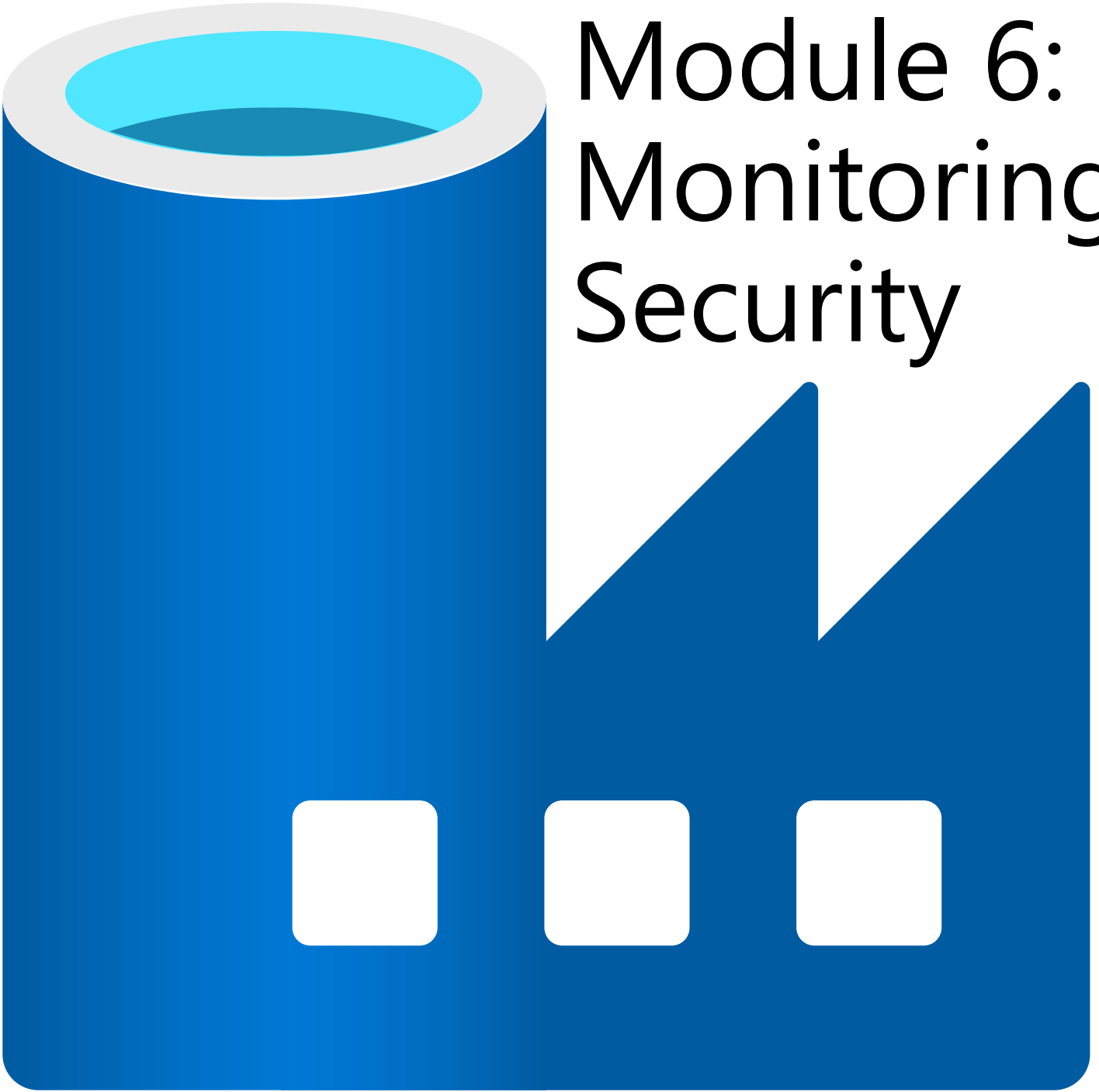
