Power BI dataflows: building your own refresh orchestration

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At your Service!

- Managing Director at Datalineo
- Microsoft MVP Data Platform
- Power BI, SQL/Azure/Power Platform
- Events & User Group
  - Dublin Power BI UG Leader
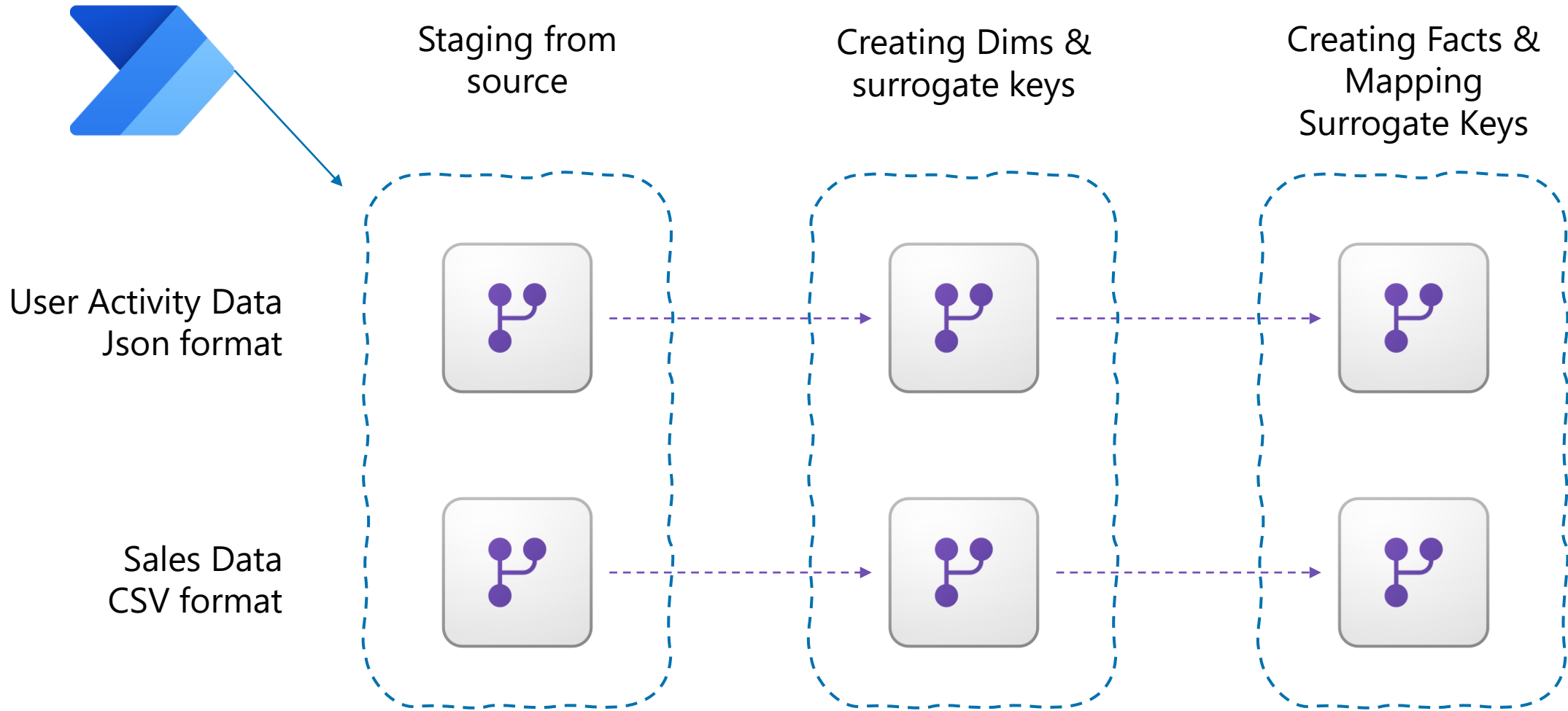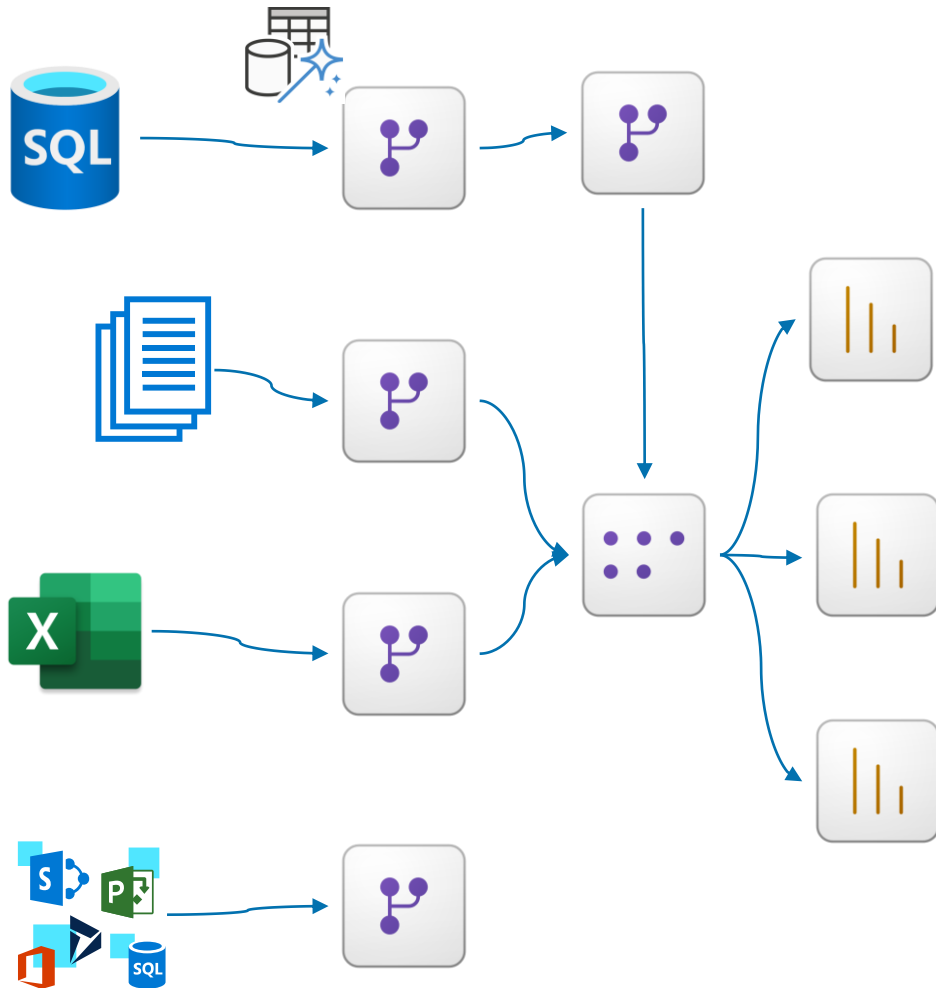 - Data Ceili June 2024

