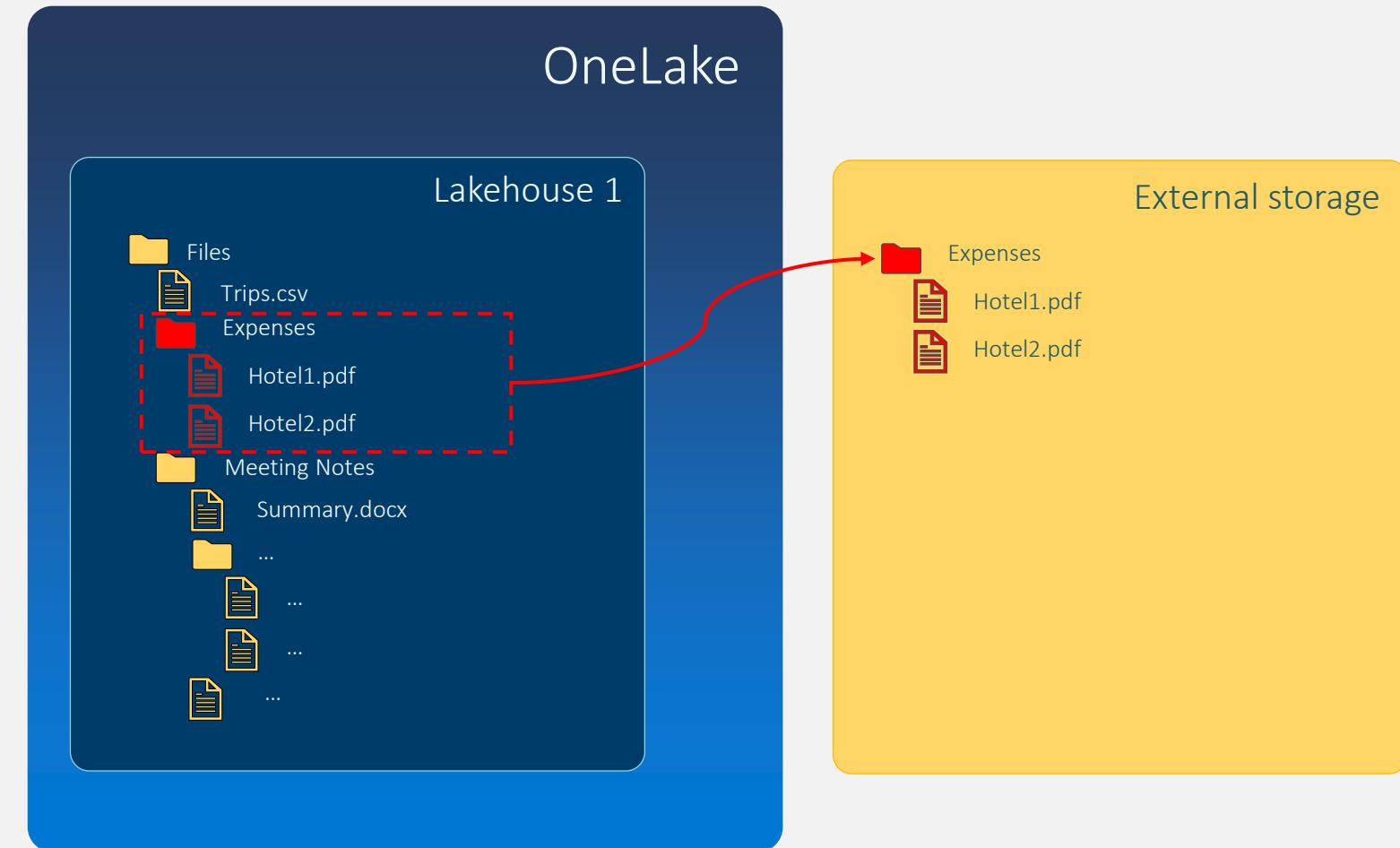


Shortcuts

Shortcuts

Internal shortcuts - equivalent to symbolic link in operating systems

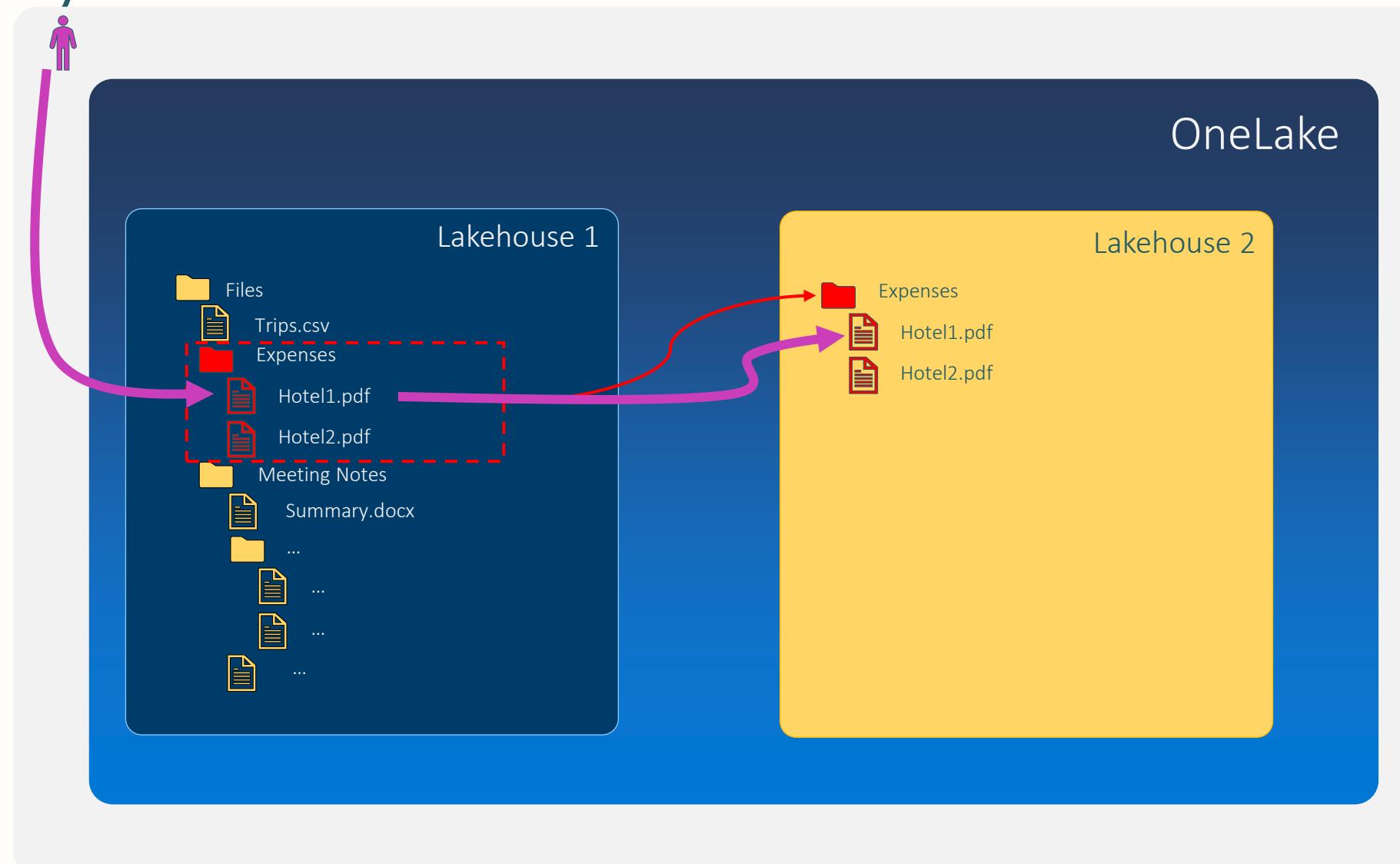
External shortcuts – equivalent to volume mount in operating systems



Shortcuts security

Passthrough

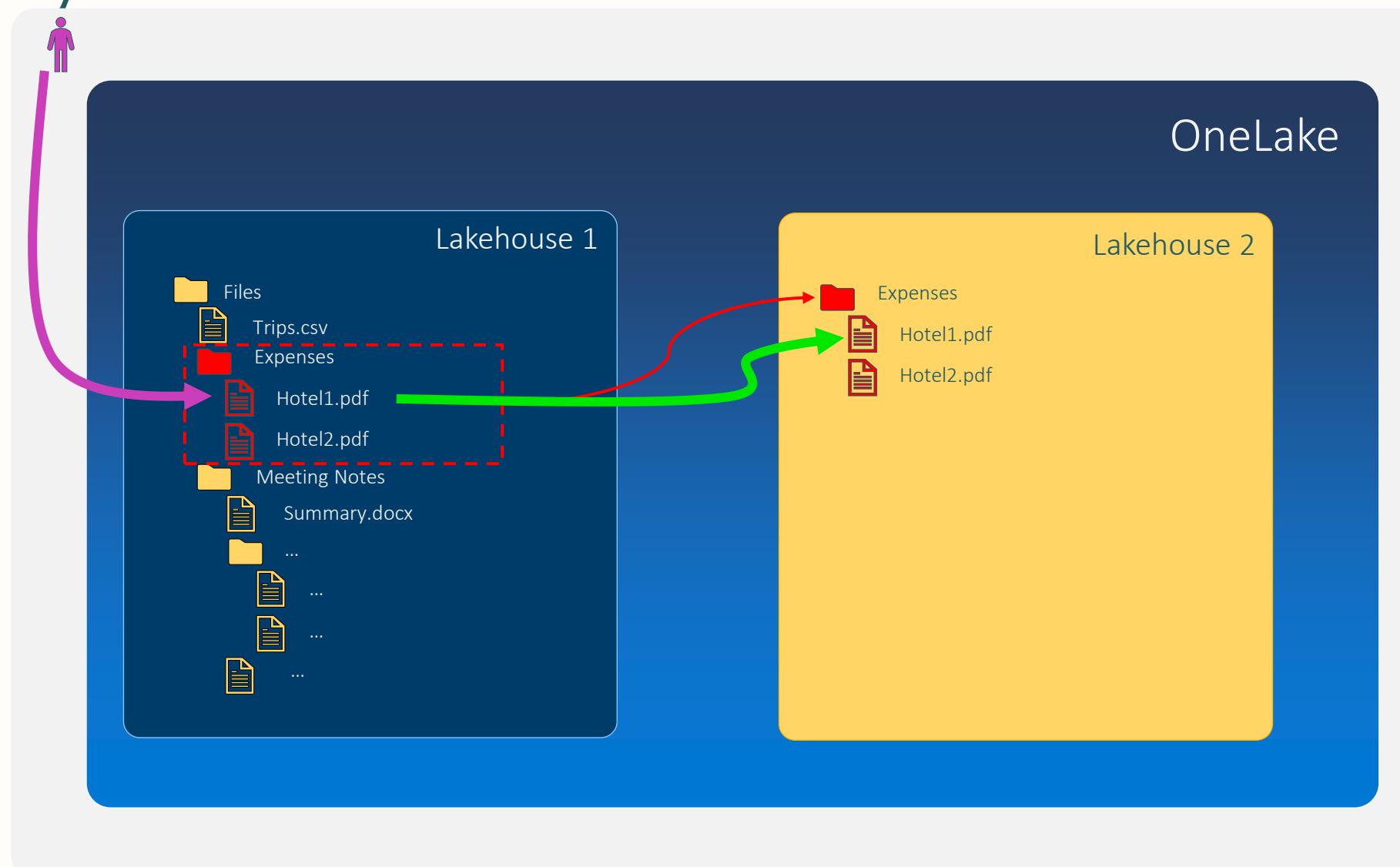
The identity of the caller is propagated to the shortcut's source of data



Shortcuts security

Delegated

Fixed, specified identity is passed to the shortcut's source of data



Securing shortcuts

Passthrough shortcuts

User identity is sent across the shortcut, security flows across the shortcut.

Internal

Delegated shortcuts

Fixed identity for the shortcut, breaks security flow.

Internal

External



OneLake
security features

Folder level security

Grant access to folders in OneLake

Access inherits to all subfolders and files

Listing access on parent folders is maintained

Home

Get data < New semantic model Open notebook Manage OneLake data access (preview)

Copilot

Explorer

Search tables

SampleLakehouse

- Tables
 - accounts
- OneLake
 - SampleLakehouse
 - Tables
 - Files
 - Bronze
 - Sales
 - Sales-PII
 - Data
 - Data-PII
 - Data_1
 - Dynamics
 - Test
- Metrics
- Monitors
- Learn
- Files
 - Bronze
 - Data
 - Data_1
 - Data-PII
 - Dynamics
 - Test
- Real-time
- Workloads
- Workspaces
- Identity
- SampleLakehouse

RowLevel

All Lakehouse roles > New role

Select data to add to your role

OneLake

SampleLakehouse

- Tables
- Files
 - Bronze
 - Sales
 - Sales-PII
 - Data
 - Data-PII
 - Data_1
 - Dynamics
 - Test

Add data Cancel

31	31	Carter Roberts
32	32	Layla Coleman
33	33	Wyatt Hughes
34	34	Hannah Mitchell

Succeeded (5 sec 770 ms)

Home

Get data < New semantic model Open notebook < Manage OneLake data access (preview)

All Lakehouse roles > New role

Explorer

Search tables

SampleLakehouse

- Tables
 - accounts
 - customers
 - S1
 - S2
 - sales_1
 - users
 - users_T
 - users_T_1
- Files
 - Bronze
 - Sales
 - Sales-PII
 - accounts
 - Data
 - Marketing
 - Sales
 - Data-PII
 - Data_1
 - Dynamics
 - Test

OneLake

SampleLakehouse

- Tables
- Files
 - Bronze
 - Sales
 - Sales-PII
 - Data
 - Marketing
 - Sales
 - Data-PII
 - Data_1
 - Dynamics
 - Test

Add data Cancel

31	31	Carter Roberts
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33	33	Wyatt Hughes
34	34	Hannah Mitchell

Succeeded (5 sec 770 ms)

Cancel

Home

Get data < New semantic model Open notebook Manage OneLake data access (preview)

All Lakehouse roles > New role

Explorer

Search tables

SampleLakehouse

- Tables
 - accounts
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 - S1
 - S2
 - sales_1
 - users
 - users_T
 - users_T_1
- Files
 - Bronze
 - Sales
 - Sales-PII
 - accounts
 - Data
 - Marketing
 - Sales
 - Data-PII
 - Data_1
 - Dynamics
 - Test

OneLake

SampleLakehouse

- Tables
- Files
 - Bronze
 - Sales
 - Sales-PII
 - accounts
 - Data
 - Marketing
 - Sales
 - Data-PII
 - Data_1
 - Dynamics
 - Test

Select data to add to your role

Add data Cancel

31	31	Carter Roberts
32	32	Layla Coleman
33	33	Wyatt Hughes
34	34	Hannah Mitchell

Succeeded (5 sec 770 ms)

Cancel

Table level security

Grant access to Delta-parquet tables
in OneLake.

Access inherits to all subfolders

Listing access on parent schemas is
maintained

Home

Get data < New semantic model Open notebook Manage OneLake data access (preview)

All Lakehouse roles > New role

Explorer

Search schemas and tables

NorthwindTest

OneLake

NorthwindTest

Tables

dbo

Customers

Employees

EmployeeTerritories

LegacyOrders

OrderDetails

Orders

Products

Regions

Shippers

Suppliers

Territories

Files

Select data to add to your role

learn more

Add data Cancel

31 GOURL Gourmet Lanchonetes André Fonseca Sales Associate Rua das Flores, 323, São Paulo, SP, Brazil
32 GREAT Great Lakes Food Mart. Howard Snyder Marketing Manager 2732 South Market Street, Seattle, WA, USA
33 GROSR GROSELLA-Restaurante Manoel Pereira Owner 54 Avenue E, Seattle, WA, USA
34 HANAR Hanari Carnes Mario Pontes Accounting Manager Rua do Sol, 123, São Paulo, SP, Brazil

Succeeded (15 sec 773 ms)

Cancel

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EmployeeTerritories

Employees

LegacyOrders

OrderDetails

Orders

Products

Regions

Shippers

Suppliers

Territories

Files

Select data to add to your role

Add data Cancel

Succeeded (15 sec 773 ms)

31	GOURL	Gourmet Lanchonetes	André Fonteiro	Sales Associate	Rua das Brasil
32	GREAL	Great Lakes Food Mart.	Howard Snyder	Marketing Manager	2732 Ba
33	GROSR	GROSELLA-Restauran...	Manuel Pereira	Owner	54 Ave. I
34	HANAR	Hanari Carnes	Mario Pontes	Accounting Manager	Rua da I...

Cancel

Home

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All Lakehouse roles > New role

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dbo

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EmployeeTerritories

Employees

LegacyOrders

OrderDetails

Orders

Products

Regions

Shippers

Suppliers

Territories

Add data Cancel

31	GOURL	Gourmet Lanchonetes	André Fonseca	Sales Associate	Av. Brasil
32	GREAL	Great Lakes Food Ma...	Howard Snyder	Marketing Manager	2732 Ba
33	GROSR	GROSELLA-Restauran...	Manuel Pereira	Owner	5 th Ave. I
34	HANAR	Hanari Carnes	Mario Pontes	Accounting Manager	Rua do I

Succeeded (15 sec 773 ms)

Cancel

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Get data ~ New semantic model Open notebook ~ Manage OneLake data access (preview)

All Lakehouse roles > New role

Home Create Browser OneLake Metrics Monitor Learn Workspaces OneLake Dev Worksp. NorthWindTest

Explorer Search schemas and tables: NorthwindTest

OneLake NorthwindTest Tables dbo Customers Employees EmployeeTerritory LegacyOrders OrderDetails Orders Products Regions Shippers Suppliers Territories

For OneLake shortcuts, the permissions must be defined in the destination table. Defining permissions on the shortcut itself is not allowed.