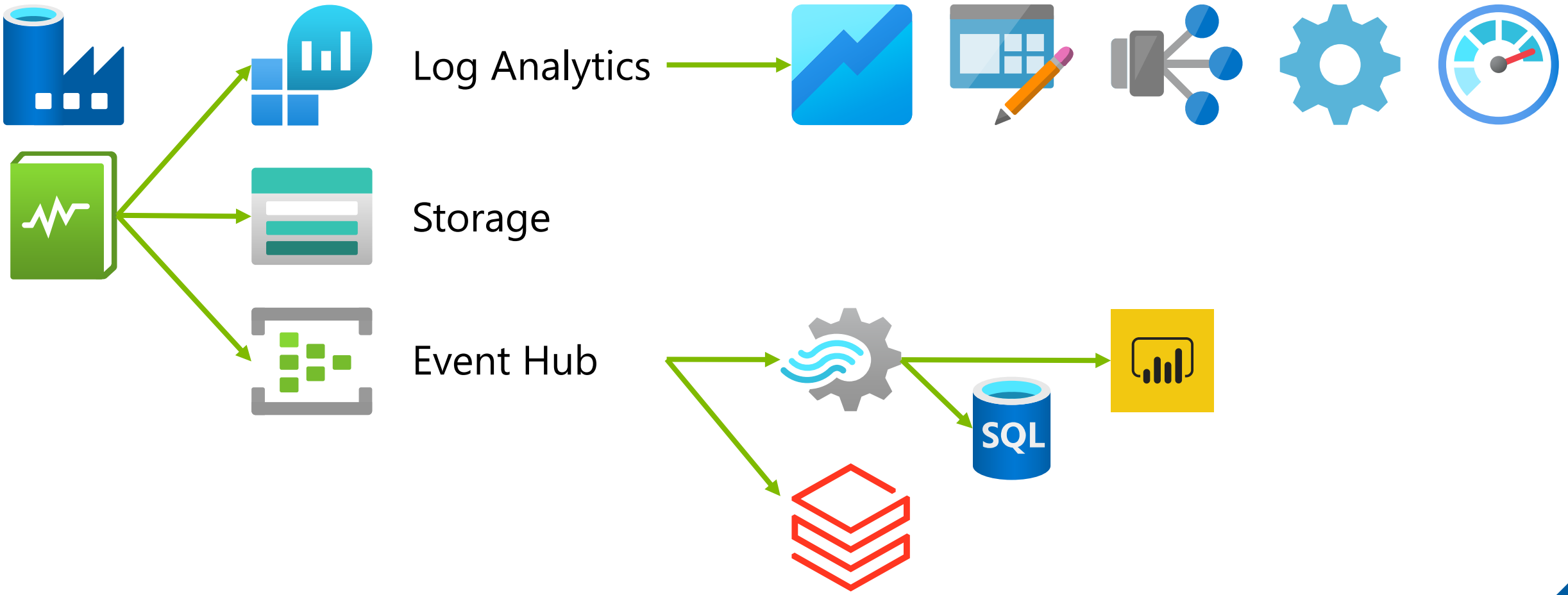


