



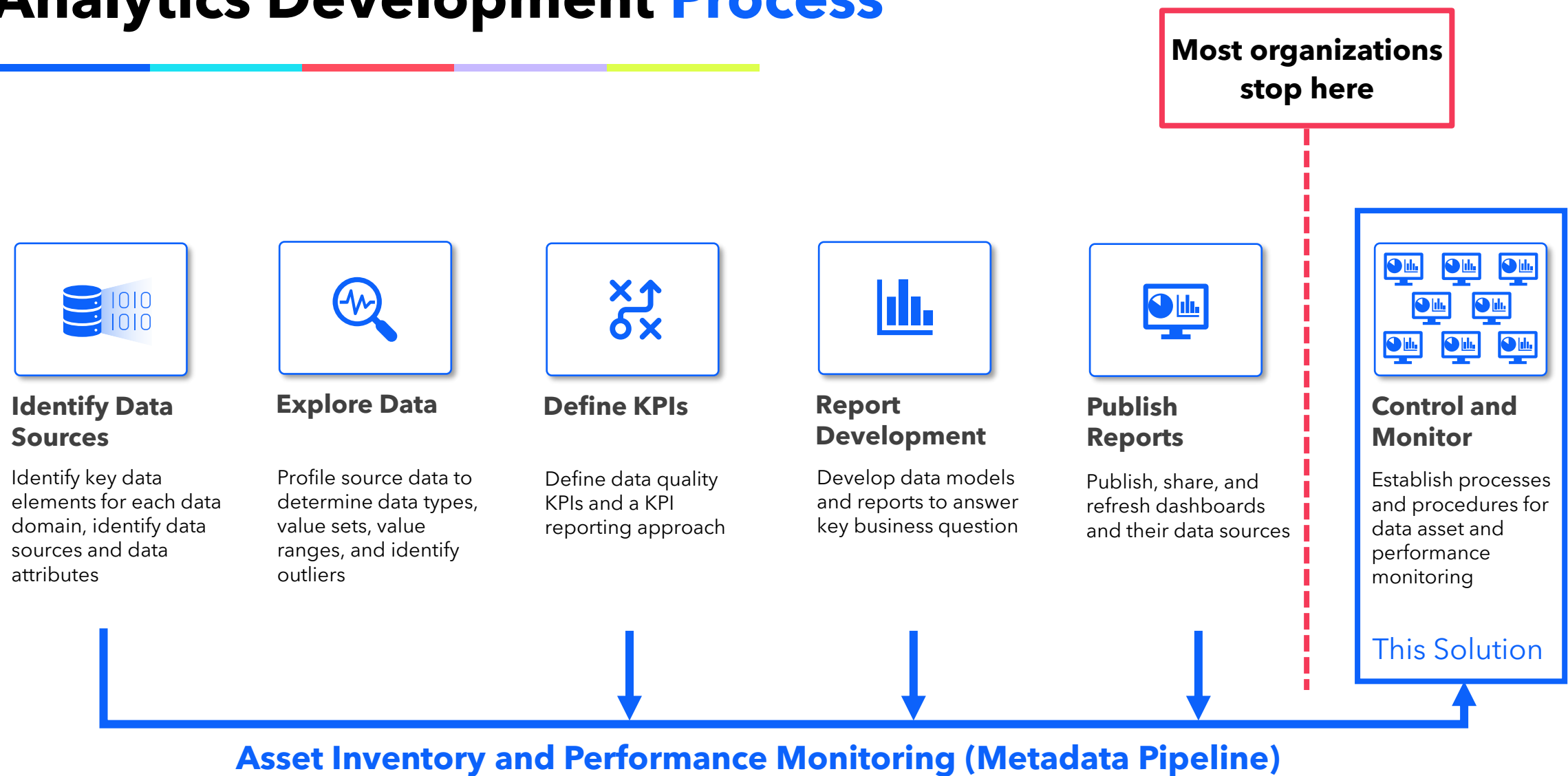
POINT OF VIEW  
2024

slalom

# Fabric Monitor

A scalable solution deployed in Microsoft Fabric that enable adoption tracking, content governance, and data discovery within the platform.

# Analytics Development Process



# The Opportunity

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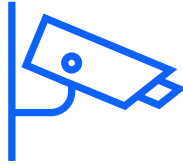
- Monitoring is critical to [successful governance](#) and [adoption](#), but most organizations [build first](#) and [implement monitoring later](#)
- Out of the box options either [focus on performance](#) or provide [limited information about the adoption and usage](#) within the tenant
- Fabric's [unified SaaS platform](#) and [all-in-one approach](#) to storage/compute/authentication [makes solution deployment easy](#)
- This solution provides:
  - [Immediate tactical value](#) and a [fully customizable architecture](#) for additional refinement
  - [Complete overview](#) of the Power BI/Fabric environment and assets
  - [Ongoing monitoring](#) and holistic [data discovery](#)

# Best-in-Class System Oversight



## Performance Monitoring

- CPU usage
- Bandwidth-heavy processes & items
- Performance over time



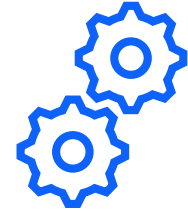
## Inventory & User Activity Monitor

- User activity/usage data
- Catalog/inventory data
- Licensing, permissions, and access control