Tables dbo Customers EmployeeTerritory Employees OrderDetails Orders Products Regions Shippers Suppliers Territories

Files

Select data to add to your role

Learn more X

Add data Cancel

Succeeded (15 sec 773 ms) Cancel

31	GOURL	Gourmet Lanchonetes	André Fonseca	Sales Associate	Rua das Brasil
32	GREAL	Great Lakes Food Mart.	Howard Snyder	Marketing Manager	2732 Ba
33	GROSR	GROSELLA-Restauran...	Manuel Pereira	Owner	54 Ave. I
34	HANAR	Hanari Carnes	Mario Pontes	Accounting Manager	Rua da I...

Row level security

Restrict access to specific rows for a delta-parquet table

Set row conditions by writing T-SQL

Currently only single-table RLS is supported

Home

Get data New semantic model Open notebook Manage OneLake data access (preview)

Explorer

Search schemas and tables

NorthwindTest

- Tables
 - dbo
 - Customers
 - Employees
 - EmployeeTerritory
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Succeeded (15 sec 773 ms)

All Lakehouse roles > DemoRole

DemoRole

Data in role Members in role

+ Add data

Filter by keyword

Data	Type	Permissions	Data access
Tables			
dbo	Schema	Read	
Customers	Table	Read	
	Row security (Preview)		
	Column security (Preview)		
	Remove from role		

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- Files

OneLakeDataWorkspaces

NorthwindTest

Power BI

Customers

	customerID	companyName	contactName	contactTitle	address
1	ALFKI	Alfreds Futterkiste	Maria Anders	Sales Representative	Obere Str. 57
2	ANATR	Ana Trujillo Emparedados y helados	Ana Trujillo	Owner	Avda. de la Constitución 22
3	ANTON	Antonio Moreno Taquería	Antonio Moreno	Owner	Manzana 820 - Avenidas
4	AROUT	Around the Horn	Thomas Hardy	Sales Representative	120 Hanover Street
5	BERGS	Berglunds snabbköp	Christina Berglund	Order Administrator	Berguvsgatan 22
6	BLAUS	Blauer See Delikatess-Spezialitäten	Hanna Moos	Sales Representative	Forststr. 34
7	BLONP	Blondes Dsсл père et fils	Frédérique Citeaux	Marketing Manager	24 place Clémenceau
8	BOLID	Bólido Comidas preparadas	Martín Sommer	Owner	67C Arauco
9	BONAP	Bon app'	Laurence Lebihan	Owner	12 rue des Bouchers
10	BOTTM	Bottom-Dollar Markets	Elizabeth Lincoln	Accounting Manager	23 Tsawassen
11	BSBEV	B's Beverages	Victoria Ashworth	Sales Representative	Fauntleroy
12	CACTU	Cactus Comidas para llevar	Patricia Simpson	Sales Agent	Cerro 8
13	CENTC	Centro comercial Moctezuma	Francisco Chang	Marketing Manager	Sierras de Granada
14	CHOPS	Chop-suey Chinese	Yang Wang	Owner	Hauptstraße 30
15	COMMI	Comércio Mineiro	Pedro Afonso	Sales Associate	23 Av. das Glárias
16	CONSH	Consolidated Holdings	Elizabeth Brown	Sales Representative	Berkeley
17	DRACD	Drachenblut Delikatessen	Sven Ottlieb	Order Administrator	Walserweg 22
18	DUMON	Du monde entier	Janine Labrune	Owner	67 rue de la Paix
19	EASTC	Eastern Connection	Ann Devon	Sales Agent	35 King
20	ERNSH	Ernst Handel	Roland Mendel	Sales Manager	Kirchgasse 6
21	FAMIA	Familia Arquibaldo	Aria Cruz	Marketing Assistant	Rua Orós
22	FISSA	FISSA Fábrica Inter. S.A.	Diego Roel	Accounting Manager	C/ Mora
23	FOLIG	Folies gourmandes	Martine Rancé	Assistant Sales Agent	184 chai
24	FOLKO	Folk och fä HB	Maria Larsson	Owner	Åkersgatan 35
25	FRANK	Frankenversand	Peter Franken	Marketing Manager	Berliner Allee 9
26	FRANR	Frânce restauration	Carine Schmitt	Marketing Manager	54 rue Rapp
27	FRANS	Franchi S.p.A.	Paolo Accorti	Sales Representative	Via Monte Rosso
28	FURIB	Furia Bacalhau e Frutos do Mar	Lino Rodriguez	Sales Manager	Jardim das Flores
29	GALED	Galería del gastrónomo	Eduardo Saavedra	Marketing Manager	Rambla 34
30	GODOS	Godos Cocina Típica	José Pedro Freyre	Sales Manager	C/ Roma
31	GOURL	Gourmet Lanchonetes	André Fonseca	Sales Associate	Av. Brasil
32	GREAL	Great Lakes Food Ma...	Howard Snyder	Marketing Manager	2732 Baileys
33	GROSR	GROSELLA-Restaurante	Manuel Pereira	Owner	5 ^a Ave, Ipanema
34	HANAR	Hanari Carnes	Mario Pontes	Accounting Manager	Rua do Sol

All Lakehouse roles > DemoRole > Row and column security (Preview)

Manage table level access for Customers

Manage access to your data by adding row and column level security to a table in a role. Members of this role will only be able to see specific data based on the rules you set below. [Learn more](#)

Row security (Preview) **Column security (Preview)**

Save

Show data to members of your role if the following rules apply:

```
1 SELECT * FROM dbo.Customers WHERE Country = 'USA'
```

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Succeeded (15 sec 773 ms)

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Row security (Preview) **Column security (Preview)**

Save

Show data to members of your role if the following rules apply:

```
1 SELECT * FROM dbo.Customers WHERE Country = 'USA' AND contactTitle = 'Owner'
```

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Row security (Preview) **Column security (Preview)**

Save

Show data to members of your role if the following rules apply:

```
1 SELECT * FROM dbo.Customers WHERE Country = 'USA' AND contactTitle = 'Owner' OR customerID IN ('ALFKI', 'ANTON')
```

Column level security

Restrict access to specific columns in a delta-parquet table

Keeps the values secure, but column names can be visible in some places.

- Column completely hidden:
 - Spark
 - Lakehouse
 - Building Power BI reports
- Column name visible:
 - SQL endpoint
 - Building semantic models
 - Consuming Power BI reports

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Succeeded (15 sec 773 ms)

All Lakehouse roles > DemoRole

DemoRole

Data in role Members in role

+ Add data

Filter by keyword

Data	Type	Permissions	Data access
Tables			
dbo	Schema	Read	
Customers	Table	Read	
	Row security (Preview)		
	Column security (Preview)		
	Remove from role		

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All Lakehouse roles > DemoRole > Row and column security (Preview)

Manage table level access for Customers

Manage access to your data by adding row and column level security to a table. Members of this role will only be able to see specific data based on the rules you set below. [Learn more](#)

[Row security \(Preview\)](#) [Column security \(Preview\)](#)

[Save](#) [+ New rule](#)

You have no rules

Create rules to grant column security to table.

[Enable CLS](#)

	ABC customerID	ABC companyName	ABC contactName	ABC contactTitle	ABC add
1	ALFKI	Alfreds Futterkiste	Maria Anders	Sales Representative	Obere S
2	ANATR	Ana Trujillo Empared...	Ana Trujillo	Owner	Avda. de
3	ANTON	Antonio Moreno Taq...	Antonio Moreno	Owner	Matader
4	AROUT	Around the Horn	Thomas Hardy	Sales Representative	120 Han
5	BERGS	Berglunds snabbköp	Christina Berglund	Order Administrator	Berguv
6	BLAUS	Blauer See Delikatess...	Hanna Moos	Sales Representative	Forststr
7	BLONP	Blondes d's srl père et fils	Frédérique Citeaux	Marketing Manager	24 place
8	BOLID	Bólido Comidas prep...	Martín Sommer	Owner	67C Ara
9	BONAP	Bon app'	Laurence Lebihan	Owner	12 rue d
10	BOTTM	Bottom-Dollar Markets	Elizabeth Lincoln	Accounting Manager	23 Tsaw
11	BSBEV	B's Beverages	Victoria Ashworth	Sales Representative	Fauntler
12	CACTU	Cactus Comidas para...	Patricia Simpson	Sales Agent	Cerro
13	CENTC	Centro comercial Mo...	Francisco Chang	Marketing Manager	Sierras
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15	COMMI	Comércio Mineiro	Pedro Afonso	Sales Associate	23 Av. d
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20	ERNSH	Ernst Handel	Roland Mendel	Sales Manager	Kirchgas
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22	FISSA	FISSA Fábrica Inter. S...	Diego Roel	Accounting Manager	C/ Mora
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Succeeded (15 sec 773 ms)

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All Lakehouse roles > DemoRole > Row and column security (Preview)

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[Row security \(Preview\)](#) [Column security \(Preview\)](#)

[Save](#) [New rule](#)

Column level security Enabled

Column	Visibility
customerID	Read
companyName	Read
contactName	Read
contactTitle	Read
address	Read
city	Read
region	Read
postalCode	Read
country	Read
phone	Read
fax	Read

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[Row security \(Preview\)](#) [Column security \(Preview\)](#)

[Remove](#)

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Column	Visibility
customerID	Read
companyName	Read
contactName	Read
contactTitle	Read
address	Read
city	Read
region	Read
postalCode	Read
country	Read
phone	Read
fax	Read

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[Row security \(Preview\)](#) [Column security \(Preview\)](#)

[Remove](#)

Column level security Enabled

Column	Visibility
customerID	Read
companyName	Read
<input checked="" type="checkbox"/> contactName	Read
contactTitle	Read
address	Read
city	Read
region	Read
postalCode	Read
country	Read
phone	Read
fax	Read

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[Row security \(Preview\)](#) [Column security \(Preview\)](#)

[Remove](#)

Column level security Enabled

Column	Visibility
customerID	Read
companyName	Read
<input checked="" type="checkbox"/> contactName	Read
contactTitle	Read
<input checked="" type="checkbox"/> address	Read
city	Read
region	Read
postalCode	Read
country	Read
phone	Read
fax	Read

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All Lakehouse roles > DemoRole > Row and column security (Preview)

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[Row security \(Preview\)](#) [Column security \(Preview\)](#)

[Save](#) [+ New rule](#)

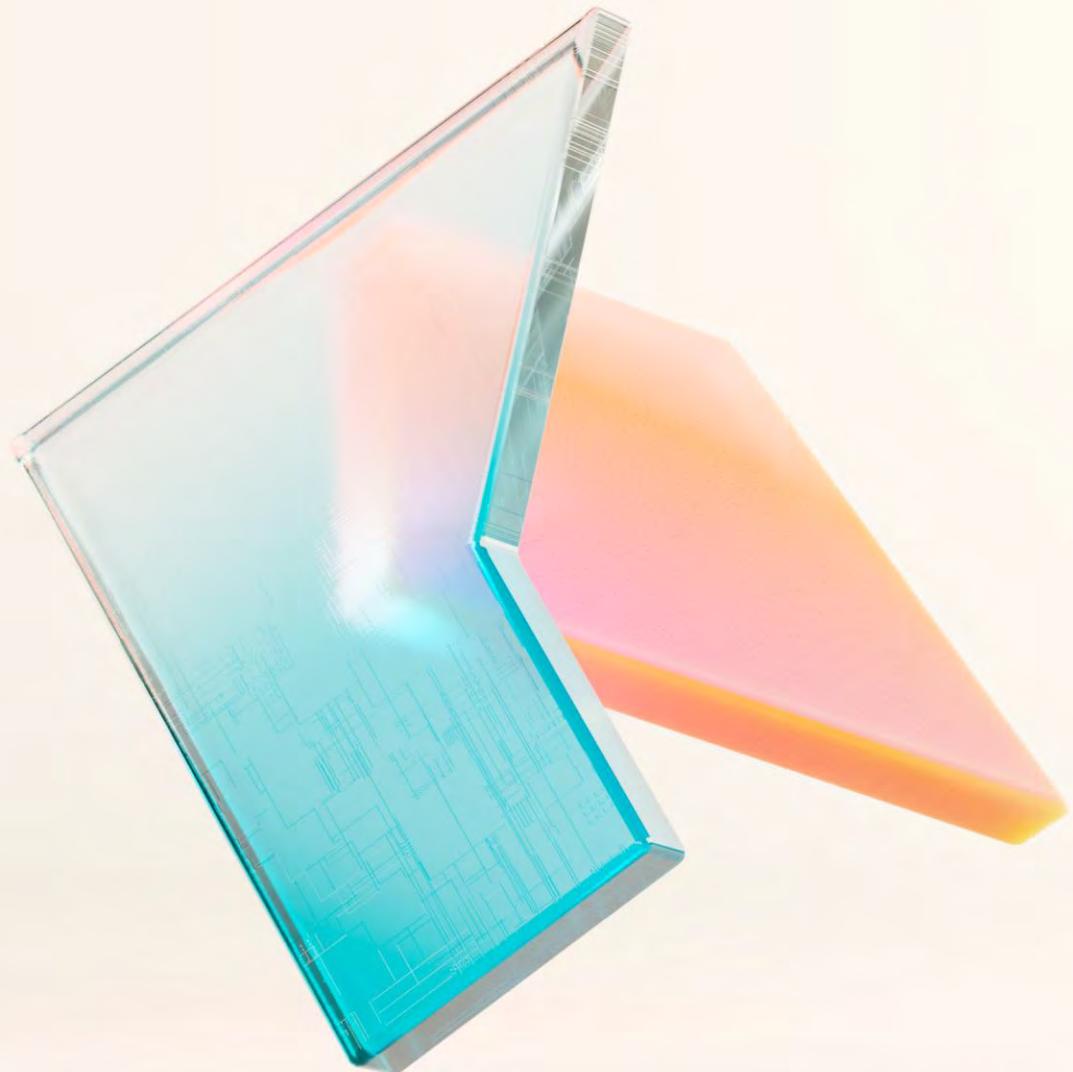
Column level security [Enabled](#)

Column	Visibility
customerID	Read
companyName	Read
contactTitle	Read
city	Read
region	Read
postalCode	Read
country	Read
phone	Read
fax	Read

Customers

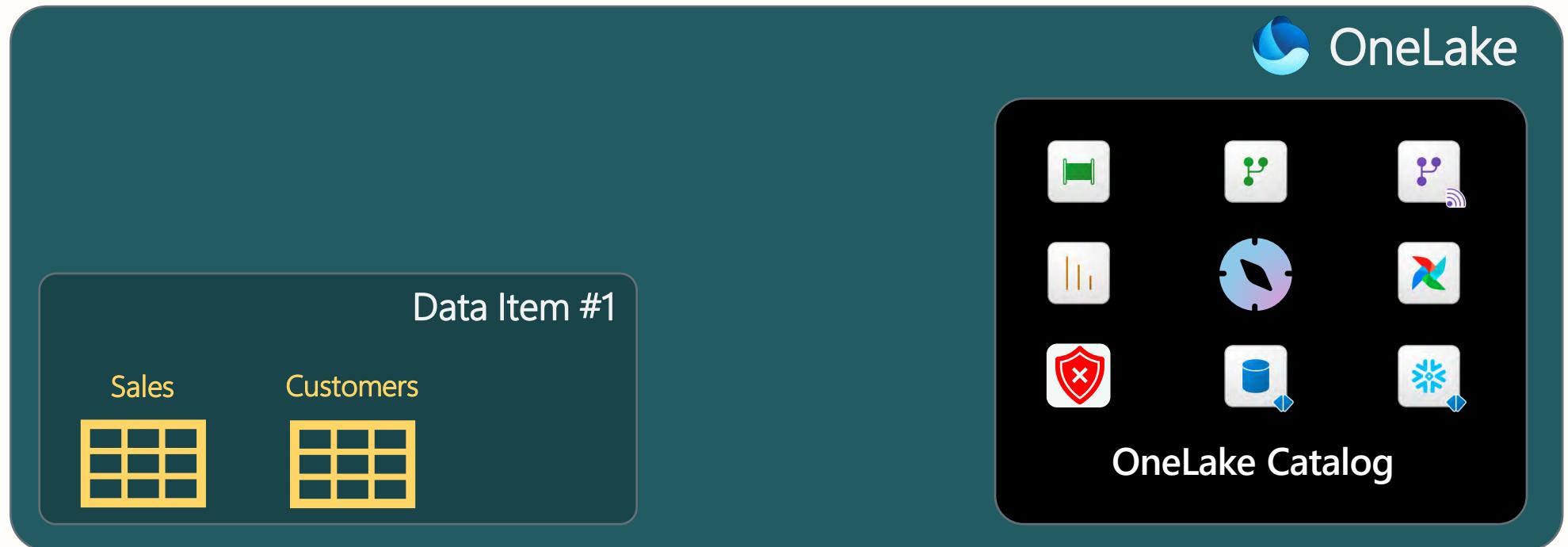
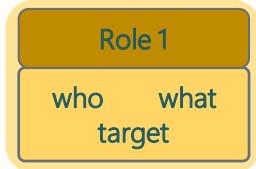
	ABC customerID	ABC companyName	ABC contactName	ABC contactTitle	ABC add
1	ALFKI	Alfreds Futterkiste	Maria Anders	Sales Representative	Obere S
2	ANATR	Ana Trujillo Empared...	Ana Trujillo	Owner	Avda. de
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9	BONAP	Bon app'	Laurence Lebihan	Owner	12 rue d
10	BOTTM	Bottom-Dollar Markets	Elizabeth Lincoln	Accounting Manager	23 Tsaw
11	BSBEV	B's Beverages	Victoria Ashworth	Sales Representative	Fauntler
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34	HANAR	Hanari Carnes	Mario Pontes	Accounting Manager	Rua do I

Succeeded (15 sec 773 ms)

