A Day In The Life of a(n Accidental) Power Bl Fabric Administrator

Nicky van Vroenhoven



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Typical tasks of an admin

- Tenant settings
- Workspace creation
- Gateways & data sources
- Auditing & monitoring
- Premium capacity
- Desktop software
- (Usage of) Licensing
- Integration w/ 365 apps

- Power Platform integrations
- Power BI Report Server
- Training users
- General branding/theming guidelines
- Fabric Adoption
- Fabric Community/CoE
- ...

Typical tools of an admin

- · Fabric (Admin) Portal
- Power Platform Admin Center
- Microsoft 365 Admin Center
- Security & Compliance Center
- Azure Active Directory Portal
- PowerShell
- · REST APIs
- External tools like DaxStudio, ALM Toolkit, Tabular Editor
- •

Who Are You?



bit.ly/adminpbi



Check out my blog for a how-to: www.nickyvv.com/2019/12

Nicky van Vroenhoven



Unit Lead Fabric & Power Bl















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Data Platform MVP



Who Are You?



bit.ly/adminpbi



Check out my blog for a how-to: www.nickyvv.com/2019/12

Topics

- The Power BI Fabric Admin role
- Admin portal & Tenant settings
- Collaboration and sharing
- Power Platform
- Monitoring & Automation

Takeaways

Features & Configurations

• Understand the features and configurations available in Fabric from an administrator's perspective

Best Practices

• Understand the best practices while administering Fabric

Applicable

 Have enough experience with the above to be able to apply it when you return to your office



Microsoft Fabric

The data platform for the era of Al

Complete Analytics Platform

Everything, unified

SaaS-ified

Secured and governed

Lake Centric and Open

OneLake

One copy

Open at every tier

Empower Every Business User

Familiar and intuitive

Built into Microsoft 365

Insight to action

Al Powered

Copilot accelerated

Gen Al on your data

Al-driven insights

Secure and govern your data in Microsoft Fabric



Manage your data estate

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

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



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

Gain full visibility and control

Governance and security features built into Fabric

Manage your data estate



Admin portal and APIs



Metadata scanning



Capacities

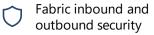


Domains



Workspaces

Secure, protect, and comply





Conditional access



Fine-grained security and access controls



Workspace & item security



Purview sensitivity labeling



Certifications



Data residency



Purview Audit

Encourage data discovery, trust, and use



OneLake data hub



Endorsement



Data lineage & impact analysis



External data sharing



Metadata curation

Discover & Reuse

Monitor, uncover insights, and act



✓ Admin monitoring



Capacity metrics



Monitoring hub



Purview Hub

Estate-wide governance and security with **Microsoft Purview**





Comprehensive data security¹



Federated data governance¹



Risk & compliance posture¹





Gain full visibility and control

Governance and security features built into Fabric

Manage your data estate



Admin portal and APIs



Metadata scanning



Capacities

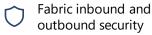


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Admin monitoring



Capacity metrics



Monitoring hub



Purview Hub

Estate-wide governance and security with **Microsoft Purview**



Advanced

Govern

and secure

Fabric data

Comprehensive data security¹



Federated data governance¹

Risk & compliance posture¹





What is a Power BI Fabric Admin?

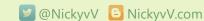
- Business, empowerment <> governance
- · Support business users while enforcing the rules
- Part of Center of Excellence



From Power BI to Fabric Admin?

What has (not) changed?!

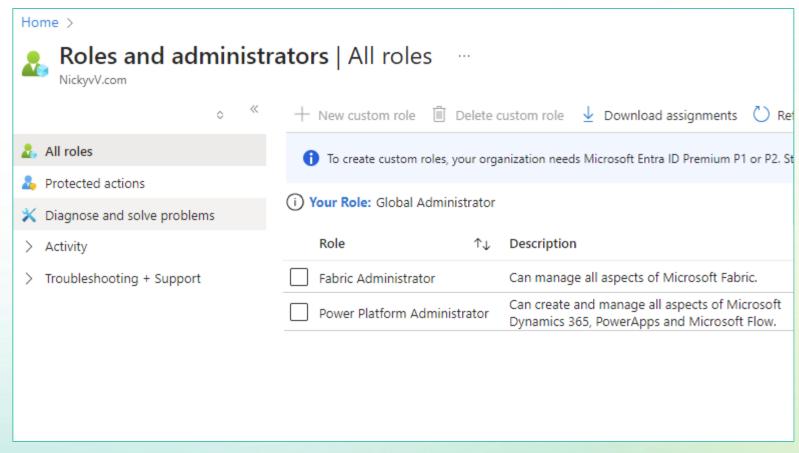
- · Fabric is a Unified, SaaS Data Platform > One Lake to rule them all
- · Power BI is now part of Fabric (with more workloads)
 - But Power BI itself didn't change (much)
- · Core concepts of governance from Power BI are still applicable
 - · Tenant
 - · Capacities
 - Domains (New)
 - Workspaces
- New Fabric Items always require a capacity
- Fabric Admins: Empower different personas to excel



