February 2025

Let's talk about Data Governance and Microsoft Fabric

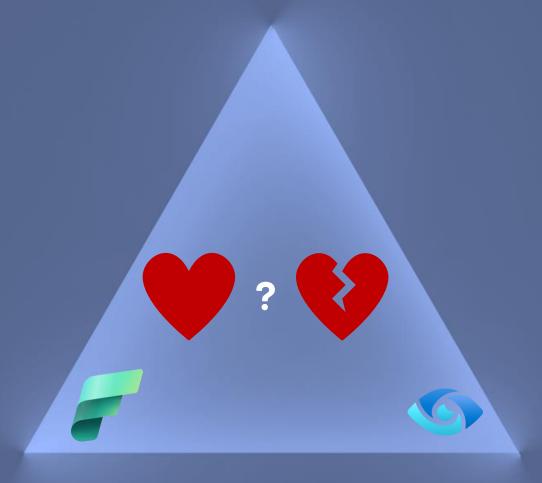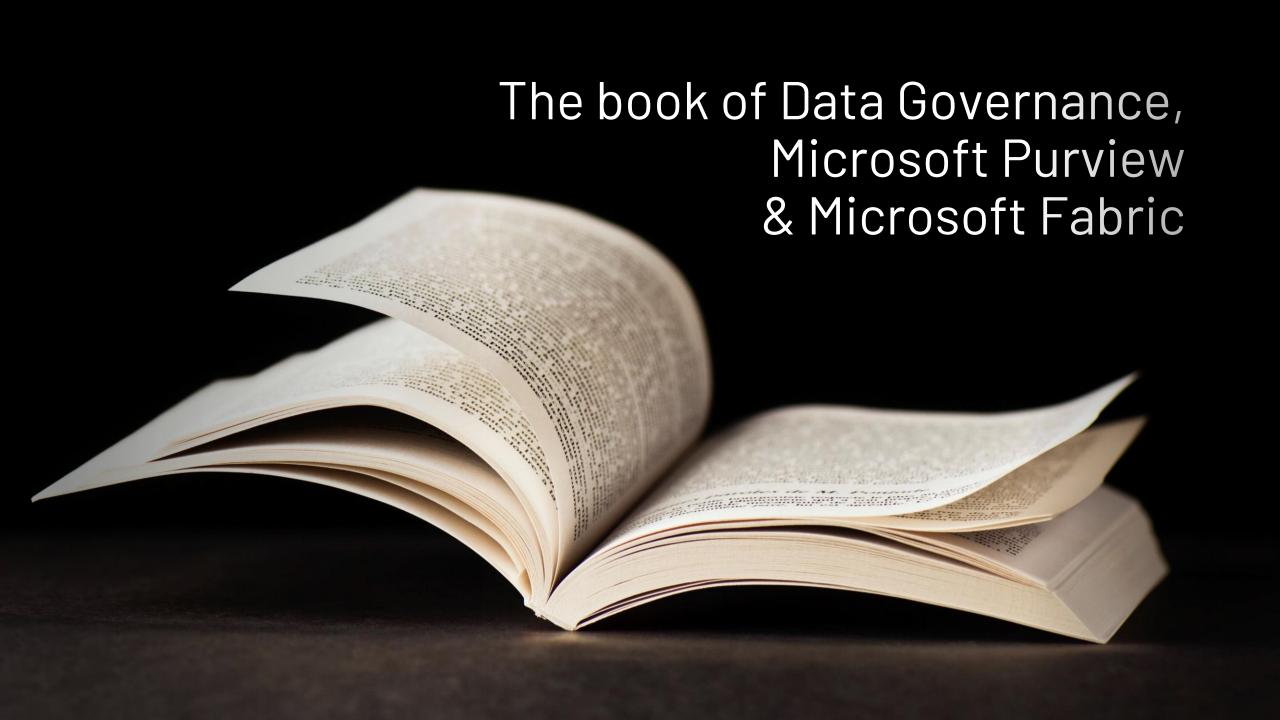Wolfgang Strasser

The book of Data Governance,
Microsoft Purview
& Microsoft Fabric

#DataGovernance

Definition Attempt #xx
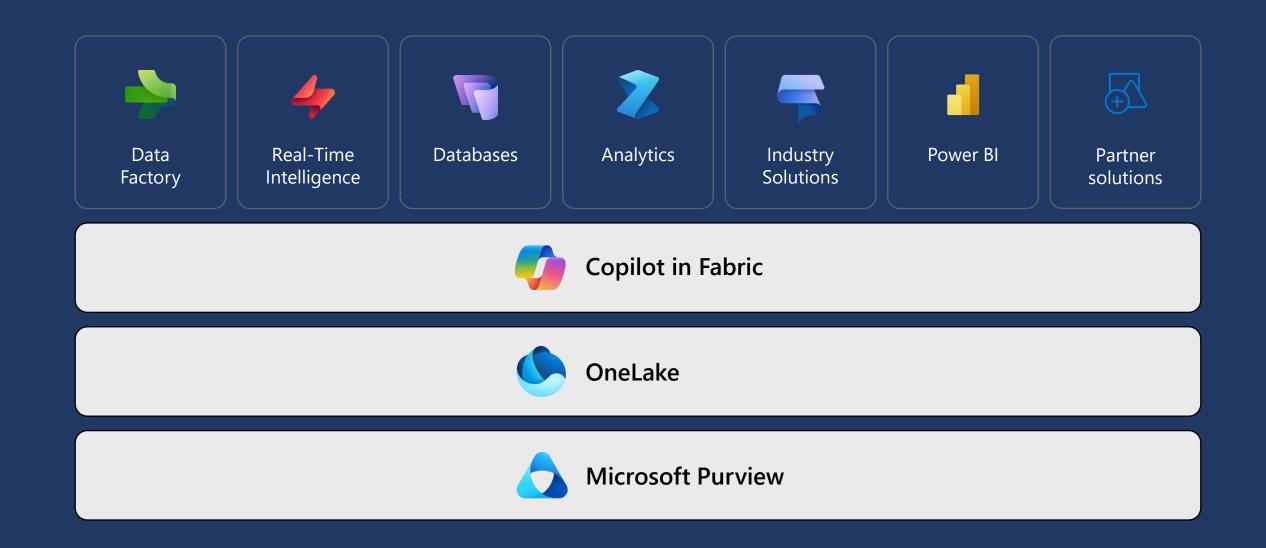
#TreatYourDataBetter

