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Beyond the Logs: Find out what's really going on in your tenant with the Power BI Scanner API

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Agenda

- What is the Scanner API?
- How to set up an automated workflow?
- Advantages of the Scanner API

Introduction



- Denis Selimovic
- Principal Consultant @ b.telligent in Switzerland
- Co-Organizor of Fabric User Group Switzerland
- Blog: WhatTheFact.bi

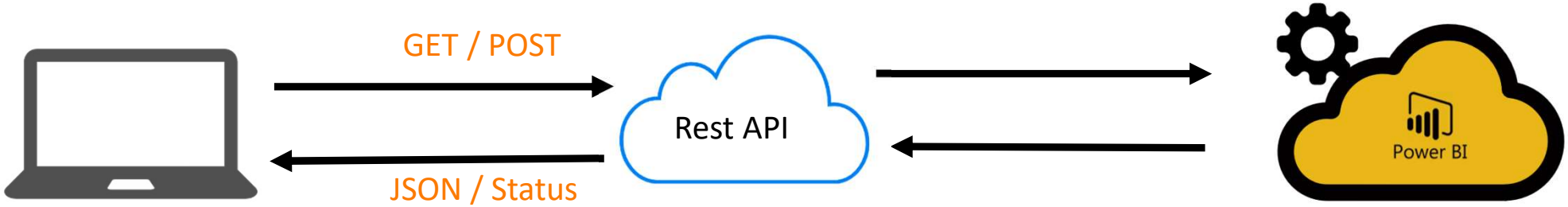
What is the Scanner API?



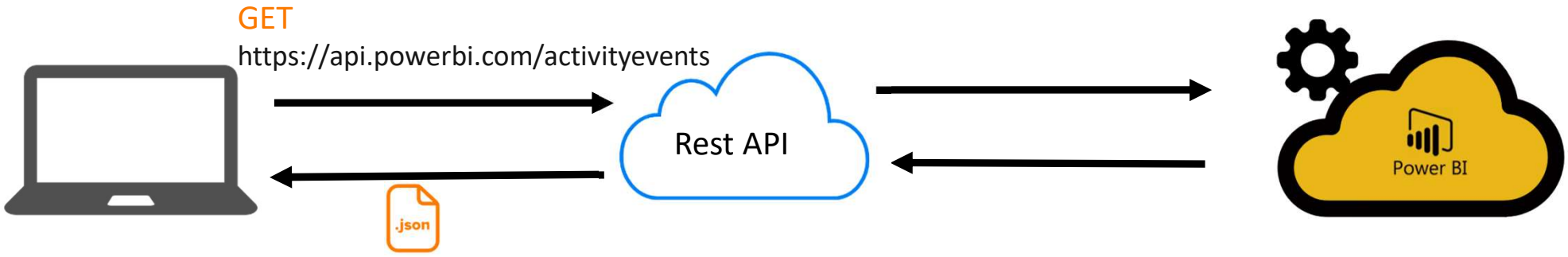
What is the Scanner API?

- What is the PBI Activity Log?
- Provides detailed Metadata on tenant level (tables, columns, measure, DAX expressions, M Queries), Power BI assets and linage
- Set of 4 Admin REST APIs:
  - GetModifiedWorkspaces
  - WorkspaceGetInfo
  - WorkspaceScanStatus
  - WorkspaceScanResult
- Asynchronous API

- How does a general/synchronous API work?

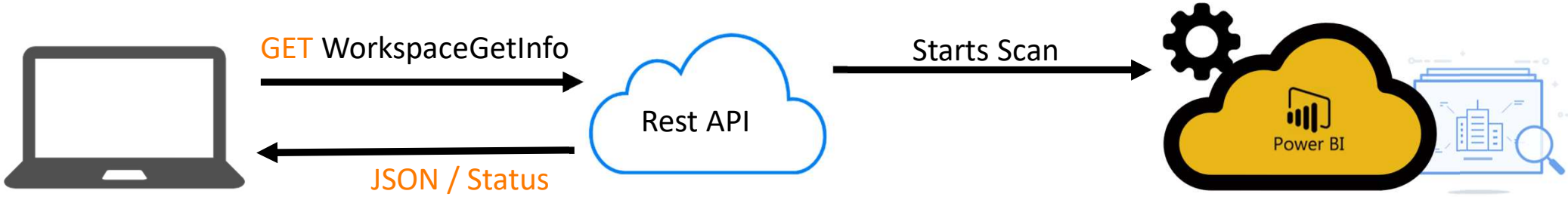


- Example

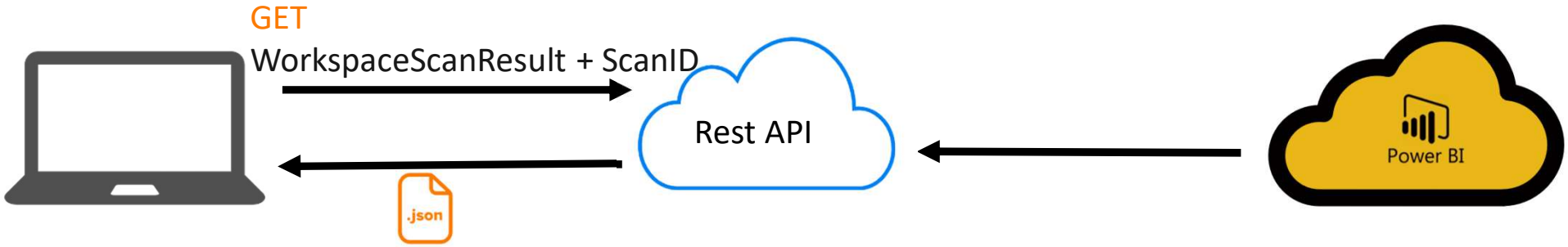


- Result more or less immediately

- How does an asynchronous API / the ScannerAPI work?