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Agenda

- **Demo**: the required outcome
- Dataflows: quick intro & scheduling
- BYO Orchestration
- But wait…
    - ECE
    - Fabric

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Staging from source

Creating Dims & surrogate keys

Creating Facts & Mapping Surrogate Keys

User Activity Data Json format

Sales Data CSV format

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Dataflows
- ❖ Data load and transformation
- ❖ Combine various sources
- ❖ User-level ETL
- ❖ Centralise and Share
- ❖ Dataflow + Table(s)
- ❖ ECE & Incremental Refresh

Scheduling
- ❖ Frequency, time of day
- ❖ No dependency/orchestration

△ Refresh

Configure a refresh schedule
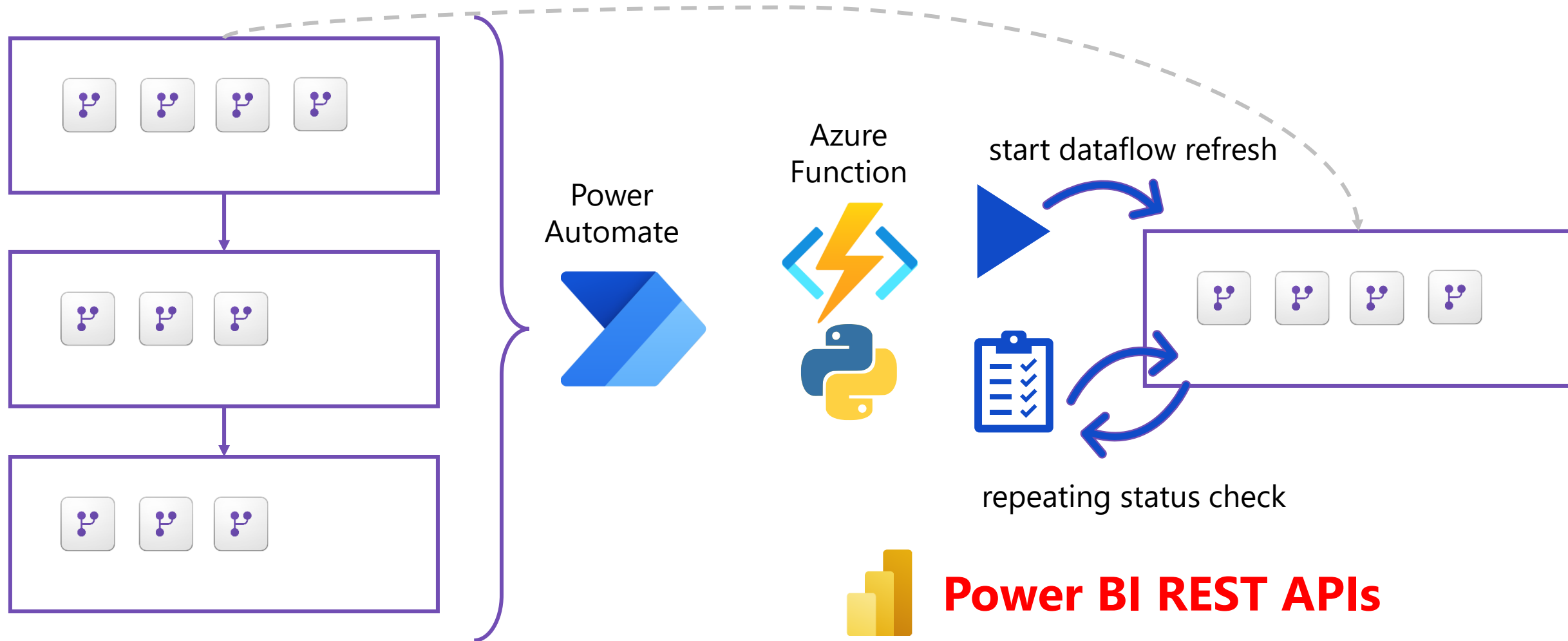Define a data refresh schedule to import data

⬤ On

Refresh frequency

| Daily | ⌄ |

Weekly	
Daily	
(UTC) Coordinated Universal Time	⌄

Time

Add another time

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5

The moving parts and the process

Power Automate

Azure Function

start dataflow refresh

repeating status check

Power BI REST APIs

Code review


```python
# ------------------------------------------
# Loop through the refresh list and start the refresh proce
# ------------------------------------------

for x in refresh_list['dataflows']:
    dataflow_name = x['name']
    dataflow_workspace_guid = x['workspace']
    dataflow_guid = x['dataflow']

    endpoint = f'https://api.powerbi.com/v1.0/myorg/groups,

    response = requests.post(url=endpoint,headers=header,da

    response_list.append(x)


return_message = json.dumps({'status':'success', 'results'
```

👆 Manually trigger a flow	0s	✓
{x} Api Code	0s	✓
{x} Dataflow List	0s	✓
{x} Dataflow List Status	0s	✓
▭ Refresh Dataflows	49s	✓