Wolfgang Strasser

#MicrosoftFabric

Microsoft Fabric

| Data Factory | Real-Time Intelligence | Databases | Analytics | Industry Solutions | Power BI | Partner solutions |

Copilot in Fabric

OneLake

Microsoft Purview

Sounds nice! Right?

One Place

One Tool

One Security

Data Governance

Governance in Fabric

Governance in Fabric can mean many things..

Access definitions

Security

Data lineage

Workspace creation

Publish to web, Exporting data

Gateway creation / configuration

Integration settings like ArcGIS

Access and collaboration with externals

...

Manage, govern, and secure data in Microsoft Fabric

Manage your data estate

Create a logical data mesh with domains to simplify management and increase data usage

Gain fine-grained control over your tenant, capacity, and workspace settings

Secure, protect & comply

Secure inbound and outbound network connections

Ensure only the right people have access internally

Maintain compliance with the strictest requirements

Encourage data discovery, trust, and use

Manage, catalog, and discover data in a logical, searchable data hub

Endorse and enrich high-quality data to create & promote curated, discoverable sources of truth

View the lineage for data items to identify origin and find other relevant sources
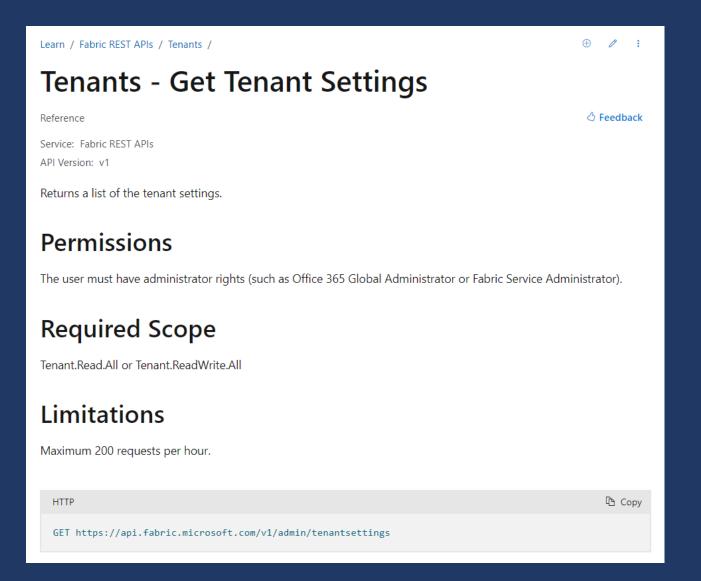
Monitor, uncover insights, and act

Track metrics important to admins such as usage, billing, and access

See relevant insights about sensitive data and item endorsement

Give users the ability to closely monitor their Fabric activities

Administrative Governance (Tenant Settings)

Learn / Fabric REST APIs / Tenants /

Tenants - Get Tenant Settings

Reference

👍 Feedback

Service: Fabric REST APIs

API Version: v1

Returns a list of the tenant settings.

Permissions

The user must have administrator rights (such as Office 365 Global Administrator or Fabric Service Administrator).

Required Scope

Tenant.Read.All or Tenant.ReadWrite.All

Limitations

Maximum 200 requests per hour.

HTTP   📋 Copy

GET https://api.fabric.microsoft.com/v1/admin/tenantsettings

Extract and query the tenant settings

2023-06-20 / Azure, Fabric, Power BI

A long wish have come true. It's now possible to query the Admin APIs and get a list of all the tenant settings. This is very valuable to be able to document the settings and also follow the changes of them.

The GetTenantSettings Read API was released the same day as Microsoft Fabric was announced, which therefore perhaps drowned in all the other amazing news? However, it is not accidental as the API is part of Fabric, now that the Admin portal is part of Fabric. This is just a technical change – the API can still be used to get all the tenant settings for Power BI – whether or not your using Fabric.