Module 6: Monitoring Alerting Security

- Logging - Kusto Queries
- Alerting
- Using Azure Key Vault
- Access & Permissions

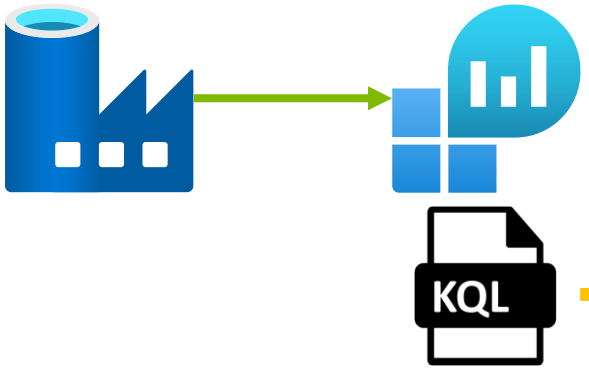
Logging

Diagnostic Settings

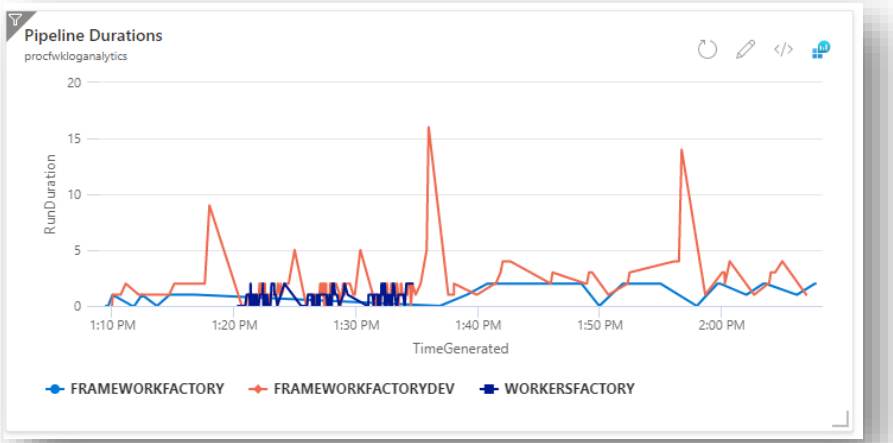


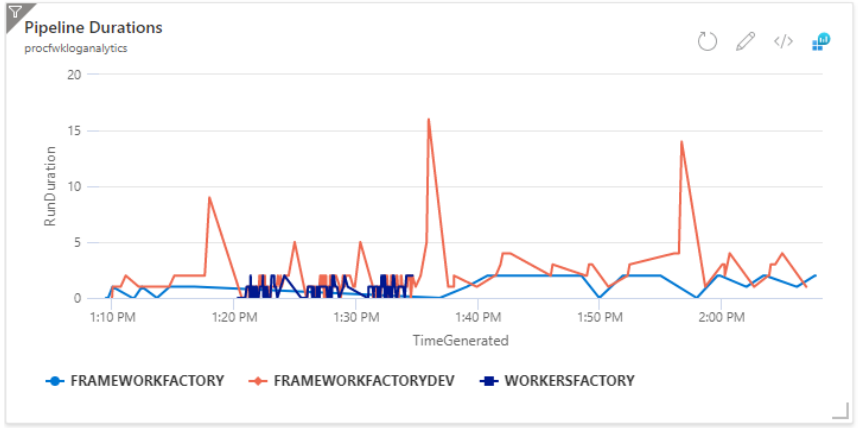
Diagnostic Settings

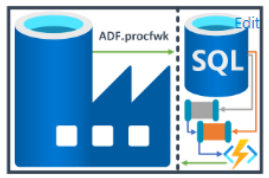
Using Log Analytics




```
ADFPipelineRunDurations
 | project
        TimeGenerated,
        Start,
        End,
        ['DataFactory'] = substring(ResourceId, 121, 100),
        Status,
        PipelineName,
        Parameters,
        ["RunDuration"] = datetime_diff('Minute', End, Start)
 | where
        TimeGenerated > ago(1h)
        and Status !in ('InProgress','Queued','Cancelling')
```




Pipeline Durations
procfwkloganalytics
20
15
10
5
0
RunDuration
1:10 PM
1:20 PM
1:30 PM
1:40 PM
1:50 PM
2:00 PM
TimeGenerated
FRAMEWORKFACTORY
FRAMEWORKFACTORYDEV
WORKERSFACTORY



Edit

Resources and Content

Edit

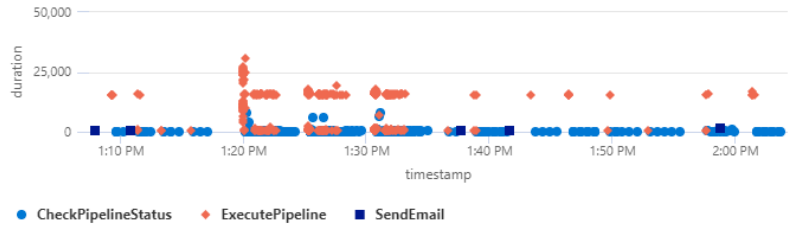
	Blogs	mrpaulandrew.com/ADF.procfwk
	GitHub	github.com/mrpaulandrew/ADF.procfwk
	Twitter	#ADFprocfwk