## Enterprise Data Dictionary

- Comprehensive, searchable and always up-to-date Data Dictionary
- Data source connection info such as server, database, schema, and object



## Tenant Settings Overview

- Status of all tenant settings (enabled/disabled), including specific AD groups
- Last update time to facilitate each security audits



**Microsoft-built reports  
+ Log Analytics Integration**



**Slalom Power BI Monitoring Accelerator**



**What we're  
*not* -  
Performance  
Monitoring**



# Performance Monitoring Recommendation:

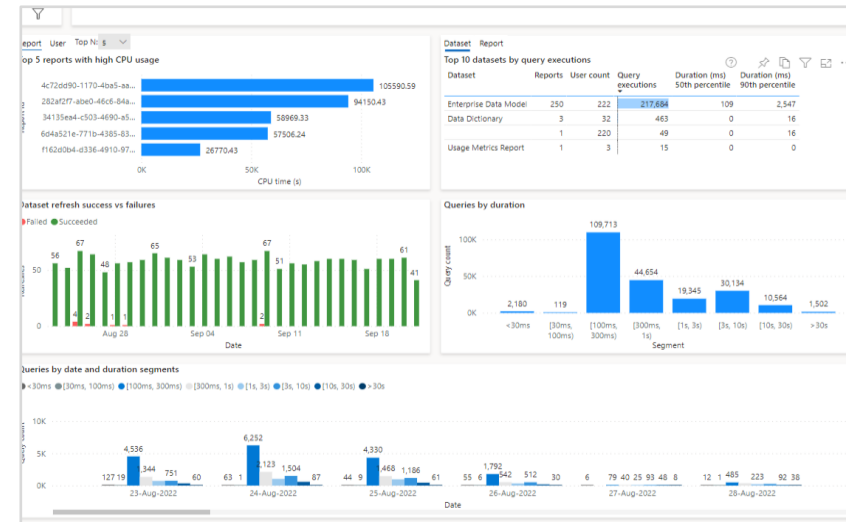
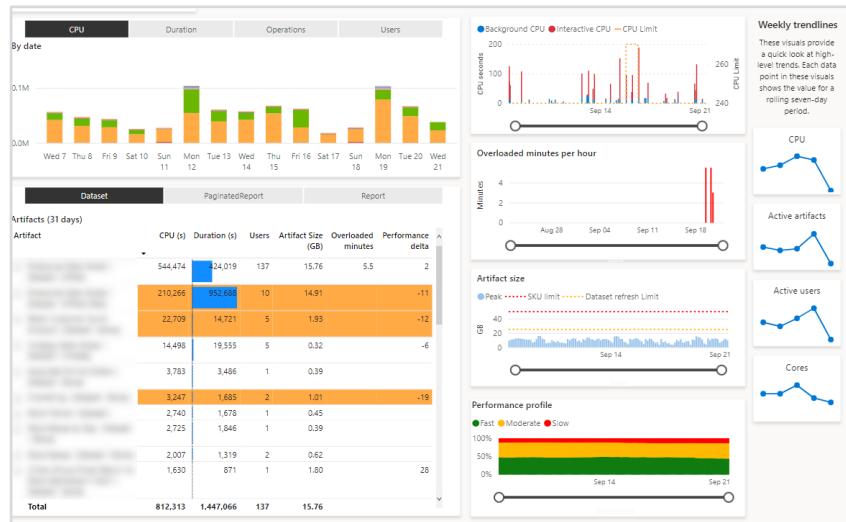
## Capacity Metrics App

+

## Log Analytics App

- Overall CPU usage and capacity health
- Identify bandwidth-Heavy Processes & Artifacts
- Template reports provided by Microsoft
- Data model can be shared, and custom dashboards developed
- 14 day rolling history
- Requires Power BI Premium Capacity

- Fine-grain telemetry data (specific queries run, timeouts, user requests, etc.)
- Template reports provided by Microsoft
- Customizable Data Model & Dashboards
- Historical data logging from deployment point onwards
- Requires Azure Log Analytics service (extra cost)
- Requires Power BI Premium Capacity



