

Keeping up with your Power BI Tenant Administration



Benni De Jagere

Enterprise Data Architect, Data Platform MVP
Inetum-Realdolmen

About me



dataMinds.be Co-Leader



@BenniDeJagere



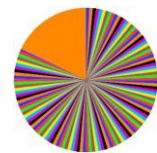
/bennidejagere



sessionize /bennidejagere



Data Platform



#SayNoToPieCharts

Hello, (Accidental) Tenant Admin!

Dedicated resources are not common, especially in SMBs

Overlap with M365 is often not the case

Plenty of admins are appointed by association

Ie. You're the 'SQL' person, so ..

Early experiences were based on trial and error

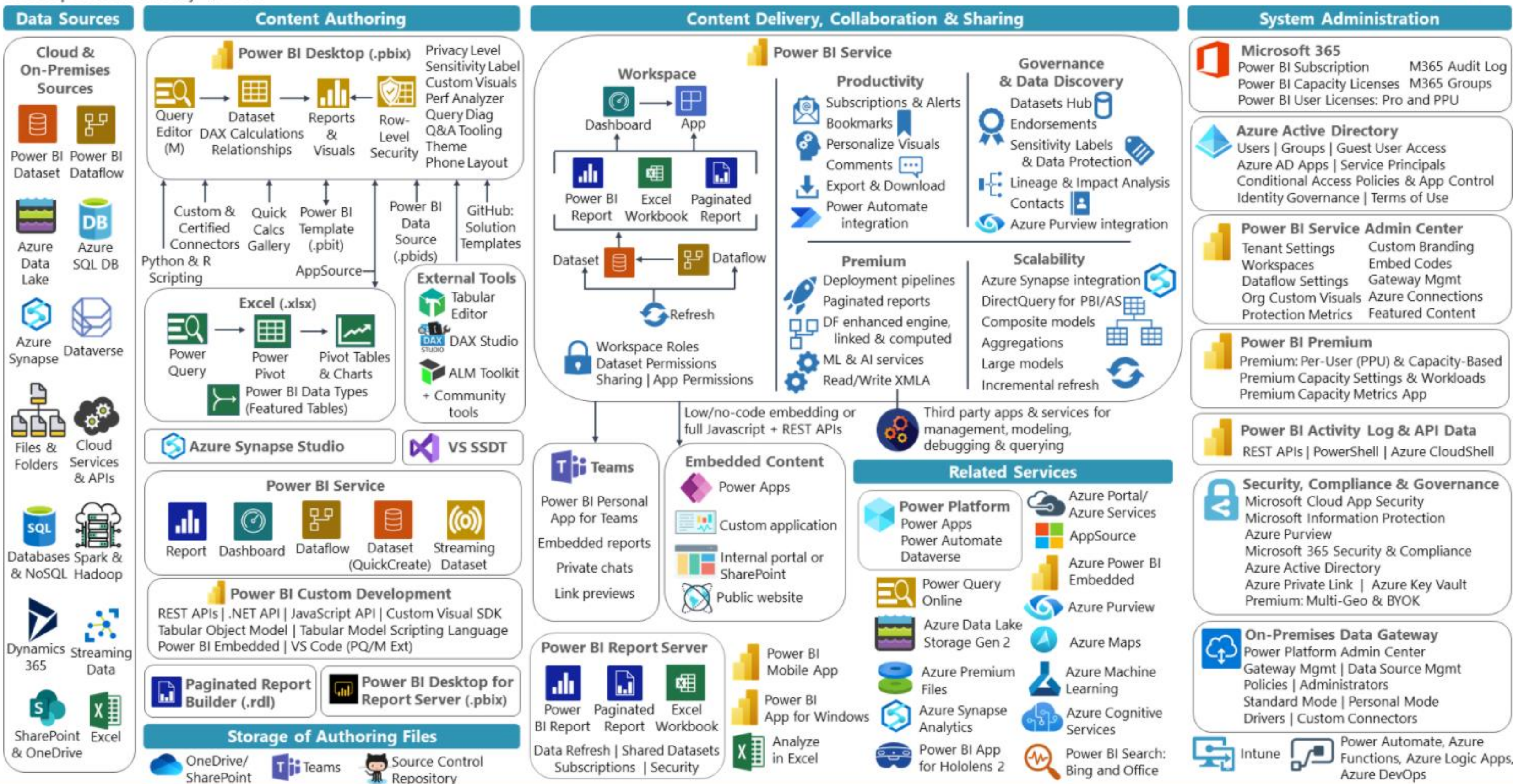
Community & Enterprise maturity has risen exponentially

Power BI is a moving target 😊

Power BI End-To-End: Top Features, Key Integration Points & Related Services

Last Updated: January 4, 2021

Coates Data Strategies



What does a tenant admin do?



