



Power BI and PowerShell

A Match Made in Heaven

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Worked in BI with the Microsoft stack for more than 10 years.

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FEEDBACK FORMS

PLEASE FILL OUT AND PASS TO YOUR ROOM
HELPER BEFORE YOU LEAVE THE SESSION

A close-up photograph of a hand holding a pen, writing on a checklist. The checklist is on a piece of paper with a grid pattern. The text on the checklist is partially visible and includes items like 'Find a way to...', 'Drive of...', 'Drive', and 'Module'. The background is a blurred blue and white pattern.

What we'll cover

- Why do we need to manage Power BI?
- What can we do with PowerShell?
- API vs PowerShell Module(s);
- Not an admin? There are still options;
- Put it into practice.



Why do we need to manage Power BI?



Error Handling



Manage Content



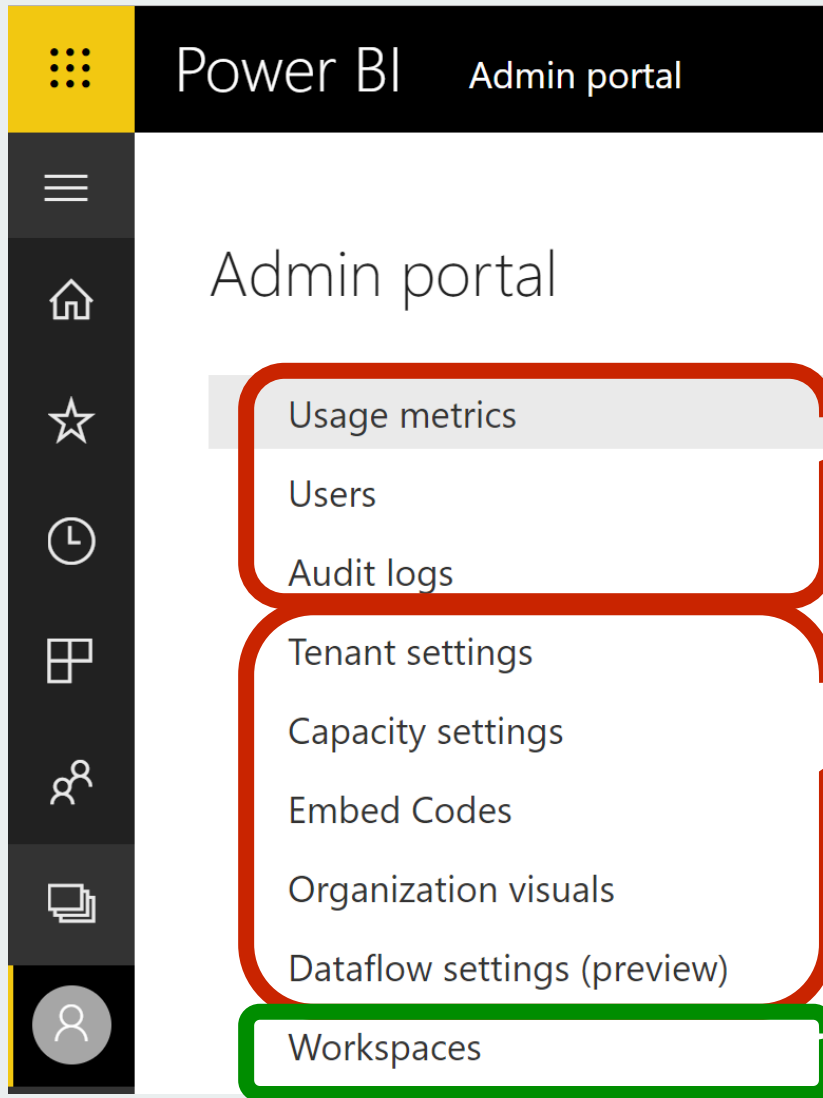
Control Security



Data



The Power BI Admin Portal



App Engagement info

Organisation level settings

Content Management



What can we do with PowerShell?



