

Craig Porteous

Senior Data Engineer @
Incremental Group



3* ways to bring Power BI under Source Control

People love creating content in Power BI but how do we track changes or backup all these new reports? We'll look at 3 different ways to bring your reports under source control and how to automate the process using Microsoft Flow and PowerShell.



<https://craigporteous.com>



@cporteous



<https://github.com/cporteous>



<https://www.linkedin.com/in/craigporteous/>

Our Partners



Who is this session for?

Power BI
Admins

BI
Developers



Managers



Business
Analysts

Data
Consumers

Data
Owners





What is Source Control?

Why should you care?

How does it work with Power BI?

What are the options?



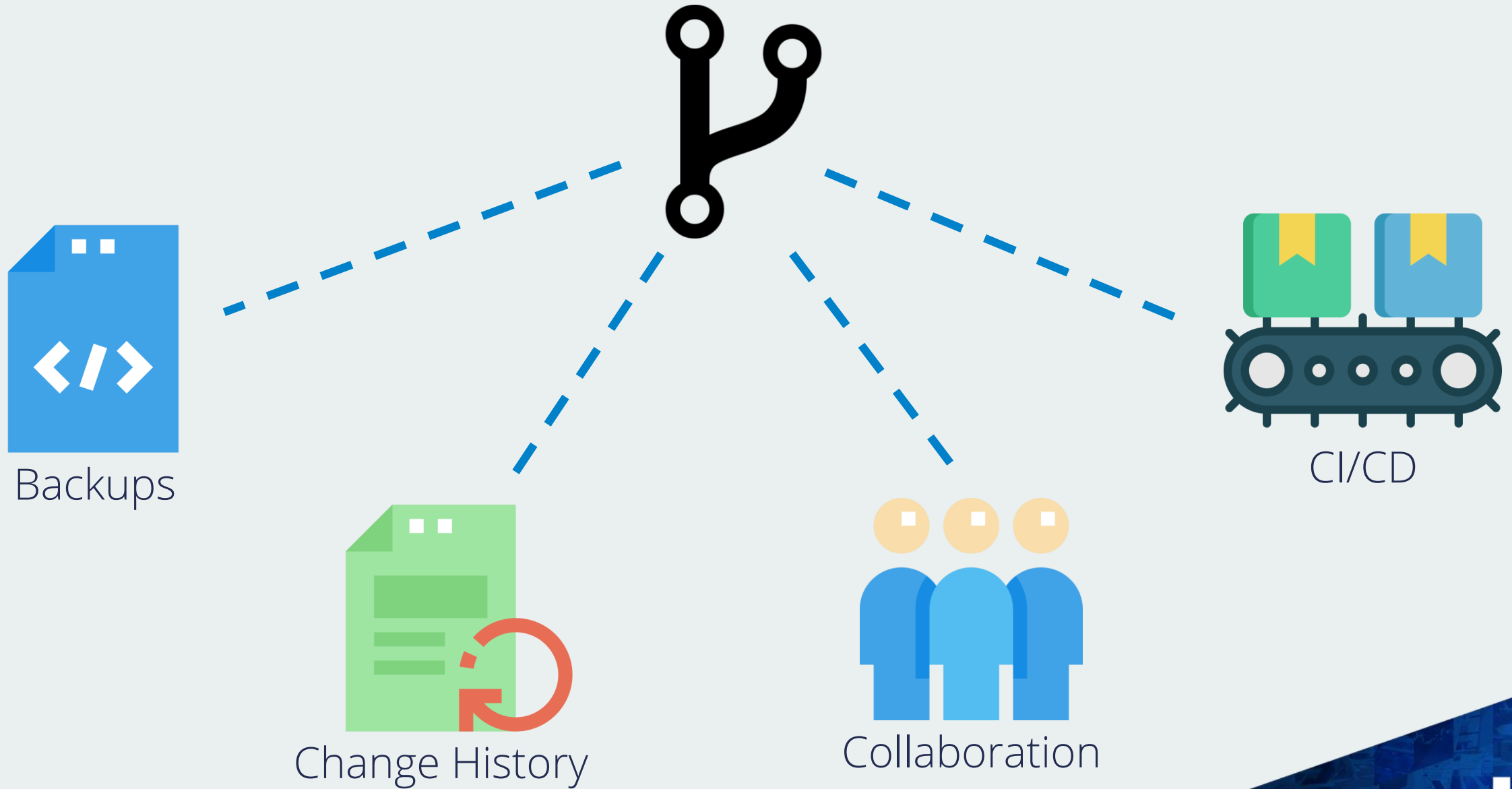
What is Source Control?