A Tenant Admin should strive to Empower and Enable a Data Culture in their organisation.

Restricting and disabling features means policies, processes, and people need to be able to handle incoming requests and guide along the way.

But they can't do it alone 😊

What does a Tenant Admin do?

Data Management

Data Governance

Security & Compliance

Change Management

Product Integration

Problem Solving

But most importantly ..

What does a tenant admin do?





Service Health

Service Health

Power BI Support

Service Status Per Region

- ✓ America
- ✓ Asia Pacific
- ✓ Europe

✓ Good ⓘ Information ⚠ Degraded ❌ Outage

Service Outage/Degradation

- ✓ No known issues: Power BI is running smoothly

Awareness





- ⓘ Power BI customers attempting to upgrade a workspace from the settings pane will be redirected to the home page instead of the upgrade UI. As a workaround customers can:
 1. Upgrade using the "Upgrade now" link in the banner.
 2. Open the report settings pane for any report within the workspace, close the pane, then try to upgrade from the workspace settings pane again.
 3. Ask a tenant or Power BI admin to upgrade the workspace from the workspaces page in the admin portal.Engineers have identified the root cause and a fix is expected to be deployed by end-of-day 02/07/2021.

Service Health

Azure Status

Refresh every

2 minutes

 Good  Information  Warning  Critical

	Americas	Europe	Asia Pacific	Middle East and Africa	Azure Government	Azure China							
PRODUCTS AND SERVICES	*NON-REGIONAL	EAST US	EAST US 2	CENTRAL US	NORTH CENTRAL US	SOUTH CENTRAL US	WEST CENTRAL US	WEST US	WEST US 2	CANADA EAST	CANADA CENTRAL	BRAZIL SOUTH	BRAZIL SOUTHEAST
COMPUTE													
Azure VMware Solution by CloudSimple		✓				✓		✓					
Virtual Machines		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SAP HANA on Azure Large Instances		✓						✓	✓				
Windows Virtual Desktop	✓												

Service Health

Microsoft 365 Admin Center

Microsoft 365 admin center

dataMinds vzw

Dark mode

January 26, 2021 7:42 PM

Groups

Roles

Resources

Billing

Support

Settings

Setup

Reports

Health

Service health

Message center

Network connectivity

Service health

All services Incidents Advisories History Reported issues

View info about the history of incidents and advisories that have been resolved.

Report an issue

Preferences

2 items

Search

Past 7 days

Exchange Online

Title	Service	ID	Status	Start time ↓	End time
Some admins may be unable to create new shared mailb...	Exchange Online	EX235961	Service restored	January 25, 2021 2:32 AM	January 25, 2021 3:35 AM
Admins receiving errors when trying to connect to the E...	Exchange Online	EX234352	Service restored	December 31, 2020 8:00 AM	January 22, 2021 5:25 AM



Service Health

Demo



Activity Log

The Treasure Trove, aka PBI Activity Log

Introduced December 2019 ([LINK](#))

Alternative to Office 365 Audit Log

Data is retained for 30 days

Requires Power BI Admin or Global Admin privileges

Your key to many questions

[MSFT Docs](#)



Activity Log



Artefact Inventory

The Nugget Factory, aka PBI Artefacts

Most artefacts can be extracted through APIs (or PowerShell)