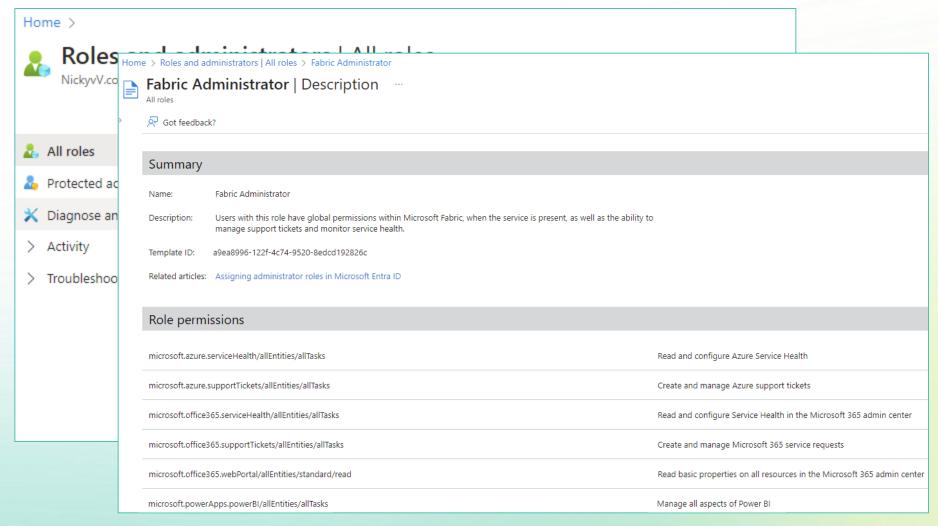
What is a Fabric Admin?

Туре	Scope
Fabric (Power BI Service) Administrator	Fabric tenant
Fabric Gateway Administrator	Single gateway (cluster)
Fabric Capacity Administrator	Single capacity
Fabric Domain Admin	Single domain
Fabric Workspace Admin	Single workspace
Power Platform Administrator	Power Platform (& Fabric!) tenant