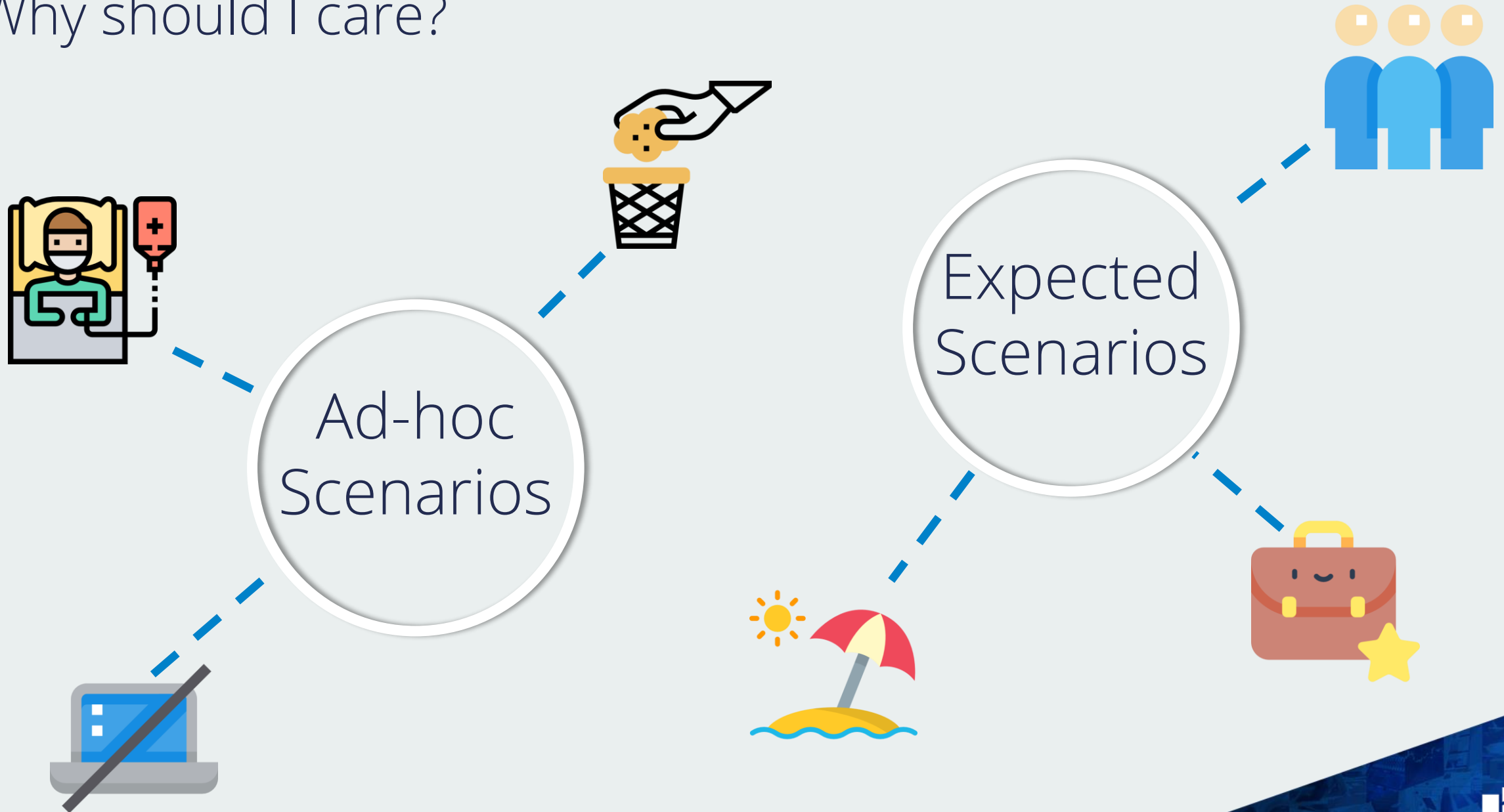
also known as revision control or version control, is the management of changes to documents, computer programs, large web sites, and other collections of information.