# What we *are* - Inventory & Usage Monitoring

# Inventory & Usage Monitoring **Recommendation:**

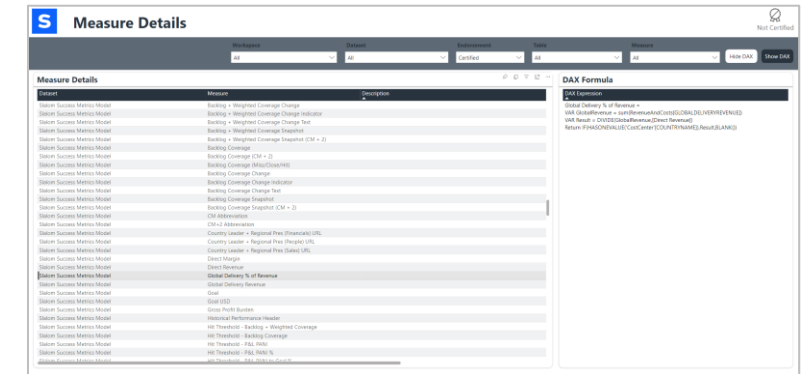
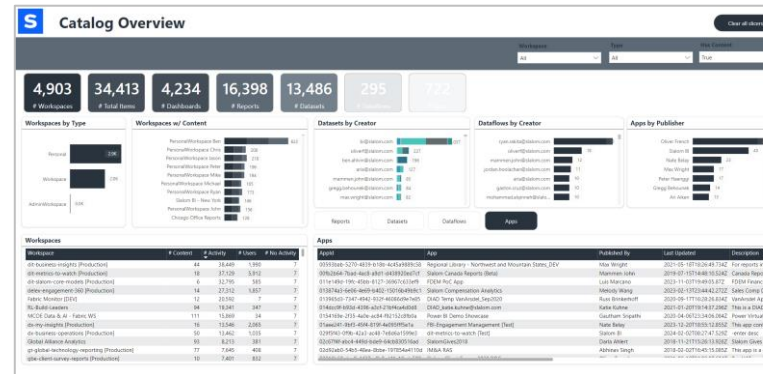
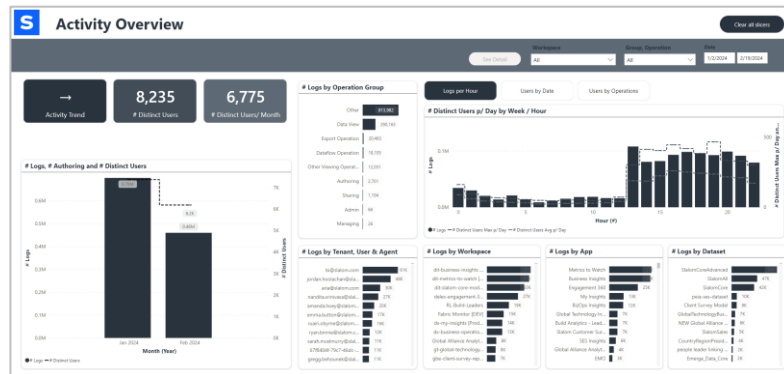
## Slalom "Fabric Monitor" Accelerator

### Features & Use Cases

- "What data sources are most commonly used in our reports?"
- "Are items being shared according to our organizational policies?"
- "Are users using the reports as much as we think they are?"
- "Are we paying for Pro licenses that are not being used?"
- "Who are our most influential power users who deserve organizational recognition and support?"
- "Are KPIs defined consistently across all data models?"

### Available data

- Activity/Usage
- Capacities
- Apps
- Dashboards
- Dashboard tiles
- Dataflows
- Dataflow data source lineage
- Datasets
- Dataset dataflow lineage
- Dataset data source lineage
- Users
- Workspaces
- User access permissions
- Dataset schema
- Parsed data source details
- Datamarts
- Tenant settings
- User Profiles
- User licenses

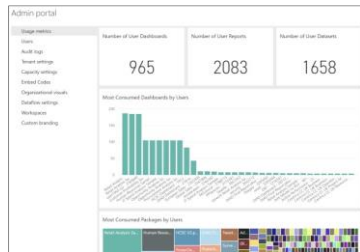




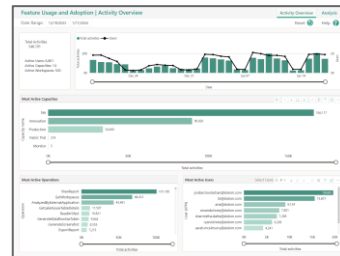
# The “out-of-the-box” tools are just the beginning...

We recognize there are monitoring options available.

Our goal is to create a best-in-class technology solution that **supplements these options** to move your data organization towards better **BI governance** and **visibility**.



Admin Portal



## Feature Usage and Adoption Report



# A monitoring solution built for data professionals

We understand that the responsibility to monitor and govern a Fabric/Power BI environment often falls to those with data skills.

## Familiar Tools

- Integration layer written in **Python**
- Data is parsed and committed to **relational tables**, rather than unstructured flat files
- Output data queryable in **regular SQL**
- Sample reports built in **Power BI**

## Powerful Capabilities

- **Fabric-native** solution that takes advantage of services you already own
- Full **git integration** between Fabric and Azure DevOps, allowing for better **source control** and **deployment workflows**