*- Azure Active Directory Microsoft Entra ID Role Assignment

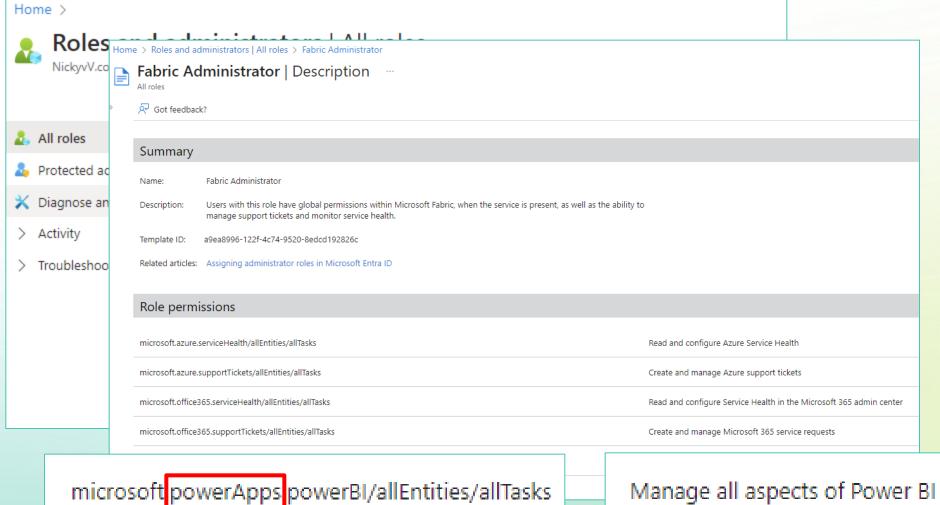


· Azure Active Directory Role Assignment

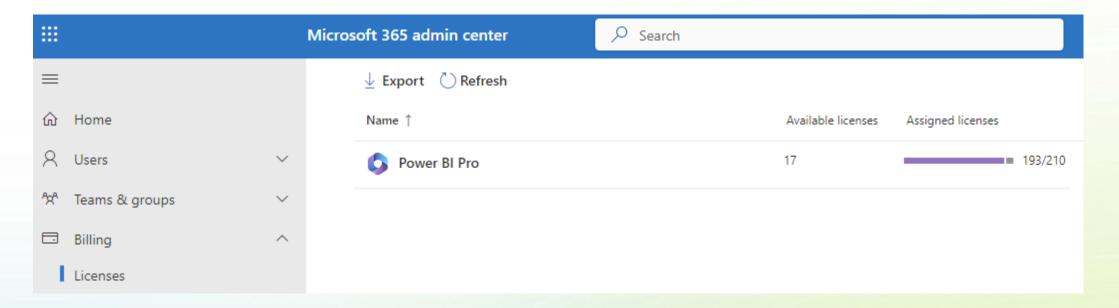




Azure Active Directory Role Assignment



· Admins can also **view** license assignments



Topics

- The Power BI Fabric Admin role
- Admin portal & Tenant settings
- Collaboration and sharing
- Power Platform
- Monitoring & Automation

Admin Portal

- · Access granted for:
 - · Global Admin
 - Power Platform Administrator
 - Fabric Administrator
- Access cannot be delegated

Admin portal

Tenant settings New

Usage metrics

Users

Premium Per User

Audit logs

Domains New

Capacity settings

Refresh summary

Embed Codes

Organizational visuals

Azure connections

Workspaces

Custom branding

Protection metrics

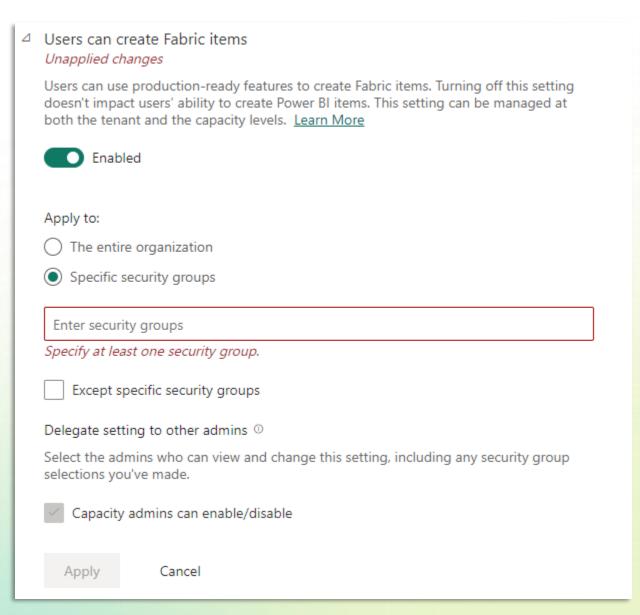
Featured content

Help + support

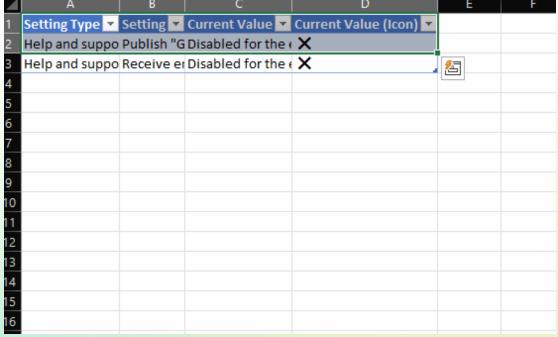




- · Access = Admin Portal
- · Controls tenant level operations
- Provides for granular settings
 - Create groups for every setting (you want to customize)



- Document
 - · Why, and communicate!
- Manually
- Power Automate Desktop
- GetTenantSettings API



By Kurt Buhler

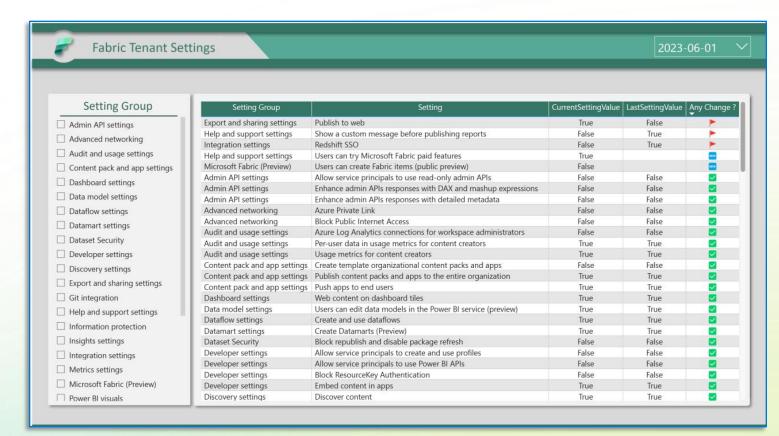
Fabric Tenant Settings APIs

GetTenantSettings

- Document settings for audits
- Tracking changes
- Share with non-Admin users

GetTenantSettingOverrides

- Increased visibility and Security
- Aids in troubleshooting



Source: Microsoft Fabrics Monitoring Tenant Settings by Romain Casteres | LinkedIn

- Document
 - Why and communicate!
- Change notification
 - · Set up email alerts when a setting is changed with Defender for Cloud Apps



- Document
 - Why and communicate!
- Change notification
 - · Set up email alerts whe

Admin notification for new activity policy match

A new match was detected for your 'Power BI - Administrative Activity' policy.