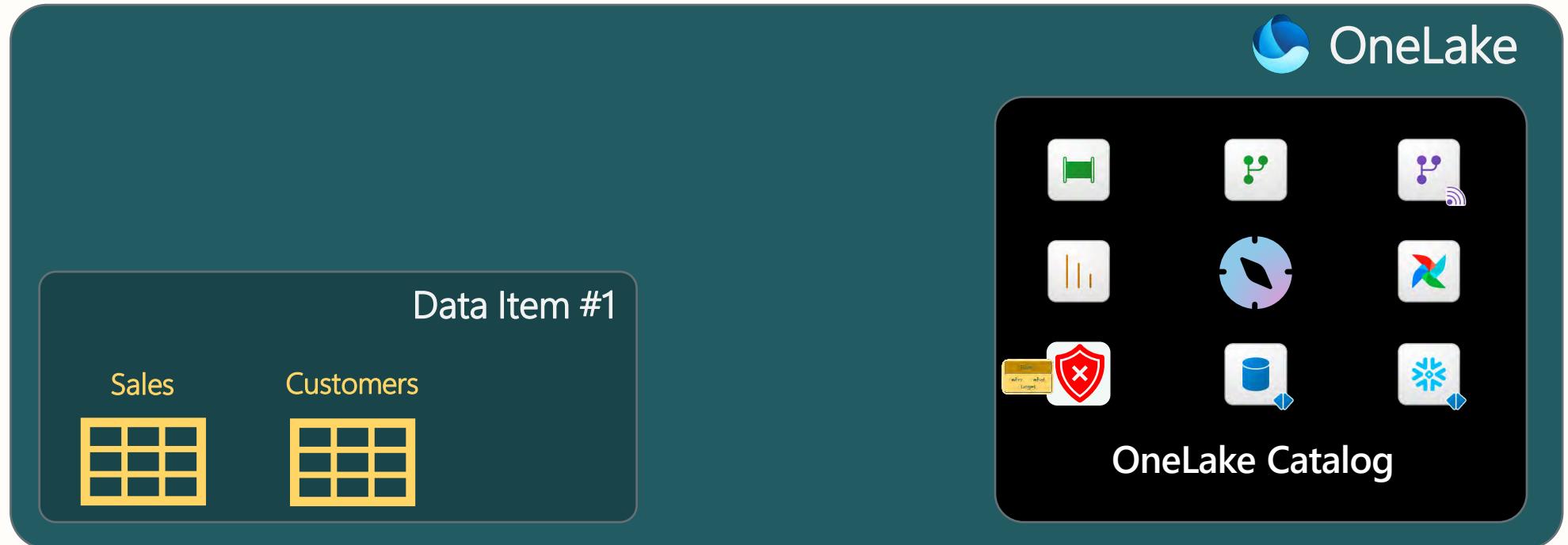
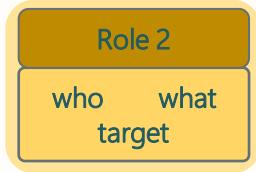


Deep dive

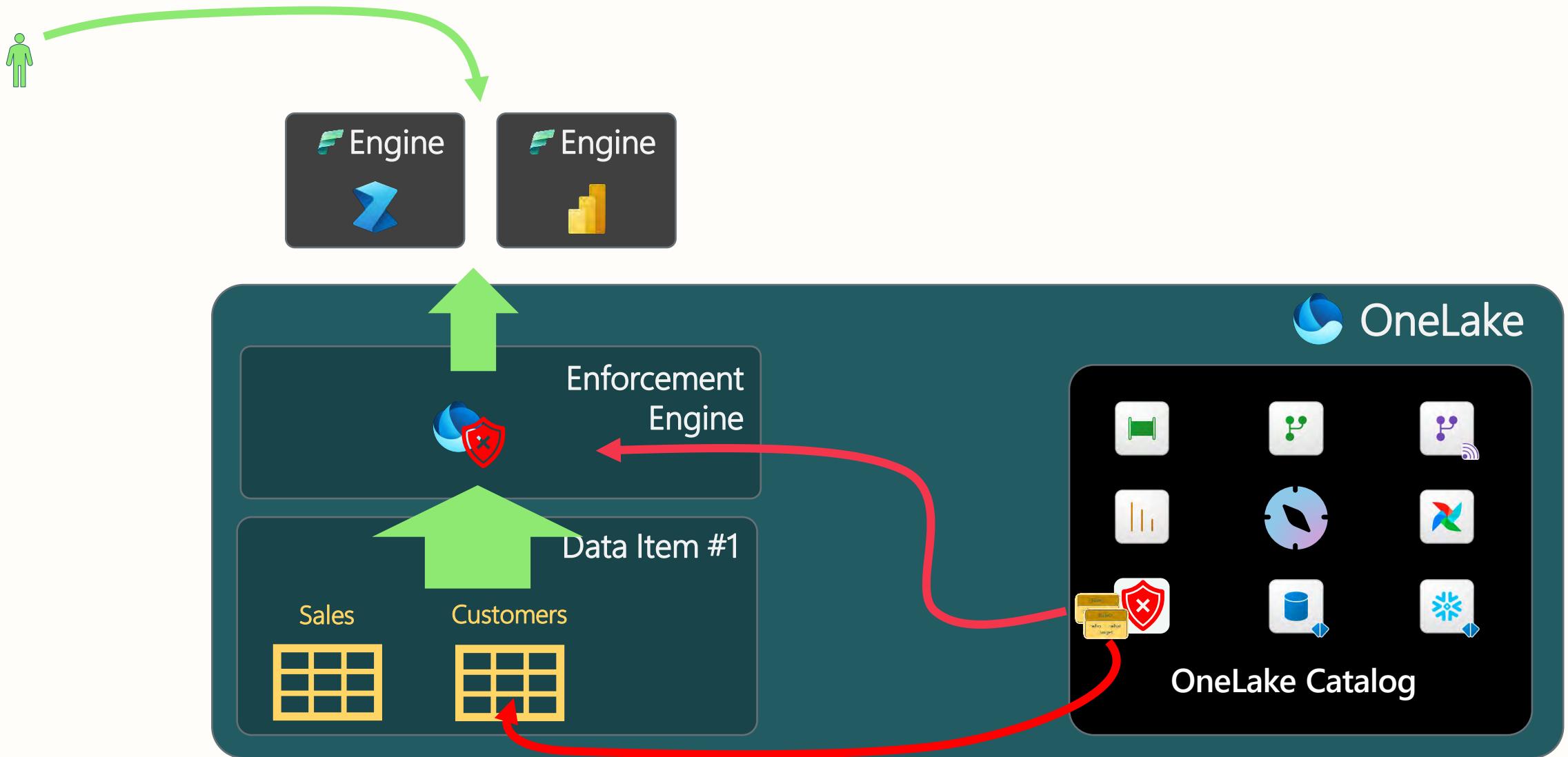
CRUD Operation



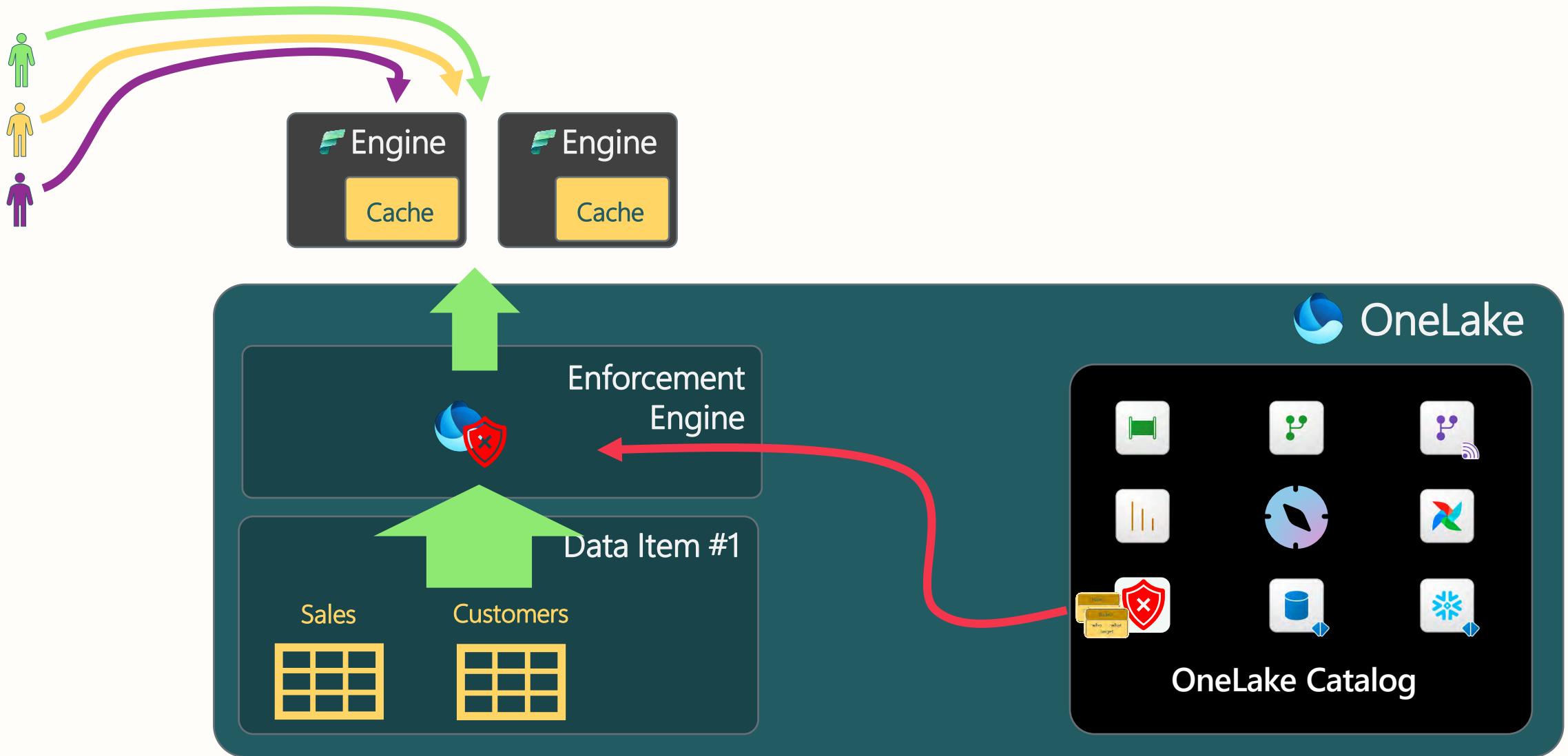
CRUD Operation



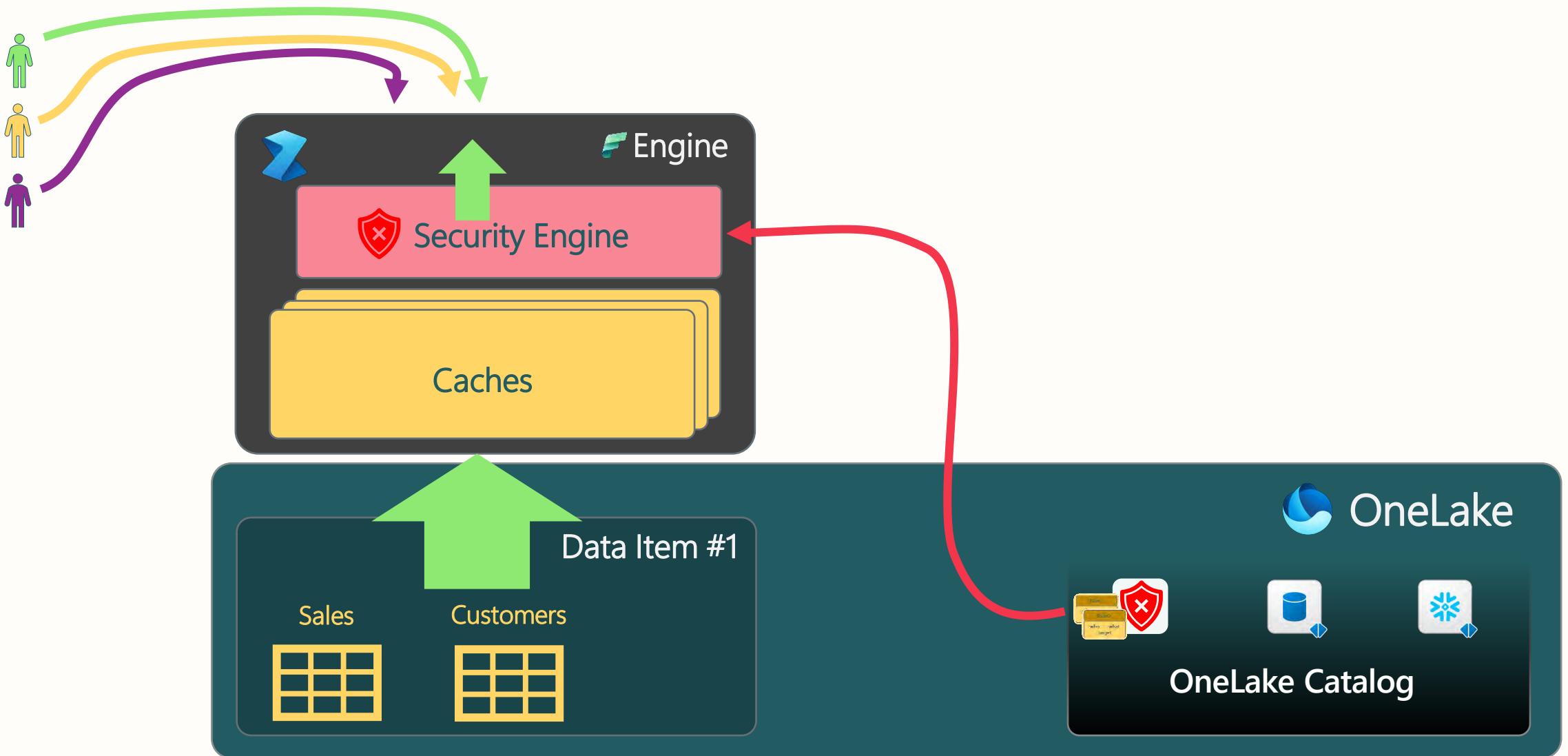
Runtime Operation (Mental Model)



Runtime Operation (Mental Model)



Runtime Operation (Real Model)