This is the first Fabric Admin API and you can get more information here: https://learn.microsoft.com/en-us/rest/api/fabric/admin/tenants/get-tenant-settings
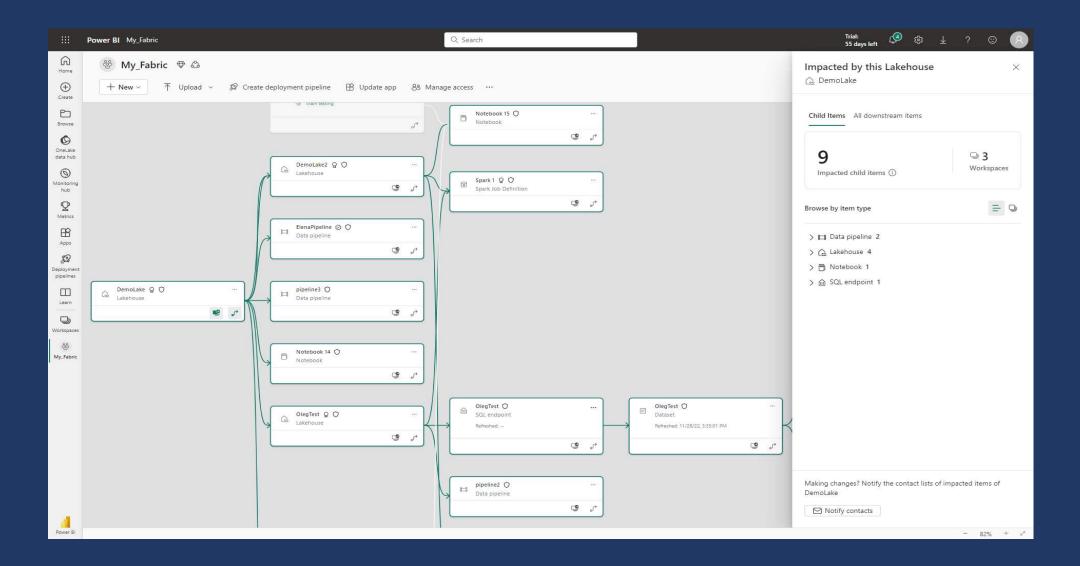
As always, I have created a Data Factory template and also a Synapse Serverless SQL view to unfold the JSON output. It's a base view with an outer apply on both properties, enabledSecurityGroups and excludedSecurityGroups. This way you will get multiple rows for each settings, but can then get all the information in one query.

Name *
PowerBI_API

Description

Connect via integration runtime * ⓘ
AutoResolveIntegrationRuntime

Base URL *
@(linkedService().BaseURL)
⚠ Information will be sent to the URL specified. Please ensure you trust the URL entered.

https://justb.dk/blog/2023/06/extract-and-query-the-tenant-settings/

https://github.com/justBlindbaek/PowerBIMonitor

Demo

Tenant Settings

Demo
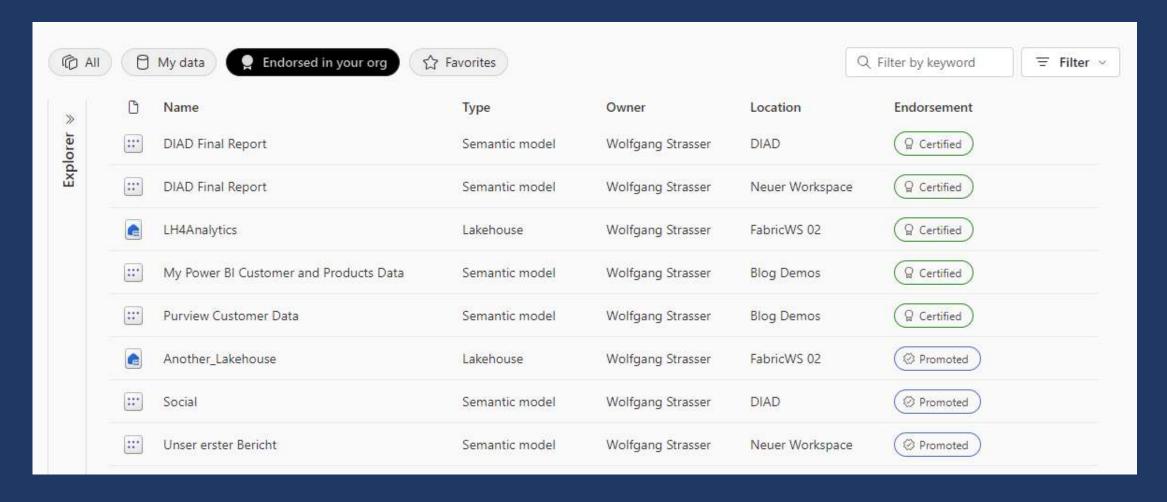
Data Lineage

Endorsement

Demo

Endorsements

Tags

Admin portal

Tags (preview)

Add a set of data management tags for use by your organization. Tags are public, so people in your org can add them to items or use them to discover content. Learn more ⬚

- Tenant settings New
- Usage metrics
- Users
- Premium Per User
- Audit logs
- Domains New
- Workloads
- Tags (preview) New
- Capacity settings

| + New tag |

Tag name	Date created	Created by
Sales Data	Mon, 18 Nov 2024 20:21:19 GMT	Wolfgang Strasser
Financial Data	Mon, 18 Nov 2024 20:21:13 GMT	Wolfgang Strasser