Activity: Update admin feature switch: PowerBI Admin Feature

CertifyDatasets; Parameters: property Switch State False

App: Microsoft Power BI

Client IP

165.225.13.72

address: Client

Belgium

location: Client

User:

Windows 10

device:

Admin - Van Vroenhoven, N.V. (Nicky)

(adm_vanvroen@i

Alert ID: 62913c328525e3473469c391

>> Review this alert

Explore more options:

>> Investigate other activities from this user

>> Investigate other activities from this IP address

This email was sent to you because a policy was set to alert you when new matches are detected. <u>Update policy settings</u>

Thanks, Microsoft Defender for Cloud Apps

er for Cloud Apps



Check the defaults:

- Publish to web
- · Create Fabric Items
- · OpenAl / Copilot
- · Power BI visuals (2 settings)

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Collaboration and sharing

- My Workspace
- Domains
- Workspaces
- Apps

It's called My Workspace for a reason!

- · It's for **personal** use only
 - · Rather: create a shared workspace [Nicky's workspace]
- · Released last year:
 - My workspace governance improvements
 - Fabric Admins can now add (and remove) themselves as admin of [My workspace]
 - · Exposed via Activity Log: AddAdminPersonalWorkspaceAccess

Domains, Workspaces & Apps

- Domains
 - · =! Data mesh ©
- Workspaces
 - · Control creation
- · Apps
 - · Free if backed by Premium (per capacity)
 - Audiences
- · Manage Export and sharing settings

Export and sharing settings

- Allow Azure Active Directory guest users to access Power BI Enabled for the entire organization
- Invite external users to your organization

 Enabled for the entire organization
- Allow Azure Active Directory guest users to edit and Disabled for the entire organization
- Show Azure Active Directory guests in lists of sugge Enabled for the entire organization
- Publish to web ©

 Enabled for the entire organization
- Copy and paste visuals Enabled for the entire organization
- Export to Excel

 Enabled for the entire organization
- Export to .csv

 Enabled for the entire organization
- Download reports

 Enabled for the entire organization
- Users can work with Power BI datasets in Excel using Enabled for the entire organization
- Export reports as PowerPoint presentations or PDF Enabled for the entire organization
- Export reports as MHTML documents

 Enabled for the entire organization
- Export reports as Word documents

 Enabled for the entire organization
- Export reports as XML documents Enabled for the entire organization
- Export reports as image files

Disabled for the entire organization

- Print dashboards and reports
 Enabled for the entire organization
- Certification

 Disabled for the entire organization
- Create email subscriptions

 Enabled for the entire organization
- D Allow email subscriptions to be sent to external users Enabled for the entire organization
- Featured content

 Enabled for the entire organization
- Allow connections to featured tables Enabled for the entire organization
- Allow shareable links to grant access to everyone in your organization Enabled for the entire organization
- Enable Microsoft Teams integration in the Power BI service Enabled for the entire organization
- Install Power BI app for Microsoft Teams automatically Enabled for the entire organization
- Enable Power BI add-in for PowerPoint Enabled for the entire organization
- D Allow DirectQuery connections to Power BI datasets Enabled for the entire organization
- Guest users can work with shared datasets in their own tenants Disabled for the entire organization
- Allow specific users to turn on external data sharing Enabled for the entire organization

Domains, Workspaces & Apps

- · Use M365 groups to manage access
 - [workspace]-[dev/test/prod]-[role]
 - · Finance-dev-members
 - Finance-dev-viewers
 - Finance-dev-app/audience
 - · Finance-dev-read
 - · Finance-dev-write

Extra points:

- · Tie into your approval provess
- Preferably with IAM

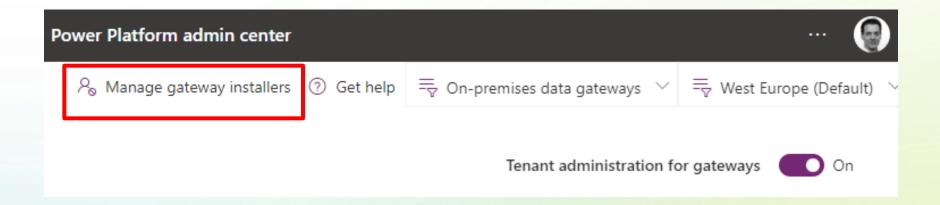


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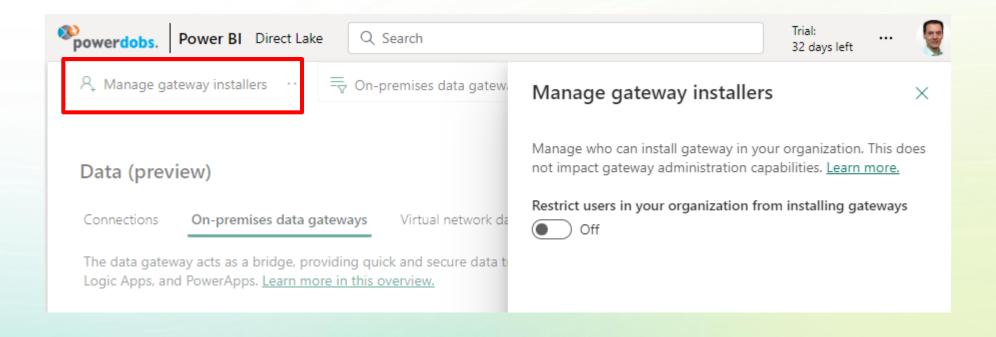
Power Platform Admin Center

Restricted access for Fabric Admins



Power Platform Admin Center

- Restricted access for Fabric Admins
- · Gateway & data source management (now also in Fabric)



Power Platform Admin Center

- Restricted access for Fabric Admins
- · Gateway & data source management (now also in Fabric)
- Data Loss Prevention Policy





Topics

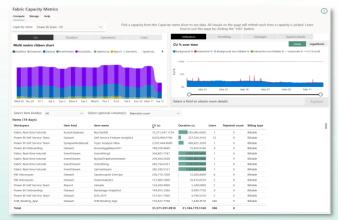
- The Power BI Fabric Admin role
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Monitoring scenarios in Fabric (out-of-the-box)



Consumption & Resource Utilization

Monitor capacities and optimize/allocate consumption

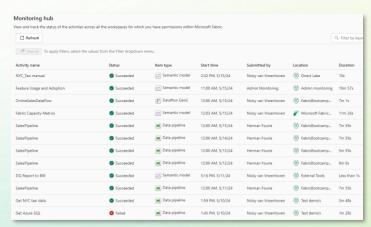


Capacity Metrics App



Jobs Monitoring

Manage jobs across my Fabric artifacts



Fabric Monitoring Hub



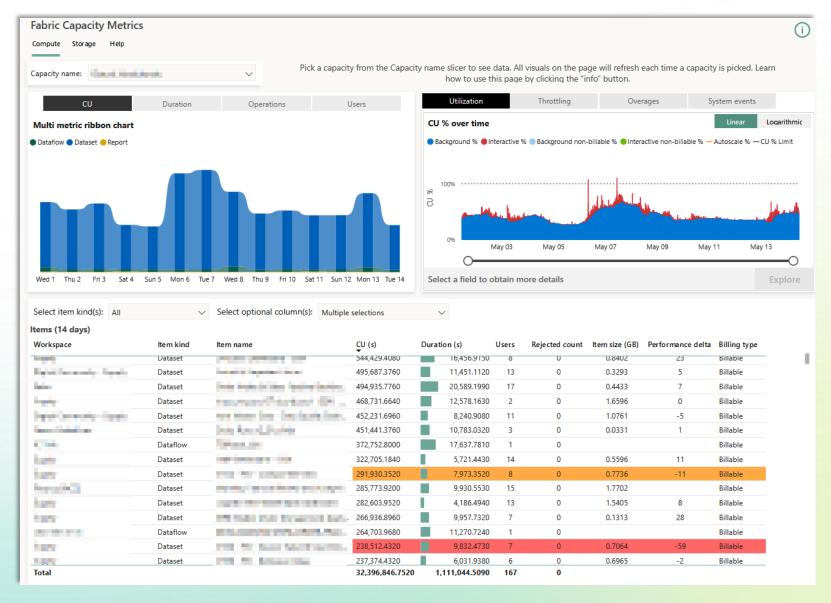
Usage, Adoption & Performance

Monitor overall Fabric health and track performance of data assets across the system