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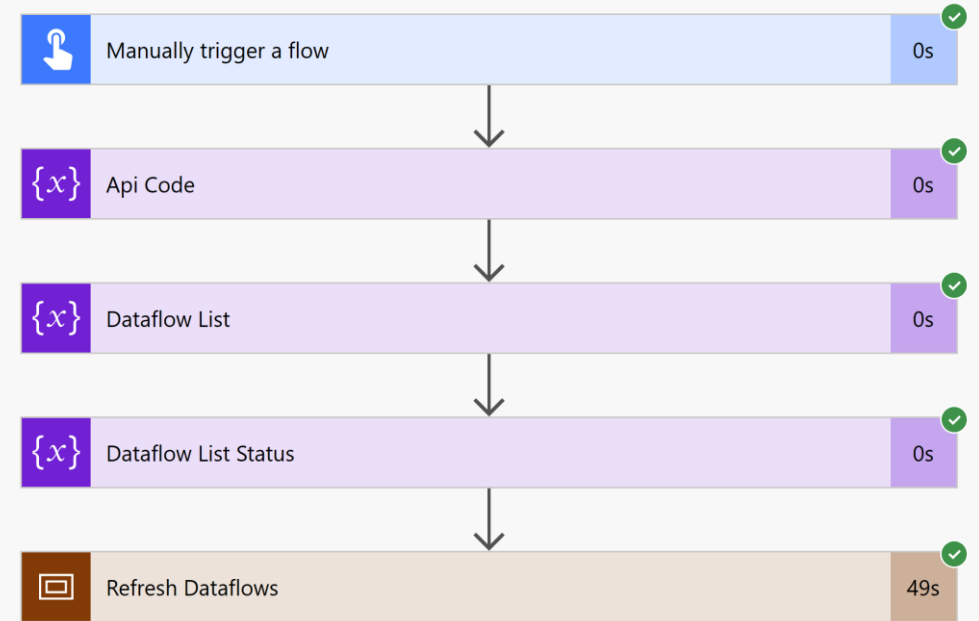
Enhanced
Compute
Engine

Fabric

https://sqlb.it/?12597
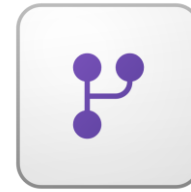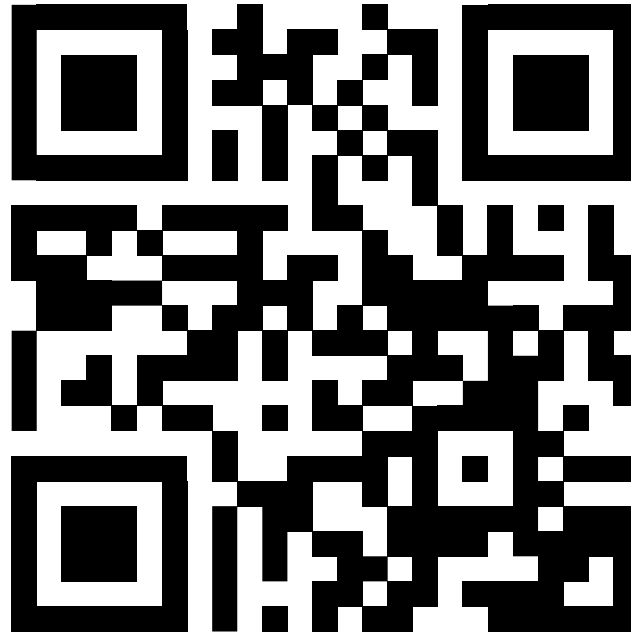
Questions

Checkbox
- In-Person, Virtual

Rating 1-9
- Knowledge of the subject area
- Speaker presentation skills
- Quality of demos
- Accuracy of session abstract
- Were your expectations met
- Overall performance of the session

Text Feedback
- Any other constructive feedback
- Your Name
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