

An abstract graphic design featuring several overlapping, diagonal layers. The layers are in shades of green and grey. One green layer has a fine, dotted texture. The layers create a sense of depth and movement, sloping downwards from the top right towards the bottom left.

# Custom Admin Monitoring for Microsoft Fabric & Power BI

# Who am I?

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Analytics Manager  
AGC Automotive North America

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Live & work in Bellefontaine, Ohio

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[LinkedIn](#) | [Reddit](#) | [Blog](#) | [Github](#)



# Who am I?

Accidental data professional

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[Fabric Analytics Engineer Associate \(DP-600\)](#)

[Fabric Data Engineer Associate \(DP-700\)](#)

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HackTogether: The Microsoft Fabric Global AI Hack

[Best use of Copilot for Microsoft Fabric: Accounts Payable Payment Prediction](#)

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Administering Power BI Premium since 2020

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Using Fabric since day 1 of Public Preview



# My organization

World leader in automotive glass

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North American business unit (~2700 employees)

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Using Power BI (2018), Premium (2020),  
Synapse (2021), Fabric (2023)

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Using Fabric since day 1 of Public Preview



# Disclaimers

# Why monitoring?

What are we doing? (**Usage**)

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What are we creating? (**Inventory**)

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How much could we do? (**Capacity**)

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What are our obligations? (**Compliance**)

# Why monitoring?



# Who is this session for?

Power BI / Fabric admins

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IT and BI teams

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Content creators and workspace admins



# Scenarios



## Report usage

Your CFO calls you.

"Hey, remember those SG&A reports we released last quarter?"

"I want to see if cost center owners are using them to manage their spend."

"Can you show me how often the SG&A reports are being viewed, and by whom?"

# Scenarios



## Capacity usage

You receive an email.

Your production capacity is at 100% usage and is being throttled.

Uh oh. What happened?

# Scenarios



## Licensing

We've issued many Power BI Pro licenses, but are they being used?

Do we need to keep these in next year's budget?

# Scenarios



## Usage patterns

You're talking to a director who loves the phrase "*real time*."

They'd like you to refresh their semantic model every half hour, 24/7.

Is this justified?

# Scenarios



## User permissions

Your internal audit team conducts user access review each quarter.

How are user permissions assigned in your environment?

# Questions

[Power BI implementation planning: Auditing and monitoring - Power BI | Microsoft Learn](#)

1. What content is viewed most frequently?
2. What content is viewed by the greatest number of users?
3. What content is considered most critical (and is therefore vital to the organization) based on its usage patterns?
4. What content is frequently used by executives and senior leadership?
5. What content requires the most stability and support (due to a high level of usage or usage by a critical user audience)?
6. What content should be [endorsed](#) based on its usage patterns?
7. What percentage of content is endorsed (certified or promoted)?
8. Are there high numbers of report views for non-certified reports?
9. What content has consistent usage versus sporadic usage?
10. What content is updated most frequently, when, and by which users?
11. What content *isn't* used, with the potential to be retired? What type of devices are used to view reports?
12. Are there unexpected, or irregular, usage patterns that raise concerns?

# Questions

[Power BI implementation planning: Auditing and monitoring - Power BI | Microsoft Learn](#)

1. Which content consumers are most active?
2. Which content creators are most active?
3. Which content creators publish the most content?
4. Which content creators publish the content that's used by the most content consumers?
5. How many distinct (licensed) users are there? What percentage of those users are active?
6. Are there content creators who are assigned a Power BI Pro or Power BI Premium Per User (PPU) license, but aren't actively using that license?
7. Are the most active users members of your Power BI [champions network](#)?

# What to measure?

Monthly  
Active  
Users

Weekly  
Active  
Users

Daily Active  
Users

User Access

Report  
Views

DAU/MAU  
Ratio

Exports

Reports Viewed



# Out of the box

[Microsoft Fabric documentation for admins - Microsoft Fabric | Microsoft Learn](#)

## Fabric Capacity Metrics

Compute

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Storage

## Admin monitoring Workspace

Feature Usage and Adoption

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Purview Hub

## View usage metrics report

Total views

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View rank

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Shares

# Demo - Native reports

# Paid options (not exhaustive)



[Argus PBI](#)

[Power BI Sentinel](#)

[Rockfeather](#)

[Measure Killer – Tenant Analysis](#)

# Why build?

Own & retain your data indefinitely

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Combine with other sources (ITSM systems, Active Directory, Microsoft Graph, ETL logs)

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Testbed for new capabilities