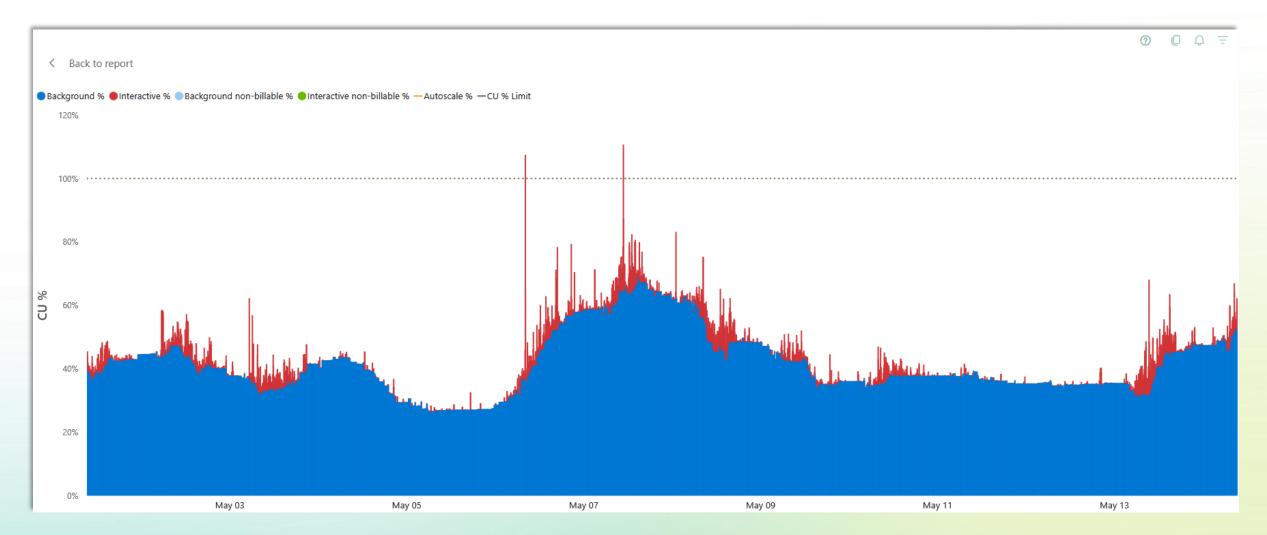


Admin Monitoring

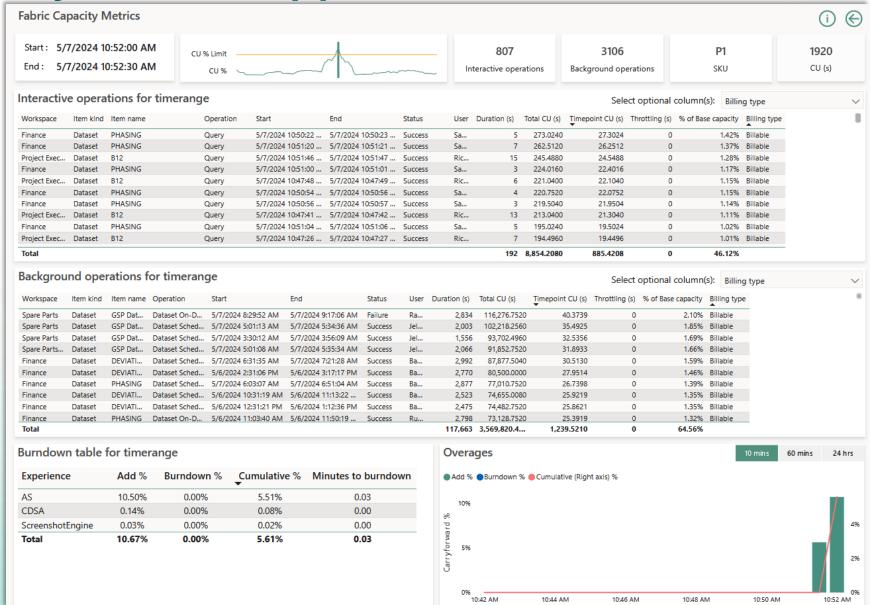
Capacity Metrics App



Capacity Metrics App



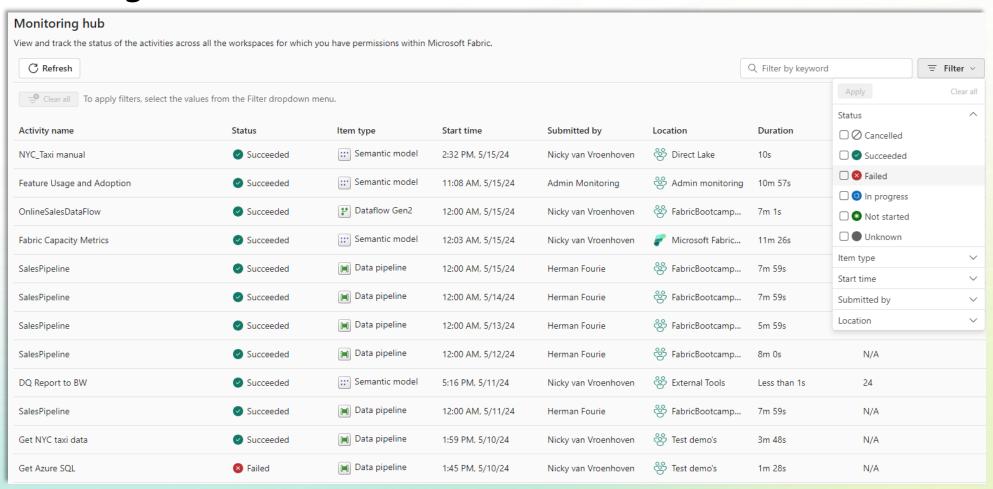
Capacity Metrics App





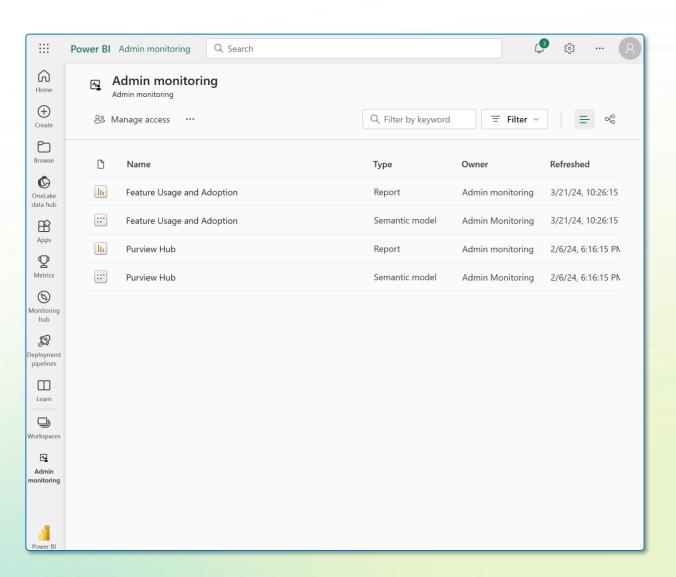
Monitoring & automation

Monitoring Hub



Admin Monitoring (Preview)

Out-of-the box insights for Fabric admins for effective governance



Admin Monitoring (Preview)

What's Available Now?

- Feature usage & adoption report Target governance & compliance:
 - ✓ Top-down 28-day snapshot view
 - √ Fabric adoption trends
- Purview hub report Track endorsement & sensitivity labels in Fabric
 - ✓ Drive adoption for information protection & endorsement certifications
- Semantic model Optimized for reuse and flexibility
 - ✓ Metadata Dimensions
 - ✓ Fact tables
 - ✓ Ability to bring in additional data

What's next?

- More Insights
 - ✓ Content sharing insights (private preview soon)
 - ✓ Tenant-level report usage insights
 - √ Who has access to what
 - ✓ Item inventory report size, utilization, job/refresh metrics and data lineage
- Increased Retention
- Capacity metrics in Admin monitoring