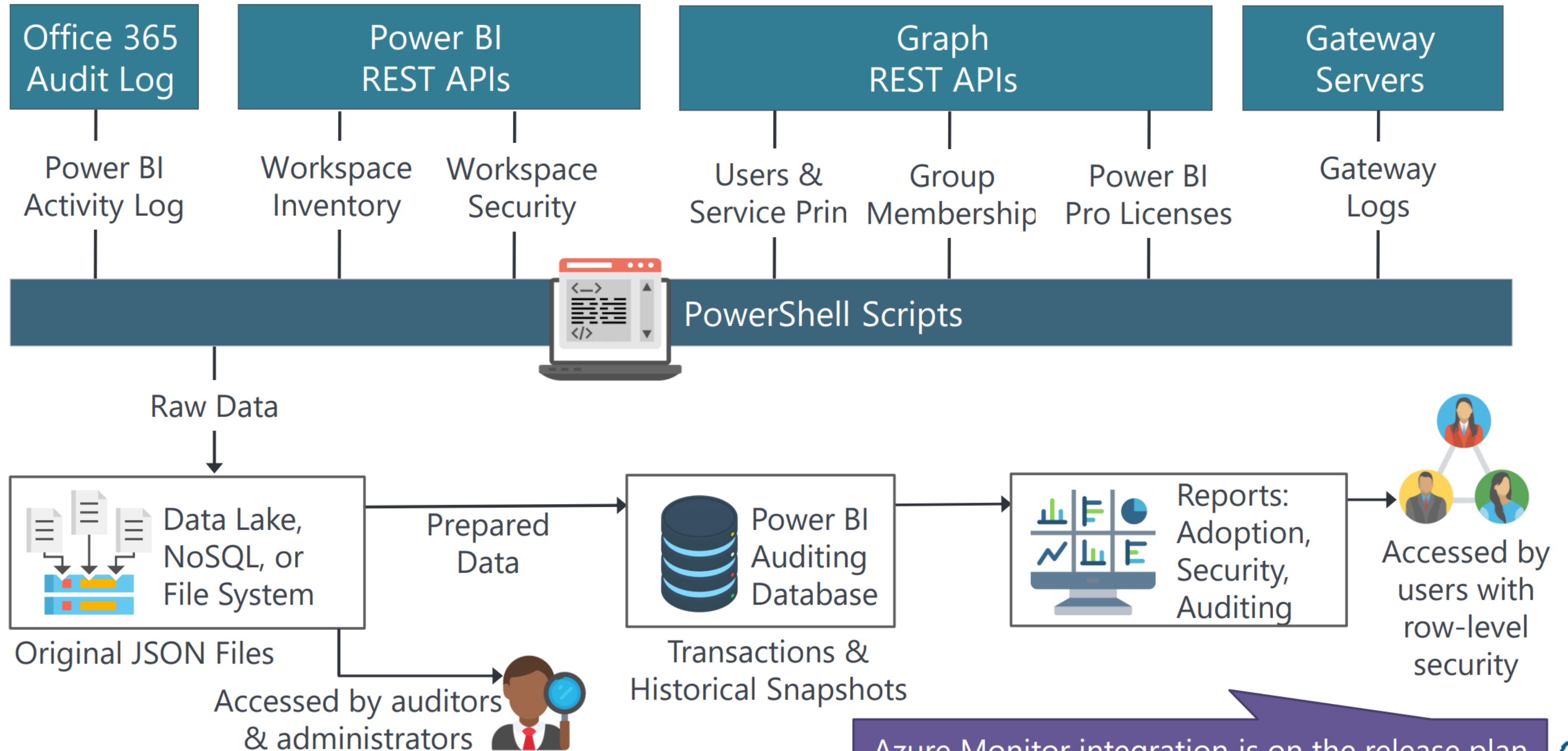
Track details about under/heavily used artefacts

Admin APIs are your friend, especially \$expand

Lineage (Scanner) APIs is where the nuggets are.