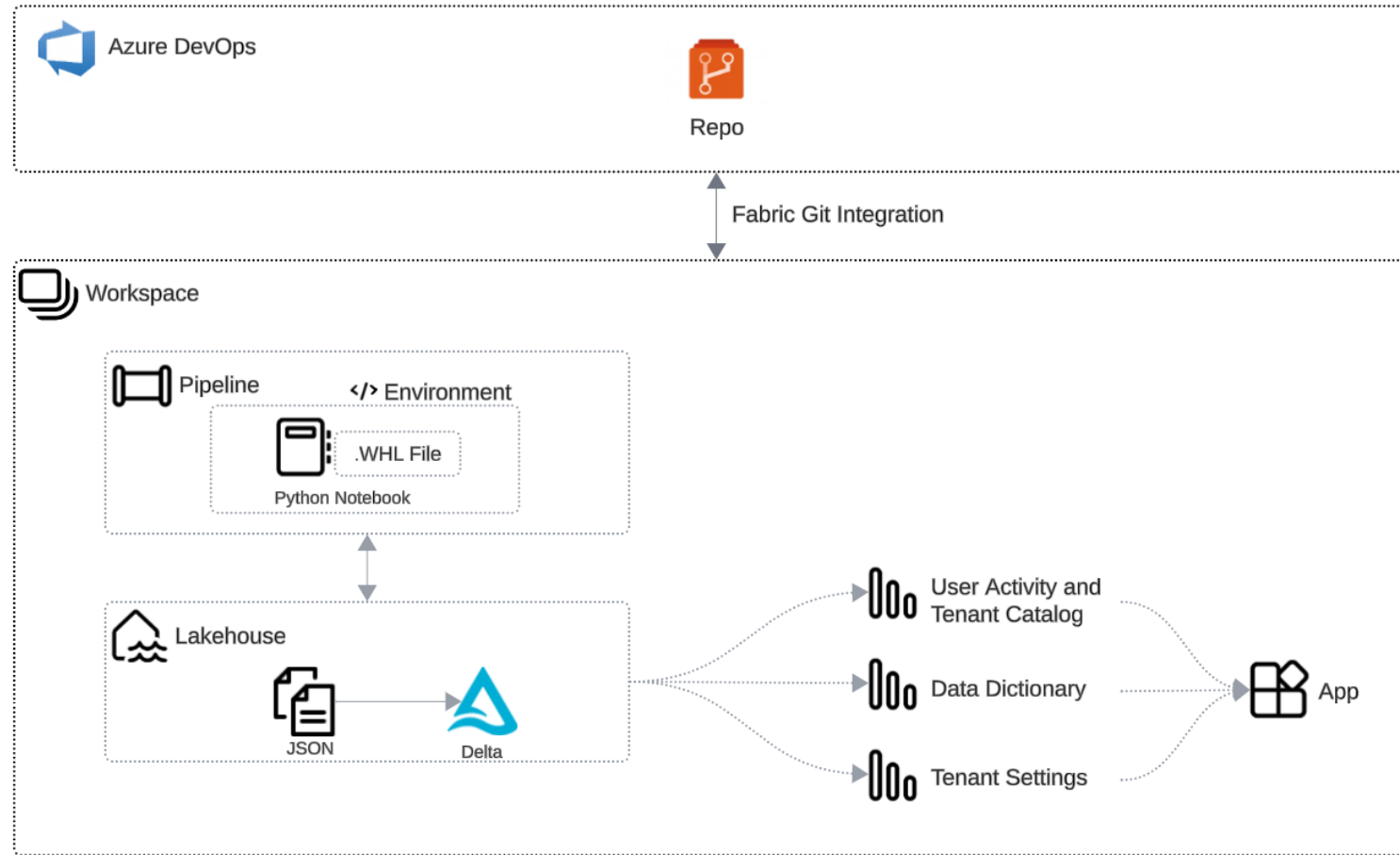
# **Fabric Monitor Accelerator Details**



# Solution Features and Requirements

	PERFORMANCE MONITORING APPS		INVENTORY MONITORING ACCELERATOR		NOTES
	CAPACITY METRICS	LOG ANALYTICS			
Features					
Overall CPU usage and capacity health	✓				
Identify resource-heavy processes & artifacts	✓				
Fine-grain telemetry data (queries, timeouts, user requests, etc.)		✓			
Allows for historic data (> 30 days) to be retained		✓	✓		
Viewership/adoption metrics			✓		
Comprehensive item inventory and overview of data estate			✓		
Comprehensive data dictionary, including measure’s DAX definitions			✓		Queryable across the entire tenant
Security, permissions, and licensing details			✓		Critical for effective governance
Tenant settings overview			✓		Typically only available to tenant admins
System Requirements					
PBI premium capacity	✓	✓	✓		
			Fabric Architecture	Azure Architecture	Slalom Power BI Inventory Monitoring Accelerator can be implemented using either Fabric architecture or Azure-based architecture based on best fit for client environment
Azure DevOps			✓	✓	
Microsoft Fabric			✓		
Azure Log Analytics Workspace		✓		✓	
Azure PaaS Services: Functions, SQL DB, VNet, Container Registry				✓	

# Fabric-based Solution Architecture



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## Use Cases





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# Enterprise-level Monitoring Dashboards



## Users & Licenses

- Review assigned licenses to optimize spend
- Inspect last usage date to intelligently retire unused licenses

## Activity Overview

- Monitors overall **Power BI usage**
- Enable admins to **identify popular datasets** and reports for future certification
- Identify **high-usage workspaces**
- Make strides towards **enterprise governance** by identifying ad-hoc data sources



# Getting Started

## Use Case Workshop

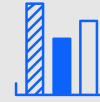
2 Hour use case identification workshop with Business and Data leaders

## Monitoring Application Deployment

Engagement to stand up Fabric Monitoring capability

## Enterprise Governance Journey

Additional engagement of customized length to mature BI governance principles utilizing the monitoring application