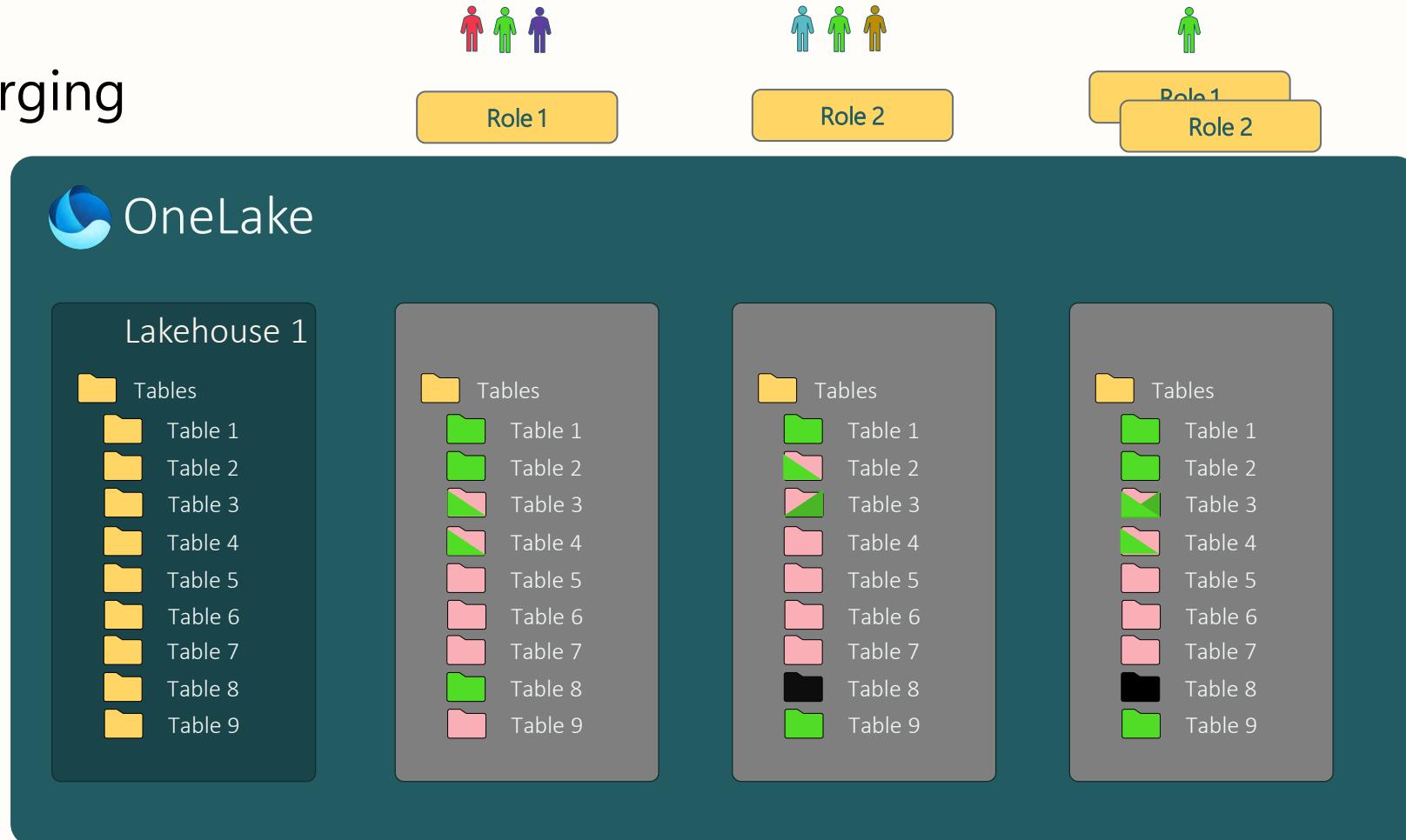


Problems

- Metadata merging

Problems

- Metadata merging



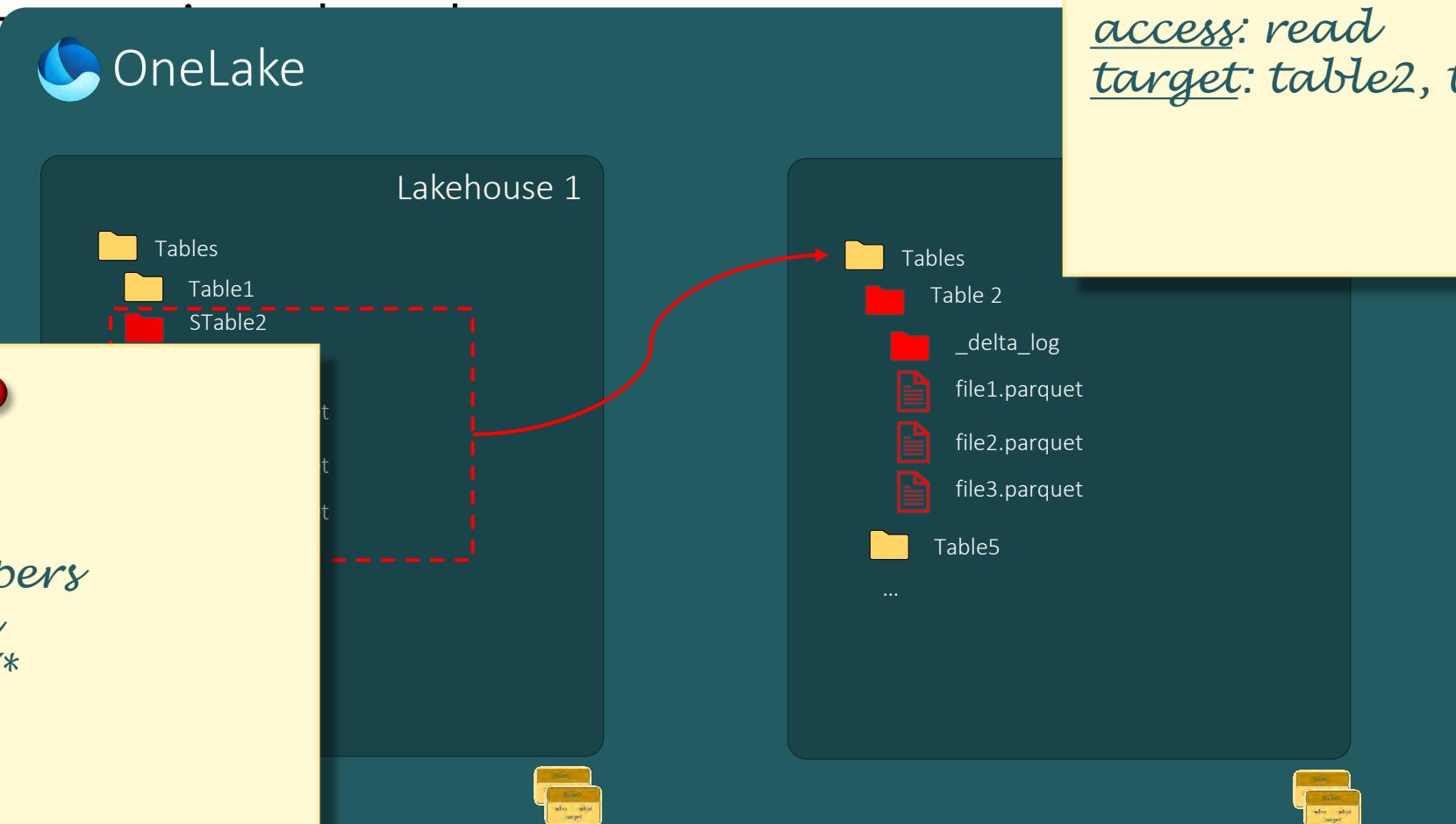
Problems

- Metadata merging
- Metadata merging when shortcuts are present

Problems

- Metadata merging
- Metadata conflicts

•
groups:
developers,
architects



Role1

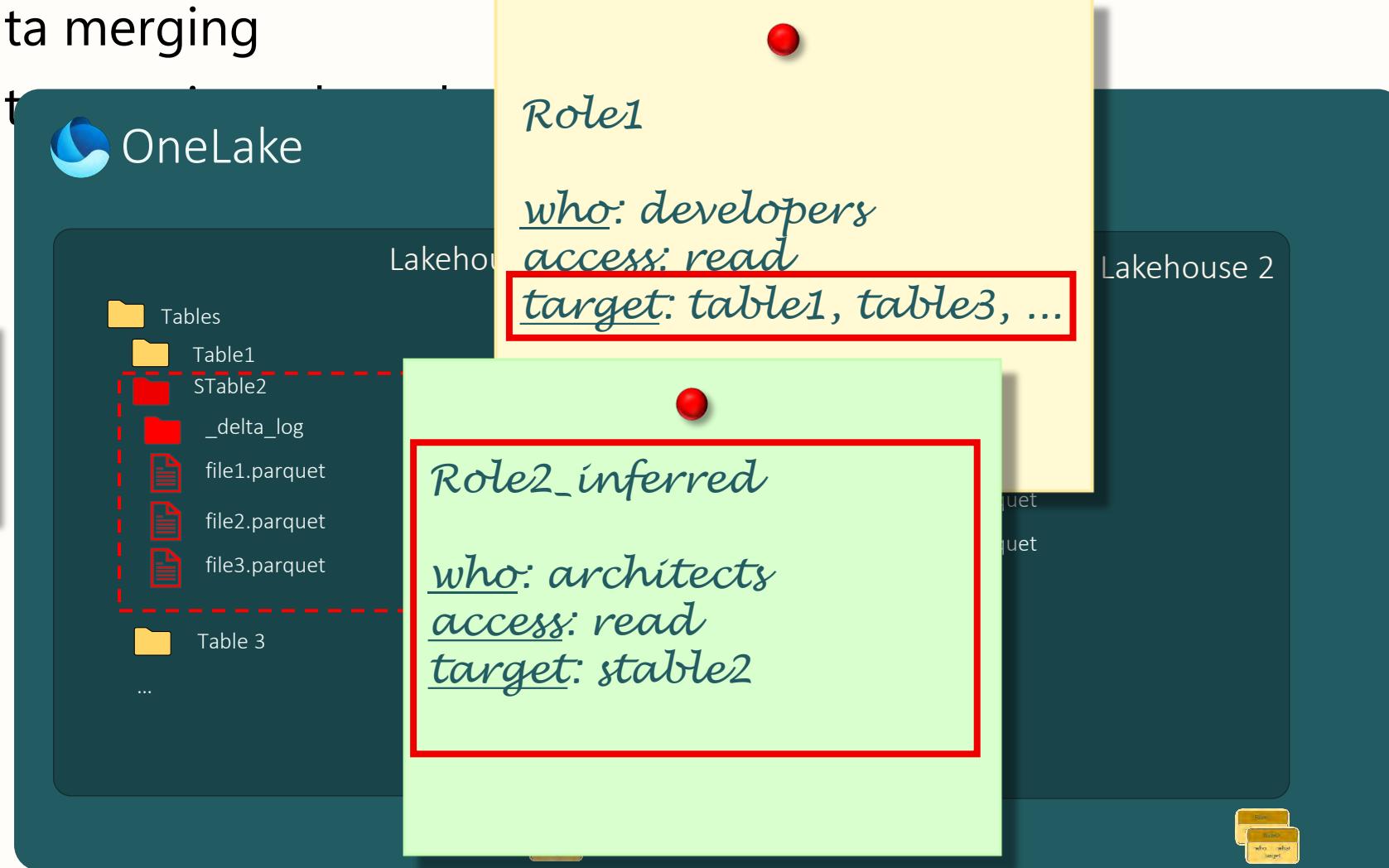
who: developers
access: read
target: dbo/*

Role2

who: architects
access: read
target: table2, table7

Problems

- Metadata merging
- Metadata



Problems

- Metadata merging
- Metadata merging when shortcuts are present
- Strong deny
- Membership by group exclusion

HrRole

who: HR_department
access: read
target: dbo/*

Role_dlp

who: ~~not FTE~~
access: ~~deny~~ read
target: dbo/Salaries

Problems

- Metadata merging
- Metadata merging when shortcuts are present
- Strong deny
- Membership by group exclusion
- RLS calculation

`select * from table where <column> <op> <value> ...`

`select * from Sales where (Amount > 100) and (Discount < 0.1)`

Problems

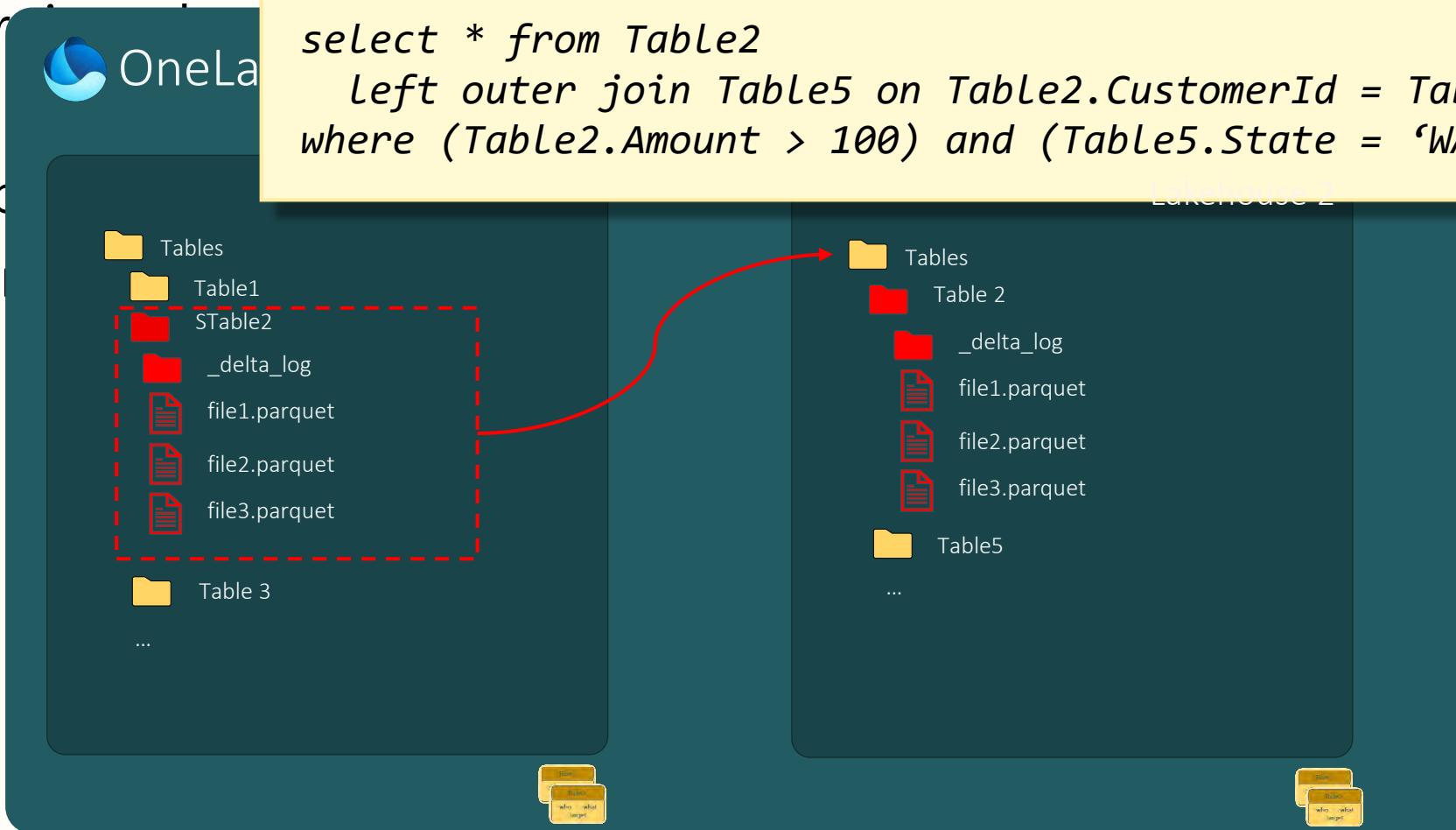
- Metadata merging
- Metadata merging when shortcuts are present
- Strong consistency
- Memory usage
- RLS constraints

```
select * from table
    left outer join lookup_table on ...
    left outer join lookup_table on ...
where <column> <op> <value> ...

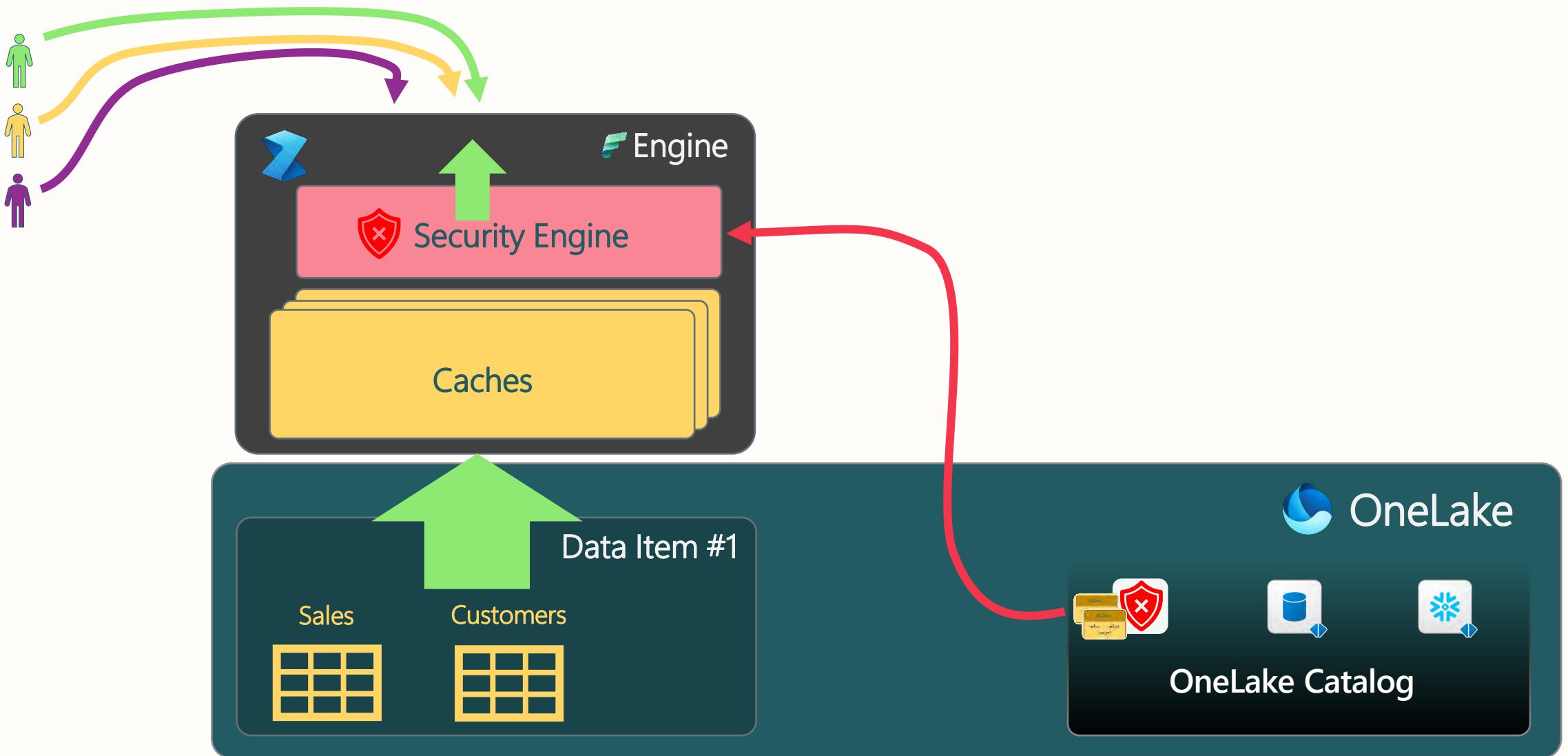
select * from Sales
    left outer join Customers on Sales.CustomerId = Customers.Id
    left outer join Geography on Customer.GeographyId = Geography.Id
where (Sales.Amount > 100) and (Geography.State = 'WA')
```