Manage Workspaces, Reports, Datasets etc

Refresh datasets and view history

Control and audit Permissions

Track User and Tenant Licenses

Circumvent license restrictions ;)

Automation

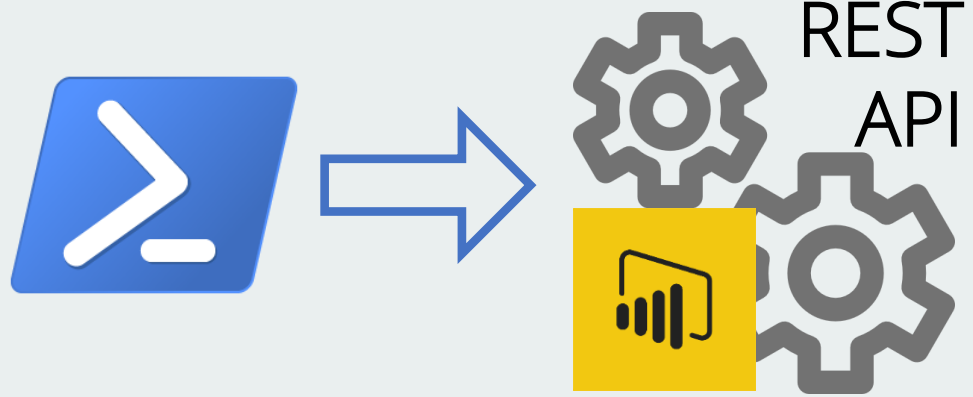


API vs PowerShell Modules



Azure PowerShell Modules

- msOnline (v1)
- AzureAD (v2)



Power BI REST API

- Using Invoke-RESTMethod
- **MicrosoftPowerBIMgmt**





DEMO

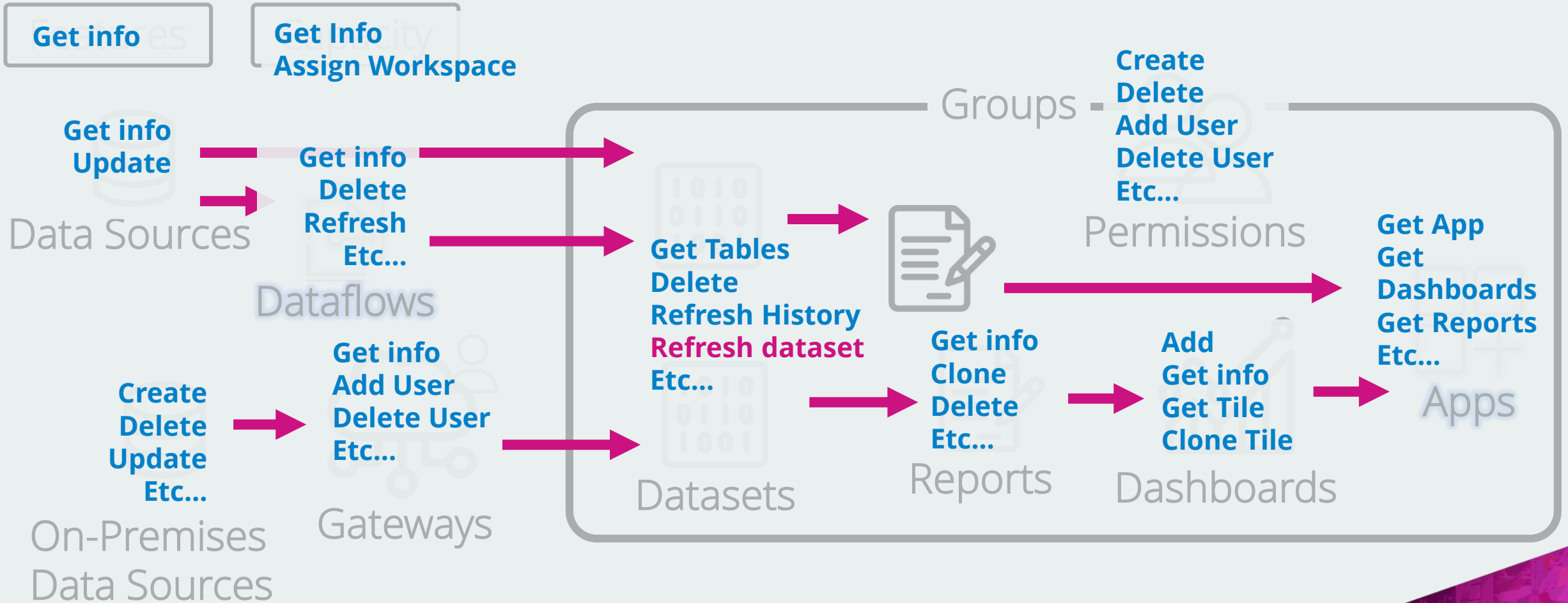
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any fool can know. The power
of Einstein