Domains

Demo

Domains

Security layers in Microsoft Fabric

Inbound & outbound security

Workspace & item security

Data security

Your data in Fabric

| Regulations & Certification | Data Encryption | E2E Auditability | High Availability & Disaster Recovery | Microsoft Purview Information Protection | Advanced tools in Microsoft Purview | 3rd party and in-house governance & security solutions |
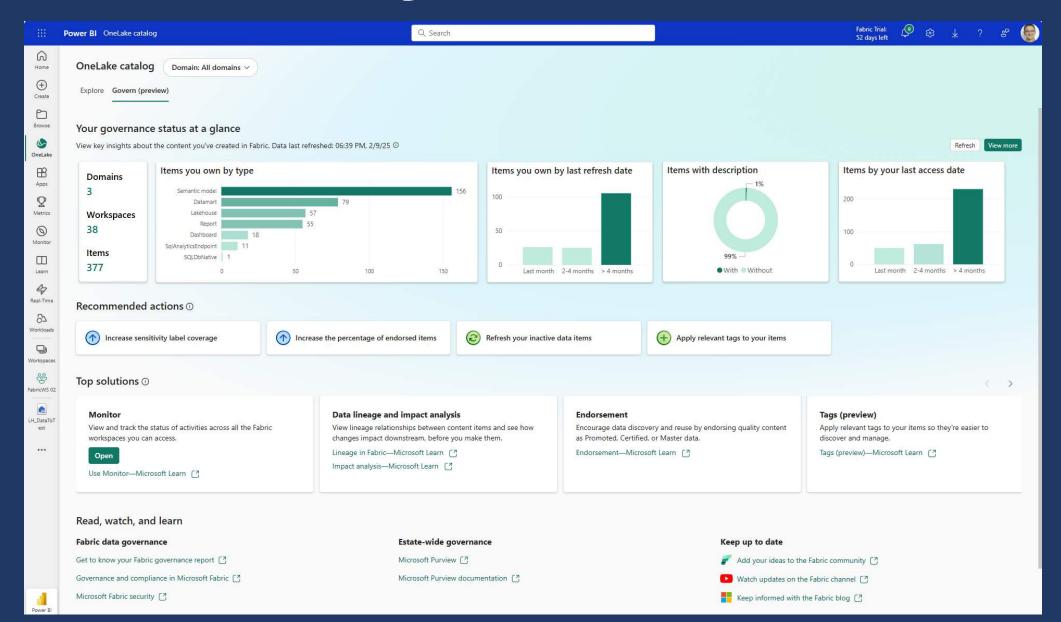
Where all comes together

OneLake catalog

OneLake catalog

Demo
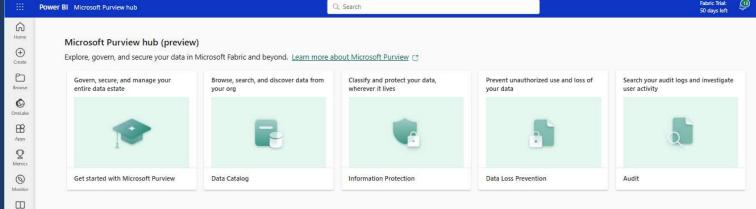
OneLake catalog

Purview Hub Microsoft Fabric

Demo
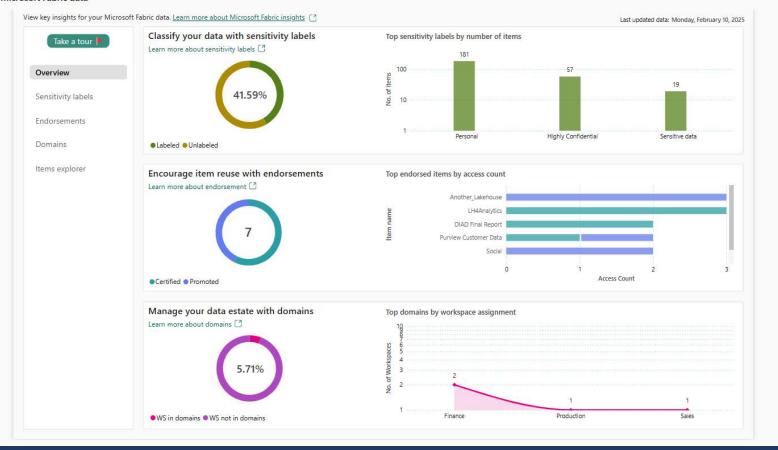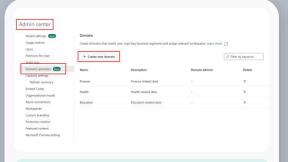
Purview Hub in Microsoft Fabric

Monitoring

Admin monitoring

Uncover insights for effective governance with pre-built reports and datasets built for admins
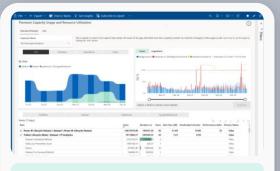
Monitor

Monitor Fabric activities, such as semantic model refresh and Spark Job runs and many others, from a central location