**What data is being used across our organization and how? Is it cataloged?**



**Do we have the appropriate roles & processes set up to properly govern our data?**



**How do we instill a sense of trust in our data across the enterprise?**

# Let's connect

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# slalom



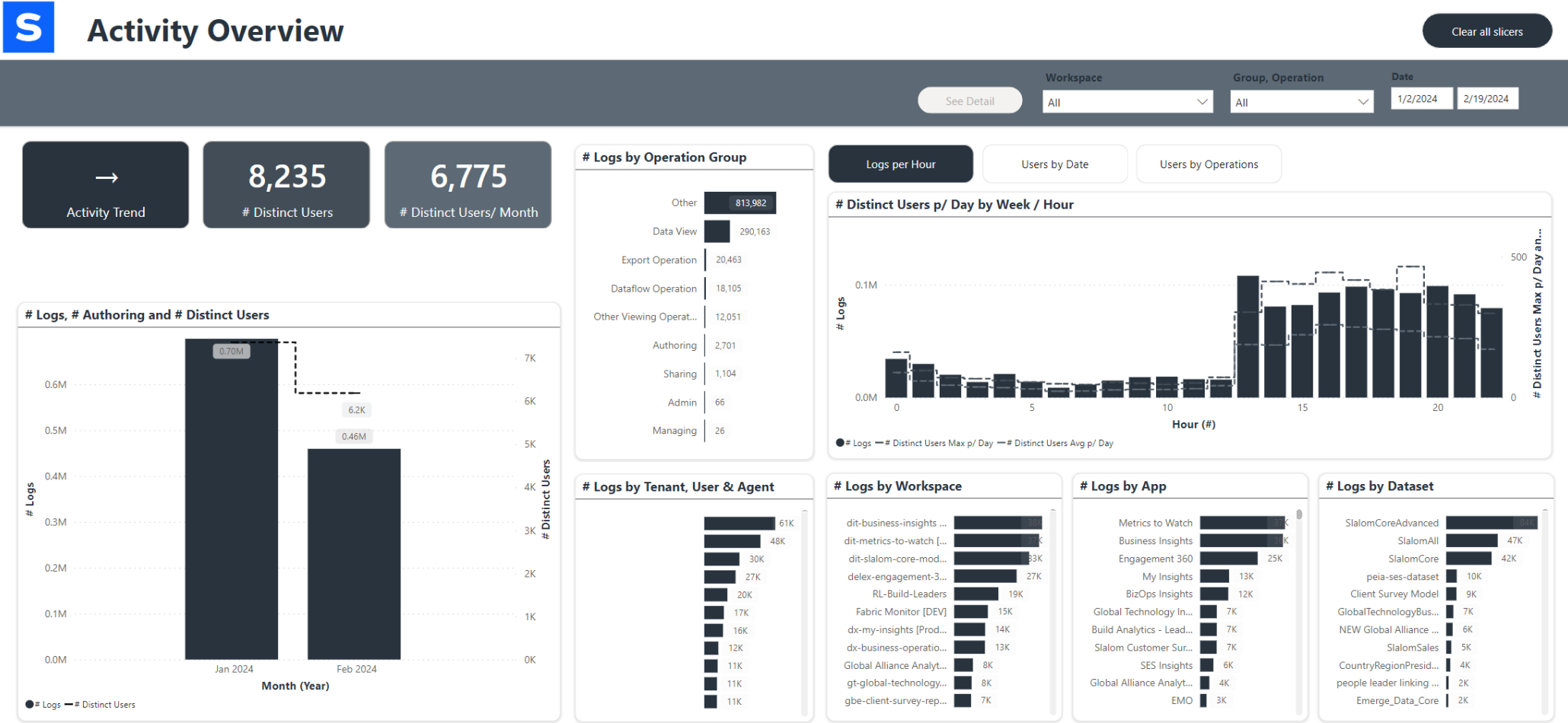
# Native Monitoring in Fabric

## Multiple experiences with different focuses

Feature	Focus	Additional Cost	History	Details
Admin Portal	Basic usage and inventory		N/A	<ul style="list-style-type: none"><li>• Minimal level of insight</li><li>• Only available to admins</li></ul>
Monitoring Hub	Operational data		30 days	
Fabric Capacity Metrics App	Performance/capacity health		14 days	
Log Analytics Integration	Performance data	Yes	30 days*	<ul style="list-style-type: none"><li>• Best-in-class telemetry data</li><li>• Fine-grain event logging</li><li>• Customizable data model</li></ul>
Purview Hub	Security/Endorsement		N/A	
Feature Usage and Adoption Report	Usage (Limited)		30 days	<ul style="list-style-type: none"><li>• Very limited information as of February 2024</li></ul>