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No urgent requirements

# Low code

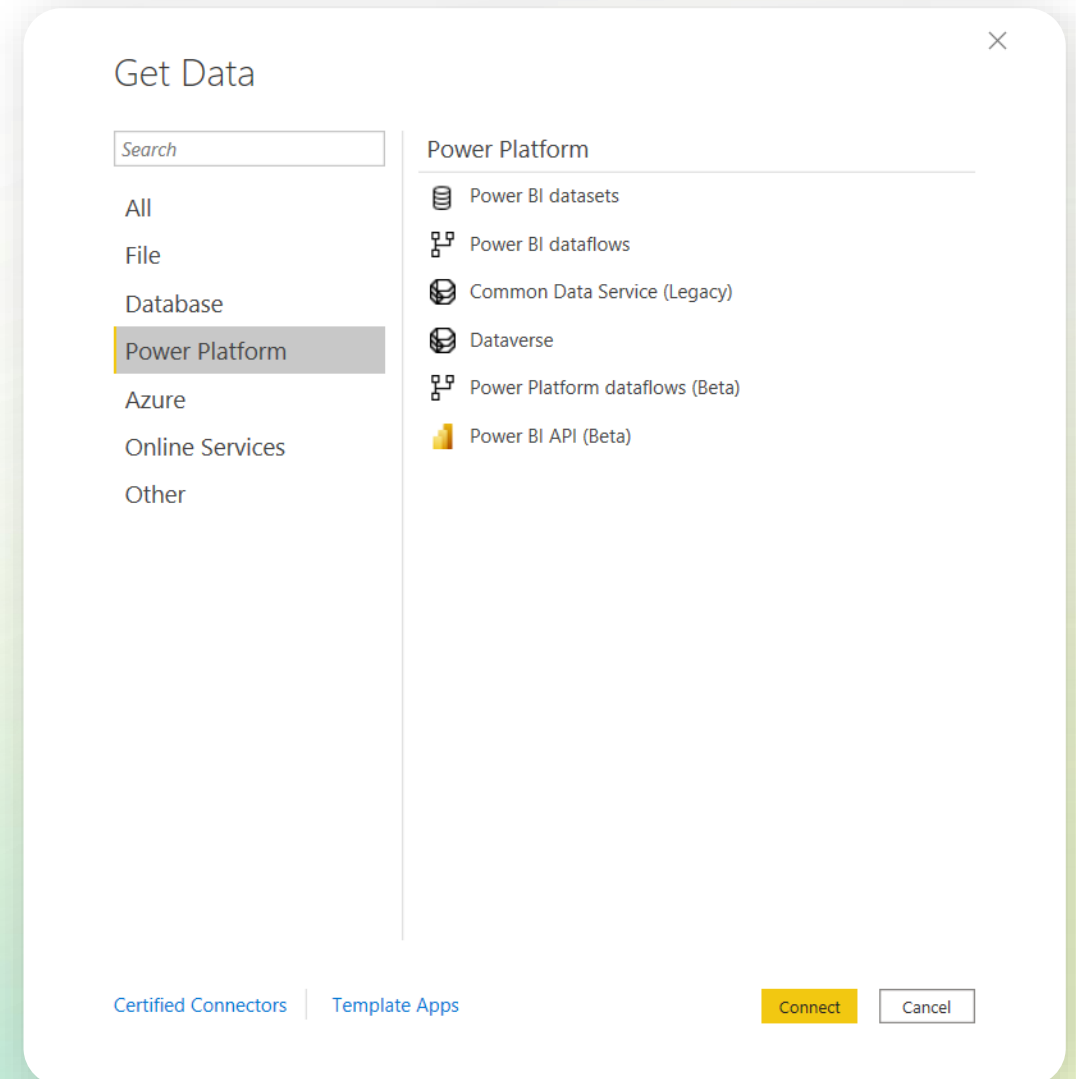
**Miguel Escobar**

[Power BI REST API Connector \(Power Query\)](#)