Service Principal is the road ahead

Typical Power BI Auditing Solution



Azure Monitor integration is on the release plan





Artefact Inventory



Tenant Settings

Tenant Settings

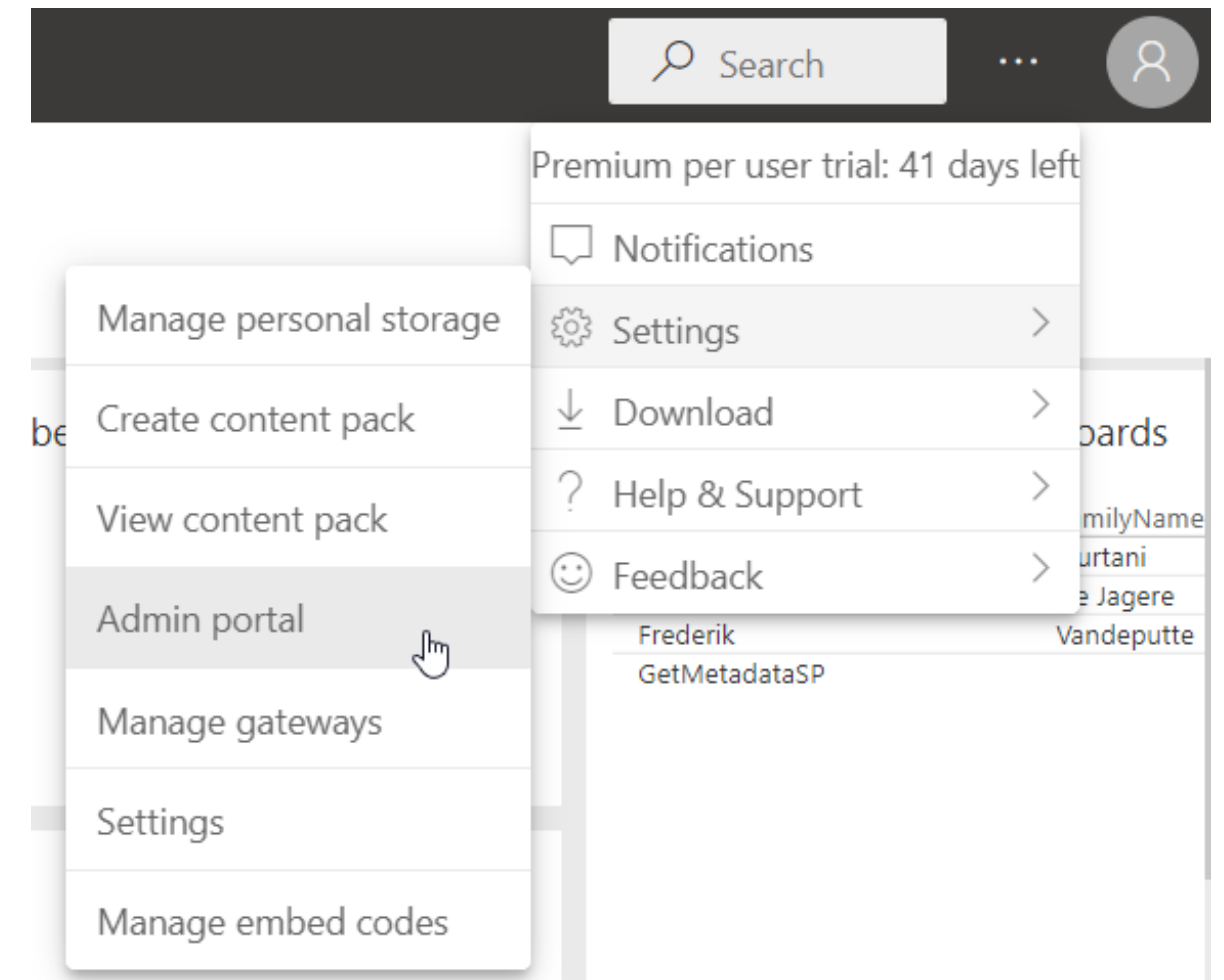
Admin Portal to control behaviour

Document settings

Changes are not easily captured

Activity Log

Cloud App Security Center



Tenant Settings

Most settings can be scoped to:

Enable/Disable behaviour

Entire Organisation

Include/Exclude Groups

Mail-Enabled Security Groups work best

[Info by Fourmoo](#)

▲ Create workspaces (new workspace experience)

Unapplied changes

Users in the organization can create app workspaces to collaborate on dashboards, reports, and other content. Even if this setting is disabled, an upgraded workspace will be created when a template app is installed.

☒ Enabled

Apply to:

☐ The entire organization

☒ Specific security groups

Enter security groups

☒ Except specific security groups

Enter security groups

Apply

Cancel

Tenant Settings

Pay special attention to :

Workspace Settings

Export and Sharing Settings

Power BI Visuals



Tenant Settings



Organisational Visuals

Organisational Visuals

Tenant Setting to control Custom Visuals

Power BI visuals

- ▶ Allow visuals created using the Power BI SDK
Enabled for the entire organization
- ◀ Add and use certified visuals only (block uncertified)
Enabled for the entire organization

Users in the organization with permissions to add and use visuals can add and use certified visuals only. Visuals allowed in the "Organizational visuals" page are not affected by this setting, regardless of certification. [Learn more](#)

☒ Enabled

Apply

Cancel

Organisational Visuals

Add visuals you trust and approve

Organizational visuals

Add and manage Power BI visuals for your organization. [Learn more](#)

+ Add visual ▾



From a file

Get visuals that are privately available for your organization.



From AppSource

Get visuals that are publicly available on AppSource.



Organisational Visuals

Demo



Data Access

Who can access your data?

Access is determined by :

- Workspace Access

- Workspace App Access

- Manual Report Sharing

- Dataset Permissions (Build vs. Read)

- Row-Level Security

- Object-Level Security (Preview since Feb. 2021)

Who can access your data?