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REST API Capabilities



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





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What can't we do with PowerShell

-  Read Data
-  Create Dashboards
-  Publish or Update Apps
-  Author Reports





Not an admin? All is not lost!

- Restricted to Workspaces you are a member of;
- Read and start dataset refreshes;
- View and update security*;
- Track user and tenant licenses;
- You can still use the Power BI Mgmt module.

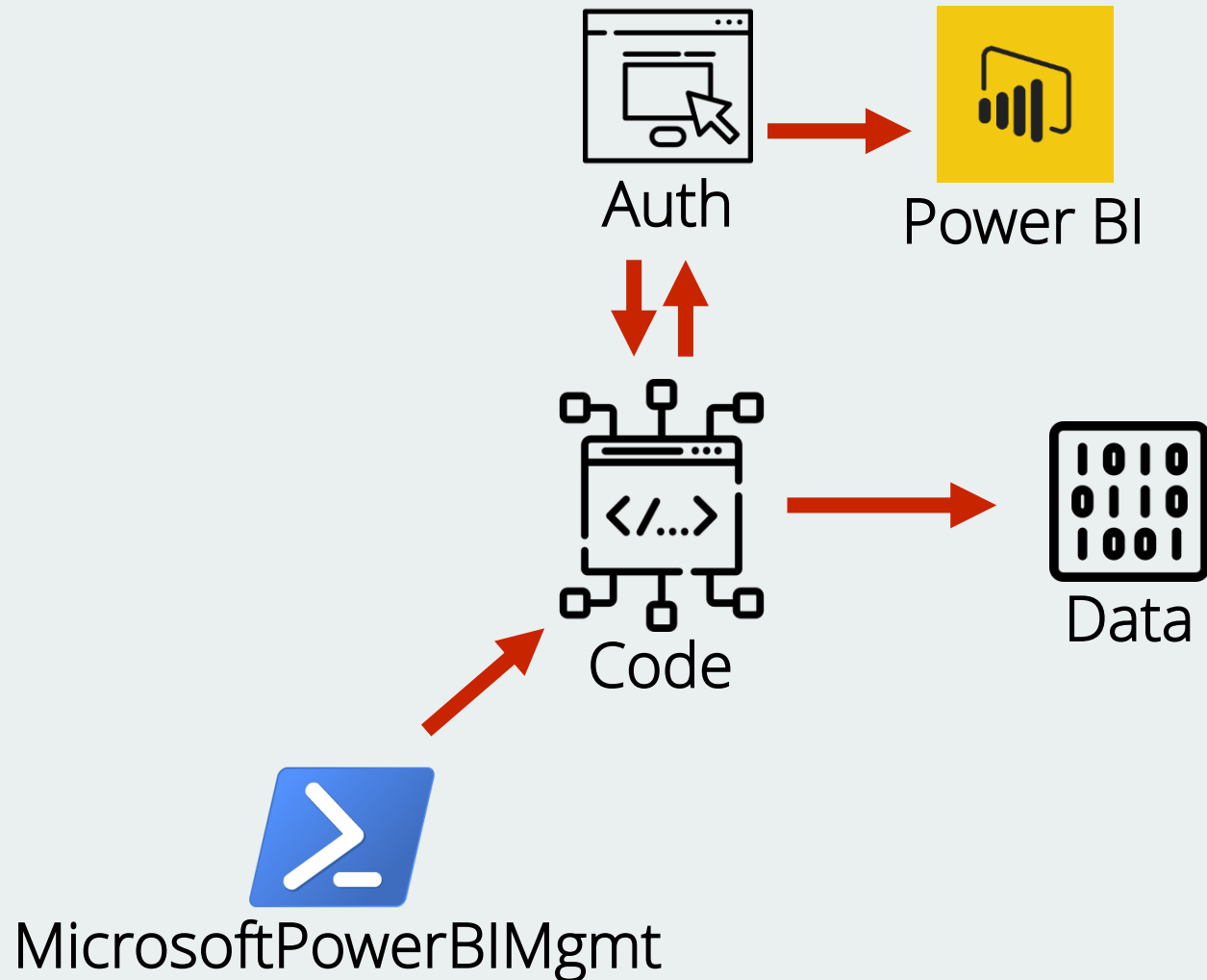


Piecing it all together

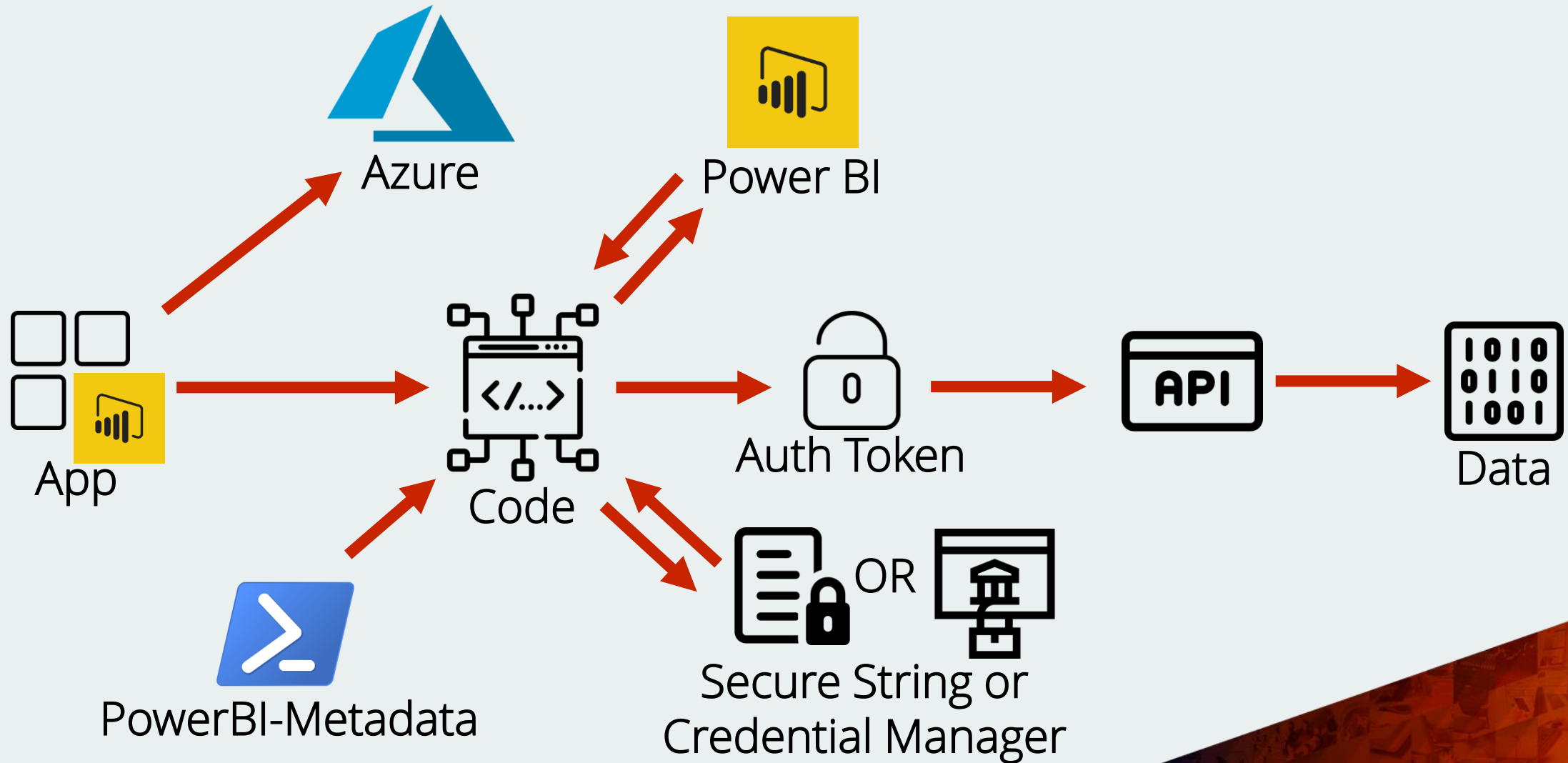
- Authentication options;
- Prerequisites to automation;
- Create and update a dataset entirely in PowerShell.