**John Kerski**

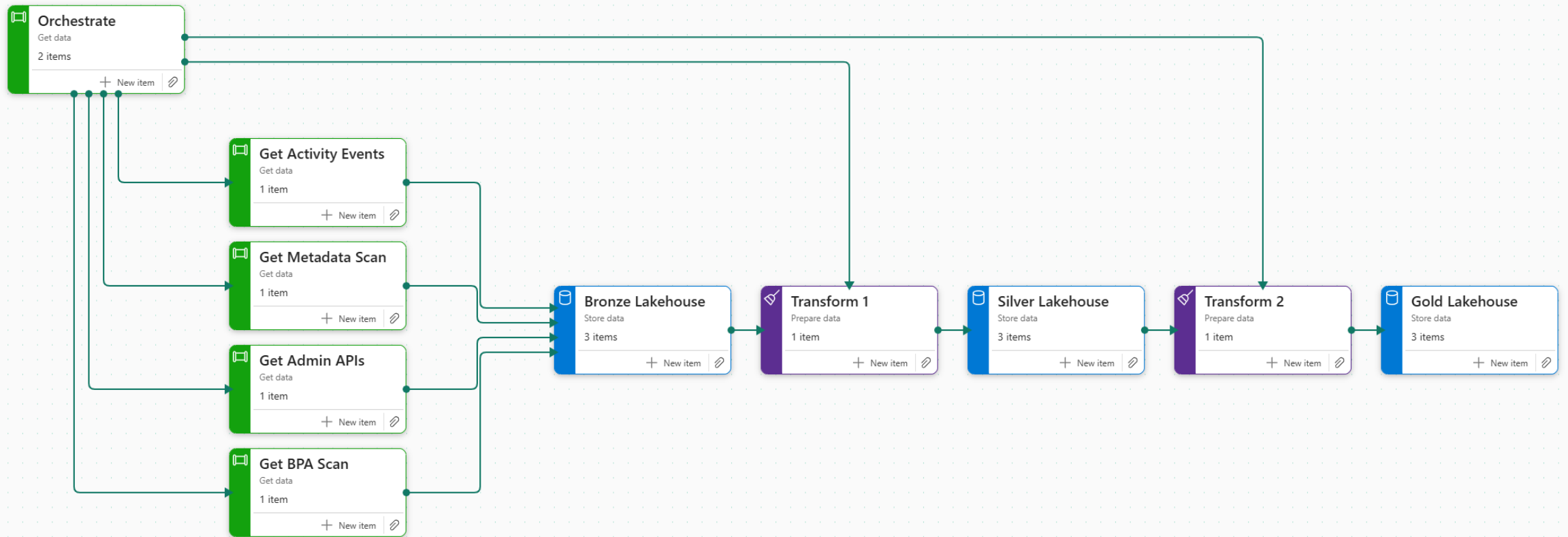
[Power Query Custom Data Connector for Power BI APIs \(Commerical\)](#)

[Power Query Custom Data Connector for Power BI APIs \(GCC\)](#)



# Demo – PQ connectors

# Tenant Data Collection - Task Flow



# Power BI & Fabric REST API

Metadata scanning

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Activity Events

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Other admin APIs (deployments, refreshables, capacities, etc.)



# Get Activity Events

[Admin - Get Activity Events - REST API \(Power BI REST APIs\) | Microsoft Learn](#)

## Process flow

1. Get logs for a specified time range (other filters optional)
2. Receive logs, plus a continuation token
3. Get the next set of logs using the continuation token, until no events remain
4. Save the logs

# Metadata scanning

1. Enable tenant settings
  1. Service principals can access read-only admin APIs
  2. Enhance admin API responses with detailed metadata
  3. Enhance admin API responses with DAX and mashup expressions

## Process flow

1. Retrieve a list of all workspaces, or all workspaces modified since a given date
2. Split workspaces into batches and request scans
3. Check if scans to complete (API is asynchronous)
4. Get results and save to JSON file

- [GetModifiedWorkspaces](#)
- [WorkspaceGetInfo](#)
- [WorkspaceScanStatus](#)
- [WorkspaceScanResult](#)