Capacity metrics

Gain visibility into capacity utilization and usage trends with daily aggregation so you can plan and scale your capacity accordingly
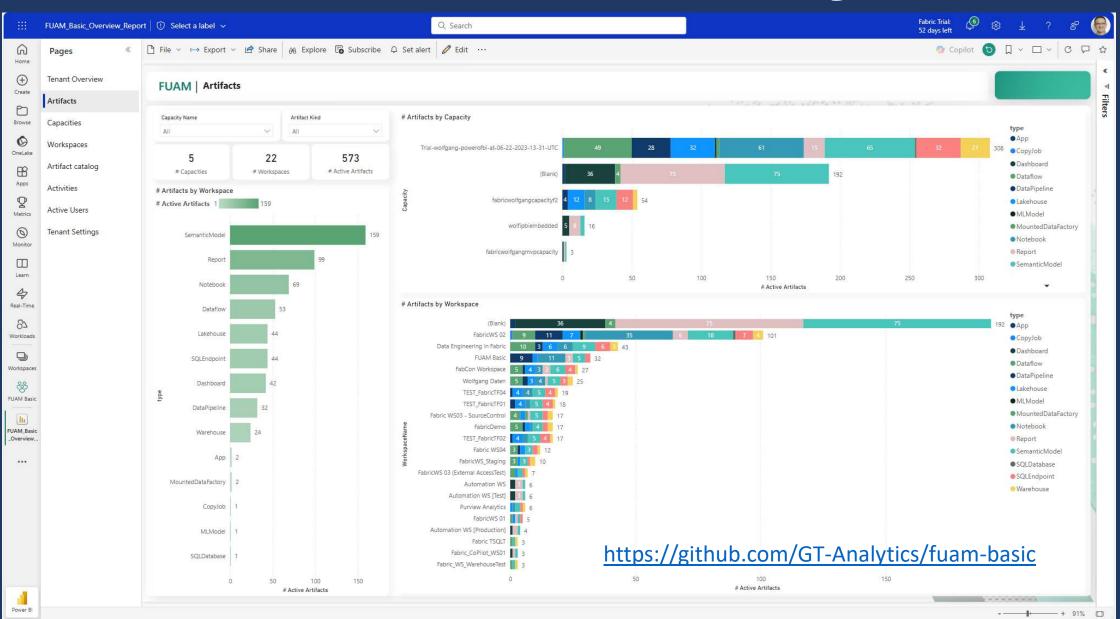
Purview hub

See relevant insights about sensitive data and item endorsement across the Fabric data estate and get easy links to more advanced Purview capabilities

Fabric Unified Admin Monitoring (FUAM)

https://github.com/GT-Analytics/fuam-basic

Demo
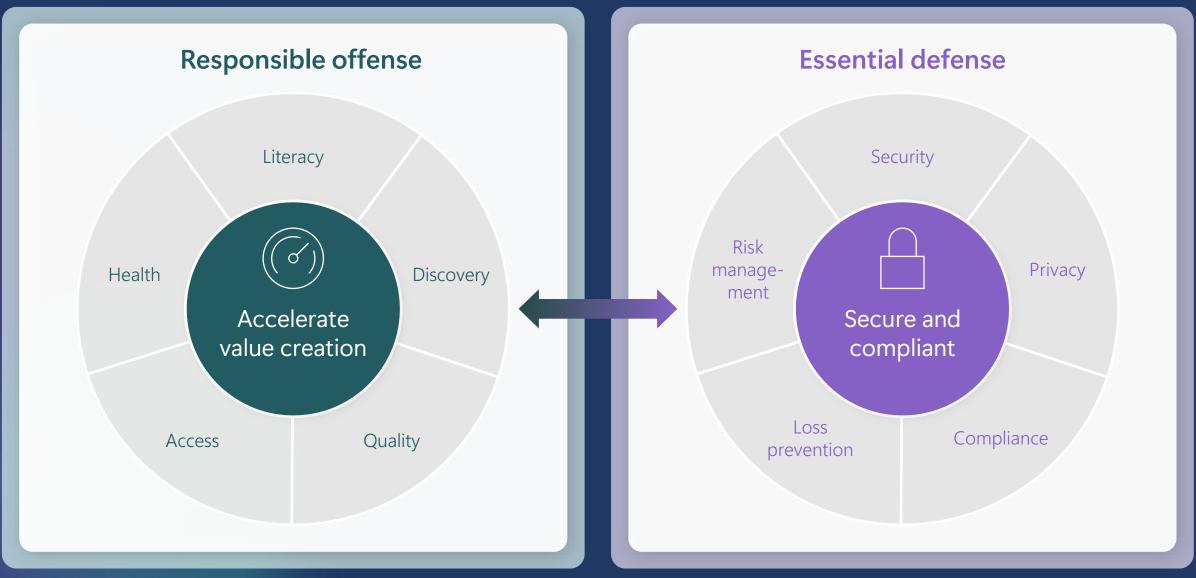
FUAM Demo

DataGovernance / Data Catalog
#MicrosoftPurview

Data governance and security is evolving

Responsible offense

Literacy

Health

Discovery

Accelerate value creation

Access

Quality

Essential defense

Security

Risk manage-ment

Privacy

Secure and compliant

Loss prevention

Compliance

Microsoft Purview

Data Security
+

Data Governance
+

Data Compliance

Secure your data
along its lifecycle

*Data Loss Prevention
Insider Risk Management
Information Protection
Adaptive Protection*

Unlock value creation
from your data

*Discovery and Access
Catalog Management
Health Management
Master Data Management**

Manage critical risks and
regulatory requirements

*Compliance Manager
eDiscovery and Audit
Communication Copliance
Data Lifecycle Management
Records Management*