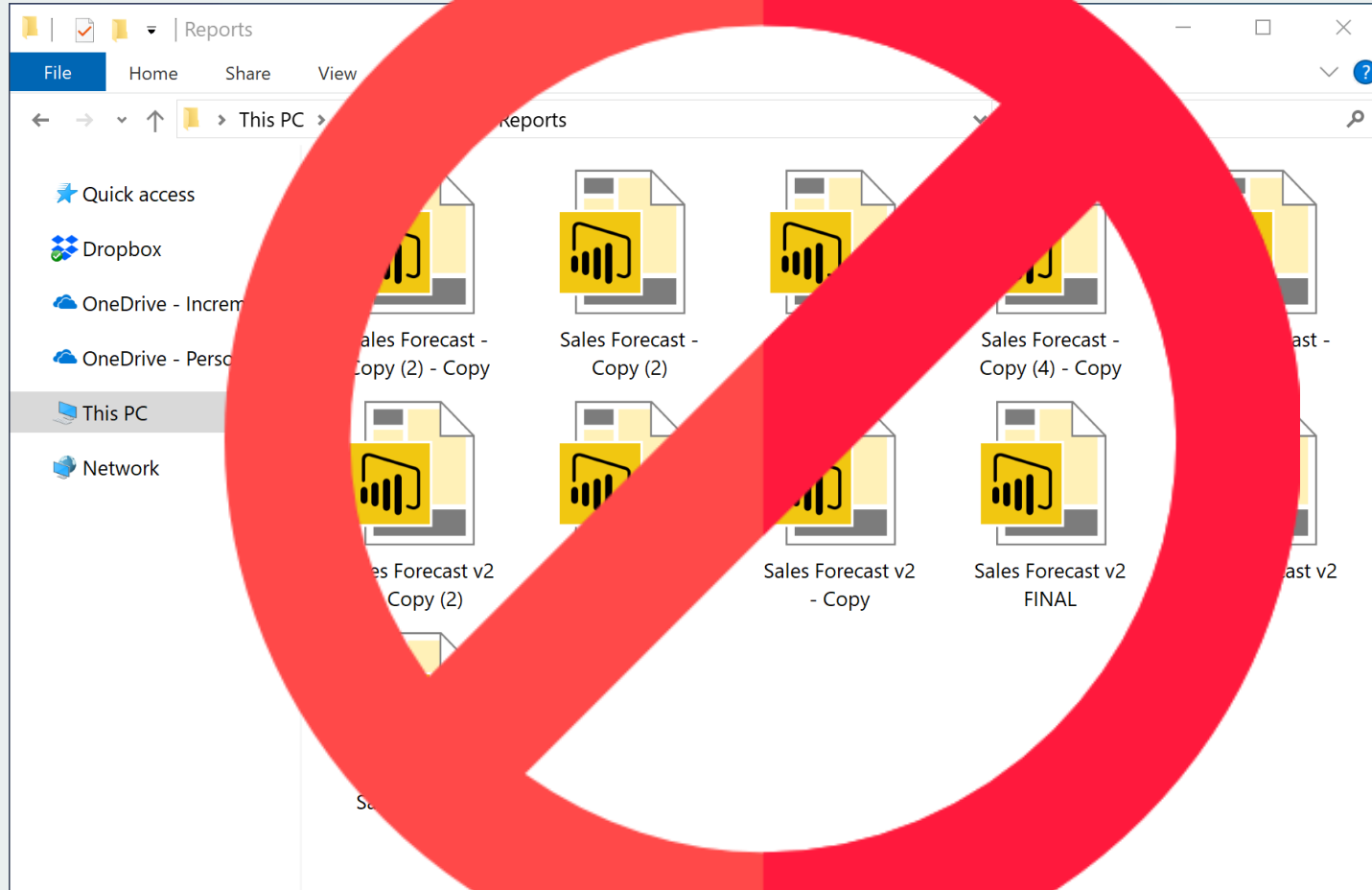
What is Source Control?