Problems

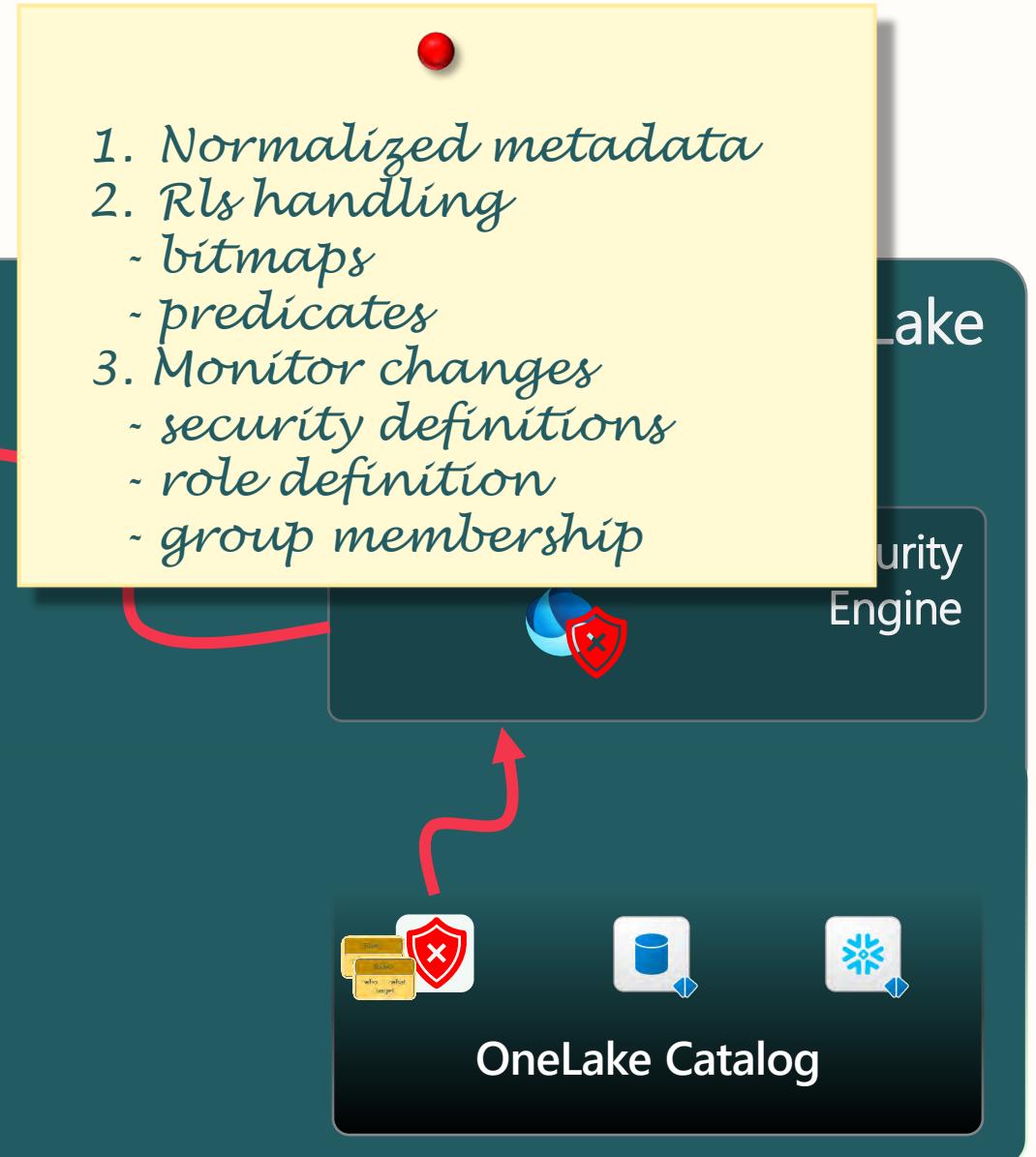
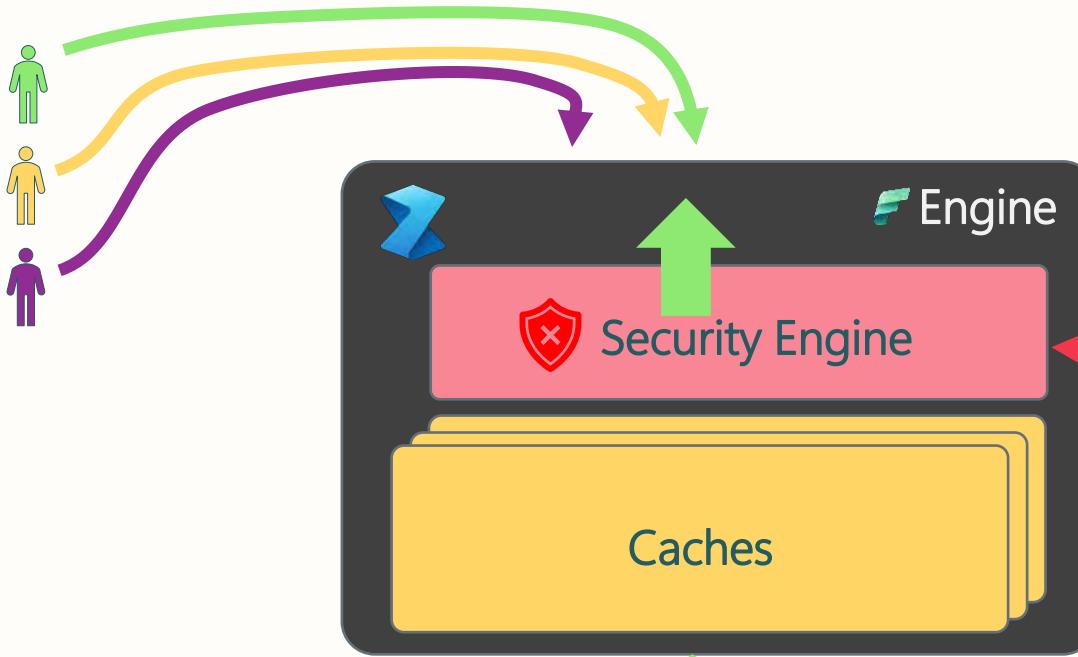
- Metadata merging
- Metadata merging
- Strong deny
- Membership based
- RLS calculations

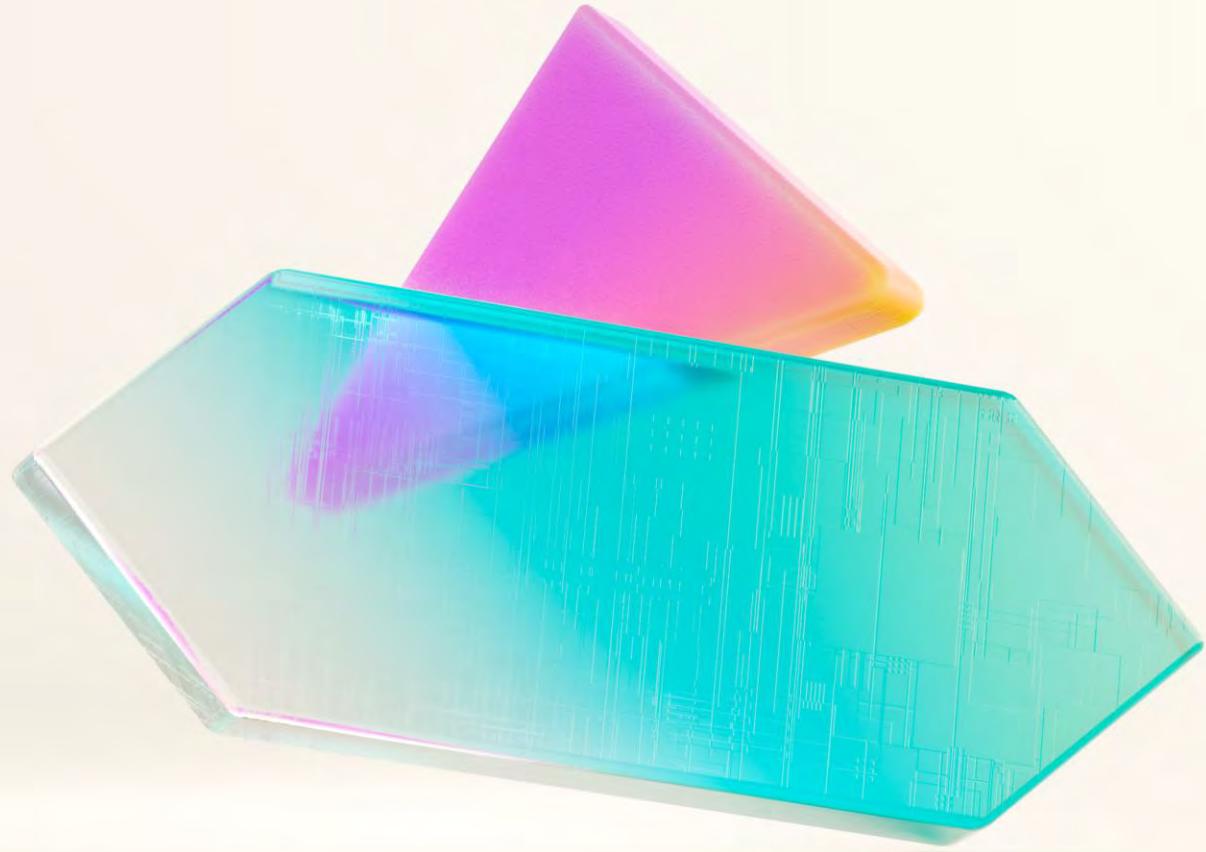


Runtime Operation (Real Model)



Runtime Operation (Real Model)





Getting started

Getting started with OneLake security

- Prerequisites:
 - Lakehouse with data
 - Fabric capacity (trial or paid)
 - A preview enabled workspace

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Explorer

Customers

Showing 91 rows

	ABC_customerID	ABC_companyName	ABC_contactName	ABC_contactTitle	ABC_address	ABC_city	ABC_region	ABC_postalCode	ABC_country	ABC_phone	ABC_fax
1	ALFKI	Alfreds Futterkiste	Maria Anders	Sales Representative	Obere Str. 57	Berlin	NULL	12209	Germany	030-0074321	030-0076545
2	ANATR	Ana Trujillo Emparedados y helados	Ana Trujillo	Owner	Avda. de la Constitución 22	México D.F.	NULL	05021	Mexico	(5) 555-4729	(5) 555-3745
3	ANTON	Antonio Moreno Taquería	Antonio Moreno	Owner	Mataderos 2312	México D.F.	NULL	05023	Mexico	(5) 555-3932	NULL
4	AROUT	'Around the Horn	Thomas Hardy	Sales Representative	120' Hanover Sq.	London	NULL	WA1 1DP	UK	(171) 555-7788	(171) 555-6750
5	BERGS	Berglunds snabbköp	Christina Berglund	Order Administrator	Berguvsvägen 8	Luleå	NULL	958 22	Sweden	0921-12 34 65	0921-12 34 67
6	BLAUS	Blauer See Delikatess-Spezialitäten	Hanna Moos	Sales Representative	Forsterstr. 57	Mannheim	NULL	68306	Germany	0621-08460	0621-08924
7	BLONP	Blondes Dsdl père et fils	Frédérique Citeaux	Marketing Manager	24 place Kléber	Strasbourg	NULL	67000	France	88.60.15.31	88.60.15.32
8	BOLID	Bólido Comidas preparadas	Martin Sommer	Owner	67C Araquil	Madrid	NULL	28023	Spain	(91) 555 22 82	(91) 555 91 99
9	BONAP	Bon app'	Laurence Lebihan	Owner	12 rue des Bouchers	Marseille	NULL	13008	France	91.24.45.40	91.24.45.41
10	BOTTM	Bottom-Dollar Markets	Elizabeth Lincoln	Accounting Manager	23 Tsawassen Blvd.	Tsawassen	BC	T2F 8M4	Canada	(604) 555-4729	(604) 555-3745
11	BSBEV	B's Beverages	Victoria Ashworth	Sales Representative	Fauntleroy Circus	London	NULL	EC2 5NT	UK	(171) 555-1212	NULL
12	CACTU	Cactus Comidas para llevar	Patricia Simpson	Sales Agent	Cerrito 333	Buenos Aires	NULL	1010	Argentina	(1) 135-5555	(1) 135-4892
13	CENTC	Centro comercial Moctezuma	Francisco Chang	Marketing Manager	Sierras de Granada 912	México D.F.	NULL	05022	Mexico	(5) 555-3392	(5) 555-7293
14	CHOPS	Chop-suey Chinese	Yang Wang	Owner	Hauptstr. 29	Bern	NULL	3012	Switzerland	0452-076545	NULL
15	COMM1	Comércio Mineiro	Pedro Afonso	Sales Associate	23 Av. dos Lusíadas	Sao Paulo	SP	05432-043	Brazil	(11) 555-7647	NULL
16	CONSH	Consolidated Holdings	Elizabeth Brown	Sales Representative	Berkeley Gardens 12	London	NULL	WX1 6LT	UK	(171) 555-2282	(171) 555-9196
17	DRACO	Drachenblut Delikatessen	Sven Ottlieb	Order Administrator	Walserweg 21	Aachen	NULL	52066	Germany	0241-039123	0241-059428
18	DUMON	Du monde entier	Janine Labrune	Owner	67 rue des Cinquante Otages	Nantes	NULL	44000	France	40.67.88.88	40.67.89.89
19	EASTC	Eastern Connection	Ann Devon	Sales Agent	35 King George	London	NULL	WX3 6FW	UK	(171) 555-0297	(171) 555-3373
20	ERNSH	Ernst Handel	Roland Mendel	Sales Manager	Kirchgasse 6	Graz	NULL	8010	Austria	7675-3425	7675-3426
21	FAMIA	Familia Arquibaldo	Aria Cruz	Marketing Assistant	Rua Orós 92	Sao Paulo	SP	05442-030	Brazil	(11) 555-9857	NULL
22	FISSA	FISSA Fabrica Inter. S.A.	Diego Roel	Accounting Manager	C/ Moralzarzal 86	Madrid	NULL	28034	Spain	(91) 555 94 44	(91) 555 55 93
23	FOLIG	Folies gourmandes	Martine Rancé	Assistant Sales Agent	184 chaussée de Tourneville	Lille	NULL	59000	France	20.16.10.16	20.16.10.17
24	FOLKO	Folk och fä HB	Maria Larsson	Owner	Åkergratan 24	Bräcke	NULL	5-844 67	Sweden	0695-34 67 21	NULL
25	FRANK	Frankenversand	Peter Franken	Marketing Manager	Berliner Platz 43	München	NULL	80805	Germany	089-0877310	089-0877451
26	FRANR	France restauration	Carine Schmitt	Marketing Manager	54 rue Royale	Nantes	NULL	44000	France	40.32.21.21	40.32.21.20
27	FRANS	Franchi S.p.A.	Paolo Accorti	Sales Representative	Via Monte Bianco 34	Torino	NULL	10100	Italy	011-4988260	011-4988261
28	FURIB	Furia Bacalhau e Frutos do Mar	Lino Rodriguez	Sales Manager	Jardim das rosas n. 32	Lisboa	NULL	1675	Portugal	(1) 354-2534	(1) 354-2535
29	GALED	Galería del gastrónomo	Eduardo Saavedra	Marketing Manager	Rambla de Cataluña 23	Barcelona	NULL	08022	Spain	(93) 203 4560	(93) 203 4561
30	GODOS	Godos Cocina Típica	José Pedro Freyre	Sales Manager	C/ Romero 33	Sevilla	NULL	41101	Spain	(95) 555 82 82	NULL
31	GOURL	Gourmet Lanchonetes	André Fonseca	Sales Associate	Av. Brasil 442	Campinas	SP	04876-786	Brazil	(11) 555-9482	NULL
32	GREAL	Great Lakes Food Mart	Howard Snyder	Marketing Manager	2732 Baker Blvd.	Eugene	OR	97403	USA	(503) 555-7555	NULL
33	GROSR	GROSELLA-Restaurante	Manuel Pereira	Owner	5 ^a Ave., Los Palos Grandes	Caracas	DF	1081	Venezuela	(2) 283-2951	(2) 283-3397
34	HANAR	Hanari Carnes	Mario Pontes	Accounting Manager	Rua do Paço 67	Rio de Janeiro	RJ	05454-876	Brazil	(21) 555-0091	(21) 555-8765

Succeeded (13 sec 255 ms)

Columns 11 Rows 91

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A SQL analytics endpoint for SQL querying and a default Power BI semantic model for reporting were created with this item.

Explorer[Search schemas and tables](#)

NorthwindEnableTest

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SampleLake

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...

Power BI

Turn on OneLake security (preview)

You are about to turn on OneLake security (preview) for this item. You can learn more about the feature [here](#).

Continue**Cancel****Upload files**

Upload data from your local machine.

Start with sample data

Automatically import tables filled with sample data.

New shortcut

Access data that resides in an external lake.

New Dataflow Gen2

Prep, clean, transform, and ingest data.

New data pipeline

Ingest data at scale and schedule data workflows.