- Another call to check the status
- Result with another API call when scan is finished:



What is the Scanner API?

- Allows large number of data by performing the scan in the background
- Supports incremental Scan
- Supports read-only Service Principal, so you don't need service account with admin role

How do you use it?



List workspaces



Start Scan



Check Status



Download Result

How do you use it?



List workspaces



Start Scan



Check Status



Download Result

- API-Call: GetModifiedWorkspaces
- Gets a list of workspace IDs in the organization.

HTTP Copy Try It

```
GET https://api.powerbi.com/v1.0/myorg/admin/workspaces/modified
```

https://learn.microsoft.com/en-us/rest/api/power-bi/admin/workspace-info-get-modified-workspaces

How do you use it?



List workspaces



Start Scan

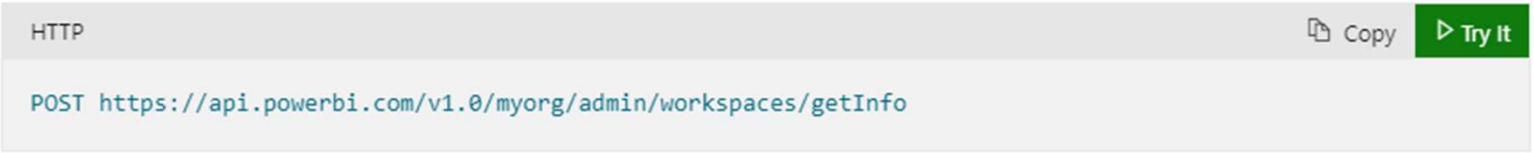


Check Status



Download Result

- API-Call: WorkspaceInfo
  - Starts the scan of the meta data
  - Limited to 100 workspaces per call
  - Returns scanID



https://learn.microsoft.com/en-us/rest/api/power-bi/admin/workspace-info-post-workspace-info

How do you use it?



List workspaces



Start Scan



Check Status



Download Result

- API-Call: GetScanStatus
- Gets the scan status for the specified scan.

HTTP Copy Try It

```
GET https://api.powerbi.com/v1.0/myorg/admin/workspaces/scanStatus/{scanId}
```

https://learn.microsoft.com/en-us/rest/api/power-bi/admin/workspace-info-get-scan-status

How do you use it?



List workspaces



Start Scan



Check Status



Download Result

- API-Call: GetScanResult
- Gets the scan result for the specified scan.

HTTP Copy Try It

```
GET https://api.powerbi.com/v1.0/myorg/admin/workspaces/scanResult/{scanId}
```

https://learn.microsoft.com/en-us/rest/api/power-bi/admin/workspace-info-get-scan-result

Demo Scanner APIs via REST API

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How to set up an automated workflow?



How to set up an automated workflow?

- Set up the workflow to load the data



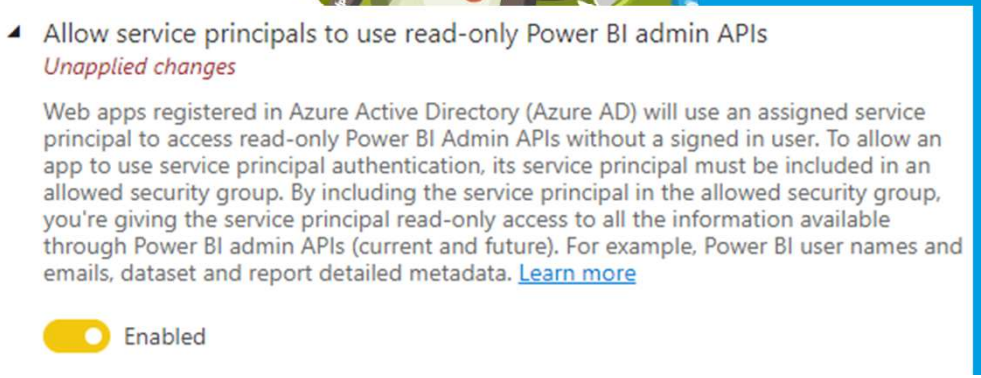
- Recommendation:
  - Power Automate solution from Tommy Puglia
  - https://github.com/pugliathomas/powerbiscannermetadata

How to set up an automated workflow?

- Prerequisites for read-only Service Principal

1. Allow read-only API for service principals in Power BI Admin portal:
2. Create Azure AD App
3. Add AD App to security group and security group to access read-only admin APIs





Demo Scanner APIs

Advantages of the Scanner API



Advantages of the Scanner API

- Possibility to analyze tenant activities in detail
- Very granular level
- No additional fees, no premium needed!
- Poor-Man's Purview / data catalogue

A few use cases

- Check if new reports were created in the last days/weeks
- Check which souces (web urls) are used
- Are all databases connected to prod or dev?
- Do all definitions of specific measure use the correct formula?
- How many reports are connected to a data set?

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