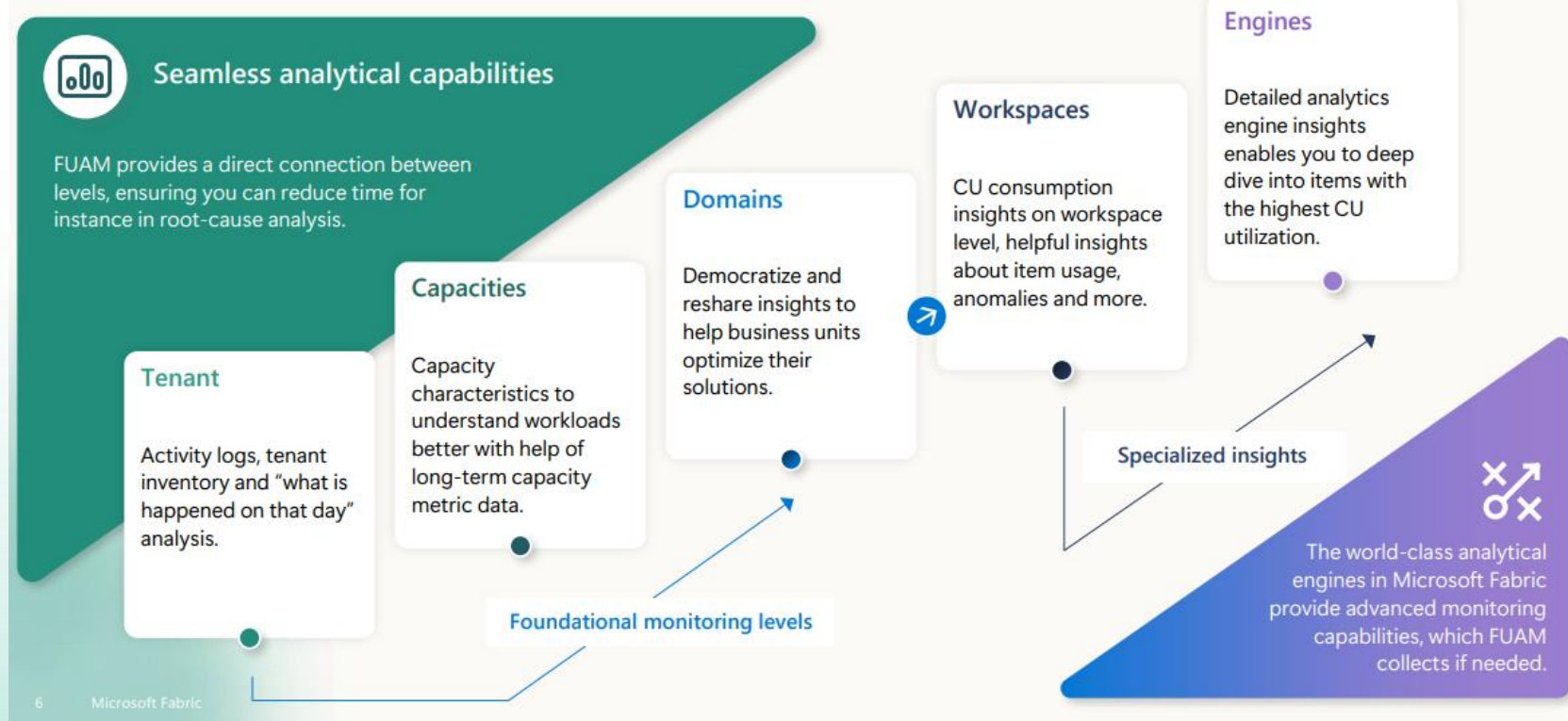
# Demo – Activity Events

# Demo – Metadata scan

# Demo – Semantic Link

# Fabric Unified Admin Monitoring (FUAM)

[fabric-toolbox/monitoring/fabric-unified-admin-monitoring at main · microsoft/fabric-toolbox](https://fabric-toolbox/monitoring/fabric-unified-admin-monitoring-at-main-microsoft/fabric-toolbox)



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Cloud Solution Architect  
Data & AI | Microsoft



**Oliver Engels**  
CEO, MVP  
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# Preview features & roadmap

Tags! Not yet supported in the scanner API. [Vote up this idea](#) on the Fabric Ideas board.

Fabric [release plan content](#) related to administration



## Capacity utilization events

Capture, transform and route fabric consumption events



## Fabric Workspace Item events

Route your Fabric Workspace Item events, such as creation or deletion, to Fabric.



## Job events

Capture, transform, and route your Job events to various destination in Fabric

# Github

Custom Admin Monitoring for Power BI & Microsoft Fabric

<https://github.com/aboerger/Custom-Admin-Monitoring-Microsoft-Fabric>





# Microsoft Fabric Community Resources

## Community Call to Action

- ✓ Try Microsoft Fabric for free: <https://aka.ms/try-fabric>
- ✓ Join the Fabric community: <https://aka.ms/fabriccommunity>
- ✓ Share and vote for ideas to improve Fabric: <https://aka.ms/fabricideas>
- ✓ Read and comment our blog: <https://aka.ms/fabricblog>

## Learn More about Microsoft Fabric

- Product announcement: <https://aka.ms/fabric>
- Digital Event at Build (videos): <https://aka.ms/build-with-analytics>
- Product website: <https://aka.ms/microsoft-fabric>
- Documentation: <https://aka.ms/fabric-docs>
- Fabric e-book: <https://aka.ms/fabric-get-started-ebook>
- Microsoft Learn: <https://aka.ms/learn-fabric>
- End-to-end scenario tutorials: <https://aka.ms/fabric-tutorials>
- Fabric Notes: <https://aka.ms/fabric-notes>