Why should I care?



DIY Source Control





Power BI under Source Control

Why it doesn't work with Power BI

May not know or care about Source Control.

Don't have control over all deployed content.



Business Users



Power BI

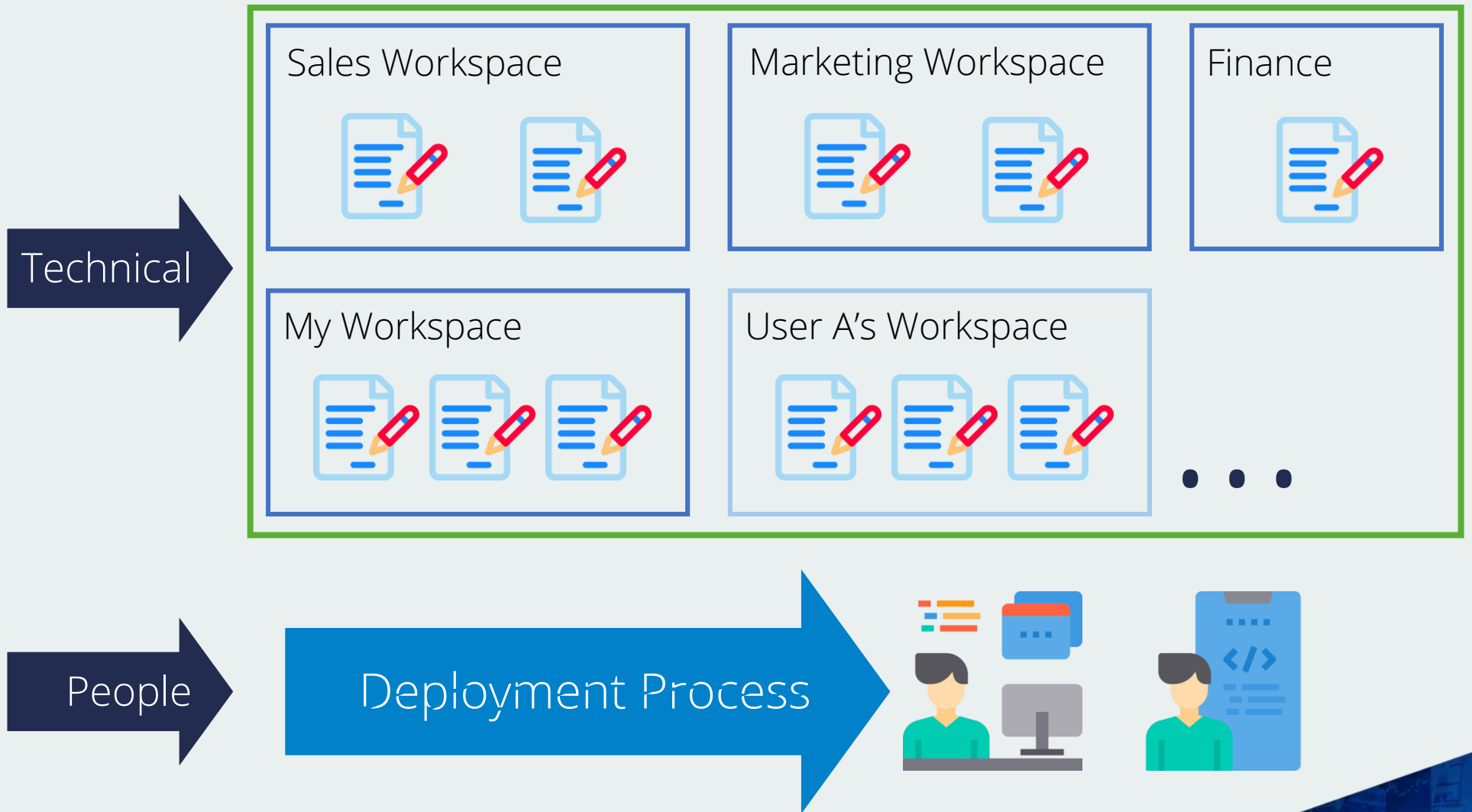


Developers/
IT

No source control
management
built-in



What can we do?



How do we do it?

Cloud Storage



Microsoft Flow



PowerShell



Business User