** Through
3rd Party Integration*
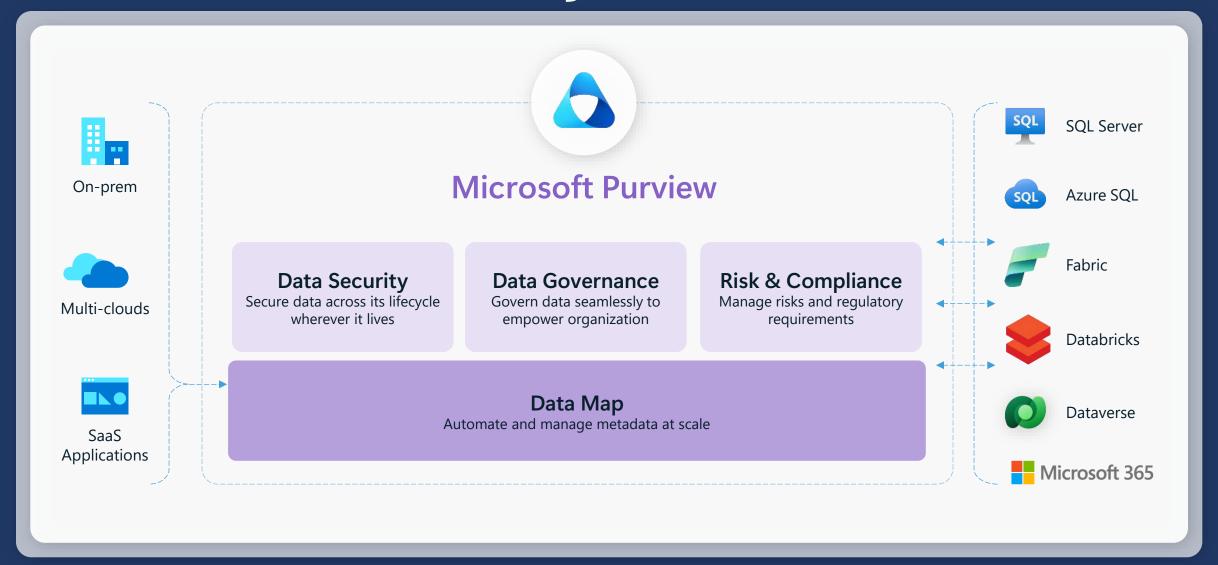
Shared platform capabilities

Structured, Semi-structured and **Unstructured Data**

Along the **Data Lifecycle**

Govern and secure your data estate

Microsoft Purview

On-prem

Multi-clouds

SaaS Applications

Data Security
Secure data across its lifecycle wherever it lives

Data Governance
Govern data seamlessly to empower organization

Risk & Compliance
Manage risks and regulatory requirements

Data Map
Automate and manage metadata at scale

SQL Server

Azure SQL

Fabric

Databricks

Dataverse

Microsoft 365

Demo

Data Catalog

Concepts, Sources, Scanning, Classifications, ..

Know your data with business concepts

Data stewards
(Curation)

Business Domain
Glossary terms
OKRs
Data products
Critical data elements

Data consumers
(Consumption)

Business Domains
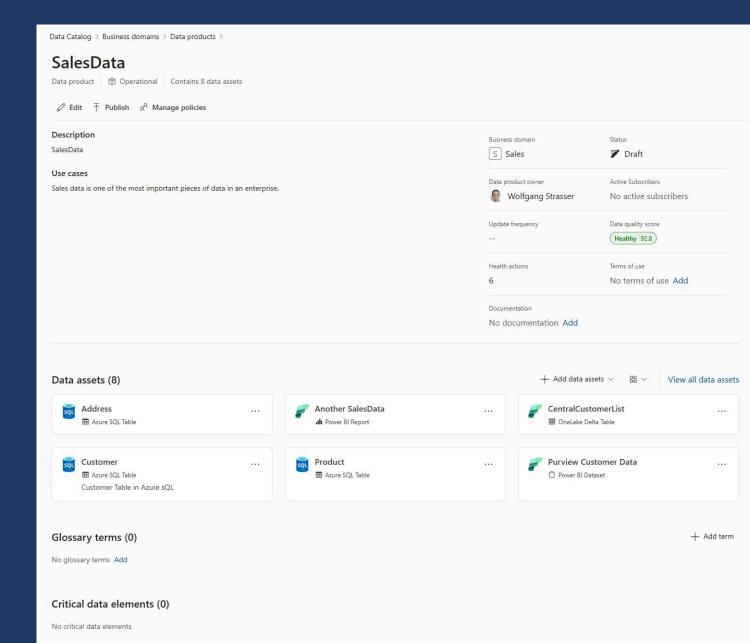
What's a Business Domain?

- … boundary that enables the common governance, ownership, and discovery of data products and business concepts like glossary terms, OKRs, or critical data.

Examples of Business domains:

- **Fundamental business areas** – human resources, sales, finance, supply chain, ..

- **Subject areas** – product, parties, ..

- **Based on organizational functions** – customer experience, cloud supply chain, business intelligence

Data Products

Data Catalog > Business domains > Data products >

SalesData

Data product | ⬡ Operational | Contains 8 data assets

✏️ Edit   ⬆ Publish   ⚙ Manage policies

Description
SalesData

Use cases
Sales data is one of the most important pieces of data in an enterprise.

Business domain	Status
S Sales	✏️ Draft

Data product owner	Active Subscribers
👤 Wolfgang Strasser	No active subscribers

Update frequency	Data quality score
--	Healthy 92.8

Health actions	Terms of use
6	No terms of use Add

Documentation
No documentation Add

Data assets (8)

➕ Add data assets ⌄   ⊞ ⌄   View all data assets

Address	Another SalesData	CentralCustomerList
SQL Address ⋯	🍃 Another SalesData ⋯	🍃 CentralCustomerList ⋯
▦ Azure SQL Table	📊 Power BI Report	▦ OneLake Delta Table

Customer	Product	Purview Customer Data
SQL Customer ⋯	SQL Product ⋯	🍃 Purview Customer Data ⋯
▦ Azure SQL Table	▦ Azure SQL Table	⬚ Power BI Dataset
Customer Table in Azure sQL		

Glossary terms (0)

➕ Add term

No glossary terms Add

Critical data elements (0)

No critical data elements

What is a Data Product?