FrameworkSupportF...
Function App

Running

Function Call Durations

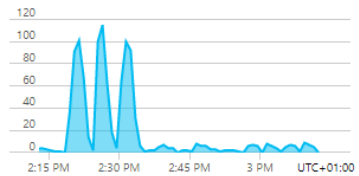
ProcFwkAppInsights



ProcFwkAppInsights
Application Insights

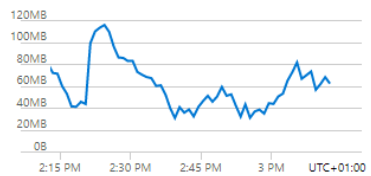
procfwkloganalytics
Workspace

Server requests



Server requests (Count)
procfwkappinsights
1.06 k

Memory working set



Memory working set (Sum)
frameworksupportfunctions
62.09 MB

FrameworkFactor...
Data factory

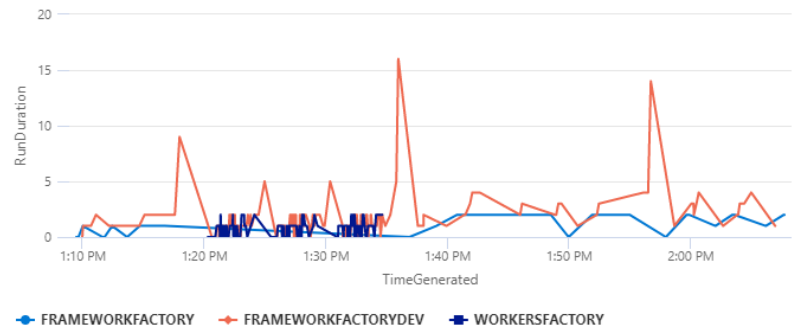
FrameworkFactor...
Data factory

FrameworkFactor...
Data factory

WorkersFactory
Data factory

Pipeline Durations

procfwkloganalytics



FrameworkKeys
Key vault

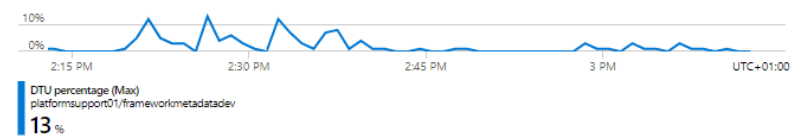
Average latency

auxiliary
frameworkkeys
45.45 ms

secret
frameworkkeys
33.57 ms

FrameworkMetadat...
SQL database
Online

Compute utilization



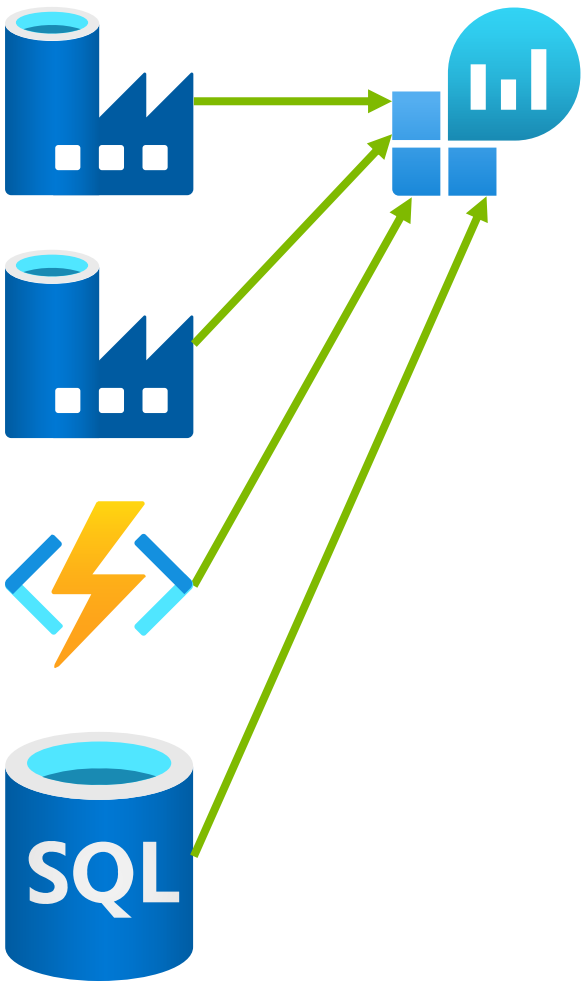
DTU percentage (Max)
platformsupport01/frameworkmetadatadev
13 %