Workspace Admin, Member, or Contributor have:

No RLS/OLS applied

Implicit Build Permissions

Monitor key assets closely

An Admin (PBI/Global) can give access to anyone in all
New (v2) Workspaces

Who can access your data?

For a global overview, use:

Lineage (Scanner) APIs, with \$getArtifactUsers

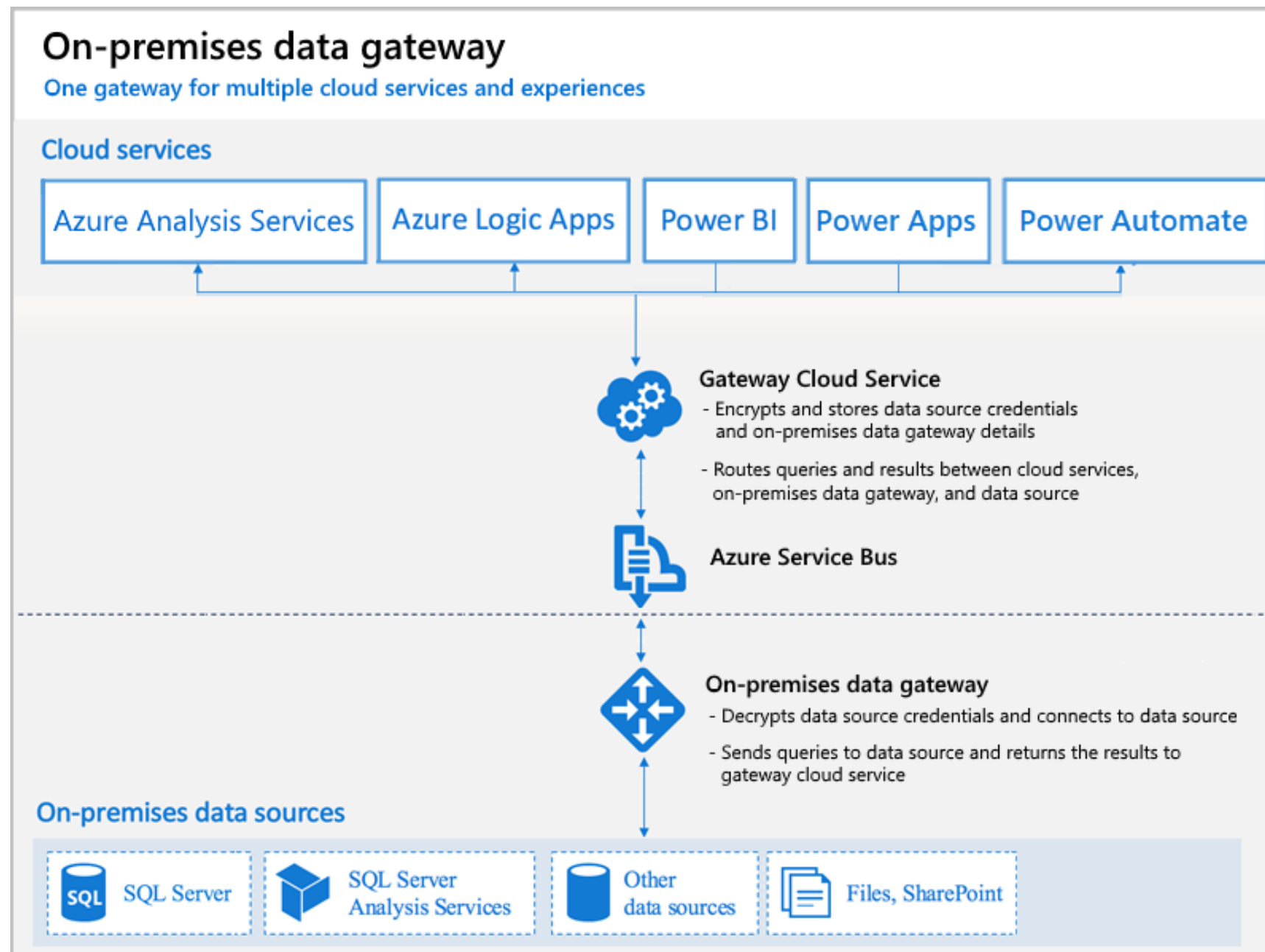
Specific APIs for Reports, Apps, Dashboards

(Ie. GetAppUsersAsAdmin)