- … a group of data assets (tables, files, PBI reports, ..) – a packaged offering to an enterprise that provides assets with a use case to be shared to data consumers

- .. Provides context to these assets (grouping them under a use case for data consumers)

- .. involves the collection, processing, analysis and presentation of data

Data Quality
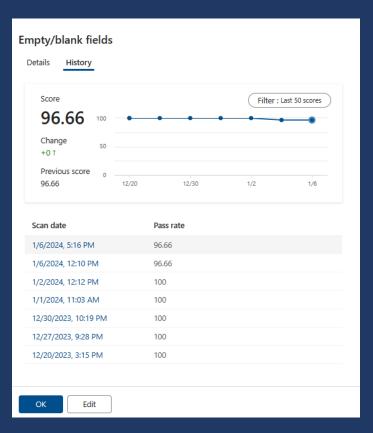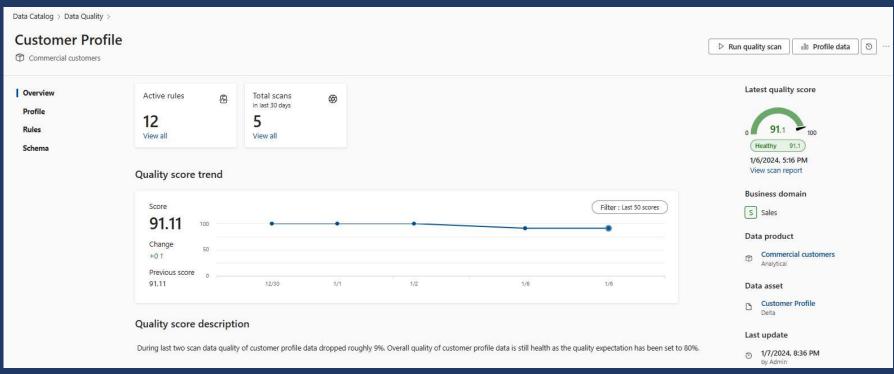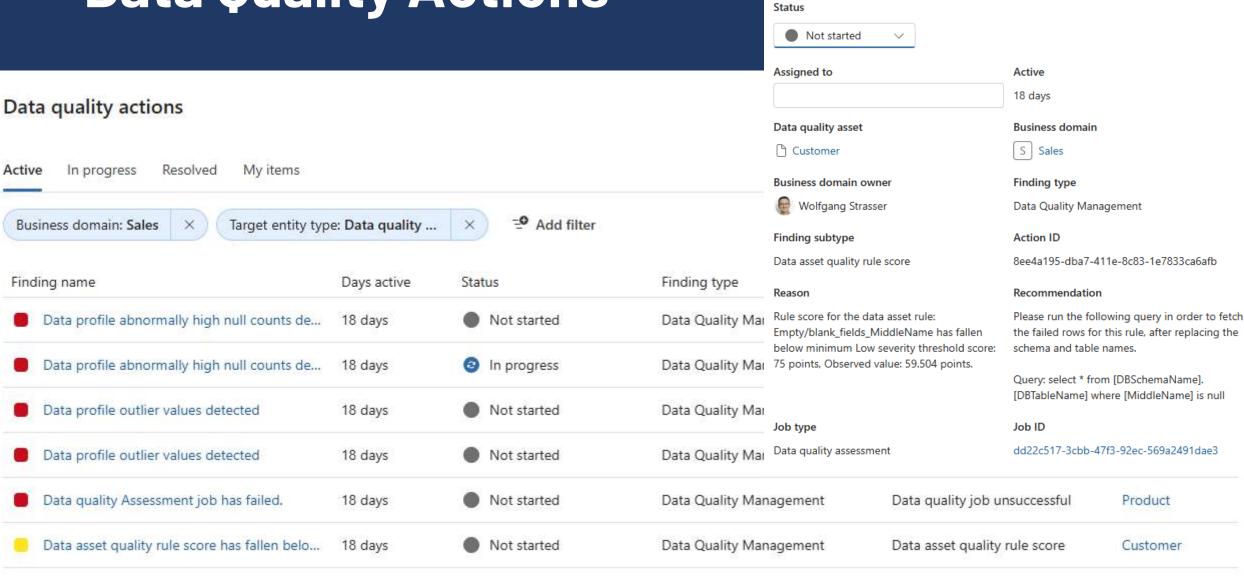
Microsoft Purview Data Quality

Data Quality Actions

Data quality actions

Active   In progress   Resolved   My items

[Business domain: **Sales** ✕]   [Target entity type: **Data quality ...** ✕]   ⊕ Add filter