Home  Lakehouse 

Get data New semantic model Open notebook Manage OneLake data access (preview)

Explorer < Customers Showing 91 rows

Search schemas and tables

	ABC_customerID	ABC_companyName	ABC_contactName	ABC_contactTitle	ABC_address	ABC_city	ABC_region	ABC_postalCode	ABC_country	ABC_phone	ABC_fax
NorthwindTest	ALFKI	Alfreds Futterkiste	Maria Anders	Sales Representative	Obere Str. 57	Berlin	NULL	12209	Germany	030-0074321	030-0076545
Tables	ANATR	Ana Trujillo Emparedados y helados	Ana Trujillo	Owner	Avda. de la Constitución 22	México D.F.	NULL	05021	Mexico	(5) 555-4729	(5) 555-3745
dbo	ANTON	Antonio Moreno Taquería	Antonio Moreno	Owner	Mataderos 2312	México D.F.	NULL	05023	Mexico	(5) 555-3932	NULL
Customers	AROUT	'Around the Horn	Thomas Hardy	Sales Representative	120 Hanover Sq.	London	NULL	WA1 1DP	UK	(171) 555-7788	(171) 555-6750
Employees	BERGS	Berglunds snabbköp	Christina Berglund	Order Administrator	Berguvsvägen 8	Luleå	NULL	99362	Sweden	0921-12 34 65	0921-12 34 67
EmployeeTerritories	BLAUS	Blauer See Delikatessen	Hanna Moos	Sales Representative	Forsterstr. 57	Mannheim	NULL	68306	Germany	0621-08460	0621-08924
LegacyOrders	BLONP	Blondes d's srl père et fils	Frédérique Citeaux	Marketing Manager	24 place Kléber	Strasbourg	NULL	67000	France	88.60.15.31	88.60.15.32
OrderDetails	BOLID	Bólido Comidas preparadas	Martín Sommer	Owner	67C Araquil	Madrid	NULL	28023	Spain	(91) 555 22 82	(91) 555 91 99
Orders	BONAP	Bon app'	Laurence Lebihan	Owner	12 rue des Bouchers	Marseille	NULL	13008	France	91.24.45.40	91.24.45.41
Products	BOTTM	Bottom-Dollar Markets	Elizabeth Lincoln	Accounting Manager	23 Tsawassen Blvd.	Tsawassen	BC	T2F 8M4	Canada	(604) 555-4729	(604) 555-3745
Regions	BSBEV	B's Beverages	Victoria Ashworth	Sales Representative	Fauntleroy Circus	London	NULL	EC2 5NT	UK	(171) 555-1212	NULL
Shippers	CACTU	Cactus Comidas para llevar	Patricia Simpson	Sales Agent	Cerro 333	Buenos Aires	NULL	1010	Argentina	(1) 135-5555	(1) 135-4892
Suppliers	CENTC	Centro comercial Moctezuma	Francisco Chang	Marketing Manager	Sierras de Granada 912	México D.F.	NULL	05022	Mexico	(5) 555-3392	(5) 555-7293
Territories	CHOPS	Chop-suey Chinese	Yang Wang	Owner	Hauptstr. 29	Bern	NULL	3012	Switzerland	0452-076545	NULL
Files	COMM1	Comércio Mineiro	Pedro Afonso	Sales Associate	23 Av. dos Lusíadas	Sao Paulo	SP	05432-043	Brazil	(11) 555-7647	NULL
CONSH	DRACO	Consolidated Holdings	Elizabeth Brown	Sales Representative	Berkeley Gardens 12	London	NULL	WX1 6LT	UK	(171) 555-2282	(171) 555-9195
Drachenblut Delikatessen	DUMON	Du monde entier	Janihe Labrune	Owner	67 rue des Cinquante	Nantes	NULL	44000	France	40.67.88.88	40.67.89.89
EASTC	ERNSH	Eastern Connection	Ann Devon	Sales Agent	35 King George	London	NULL	WX3 6FW	UK	(171) 555-0297	(171) 555-3373
FAMILIA	FAMIA	Familia Arquibaldo	Aria Cruz	Marketing Assistant	Rua Orós 92	Sao Paulo	SP	05442-030	Brazil	(11) 555-9857	NULL
FISSA	FOLIG	FISSA Fabrica Inter. S.A.	Diego Roel	Accounting Manager	C/ Moralzarzal 86	Madrid	NULL	28034	Spain	(91) 555 94 44	(91) 555 55 93
FOLK OCH FÄ HB	FOLKO	Folies gourmandes	Martine Rancé	Assistant Sales Agent	184 chausée de Tour	Lille	NULL	59000	France	20.16.10.16	20.16.10.17
FRANK	FRANR	Folk och fä HB	Maria Larsson	Owner	Åkergratan 24	Bräcke	NULL	5-844 67	Sweden	0695-34 67 21	NULL
FRANKENVERSAND	FRANS	Frankenversand	Peter Franken	Marketing Manager	Berliner Platz 43	München	NULL	80805	Germany	089-0877310	089-0877451
FRANC RESTAURATION	FURIB	France restauration	Carine Schmitt	Marketing Manager	54 rue Royale	Nantes	NULL	44000	France	40.32.21.21	40.32.21.20
FRANCHI S.p.A.	GALED	Franchi S.p.A.	Paolo Accorti	Sales Representative	Via Monte Bianco 34	Torino	NULL	10100	Italy	011-4988260	011-4988261
GALERIA DEL GASTRONOMICO	GODOS	Galería del gastrónomo	Eduardo Saavedra	Marketing Manager	Rambla de Cataluña 23	Barcelona	NULL	08022	Spain	(93) 203 4560	(93) 203 4561
GODOS COCINA TÍPICA	GOURL	Gourmet Lanchonetes	José Pedro Freyre	Sales Manager	C/ Romero 33	Sevilla	NULL	41101	Spain	(95) 555 82 82	NULL
GOURMET LANCHONETES	GREAL	Great Lakes Food Ma...	Howard Snyder	Marketing Manager	2732 Baker Blvd.	Eugene	OR	97403	USA	(503) 555-7555	NULL
GROSELLA-RESTAURANTE	GROSRA	GROSELLA-Restaurante	Manuel Pereira	Owner	5 ^a Ave. Los Palos Gra...	Caracas	DF	1081	Venezuela	(2) 283-2951	(2) 283-3397
HANARI CARNES	HANAR	Hanari Carnes	Mario Pontes	Accounting Manager	Rua do Paço 67	Rio de Janeiro	RJ	05454-876	Brazil	(21) 555-0091	(21) 555-8765

Succeeded (13 sec 255 ms) Columns 11 Rows 91

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Customer

customerID	companyName	contactName	contactTitle	address
ALFKI	Alfreds Futterkiste	Maria Anders	Sales Representative	Obere Str. 57, Berlin
ANATR	Ana Trujillo Emparedados y helados	Ana Trujillo	Owner	Avda. de la Constitución 22, Santiago
ANTON	Antonio Moreno Taquería	Antonio Moreno	Owner	Mataderos 12, Madrid
AROUT	Around the Horn	Thomas Hardy	Sales Representative	120 Hanover Street, Boston
BERGS	Berglunds snabbköp	Christina Berglund	Order Administrator	Berguvsgatan 21, Stockholm
BLAUS	Blauer See Delikatessen	Hanna Moos	Sales Representative	Forststr. 57, Berlin
BLONP	Blondes d's srl père et fils	Frédérique Citeaux	Marketing Manager	24 place Clémenceau, Paris
BOLID	Bólido Comidas preparadas	Martín Sommer	Owner	67C Arauco, Santiago
BONAP	Bon app'	Laurence Lebihan	Owner	12 rue des Batignolles, Paris
BOTTM	Bottom-Dollar Markets	Elizabeth Lincoln	Accounting Manager	23 Tsawassen Industrial Park, Tsawassen
BSBEV	B's Beverages	Victoria Ashworth	Sales Representative	Fauntleroy Wharf, Seattle
CACTU	Cactus Comidas para llevar	Patricia Simpson	Sales Agent	Cerro 8, San Jose
CENTC	Centro comercial Moctezuma	Franisco Chang	Marketing Manager	Sierras de los Cardos, Mexico City
CHOPS	Chop-suey Chinese	Yang Wang	Owner	Hauptstraße 30, Berlin
COMM1	Comércio Mineiro	Pedro Afonso	Sales Associate	23 Av. das Nacoes Unidas, São Paulo
CONSH	Consolidated Holdings	Elizabeth Brown	Sales Representative	Berkeley, CA, USA
DRACO	Drachenblut Delikatessen	Sven Ottlieb	Order Administrator	Walserweg 22, Vienna
DUMON	Du monde entier	Janine Labrune	Owner	67 rue de la Paix, Paris
EASTC	Eastern Connection	Ann Devon	Sales Agent	35 King Street, London
ERNSH	Ernst Handel	Roland Mendel	Sales Manager	Kirchgasse 60, Vienna
FAMIA	Familia Arquibaldo	Aria Cruz	Marketing Assistant	Rua Orós, 153, Rio de Janeiro
FISSA	FISSA Fabrica Inter. S.A.	Diego Roel	Accounting Manager	C/ Mora 33, Madrid
FOLIG	Folies gourmandes	Martine Rancé	Assistant Sales Agent	184 chaussée de Waterloo, Brussels
FOLKO	Folk och fä HB	Maria Larsson	Owner	Åkergränd 10, Stockholm
FRANK	Frankenversand	Peter Franken	Marketing Manager	Berliner Allee 9, Berlin
FRANR	Frânce restauration	Carine Schmitt	Marketing Manager	54 rue Rapp, Paris
FRANS	Franchi S.p.A.	Paolo Accorti	Sales Representative	Via Monte Grappa, Milan
FURIB	Furia Bacalhau e Frutos do Mar	Lino Rodriguez	Sales Manager	Jardim das Nações, Rio de Janeiro
GALED	Galeria del gastrónomo	Eduardo Saavedra	Marketing Manager	Rambla 34, Valencia
GODOS	Godos Cocina Típica	José Pedro Freyre	Sales Manager	C/ Roma 33, Madrid
GOURL	Gourmet Lanchonetes	André Fonseca	Sales Associate	Av. Brasil, 5470, São Paulo
GREAL	Great Lakes Food Ma...	Howard Snyder	Marketing Manager	2732 Baileys Hill Rd, Novi
GROSR	GROSELLA-Restauran...	Manuel Pereira	Owner	5 ^a Ave, 1369, São Paulo
HANAR	Hanari Carnes	Mario Pontes	Accounting Manager	Rua do Carmo, 222, São Paulo

Succeeded (9 sec 995 ms)

OneLake security

Manage data access roles in your Lakehouse

Roles are user groups that you can use to grant users access to data in your Lakehouse. On this page, you can create a new role, edit access, or delete a role in your Lakehouse. [Learn more](#)

+ New

Role name Permissions ⓘ

DefaultReader ⓘ	Read
-----------------	------

Filter by keyword

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Succeeded (9 sec 995 ms)

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+ New

Role name	Permissions
DefaultReader	Read

Filter by keyword

You mentioned
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when does that come in?

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+ Warehouses 

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- Security

Queries

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- Shared queries

Model layouts



Query, model, or preview your data

To query your data, start a query. You can also open a table or view to preview your data.

New SQL query 

Power BI

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User's identity
Use the signed in user's identity to access OneLake

Delegated identity
✓ Use the warehouse owner's identity to access OneLake

OneLake access mode settings

Query, model, or preview your data

To query your data, start a query. You can also open a table or view to preview your data.

New SQL query

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Queries

- My queries
- Shared queries

Model layouts

NorthwindTest

Power BI



Query, model, or preview your data

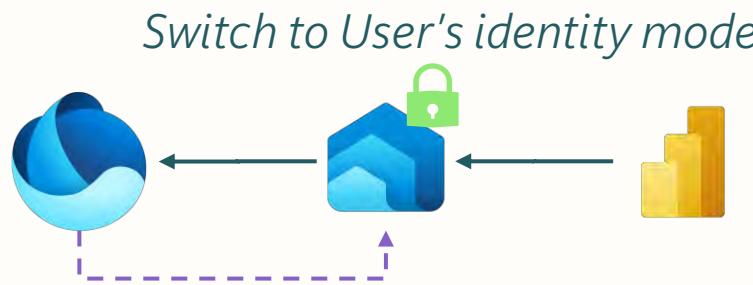
To query your data, start a query. You can also open a table or view to preview your data.

New SQL query

What about my semantic model?

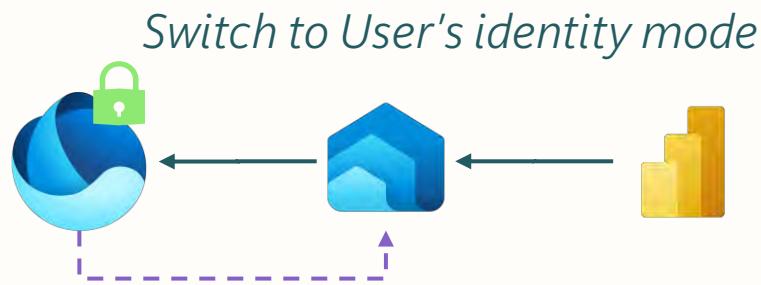
What about my semantic model?

DirectLake (current)

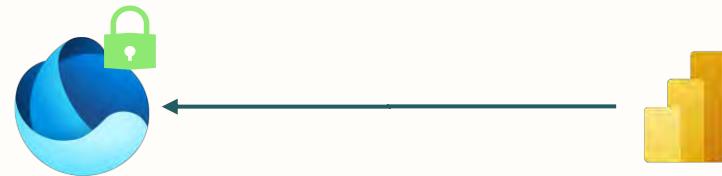


What about my semantic model?

DirectLake (current)



DirectLake using OneLake
(better)



File Home Help

Cut Copy Paste Get data v Excel OneLake catalog v SQL Server data Data Recent sources

Clipboard

Live editing your model using Direct Lake All changes are automatic

Orders

- customerID
- employeeID
- freight
- orderDate
- orderID
- requiredDate
- shipAddress
- shipCity
- shipCountry

Collaps e ^

Options

GLOBAL

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- Copilot chat pane in report view [Learn more](#) | [Share feedback](#)
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se in the header when ds when card is collapsed to top of card

Tables Model

Search

Customers Employees EmployeeTerritories OrderDetails Orders Products Regions Shippers Suppliers Territories

All tables +

Storage Mode: Direct Lake 12:50 PM 3/27/2025 100%

File Home Help

Cut Copy Paste Get data v Excel OneLake catalog v SQL Server data Data Recent sources

Clipboard

Live editing your model using Direct Lake All changes are automatic

Orders

- customerID
- employeeID
- freight
- orderDate
- orderID
- requiredDate
- shipAddress
- shipCity
- shipCountry

Collaps e ^

Options

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- Save to OneDrive and SharePoint [Learn more](#)
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- Write DAX queries with Copilot [Learn more](#) | [Share feedback](#)
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- Improve Q&A with Copilot [Learn more](#)
- Measure descriptions with Copilot [Learn more](#) | [Share feedback](#)
- Visual calculations [Learn more](#) | [Share feedback](#)
- Copilot chat pane in report view [Learn more](#) | [Share feedback](#)
- TMDL View [Learn more](#) | [Share feedback](#)
- Use user-installed Vertica ODBC driver [Learn more](#)

OK Cancel

se in the header when ds when card is collapsed to top of card

Tables Model

Search

Customers Employees EmployeeTerritories OrderDetails Orders Products Regions Shippers Suppliers Territories

All tables +

Storage Mode: Direct Lake 12:50 PM 3/27/2025 100%

FILE Home Insert Modeling View Optimize Help

Get data v Excel workbook catalog v OneDrive Server Enter data Dataverse Recent sources v Transform data v New visual Text box More visuals v New visual calculation v New measure measure v Sensitivity v Publish Copilot

Clipboard

Add data to your report

Once loaded, your data will appear in the Data pane.

Import data from Excel Import data from SQL Server Paste data into a blank table Use sample data

Get data from another source →

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Values Add data fields here Drill through Cross-report Keep all filters Add drill-through fields here

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Queries

New measure New column

New table Calculations

Calculation group

Manage roles View

Security Q&A

Linguistic schema v Sensitivity

Refresh Share

Live editing your model using Direct Lake All changes are automatically applied to your model in the Power BI service.

Don't show again Learn more

Properties Data

Cards

Show the database in the header when applicable

No

Show related fields when card is collapsed

Yes

Pin related fields to top of card

No

Tables Model

Search

Customers Employees EmployeeTerritories OrderDetails Orders Products Regions Shippers Suppliers Territories

All tables +

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Customers

Employees

EmployeeTerritory

LegacyOrders

OrderDetails

Orders

Products

Regions

Shippers

Suppliers

Territories

Files

NorthwindTest

CustomerID

CompanyName

ContactName

ContactTitle

Address

City

Region

PostalCode

Country

Phone

Fax

1 ALFKI Alfreds Futterkiste Maria Anders Sales Representative Obere Str. 57 Berlin NULL 12209 Germany 030-0074321 030-0076545

2 ANATR Ana Trujillo Emparedados y Comidas Ana Trujillo Owner Avda. de la Constitución 2312 México D.F. NULL 05021 Mexico (5) 555-4729 (5) 555-3745

3 ANTON Antonio Moreno Taquería Antonio Moreno Owner Mataderos 2312 México D.F. NULL 05023 Mexico (5) 555-3932 NULL

4 AROUT Around the Horn Thomas Hardy Sales Representative 120 Hanover Sq. London NULL WA1 1DP UK (171) 555-7788 (171) 555-6750

5 BERGS Berglunds snabbköp Christina Berglund Order Administrator Berguvsvägen 8 Luleå NULL S-958 22 Sweden 0921-12 34 65 0921-12 34 67

6 BLAUS Blauer See Delikatessen Hanna Moos Sales Representative Forsterstr. 57 Mannheim NULL 68306 Germany 0621-08460 0621-08924

7 BLONP Blondes Dsdl père et fils Frédérique Citeaux Marketing Manager 24 place Kléber Strasbourg NULL 67000 France 88.60.15.31 88.60.15.32

8 BOLID Bólido Comidas preparadas Martín Sommer Owner 67C Araquil Madrid NULL 28023 Spain (91) 555 22 82 (91) 555 91 99

9 BONAP Bon app' Laurence Lebihan Owner 12 rue des Bouchers Marseille NULL 13008 France 91.24.45.40 91.24.45.41

10 BOTTM Bottom-Dollar Markets Elizabeth Lincoln Accounting Manager 23 Tsawassen Blvd. Tsawassen BC T2F 8M4 Canada (604) 555-4729 (604) 555-3745

11 BSBEV B's Beverages Victoria Ashworth Sales Representative Fauntleroy Circus London NULL EC2 5NT UK (171) 555-1212 NULL

12 CACTU Cactus Comidas para llevar Patricio Simpson Sales Agent Cerrito 333 Buenos Aires NULL 1010 Argentina (1) 135-5555 (1) 135-4892

13 CENTC Centro comercial Móvil Francisco Chang Marketing Manager Sierras de Granada 9, 10 México D.F. NULL 05022 Mexico (5) 555-3392 (5) 555-7293

14 CHOPS Chop-suey Chinese Yang Wang Owner Hauptstr. 29 Bern NULL 3012 Switzerland 0452-076545 NULL

15 COMM1 Comércio Mineiro Pedro Afonso Sales Associate 23 Av. dos Lusíadas São Paulo SP 05432-043 Brazil (11) 555-7647 NULL

16 CONSH Consolidated Holdings Elizabeth Brown Sales Representative Berkeley Gardens 12 London NULL WX1 6LT UK (171) 555-2282 (171) 555-9195

17 DRACO Drachenblut Delikatessen Sven Ottlieb Order Administrator Walserweg 21 Aachen NULL 52066 Germany 0241-039123 0241-059428

18 DUMON Du monde entier Janine Labrune Owner 67 rue des Cinquante-Six Nantes NULL 44000 France 40.67.88.88 40.67.89.89

19 EASTC Eastern Connection Ann Devon Sales Agent 35 King George London NULL WX3 6FW UK (171) 555-0297 (171) 555-3373

20 ERNSH Ernst Handel Roland Mendel Sales Manager Kirchgasse 6 Graz NULL 8010 Austria 7675-3425 7675-3426

21 FAMIA Família Arquibaldo Aria Cruz Marketing Assistant Rua Orós 92 São Paulo SP 05442-030 Brazil (11) 555-9857 NULL

22 FISSA FISSA Fabrica Inter. S.A. Diego Roel Accounting Manager C/ Moralzarzal 86 Madrid NULL 28034 Spain (91) 555 94 44 (91) 555 55 93