Developer / Programmer



Cloud Storage

Not real
Source
Control

Features
and
options
vary

Backup
Silos

Automatic
Deployment
of Datasets
and Reports

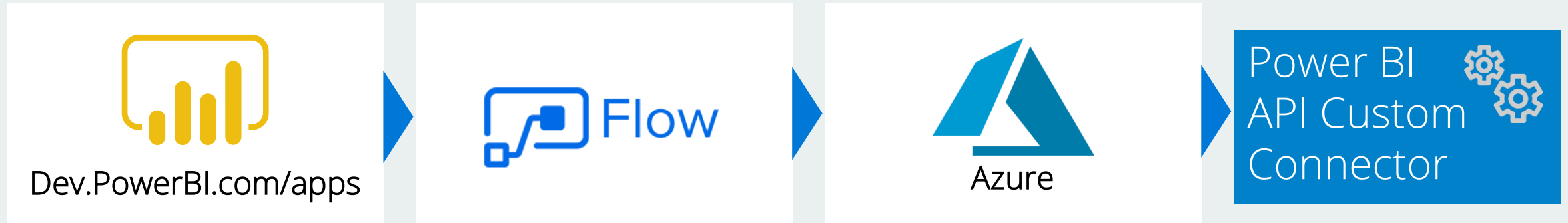
*On Power BI Workspace
OneDrive. Must be
set up manually
with v2
workspaces





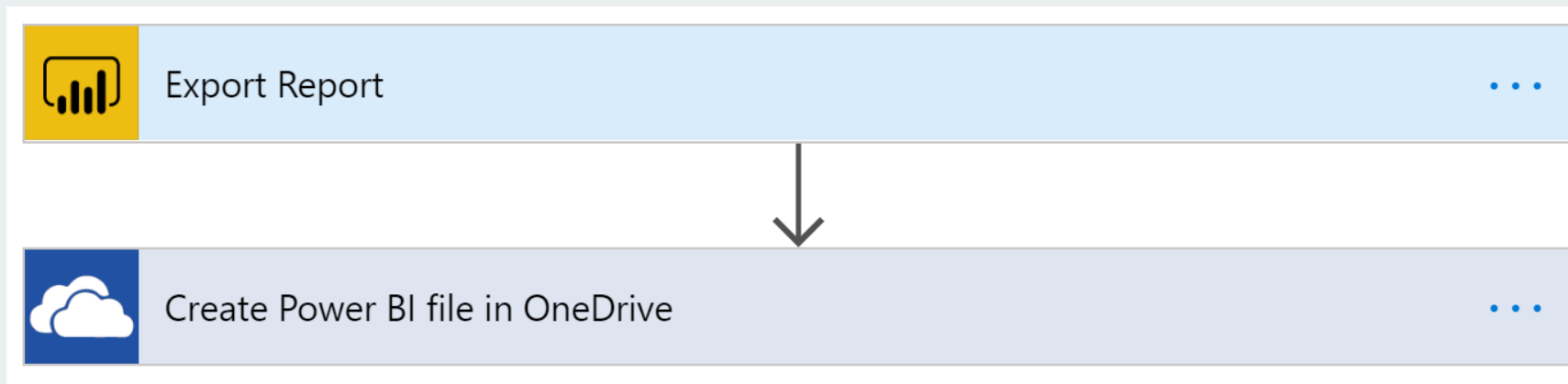
Cloud Storage Demo

Microsoft Flow



Using Microsoft Flow

*Works best using a Power BI Administrator





Microsoft Flow Demo

At Scale?