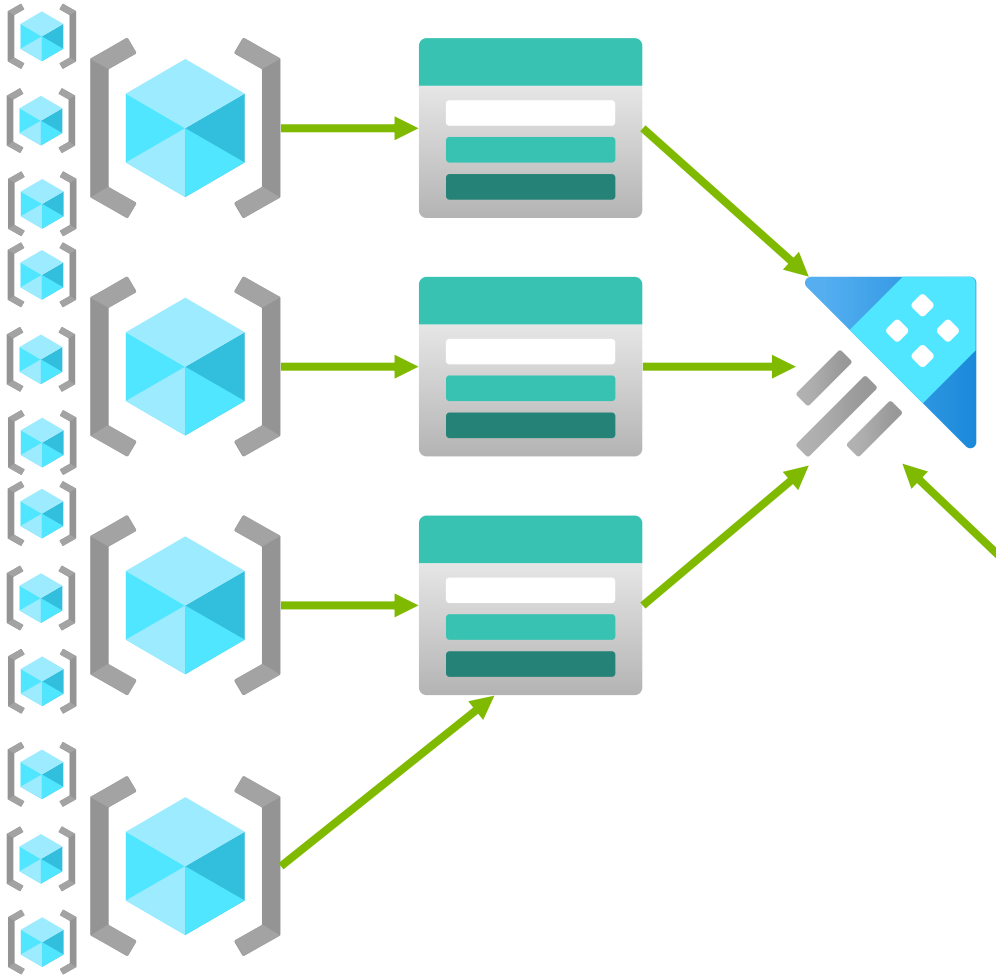
Resources

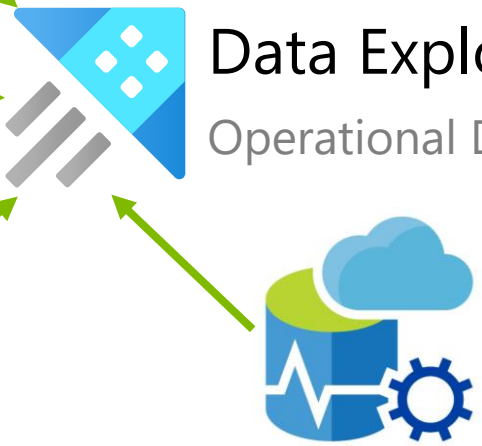
ADF.procfwk

- ProcFwkLogAnalytics
- FrameworkFactory
- FrameworkFactoryDev
- FrameworkKeys
- platformsupport01
- FrameworkMetadataDev (pl...
- frameworksupportstore
- frameworkstorage01
- FrameworkSupportFunctions
- FrameworkFactoryTest
- WorkersFactory
- frameworkonsynapse
- UKSouthPlan
- FrameworkMetadataTest (pl...
- ProcFwkAppInsights
- 9a4fe00e-39d9-4ec8-8f88-5...
- frameworkdatalake01
- sqlvaexht4i7t63enw