23 FOLIG Folies gourmandes Martine Rancé Assistant Sales Agent 184 chaussée de Tourcoing Lille NULL 59000 France 20.16.10.16 20.16.10.17

24 FOLKO Folk och fä HB Maria Larsson Owner Åkergratan 24 Bräcke NULL 5-844 67 Sweden 0695-34 67 21 NULL

25 FRANK Frankenversand Peter Franken Marketing Manager Berliner Platz 43 München NULL 80805 Germany 089-0877310 089-0877451

26 FRANR France restauration Carine Schmitt Marketing Manager 54 rue Royale Nantes NULL 44000 France 40.32.21.21 40.32.21.20

27 FRANS Franchi S.p.A. Paolo Accorti Sales Representative Via Monte Bianco 34 Torino NULL 10100 Italy 011-4988260 011-4988261

28 FURIB Furia Bacalhau e Frutos Lino Rodriguez Sales Manager Jardim das rosas n. 32 Lisboa NULL 1675 Portugal (1) 354-2534 (1) 354-2535

29 GALED Galería del gastrónomo Eduardo Saavedra Marketing Manager Rambla de Cataluña 23 Barcelona NULL 08022 Spain (93) 203 4560 (93) 203 4561

30 GODOS Godos Cocina Típica José Pedro Freyre Sales Manager C/ Romero 33 Sevilla NULL 41101 Spain (95) 555 82 82 NULL

31 GOURL Gourmet Lanchonetes André Fonseca Sales Associate Av. Brasil 442 Campinas SP 04876-786 Brazil (11) 555-9482 NULL

32 GREAL Great Lakes Food Ma... Howard Snyder Marketing Manager 2732 Baker Blvd. Eugene OR 97403 USA (503) 555-7555 NULL

33 GROSR GROSELLA-Restauran... Manuel Pereira Owner 5^a Ave. Los Palos Gra... Caracas DF 1081 Venezuela (2) 283-2951 (2) 283-3397

34 HANAR Hanari Carnes Mario Pontes Accounting Manager Rua do Paço 67 Rio de Janeiro RJ 05454-876 Brazil (21) 555-0091 (21) 555-8765

Succeeded (15 sec 773 ms)

Columns 11 Rows 91

File Home Help

Paste ab ab Find Replace Command palette Clipboard Editing

Apply Share feedback Data

Tables Model

View and organize all of the items in your semantic model. [Learn how](#)

Search

Semantic model

Calculation groups (0)

Cultures (1)

Measures (0)

Perspectives (0)

Relationships (1)

Roles (0)

Tables (10)

```
965 | annotation SummarizationSetBy = Automatic
966 |
967 | partition Territories = entity
968 | mode: directLake
969 | source
970 |   entityName: Territories
971 |   schemaName: dbo
972 |   expressionSource: DatabaseQuery
973 |
974 | annotation PBI_ResultType = Table
975 |
976 relationship 0862c689-697d-0188-bd06-4ce31b7f36a1
977   fromColumn: OrderDetails.orderID
978   toColumn: Orders.orderID
979 |
980 cultureInfo en-US
981 |
982   linguisticMetadata = {"Version": "1.0.0", "Language": "en-US"}
983   | contentType: json
984 |
985 expression DatabaseQuery =
986   let
987     database = Sql.Database("X6EPS4XRQ2XUDENLFV6NAE03I4-7Q72ETMNTWMPUIJE2CTIQQZW4Q.msit-datawarehouse.fabric.microsoft.com", "35c90e6c-40f8-4e5d-858c-c2bde6e13b3b")
988   in
989     database
990   lineageTag: b81ee5f5-a04e-4730-9b98-3fdd827e86b2
991 |
992 annotation PBI_IncludeFutureArtifacts = False
993 |
994 annotation PBI_RemovedChildren = [{"remoteItemId": {"analysisServicesObject": {"sourceName": null, "sourceLineageTag": "[dbo].[LegacyOrders]"}}, "objectType": "Table"}]
995 |
996 annotation __PBI_TimeIntelligenceEnabled = 0
997 |
998 annotation PBIDesktopVersion = 2.141.1177.0 (25.03)+c500dc5720dc9271c2dcfef1230911a0da742ee3
999 |
1000 annotation PBI_QueryOrder = ["DatabaseQuery"]
1001 |
1002 annotation PBI_ProTooling = ["WebModelingEdit", "RemoteModeling", "TMDLVView/Desktop"]
1003 |
1004
```

Problems 0 Output

Script 1 +

12:42 PM 3/27/2025

Home

OneLakeDemoWorkspace

New item New folder Import Migrate

Create deployment pipeline Create app Manage access Workspace settings

Filter

OneLakeDemoWorkspace > Northwind

Name	Type	Task	Owner	Refreshed	Next refresh	Endorsement	Sensitivity	Included in app
BugBashNotebook	Notebook	—	Aaron Merrill	—	—	—	Confidential\Micro...	
BugBashReport	Report	—	OneLakeDemoWor...	3/3/2025, 8:54:59 AM	—	—	Confidential\Micro...	
NorthwindLakehouse	Lakehouse	—	Aaron Merrill	—	—	—	Confidential\Micro...	
NorthwindLakehouse	Semantic model (d...)	—	OneLakeDemoWor...	2/25/2025, 10:32:20 AM	N/A	—	Confidential\Micro...	
NorthwindLakehouse	SQL analytics endp...	—	Aaron Merrill	—	—	—	Confidential\Micro...	
NorthwindModel	Semantic model	—	OneLakeDemoWor...	3/25/2025, 3:52:18 PM	N/A	—	Confidential\Micro...	
NorthwindReport	Report	—	OneLakeDemoWor...	3/3/2025, 8:54:59 AM	—	—	Confidential\Micro...	
NorthwindTest	Lakehouse	—	Aaron Merrill	—	—	—	Confidential\Micro...	
NorthwindTest	Semantic model (d...)	—	OneLakeDemoWor...	3/14/2025, 1:34:41 PM	N/A	—	Confidential\Micro...	
NorthwindTest	SQL analytics endp...	—	Aaron Merrill	—	—	—	Confidential\Micro...	

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Run all Connect PySpark (Python) Environment 1.3 Data Wrangler Copilot

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BugBash Notebook

Northwind Model

Northwind Test

Northwind Test

Power BI

Not connected AutoSave: On Selected Cell 3 of 3 cells

Input is hidden

```
1 df = spark.sql("SELECT * FROM OneSecurityTest.NorthwindTest.dbo.Customers LIMIT 1000")
2 display(df)
```

```
1 df = spark.read.parquet("abfss://OneLakeDemoWorkspace@msit-onelake.dfs.fabric.microsoft.com/NorthwindTest.Lakehouse/Tables dbo/Customers/part-00000-aeb8ff54-f7c1-4a1f-8bf1-ce834496c1
2 display(df)
```

The screenshot shows the Azure Data Studio interface with the following details:

- Home**: Top-left navigation bar item.
- Run all**: Top-left navigation bar item.
- Connect**: Top-left navigation bar item.
- PySpark (Python)**: Top center navigation bar item.
- Environment**: Top center navigation bar item.
- 1.3**: Top center navigation bar item.
- Data Wrangler**: Top center navigation bar item.
- Copilot**: Top center navigation bar item.
- Explorer**: Left sidebar tab.
- Data items**: Left sidebar tab, currently selected.
- Resources**: Left sidebar tab.
- + Add data items**: Left sidebar button.
- Sources**: Left sidebar category.
- NorthwindLakehouse**: Left sidebar item under Sources, with a small icon and a delete button.
- Input is hidden**: Text in the top right of the main area.
- Code Cells (Top):**

```
1 df = spark.sql("SELECT * FROM OneSecurityTest.NorthwindTest.dbo.Customers LIMIT 1000")
2 display(df)
```
- Code Cells (Bottom):**

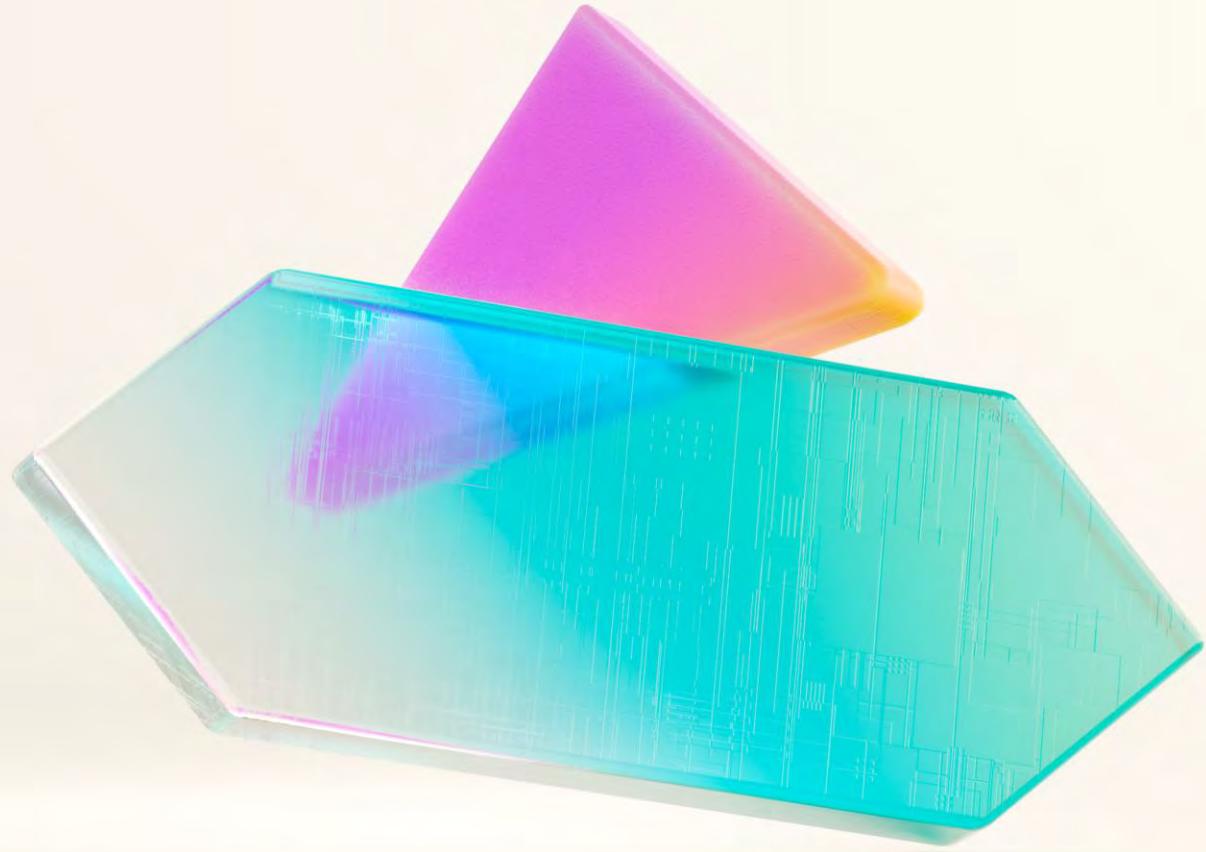
```
1 df = spark.read.parquet("abfss://OneLakeDemoWorkspace@msit-onelake.dfs.fabric.microsoft.com/NorthwindTest.Lakehouse/Tables dbo/Customers/part-00000-aeb8ff54-f7c1-4a1f-8bf1-ce834496c1")
2 display(df)
```
- Output Area:** Below the code cells, showing the results of the executed queries.
- PySpark (Python)**: Top right dropdown menu.
- PySpark (Python)**: Bottom right dropdown menu.
- Learn**: Left sidebar tab.
- Workspaces**: Left sidebar tab.
- OneLakeDemoWorkspace**: Left sidebar tab.
- BugBashNotebook**: Left sidebar tab.
- Northwind Model**: Left sidebar tab.
- NorthwindTest**: Left sidebar tab.
- NorthwindTest**: Left sidebar tab.
- Power BI**: Bottom left icon.
- Not connected**: Bottom left status.
- AutoSave: On**: Bottom left status.
- Selected Cell 3 of 3 cells**: Bottom right status.

The screenshot shows a Jupyter Notebook interface with the following details:

- Home**: Top-left navigation bar.
- Explorer**: Left sidebar with sections like Data items, Resources, Sources, and NorthwindLakehouse.
- PySpark (Python)**: Top navigation bar tabs.
- Environment**: Version 1.3.
- Data Wrangler**: Top navigation bar tab.
- Copilot**: Top navigation bar tab.
- Input is hidden**: Status message in the top cell area.
- Code Cells (Top Cell):**

```
1 df = spark.sql("SELECT * FROM OneSecurityTest.NorthwindTest.dbo.Customers LIMIT 1000")
2 display(df)
```
- Code Cells (Bottom Cell):**

```
1 df = spark.read.parquet("abfss://OneLakeDemoWorkspace@msit-onelake.dfs.fabric.microsoft.com/NorthwindLakehouse/Tables/dbo/Customers/part-00000-aeb8ff54-f7c1-4a1f-8bf1-ce834496c1")
2 display(df)
```
- UI Elements:** A blue arrow points from the successful cell to the failed one. A large red X is overlaid on the error message of the failed cell.
- Bottom Status Bar:** Not connected, AutoSave: On, Selected Cell 3 of 3 cells.



Things to know

Known limitations – early access preview



OneLake

- Cross region shortcuts do not work (yet)



Power BI

- Only the new Direct Lake on OneLake (created in Power BI Desktop) supported
- Only shortcut tables with OneLake security can be used with Direct Lake on OneLake.



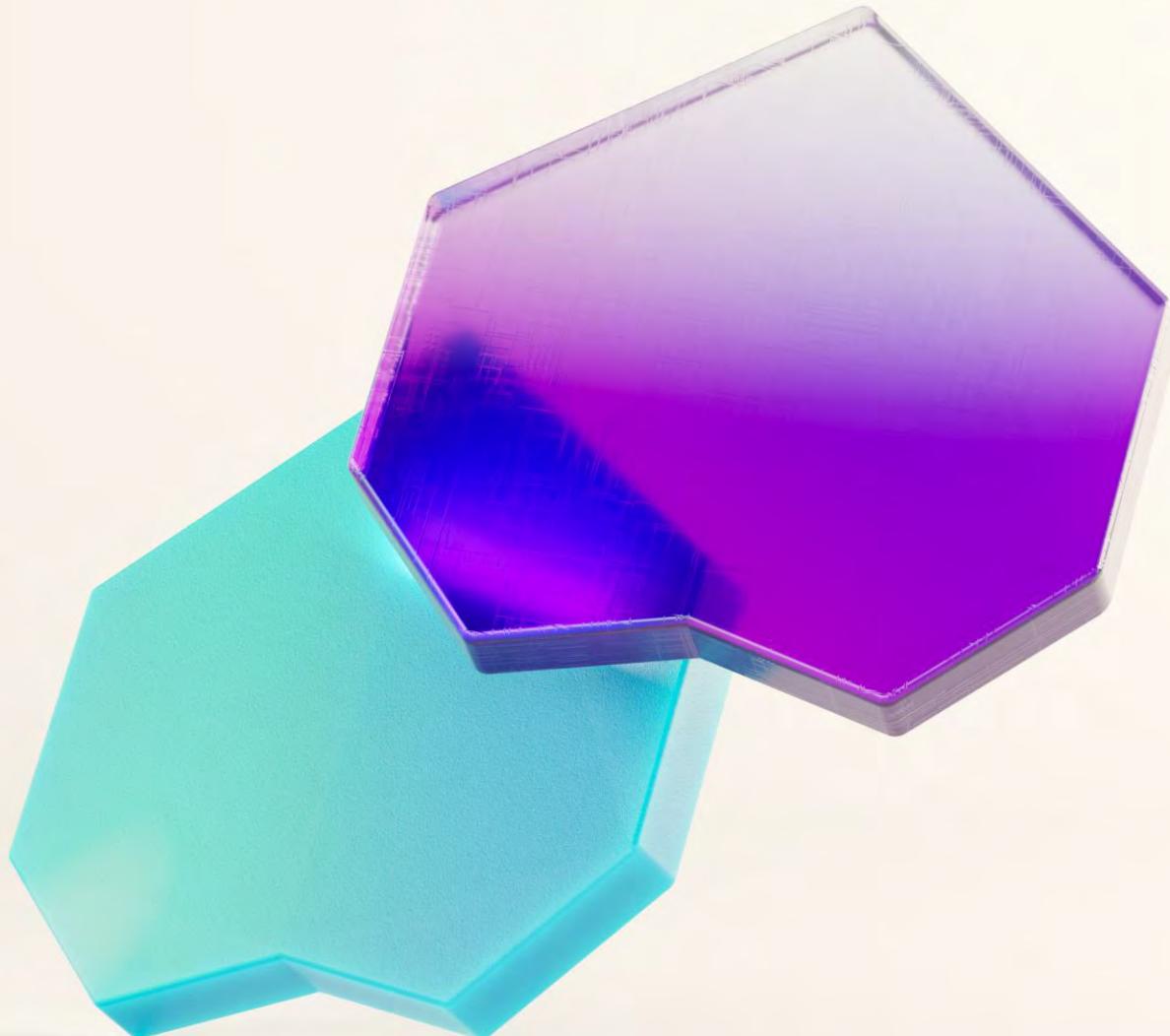
SQL Analytics Endpoint

- No major limitations



Spark/Lakehouse

- Must use Fabric 1.3 runtime with Spark 3.5
- Only schema enabled lakehouses



OneLake Catalog



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OneLake



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Deployment
pipelinesReal-Time
hubFunctions
hub

Workspaces

My
workspace

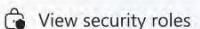
OneLake catalog

Domain: All domains

Explore Govern Secure



View users



View security roles

View user access in OneLake

View users across all your workspaces and domains in one space.