*Must use a Power BI Administrator

...  x1000+ ?



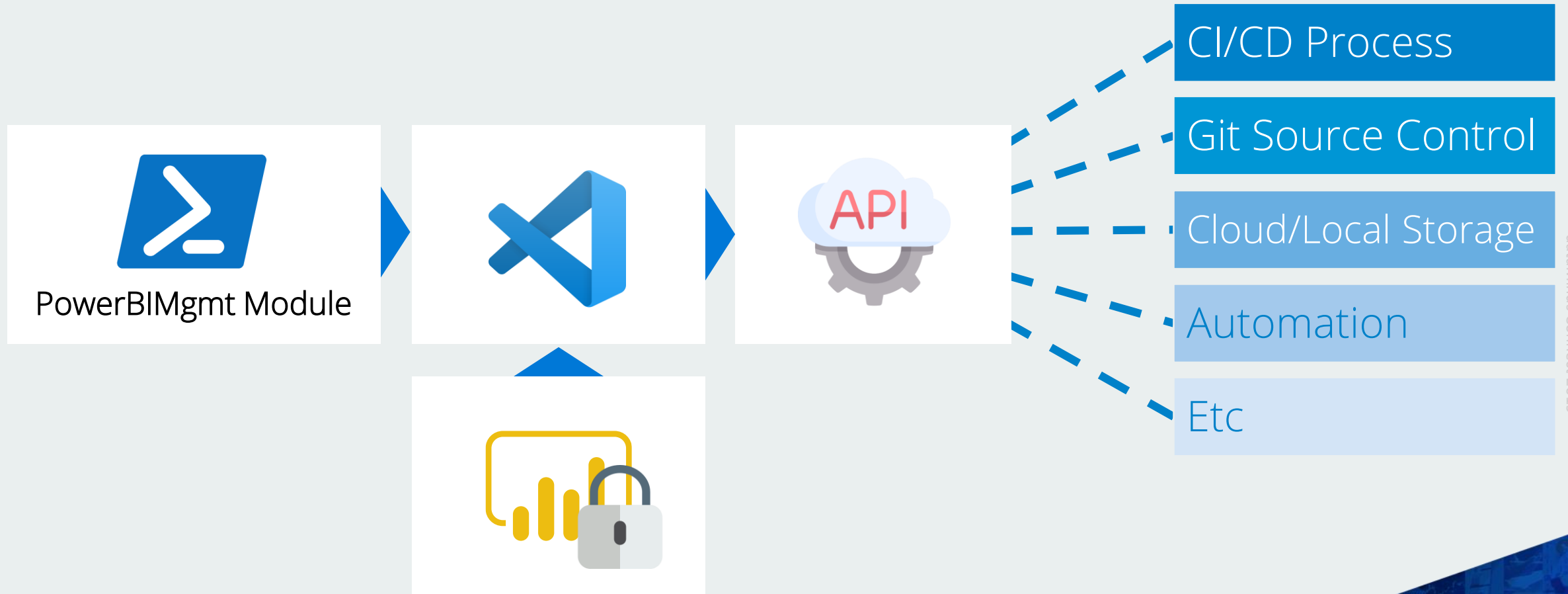
Steve Howard - Microsoft Flow with O365 Mgmt API Webhook
<http://angryanalyticsblog.azurewebsites.net/index.php/2019/06/01/power-bi-governance-approve-reject-all-dataset-creation-in-your-tenant/>