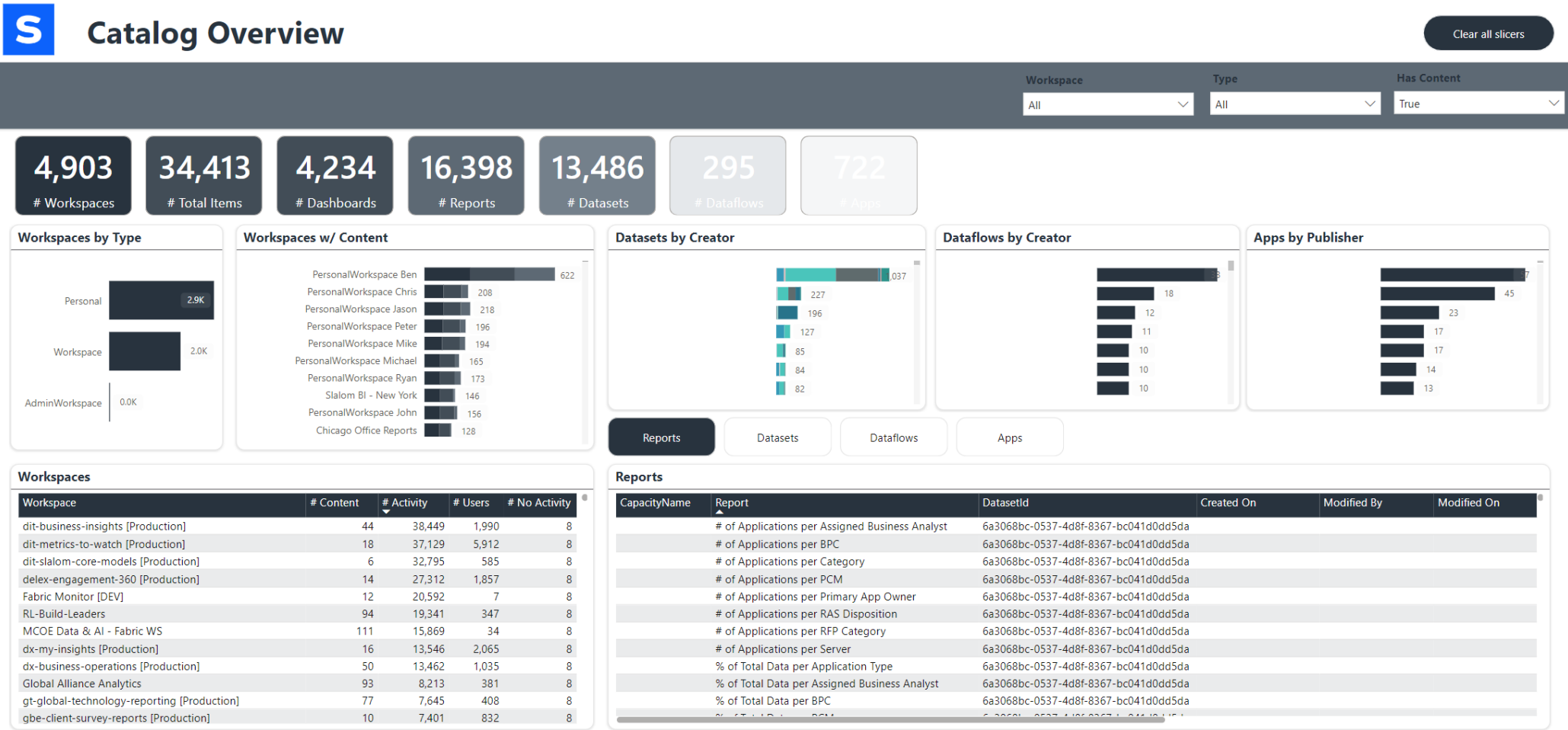
# Activity Overview

## User Activity and Tenant Catalog



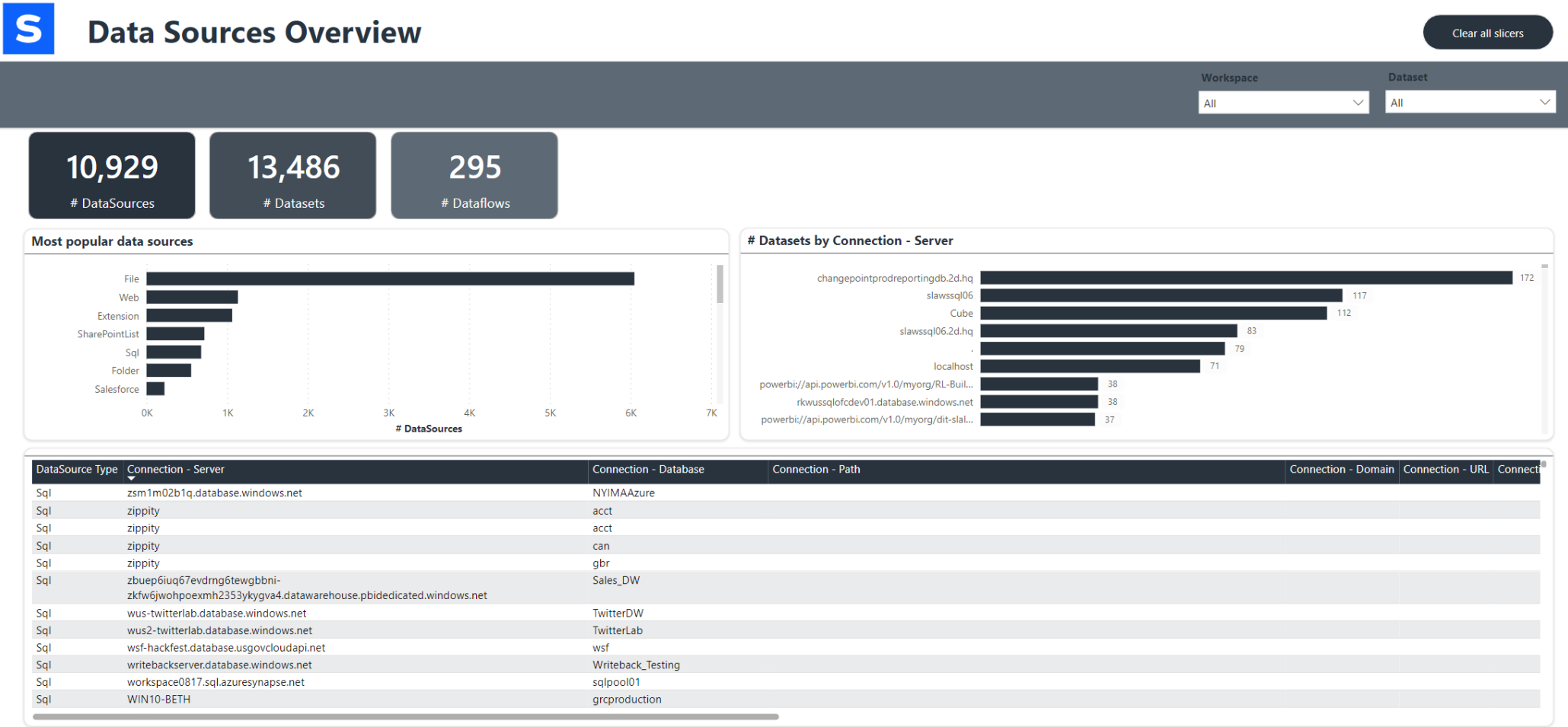
# Catalog Overview

## User Activity and Tenant Catalog



# Data Sources Overview

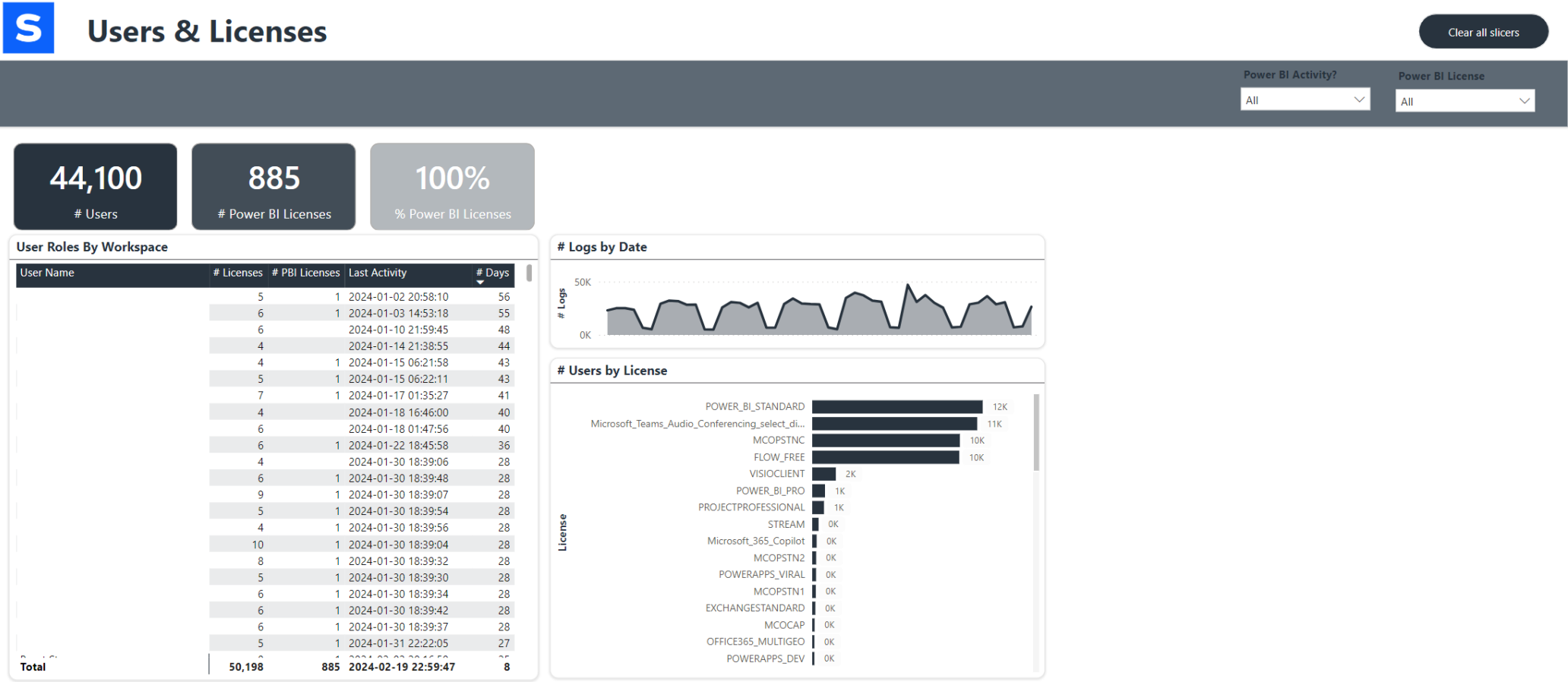
## User Activity and Tenant Catalog





# Users & Licenses

## User Activity and Tenant Catalog



# Measures w/ DAX

## Enterprise Data Dictionary



### Measure Details



Workspace

Dataset

Endorsement

Table

Measure

All

All

Certified

All

All

Hide DAX

Show DAX

Measure Details

Dataset	Measure	Description
SlalomCore	Direct Margin and Profit Self Service Template Version	
SlalomCore	Direct Margin with Bench Self Service Template Version	
SlalomCore	Direct Margin with Non-Client Cost of DCOS Team Members YoY Trend Indicator	
SlalomCore	Direct Margin YoY Trend Indicator	
SlalomCore	Direct Profit YoY	
SlalomCore	Direct Profit YoY Trend Indicator	
SlalomCore	Direct Revenue Self Service Template Version	
SlalomCore	E360 Client Selected Font Color	
SlalomCore	E360 EngagementOffice Selected Font Color	
SlalomCore	Engagement Accounts Receivable Current %	
SlalomCore	Engagement Accounts Receivable Over 30 Days Past Due %	
SlalomCore	Engagement Accounts Receivable Under 30 Days Past Due %	
SlalomCore	Engagement Arrivals	
SlalomCore	Engagement Average Bill Rate YoY Trend Indicator	
SlalomCore	Engagement Budget Health Issue Indicator	
SlalomCore	Engagement Budget Health Issue Indicator Flag	
SlalomCore	Engagement Cashflow Health Issue Indicator	
SlalomCore	Engagement Cashflow Health Issue Indicator Flag	
SlalomCore	Engagement Contract Health Issue Indicator	
SlalomCore	Engagement Contract Health Issue Indicator Flag	
SlalomCore	Engagement Contract Limit Amount	
SlalomCore	Engagement Cost Prior to Last Revenue Recognition	
SlalomCore	Engagement Cost Prior to Last Revenue Recognition AUD	