All users by Type of user Workspace role +

Filter by keyword

Workspaces My workspace X Oxnard X

Workspaces

 My workspace

Aadi Kapoor

User

Admin of

Member of

Contributor of

Viewer of

 Oxnard

Alpha Beta Group

Group

0

0

0

2

 Rock Hill

Link

Link

1

1

2

2

 St. Paul South Jordan

More workspaces...



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OneLake



Monitor



Deployment pipelines



Real-time hub



Functions hub



Workspaces



My workspace



Data Engineering

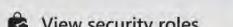
OneLake catalog

Domain: All domains 

Explore Govern Secure



View users



View OneLake Security roles

View roles across all your workspaces and domains in one space.

All users by  My workspace X  Oxnard X  Data types: (1)  Permission + Workspaces   My workspace  Oxnard   Rock Hill  St. Paul   South Jordan

More workspaces...

Role name	Item 	Role type	Permission	Location	Item Owner
 DefaultRole	 Daily Sales	OneLake Security	Read	Contoso Workspace	 Aadi Kapoor
 Grant	 Daily Sales	OneLake Security	Read	Sainz	 Aadi Kapoor
 Grant	 Daily Sales	OneLake Security	Read	Sainz	 Aadi Kapoor
 Grant	 Daily Sales	OneLake Security	Read	Sainz	 Aadi Kapoor
 Grant2	 Daily Sales	OneLake Security	Read	Sainz	 Aadi Kapoor
 DefaultRole	 Contoso Lakehouse	OneLake Security	Read	Sainz	 Babak Shammas
 Role 1	 Contoso Lakehouse	OneLake Security	Read	Sainz	 Babak Shammas
 Role 2	 Contoso Lakehouse	OneLake Security	Read	Sainz	 Babak Shammas
 Role 4	 Contoso Lakehouse	OneLake Security	Read	Sainz	 Babak Shammas
 Role 3	 Contoso Lakehouse	OneLake Security	Read	Sainz	 Babak Shammas
 Role 5	 Contoso Lakehouse	OneLake Security	Read	Sainz	 Babak Shammas
 DefaultRole	 Product Metrics	OneLake Security	Read	Sainz	 Aadi Kapoor
 DefaultRole	 Product Metrics	OneLake Security	Read	Sainz	 Aadi Kapoor
 DefaultRole	 Product Metrics	OneLake Security	Read	Sainz	 Aadi Kapoor
 DefaultRole	 Product Metrics	OneLake Security	Read	Sainz	 Aadi Kapoor
 DefaultRole	 Product Metrics	OneLake Security	Read	Sainz	 Aadi Kapoor
 DefaultRole	 Product Metrics	OneLake Security	Read	Sainz	 Aadi Kapoor



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OneLake catalog

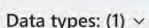
Domain: All domains

Explore Govern Secure

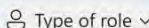
View OneLake Security roles

View roles across all your workspaces and domains in one space.

All users by



Data types: (1)



Type of role



Permission



Filter by keyword

Workspaces



My workspace X



Oxnard X

1 Selected



Edit



Duplicate



Delete



...



Details

<input type="checkbox"/> Role name	Item	Role type	Permission	Location	Item Owner
<input checked="" type="checkbox"/> DefaultRole	Daily Sales	OneLake Security	Read	Contoso Workspace	Aadi Kapoor
<input checked="" type="checkbox"/> Sales USA	Sales Warehouse	SQL Security	Read, SQL Permissions	Lando	Adrian Alvestaad
<input checked="" type="checkbox"/> Grant	Product Metrics	OneLake Security	Read	Sainz	Aadi Kapoor

OneLake catalog Domain: All domains

Explore Govern Secure

Select data to add to your role

Lakehouse Name

Schemas

Schema1

Tables

Table

Table

Table

Table

Schema2

Tables

Table

Table

Table

Files

Tree item

Tree item

Tree item

Tree item

Table1 Name

Schemas > Schema1 > Tables > Table1

Name	File Type	Last modified
Content	Folder	11/23/18, 1:00 PM
Content	File	11/23/18, 1:00 PM
Content	File	11/23/18, 1:00 PM
Content	File	11/23/18, 1:00 PM
Content	File	11/23/18, 1:00 PM
Content	File	11/23/18, 1:00 PM
Content	File	11/23/18, 1:00 PM
Content	File	11/23/18, 1:00 PM
Content	File	11/23/18, 1:00 PM
Content	File	11/23/18, 1:00 PM
Content	File	11/23/18, 1:00 PM
Content	File	11/23/18, 1:00 PM
Content	File	11/23/18, 1:00 PM
Content	File	11/23/18, 1:00 PM

Add data

DefaultRole

Product Metrics

Schema A

Schema

Read

A

Table

Read

B

Table

Read

DefaultRole

Product Metrics

DefaultRole

Product Metrics



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1 Selected

Refresh

Favorite

Add tag

...

Details

My items

Endorsed in your...

Favorites

Workspaces



Rock Hill



Oxnard



South Jordan



St. Paul



South



Contoso workspace

More workspaces...

Name



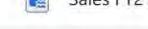
Sales FY21



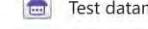
Customer feedback



Sales FY21



Test datamart



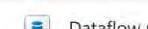
Primary dataflow



Primary dataflow



Dataflow main



Dataflow main



Dataflow main



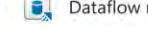
Dataflow main



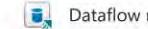
Dataflow main



Dataflow main



Dataflow main



Dataflow main



Dataflow main



Dataflow main



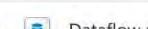
Dataflow main



Dataflow main



Dataflow main



Dataflow main



Data Warehouse

Customer feedback



Open

Overview

Lineage

Permissions

Query activity

Location

Contoso > Folder name

Data updated

1/26/25, 3:02 PM

Contact

Dani Wolf

Sensitivity label

Confidential

SQL connection string

x6eps4xrq2xudenlfv6naeo3...

+ 2

Objects (17)

Name



queryinsights

Date modified

10/18/2023 at 11:56 AM

Type

Size

470 B

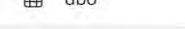


dbo

10/03/2023 at 09:23 AM

Table

1 G

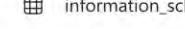


information_schema

10/03/2023 at 09:23 AM

Table

2 G



_delta_log

10/03/2023 at 09:23 AM

Table

256 B

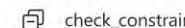


check_constraints

10/03/2023 at 09:23 AM

View

-

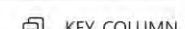


KEY_COLUMN_USAGE

10/03/2023 at 09:23 AM

View

-



Usage schema

10/03/2023 at 09:23 AM

View

-



_delta_log

10/03/2023 at 09:23 AM

Table

256 B



_delta_log

10/03/2023 at 09:23 AM

Table

256 B

OneLake catalog

All domains

Explore Govern Secure

All items

1 Selected

Refresh

Favorite

Add tag

...

Details

My items

Endorsed in your...

Name

> Sales FY21

> Customer feedback

> Sales FY21

> Test datamart

> Primary dataflow

> Primary dataflow

Favorites

Workspaces

Rock Hill

Oxnard

South Jordan

St. Paul

South

Contoso workspace

More workspaces...



Data Warehouse

Customer feedback

This warehouse shows IT spend YoY. this is the default text for the item's description if defined.

Open

Overview Lineage Permissions

+ Add external data share (preview)

Search

Filter

Direct access External data shares OneLake Security SQL Security Audiences (only PBI)

Share ID	Status	Shared with	Location	Created	Created by
07f2f5aa-0f8e-410f-8be9-5...	Active	denissezer@fabrikam...	BusinessKPIs/Files/0...	06/13/23, 12:00 PM	Wanda Howard
52235a46-8709-4c82-8bb0...	Active	andrelawson@fabrika...	BusinessKPIs/Files/S...	06/13/23, 12:00 PM	Wanda Howard
892f45a4-0909-4t62-8b9e...	Revoked	miguelsilva@fabrika...	BusinessKPIs/Files/S...	06/13/23, 12:00 PM	Wanda Howard



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My items

Endorsed in your...

Favorites

Workspaces



Rock Hill

Oxnard

South Jordan

St. Paul

South

Contoso workspace

More workspaces...

1 Selected

Refresh

Favorite

Add tag

...

Details

Name

> Sales FY21

> Customer feedback

> Sales FY21

> Test datamart

> Primary dataflow

> Primary dataflow

> Dataflow main



Data Warehouse

Customer feedback

This warehouse shows IT spend YoY. this is the default text for the item's description if defined.

Open

Overview Lineage Permissions

Direct access

External data shares

OneLake Security

SQL Security

Audiences (only PBI)

+ New

Filter by keyword

Role name

Permission

DefaultRole

Read

Sales USA

Read, SQL Permissions



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All items

1 Selected

Refresh

Favorite

Add tag

...

Details

My items

Endorsed in your...

Favorites

Workspaces



Rock Hill



Oxnard



South Jordan



St. Paul



South



Contoso workspace



More workspaces...

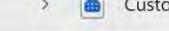
Name



Sales FY21



Customer feedback



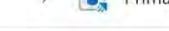
Sales FY21



Test datamart



Primary dataflow



Primary dataflow



Dataflow main



Dataflow main



Dataflow main



Dataflow main



Dataflow main



Dataflow main



Dataflow main



Dataflow main



Dataflow main



Dataflow main



Dataflow main



Data Warehouse

Customer feedback



This warehouse shows IT spend YoY. this is the default text for the item's description if defined.

Open

Overview Lineage Permissions

Direct access

External data shares

OneLake Security

SQL Security

Audiences (only PBI)

All Lakehouse roles > Sales USA

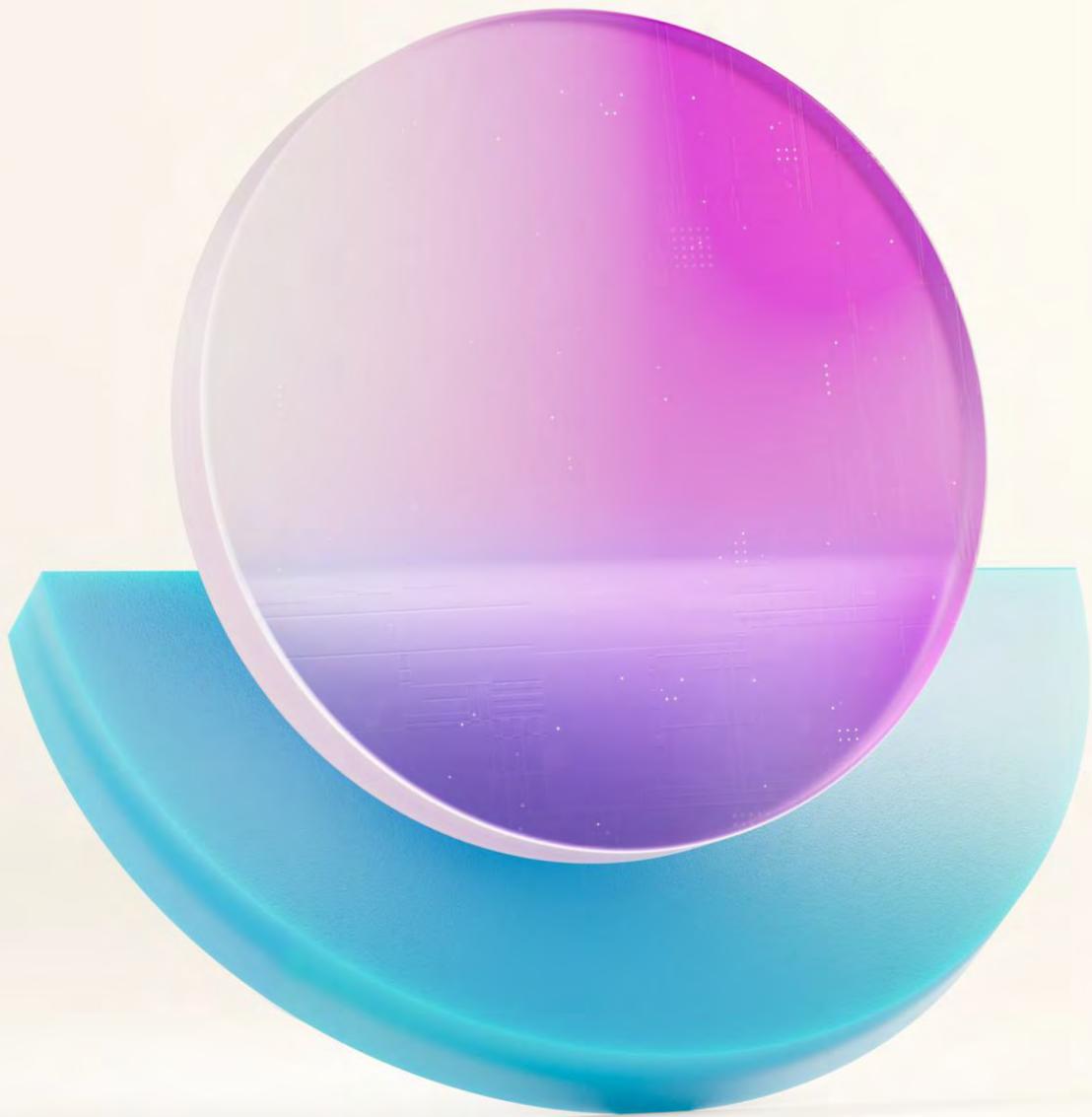
X

Data in role Members in role

+ Add data

Filter by keyword

Data	Type	Permissions	Data access
Tables	Schemas and tables	Read	
dbo	Schema	Read	
A	Table	Read	
B	Table	Read	
C	Table	Read	
Schema A	Schema	Read	



What's next?

OneLake security feature scope

Define OneLake security on:

- Lakehouse
- Azure Mirrored Databricks Catalog
- Mirrored Databases

OneLake security filtering:

- Lakehouse
- Spark notebooks
- SQL Analytics Endpoint
- Semantic Models

OneLake security – upcoming features

Planned within the next 6 months

Open public preview

Dynamic and multi-table RLS

Strong deny

Write permission for folders

More granular public APIs

Additional items and engines:

Data Warehouse

Event House - shortcuts

OneLake security is available now for early access

OneLake security - early access
signup form



OneLake security – early access

Currently in preview

Signups are open to anyone using the QR code or at:

aka.ms/OneLakeSecurityPreview

New users will be enabled each week in the order they are received.



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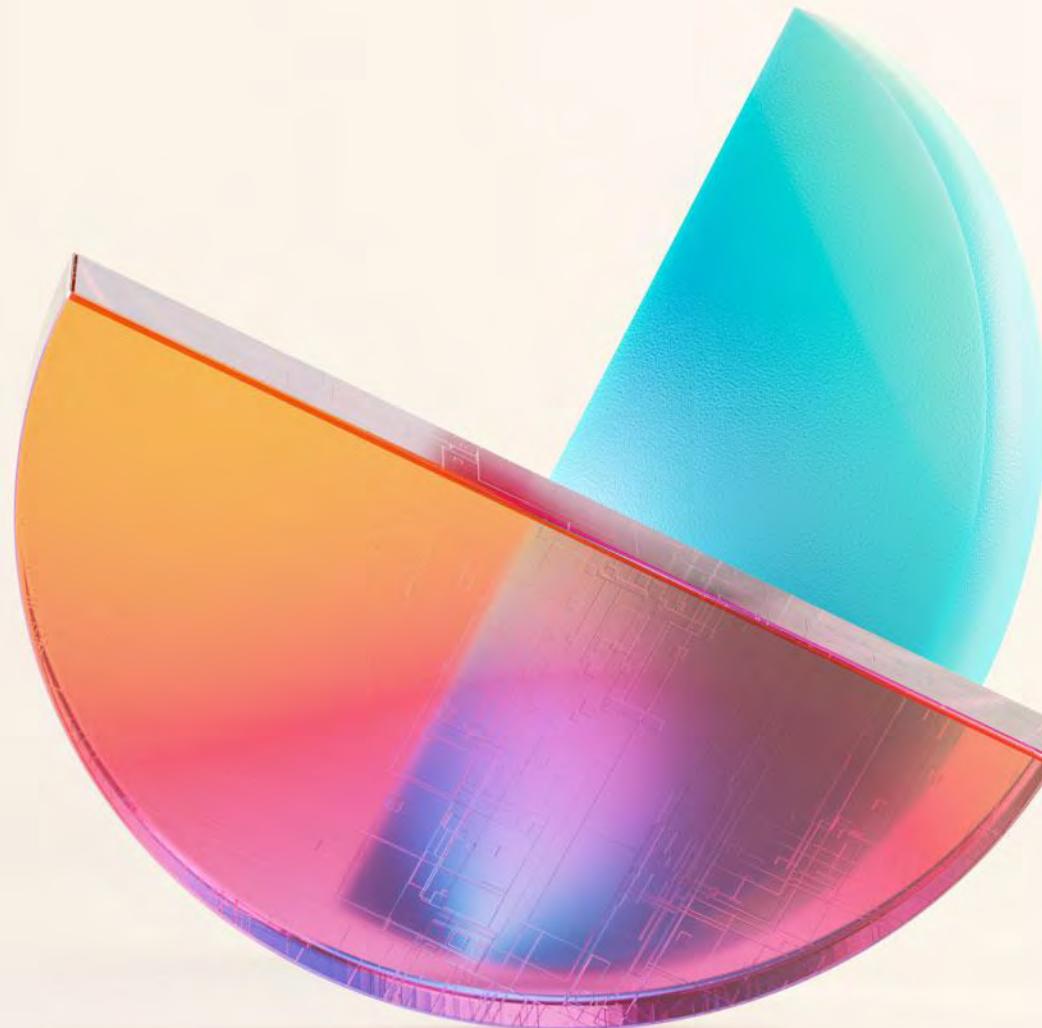
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