Prompted Authentication

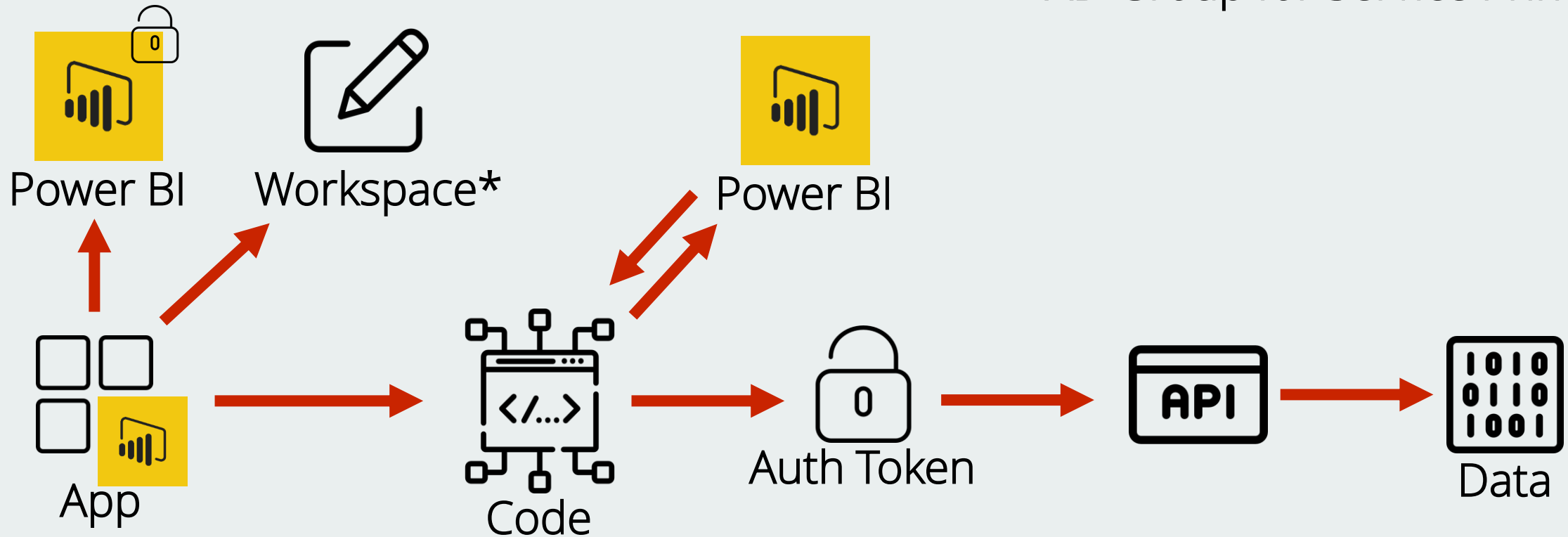


Unattended Authentication



Service Principals

Requires:
Power BI Admin
AD Group for Service Principal



*This authentication method only works with v2 workspaces





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PowerShell s Power BI

- But...
- Unattended Authentication isn't "Official";
- 2FA is not compatible with unattended auth;
- Automation isn't simple ☹yet!
- The API is always evolving;
- Modules are a work in progress – **Contribute!**





Questions?

<https://github.com/cporteou/Presentations>