Gateway

Gateways



Gateways

Allow users that publish new datasets and reports to datasources

By default, any user can install personal and on-premises data gateways

Potentially, this opens up corporate data

Debate the policy for personal gateways in your organisation

[Power Platform admin center](#)

Gateways

Be aware of the resources your gateway machines need
Query Folding (or lack thereof) has an impact



Power Platform Admin Center (Gateways)



Premium Per User

Premium Per User

By default users can :

Self-assign an In Product Trial Experience

Create workspaces, and assign to a PPU Capacity

Premium Per User

Identify usage by :

Get Workspace Inventory, correlate with Capacity Information

Get License Information

Track the Power BI Activity Log

[My chase down the rabbit hole](#)



Monitoring

Premium Per User

Consider setting up simple alerts you want to follow-up

Set up a dashboard tile, with simple count for your actions

Possible actions to monitor closely:

- Changes to Tenant Settings
- Publish To Web
- In Product Trial Experiences
- Export Data
- Delete ..
- Create/Edit Gateway

Or build out an End-to-End Monitoring Solution 😊



Takeaways

Takeaways

Set up:

- An extraction process for the Power BI Activity Log
- Scoped Tenant Settings for key areas
- Alerting for external failures
- Alerting for internal usage
- Monitoring for creation and configuration of Data Gateways

Foster a Data Culture in your organisation

Try to keep yourself updated

Stay Updated

[Power BI Roadmap](#)

[Power BI Blog](#)

[Power Platform Release Waves](#)

Many community authors and initiatives

Pro Tip: Check the release date, as information ages quickly

Takeaways



The Self-Service BI Hoax

“Products and technology don’t enable Self-Service BI, people and methodologies do”

[Nimrod Avissar on
LinkedIn Pulse](#)

References

API

<https://docs.microsoft.com/en-us/rest/api/power-bi>

<https://azure.microsoft.com/en-us/updates/power-bi-rest-api-tryit-tool/>

<https://docs.microsoft.com/en-us/power-bi/admin/read-only-apis-service-principal-authentication>

<https://github.com/sqlchick/Presentations/tree/main/Power-BI-Activity-Log-And-REST-APIs>

<https://github.com/itsnotaboutthecell/PowerBI-cmdlets>

<https://github.com/SQLvariant/Demos/tree/master/Presentations/PowerShell-for-PowerBI>

<https://www.fourmoo.com/2021/01/06/you-can-now-view-the-power-bi-rest-api-calls-via-the-audit-log/>

References

BI Elite - Admin View (Part 1 - 4)

https://www.youtube.com/watch?v=cTqFNg_y9lw

https://www.youtube.com/watch?v=2RZkc_qrV1g

<https://www.youtube.com/watch?v=Z4E2jSZ4r6A>

<https://www.youtube.com/watch?v=BxKIJL5baAU>

References

Power BI Log Analytics Starter Kit (Nassim Kasdali)

<https://github.com/kasdali/pbila>

Power BI Monitor (Rui Romano)

<https://github.com/RuiRomano/pbimonitor>

References

Power BI Whitepapers, Roadmaps, Frameworks

<https://aka.ms/PBIEnterpriseDeploymentWP>

<https://docs.microsoft.com/en-us/power-bi/guidance/whitepaper-powerbi-premium-deployment>

<https://docs.microsoft.com/en-us/power-bi/admin/service-admin-power-bi-security>

<https://docs.microsoft.com/en-us/power-bi/guidance/center-of-excellence-establish>

<https://github.com/pbiaf/powerbiadoption>

<https://docs.microsoft.com/en-us/power-bi/guidance/powerbi-adoption-roadmap-overview>

References

Gateways

<https://medium.com/microsoftazure/on-premises-data-gateway-monitoring-series-part-0-why-should-i-care-about-monitoring-b8211ce428>

<https://medium.com/microsoftazure/on-premises-data-gateway-monitoring-series-part-1-standard-log-files-2a339df746a8>

<https://medium.com/microsoftazure/on-premises-data-gateway-monitoring-series-part-2-cpu-counters-99631a0a5b17>

<https://medium.com/microsoftazure/on-premises-data-gateway-monitoring-series-part-3-ram-counters-7e676c0b340b>

<https://medium.com/microsoftazure/on-premises-data-gateway-monitoring-series-part-4-query-logs-explained-9d2baad13678>

About me



dataMinds.be Co-Leader



@BenniDeJagere



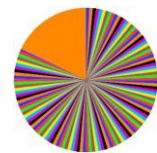
/bennidejagere



sessionize /bennidejagere



Data Platform



#SayNoToPieCharts