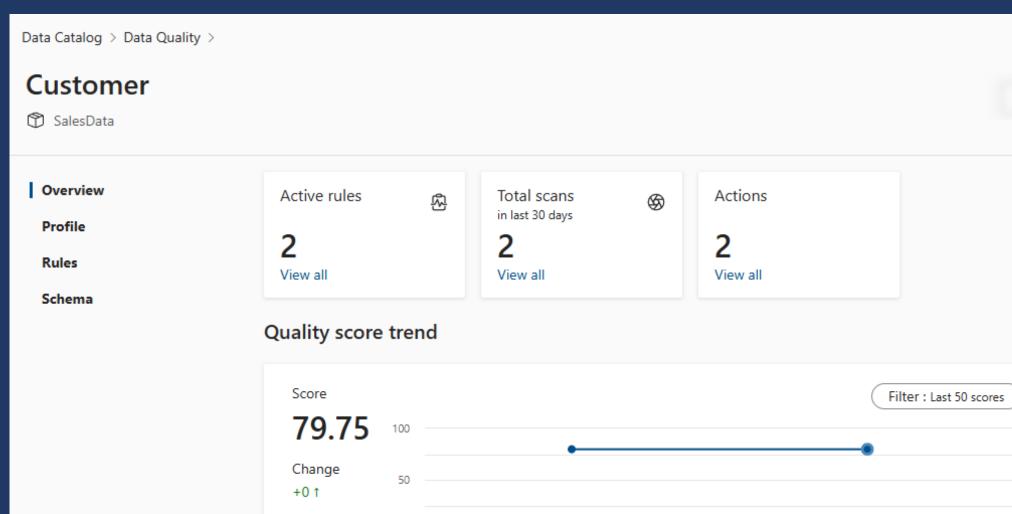| Finding name	Days active	Status	Finding type
🟥 Data profile abnormally high null counts de...	18 days	⚫ Not started	Data Quality Mar
🟥 Data profile abnormally high null counts de...	18 days	🔄 In progress	Data Quality Mar
🟥 Data profile outlier values detected	18 days	⚫ Not started	Data Quality Mar
🟥 Data profile outlier values detected	18 days	⚫ Not started	Data Quality Mar
🟥 Data quality Assessment job has failed.	18 days	⚫ Not started	Data Quality Management
🟨 Data asset quality rule score has fallen belo...	18 days	⚫ Not started	Data Quality Management

---

Data asset quality rule score has fallen below threshold ✕

Status

[⚫ Not started ⌄]

Assigned to

[   ]

Active

18 days

Data quality asset

📄 Customer

Business domain

[S] Sales

Business domain owner

👤 Wolfgang Strasser

Finding type

Data Quality Management

Finding subtype

Data asset quality rule score

Action ID

8ee4a195-dba7-411e-8c83-1e7833ca6afb

Reason

Rule score for the data asset rule:
Empty/blank_fields_MiddleName has fallen
below minimum Low severity threshold score:
75 points, Observed value: 59.504 points.

Recommendation

Please run the following query in order to fetch
the failed rows for this rule, after replacing the
schema and table names.

Query: select * from [DBSchemaName].
[DBTableName] where [MiddleName] is null

Job type

Data quality assessment

Job ID

dd22c517-3cbb-47f3-92ec-569a2491dae3

				Data quality job unsuccessful	Product
				Data asset quality rule score	Customer

Data Estate Health

Health controls

Controls help you analyze and track your data estate health.

Active controls	Not healthy	Fair	Healthy	Expired
16	2	0	11	0

Business domain: All   Owner: All   Status: All   26 items   🔍 Filter by keyword

Control	Current score		Vs. Target	Last refreshed
› Access and Use	Not healthy	0 %	-80	5/31/2024, 2:44 AM
› Discoverability	Healthy	100 %	+20	5/31/2024, 2:34 AM
› Estate Curation	Healthy	100 %	+20	5/31/2024, 2:34 AM
› Health Observability	Coming soon		--	--
› Value Creation	Coming soon		--	--
› Trusted Data	Fair	60 %	-20	5/31/2024, 2:34 AM
› Metadata Quality Management	Healthy	100 %	+20	5/31/2024, 2:44 AM
› Data Quality Management	Healthy	94 %	+14	6/11/2024, 2:15 AM

Data Estate Health – Health Controls

Health actions

Optimize your data health with these actions. Learn more

Active   In progress   Resolved   My items

Total action items	High severity	Medium severity	Low severity
9	5	3	1

Assigned to: All   Business domain: All   Active since: Last 30 days ✕   ⊡ Add filter   3 items   🔍 Filter by keyword   ☰ Group by Finding type ⌄

Finding type ↑	Total findings	Severity breakdown	Finding subtype	Finding name
Access and Use	1		Compliant data use	Missing terms of use on data produ...
Data Quality Management	6		Data asset quality rule score, +2 more	Data asset quality rule score has fal...
Trusted Data	2		Data quality enablement	Missing data quality scores on data...

Data Estate Health – Metadata Quality

Metadata quality

Measure metadata quality by defining rules within controls

Configure severity

Controls

🔍 Search

ˇ Access and Use   2
    Compliant data use   1
    Self-serve access enablement   1
    Access request SLA
    Zero-trust default access

> Discoverability   5
> Estate Curation   3
> Health Observability
> Value Creation   1
> Trusted Data   5
> Metadata Quality Management   5

Last refreshed on 05/07/2024, 11:01 PM   Reset   Save changes

Rules

The score is the average of all the rules

+ Add rule   ⊃ Combine rules ˅   🗑 Delete

☐   Data product   Published terms of use count   Greater than   0

ⓘ **Note**

As the metadata quality rules run, all pass check contribute to health control scores, and all failed checks contribute to health control actions.

Data Estate Health – Reports

Manage, govern and secure data in Microsoft Fabric

Microsoft Fabric

Microsoft Purview

Reshape how you access, manage, and deploy data and insights with Microsoft Fabric

Keep your data safe and governed with unified data governance, security, and compliance

| Unmatched security & compliance | Simplified administration | Unified governance |

Servus! Hi! Welcome!

Wolfgang Strasser

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https://www.youtube.com/@WolfgangStrasser

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