SlalomCore	Engagement Cost Prior to Last Revenue Recognition CAD	
SlalomCore	Engagement Cost Prior to Last Revenue Recognition CHF	
SlalomCore	Engagement Cost Prior to Last Revenue Recognition EUR	
SlalomCore	Engagement Cost Prior to Last Revenue Recognition GBP	
SlalomCore	Engagement Cost Prior to Last Revenue Recognition JPY	
SlalomCore	Engagement Cost Prior to Last Revenue Recognition LOC	
SlalomCore	Engagement Cost Prior to Last Revenue Recognition NZD	

DAX Formula

DAX Expression

Engagement Budget Health Issue Indicator = VAR EngagementsInContext = IF( HASONEVALUE( 'EngagementSnapshot'[EngagementKey] ), 1, 0 ) VAR IsIssue = IF( [Engagement Budget Health Issue Indicator Flag] = 1, UNICHAR( "9650" ), UNICHAR( "9679" ) ) VAR Result = IF( EngagementsInContext = 0, BLANK( ), IsIssue ) RETURN Result

# Tenant Settings Overview

# Tenant Settings



## Tenant Settings Overview

Setting Group		Tenant Settings	
<div> <input type="checkbox"/> Select all         <input type="checkbox"/> Admin API settings         <input type="checkbox"/> Advanced networking         <input type="checkbox"/> App settings         <input type="checkbox"/> Audit and usage settings         <input type="checkbox"/> Copilot and Azure OpenAI Service ...         <input type="checkbox"/> Dashboard settings         <input type="checkbox"/> Data model settings         <input type="checkbox"/> Datamart settings         <input type="checkbox"/> Developer settings         <input type="checkbox"/> Discovery settings         <input type="checkbox"/> Domain management settings         <input type="checkbox"/> Export and sharing settings         <input type="checkbox"/> Gen1 dataflow settings         <input type="checkbox"/> Git integration         <input type="checkbox"/> Help and support settings         <input type="checkbox"/> Information protection         <input type="checkbox"/> Insights settings         <input type="checkbox"/> Integration