Using Data Explorer







Data Explorer

Operational Data Warehouse

Write KQL queries in Azure Data Studio Notebooks

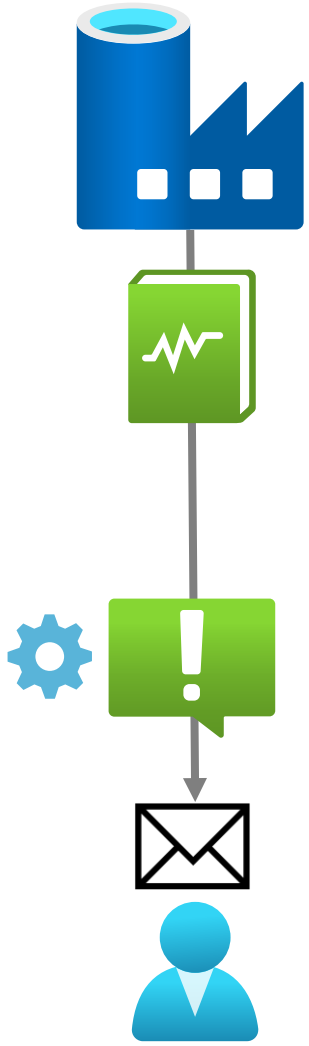
Small/Medium

Large/Enterprise

Alerting

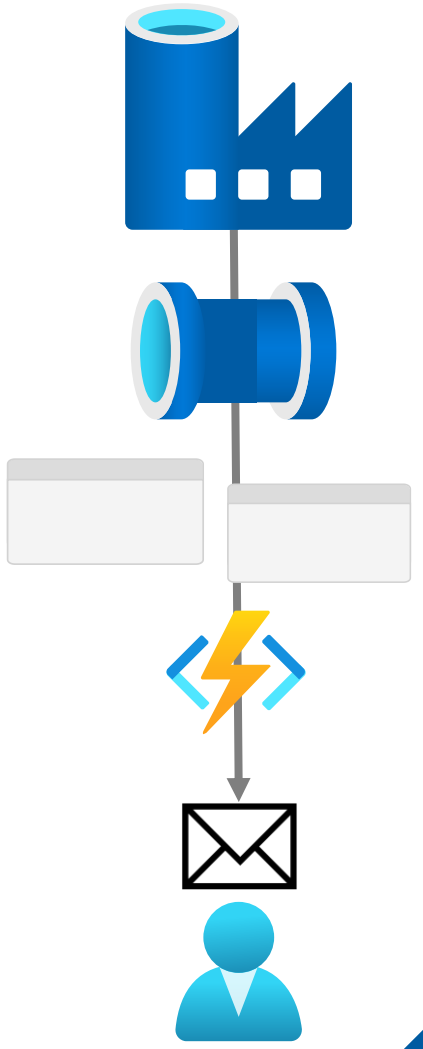
Alerting Options

Data Factory Defaults



Custom Queries

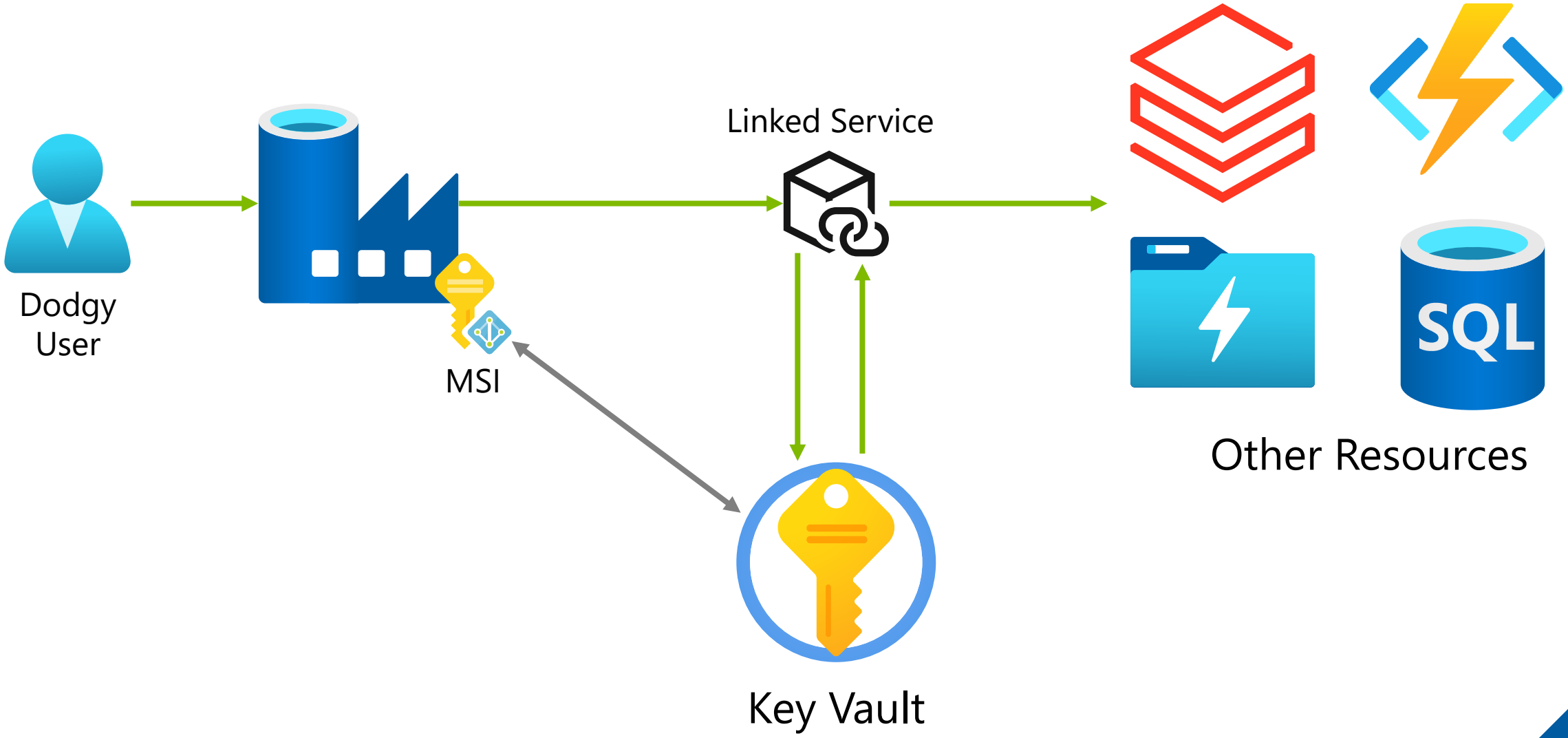
Custom Built Into Pipelines



DEMO

Using Azure Key Vault

Key Vault Interaction



Access & Permissions

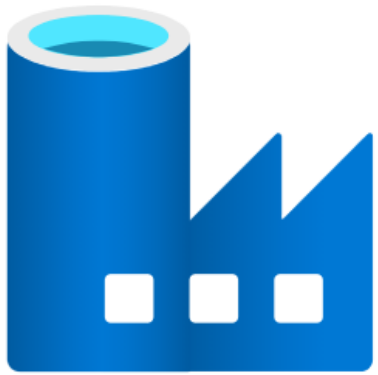
https://portal.azure.com

PaulsFunFactory

Documentation

Author & Monitor

https://adf.azure.com



Select Data Factory

Microsoft Azure Data Factory is a cloud-based data integration service that automates data movement and transformation. Learn more