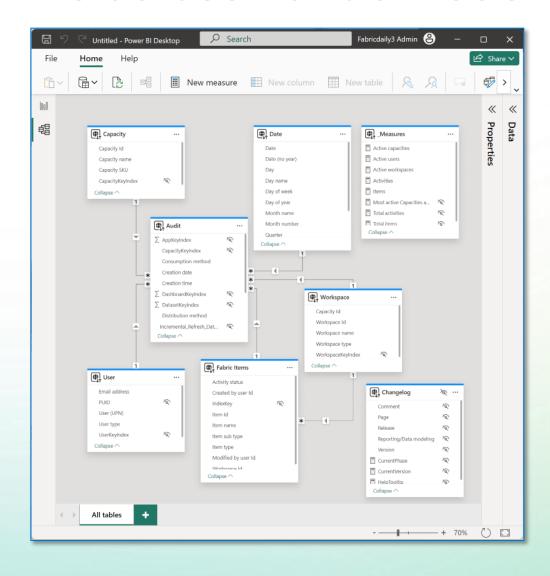


Admin Monitoring



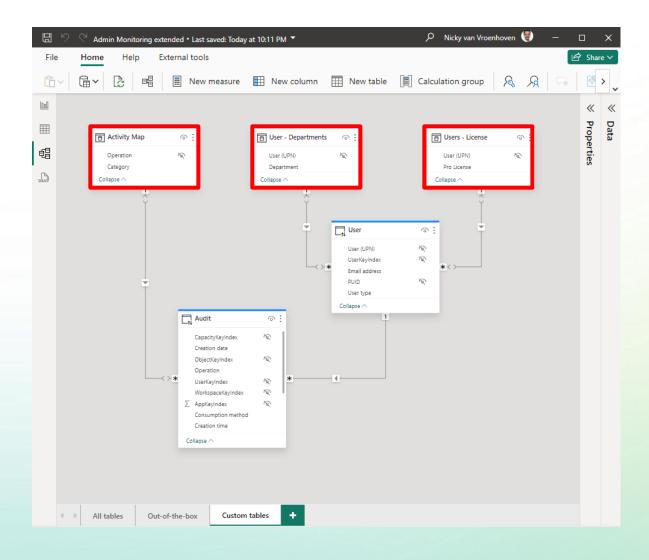
Manage licenses and associated costs

Default semantic model



Data model is reusable and extendable for custom reporting

Custom semantic model



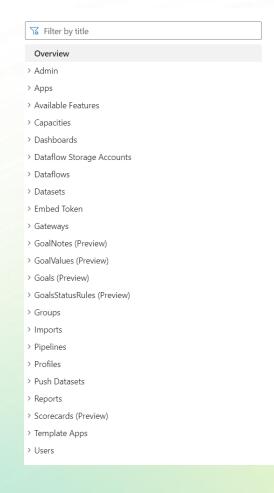
Custom tables:

- Activity Map
- Departments
- Licenses

Monitoring & automation - manual

REST API's

- Enhanced visibility into user access and permission levels
- Retrieve user and permission information for most Fabric assets



REST Operation groups

This table lists the Power BI REST API operation groups.

① Note

To manage Power BI Embedded capacities, use the Power BI Embedded Azure

Operation group	Description
Admin	Operations for working with administrative t
Apps	Operations for working with Apps.
Available Features	Operations that return available features.
Capacities	Operations for working with capacities.
Dashboards	Operations for working with dashboards.
Dataflow Storage Accounts	Operations for working with dataflow storag
Dataflows	Operations for working with dataflows.
Datasets	Operations for working with datasets.
Embed Token	Operations for working with embed tokens.
Gateways	Operations for working with gateways.
Groups	Operations for working with groups.
Imports	Operations for working with imports.
Pipelines	Operations for working with deployment pip
Push Datasets	Operations for working with push datasets.

Manual monitoring - Scanner APIs

- Read-only APIs used to scan full metadata including item identity, owner, workspace, sensitivity label, endorsement, lineage, etc.
- Robust enterprise capabilities like authentication using service principal and incremental scans
- Main use cases:
 - ✓ Inventory Management: Discover and catalog workspaces and items
 - ✓ Security and Compliance Auditing: Scan and analyze access permissions, sharing settings, and compliance status
 - ✓ External Integration: Used for 1st party and 3rd party governance tool integration



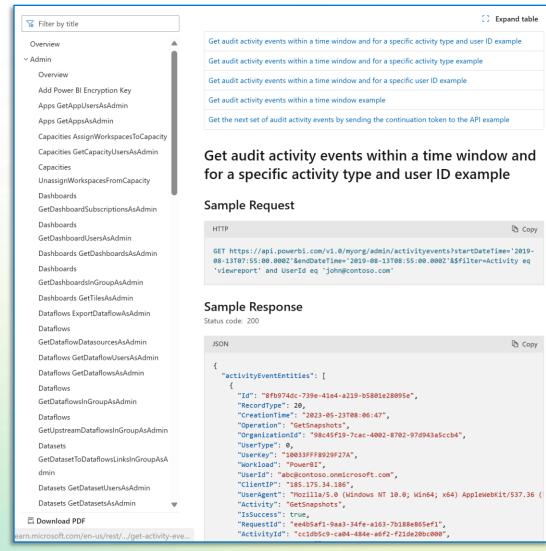
Manual monitoring - GetActivityEvents API

Designed for Fabric Admins to track user activities for governance and management purposes.

Main use cases are:

- ✓ Audit and compliance tracking
- ✓ Security Monitoring
- ✓ Usage and Adoption Insights
- ✓ Optimization and Cost Management

Retention is 30 days: so start collecting your data!



Call To Action

- Go through, export, and document your Tenant settings
- · Get started with monitoring your environment
 - Extract your Power BI Activity log
 - Setup Gateway monitoring
 - Check your Capacity Metrics App
 - Check the Admin Monitoring workspace

Resources

- · Monitoring Your Tenant Settings by Romain Casteres
- · Monitoring solutions on Github by Rui Romano
- · Microsoft Learn:
 - · Fabric Admin doc's
 - Monitoring Workspace
 - · <u>Implementation scenario's</u>
 - Adoption roadmap

Thank you!



Unit Lead Fabric & Power BI















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Data Platform MVP