settings         <input type="checkbox"/> Metrics settings         <input type="checkbox"/> Microsoft Fabric         <input type="checkbox"/> OneLake settings         <input type="checkbox"/> Power BI visuals         <input type="checkbox"/> Q&amp;A settings         <input type="checkbox"/> Quick measure suggestions         <input type="checkbox"/> R and Python visuals settings         <input type="checkbox"/> Scale-out settings         <input type="checkbox"/> ...       </div>		Setting Group	Is Setting Enabled?
			# Enabled AD Groups
		<b>Admin API settings</b>	6
		Enhance admin APIs responses with DAX and mashup expressions	1
		Enhance admin APIs responses with detailed metadata	
		Service principals can access read-only admin APIs	5
		<b>Advanced networking</b>	
		Azure Private Link	
		Block Public Internet Access	
		<b>App settings</b>	
		Create template organizational apps	
		Publish apps to the entire organization	
		Push apps to end users	
		<b>Audit and usage settings</b>	
		Azure Log Analytics connections for workspace administrators	
		Per-user data in usage metrics for content creators	
		Usage metrics for content creators	
		<b>Copilot and Azure OpenAI Service (preview)</b>	3
		Data sent to Azure OpenAI can be processed outside your tenant's geographic region, compliance boundary, or national cloud instance	
		Users can use a preview of Copilot and other features powered by Azure OpenAI	3
		<b>Dashboard settings</b>	
		Web content on dashboard tiles	
		<b>Data model settings</b>	
		Users can edit data models in the Power BI service (preview)	
		<b>Datamart settings</b>	
		Create Datamarts (preview)	
		<b>Developer settings</b>	4
		Allow service principals to create and use profiles	
		Block ResourceKey Authentication	
		Embed content in apps	
		Service principals can use Fabric APIs	4
		<b>Total</b>	30

# Available Data Elements

## Lakehouse Structure