Microsoft Flow Webhook Demo

PowerShell



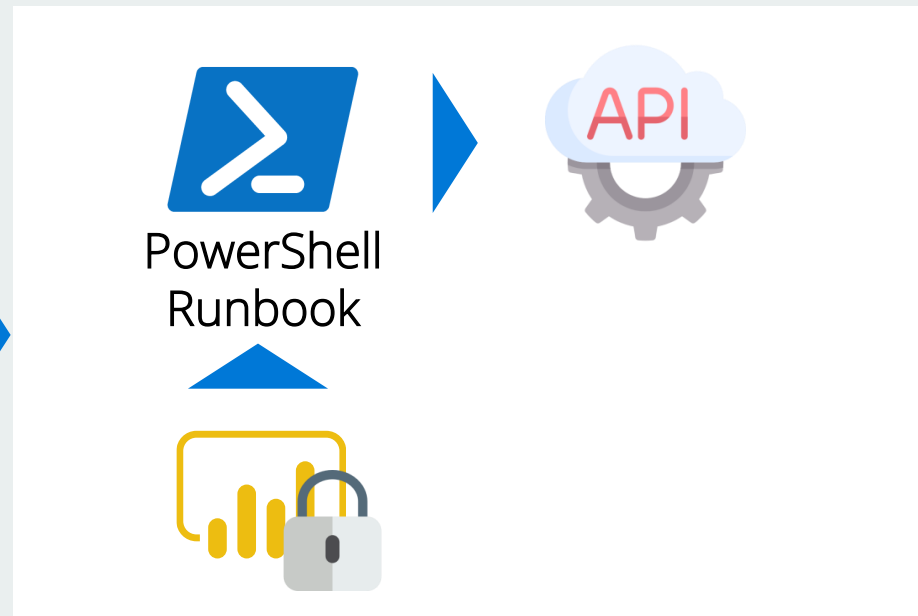


PowerShell Demo

Automating PowerShell



Azure Automation



CI/CD Process

Git Source Control

Cloud/Local Storage

Automation

Etc

dataMinds Connect 2019

Craig Porteous – REST API Automation with PowerShell and Azure
<https://craigporteous.com/rest-api-automation-with-powershell-in-azure/>



Cloud Storage



Simple

Easy to Implement

*Power BI integration

Not true Source Control

Not Enterprise solution

Requires user process

Microsoft Flow



Easy to use

Powerful

Many more capabilities

Initial setup difficult

Load restrictions

Could be easier

PowerShell



Versatile

Most powerful

Full capabilities of API

PS knowledge needed

Power BI Admin perms

provide best results

Business User

Developer / Programmer



Power BI Sentinel

Power BI
Sentinel



Easy to use

Extensive features

Only way to do
Change Tracking

Paid Solution

Introductory Offer

Community	Professional	Enterprise
Free	£10pm (~\$13) exc. UK VAT	£150pm (~\$200) exc. UK VAT
<ul style="list-style-type: none">✓ Access Personal Workspaces✗ Access Shared Workspaces✓ 10 Reports✓ Documentation✓ Change Tracking✗ PBIX Backup✗ Data Lineage✗ Admin Control✗ Multi-User✓ E-mail Support✗ No SLA	<ul style="list-style-type: none">✓ SLA: 2 Business Days	<ul style="list-style-type: none">✓ SLA: 1 Business Day
Sign Up	Sign Up	Sign Up

Configure

Server Config

Use your own storage (to enable PBIX backups)

☒ Yes

Azure Connection String End point address is required ⚠

To enable backups of your deployed PBIX files, you first need to create a 'Storage account - blob, file, table, queue' resource in your Azure Portal, ideally in the same region as your Power BI account is located. Then copy the Connection String from the Access Keys page of the storage resource, and enter it in the box above.

If you don't set up your own storage then the documentation and change tracking will still work, but your PBIX files will **not be backed up**.





Power BI Sentinel Demo

There is no golden bullet

Business Process

Technical Solution

Business Process

Technical Solution





bit.ly/dataMindsConnectSession



Thank You

Questions?



<https://craigporteous.com>



@cporteous



<https://github.com/cporteous>



<https://www.linkedin.com/in/craigporteous/>