Azure Active Directory *

mrpaulandrew

Subscription

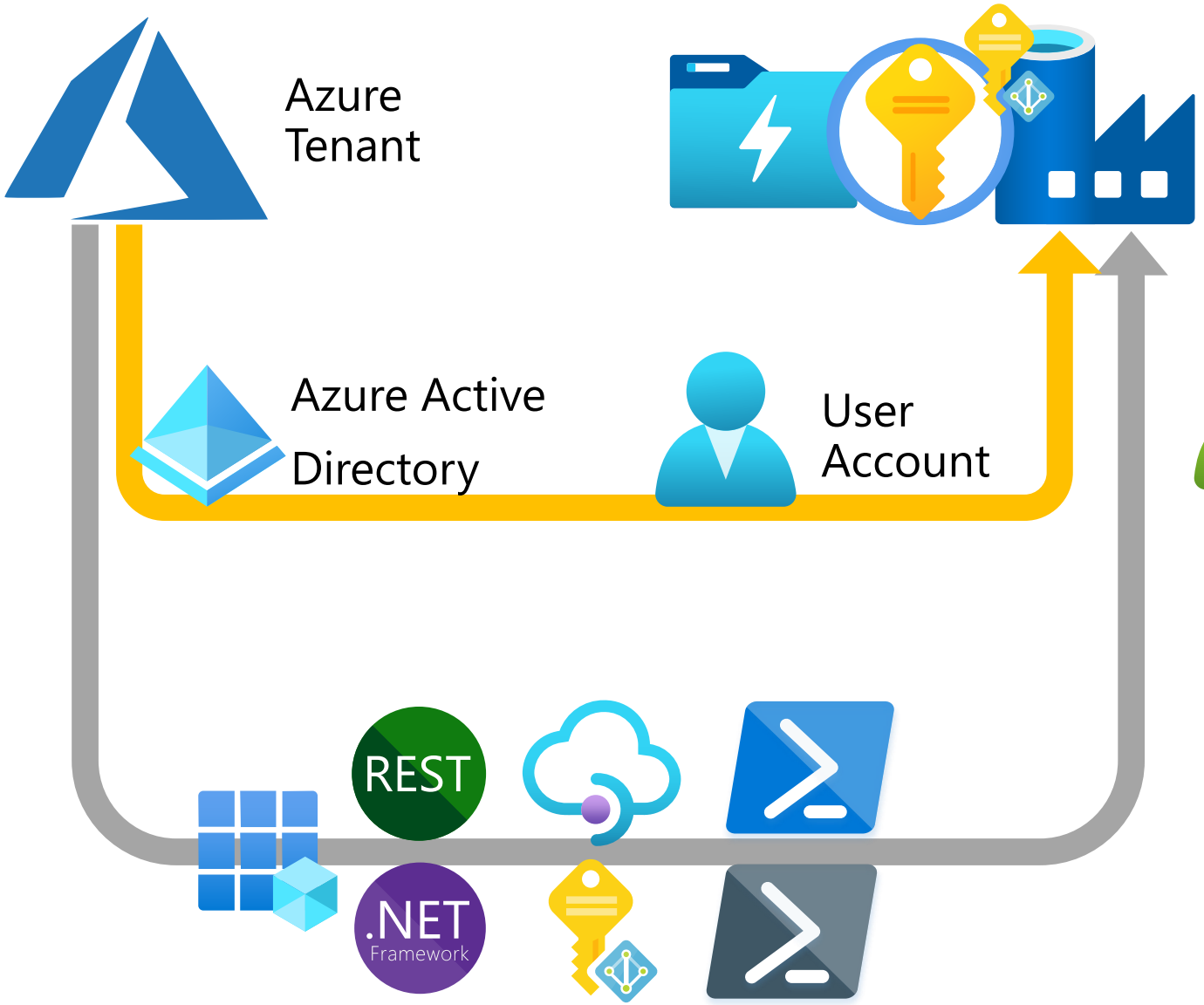
Microsoft Azure Sponsorship

Data Factory name *

Continue

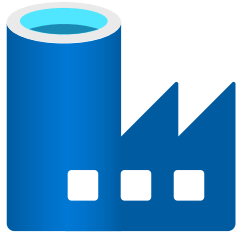
Accessing Data Factory

Linked Service Administrator ✘
Pipeline Executor ✘
Dataset Reader ✘



Accessing Data Factory – Custom Roles

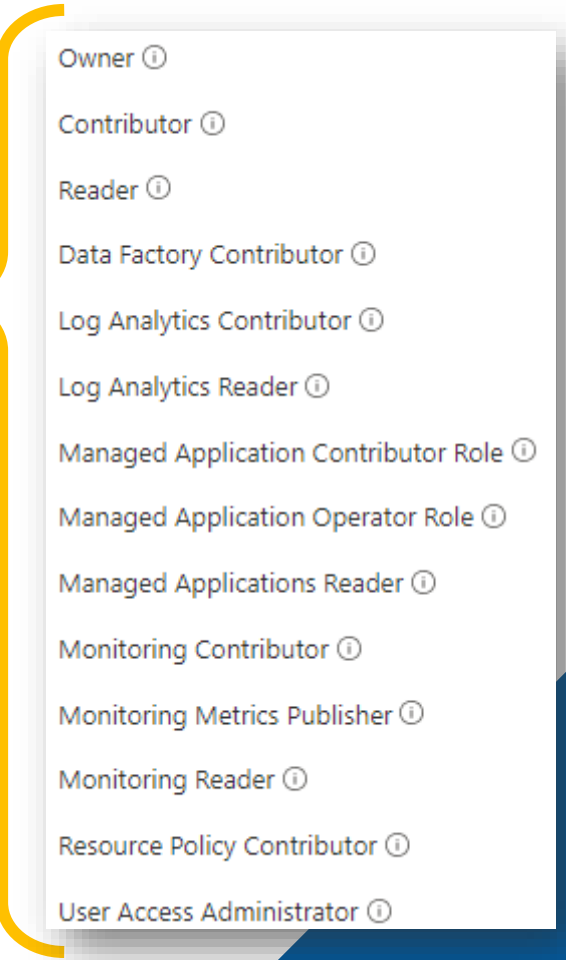
Azure Tenant



Azure Data Factory

Azure Active Directory

User Account

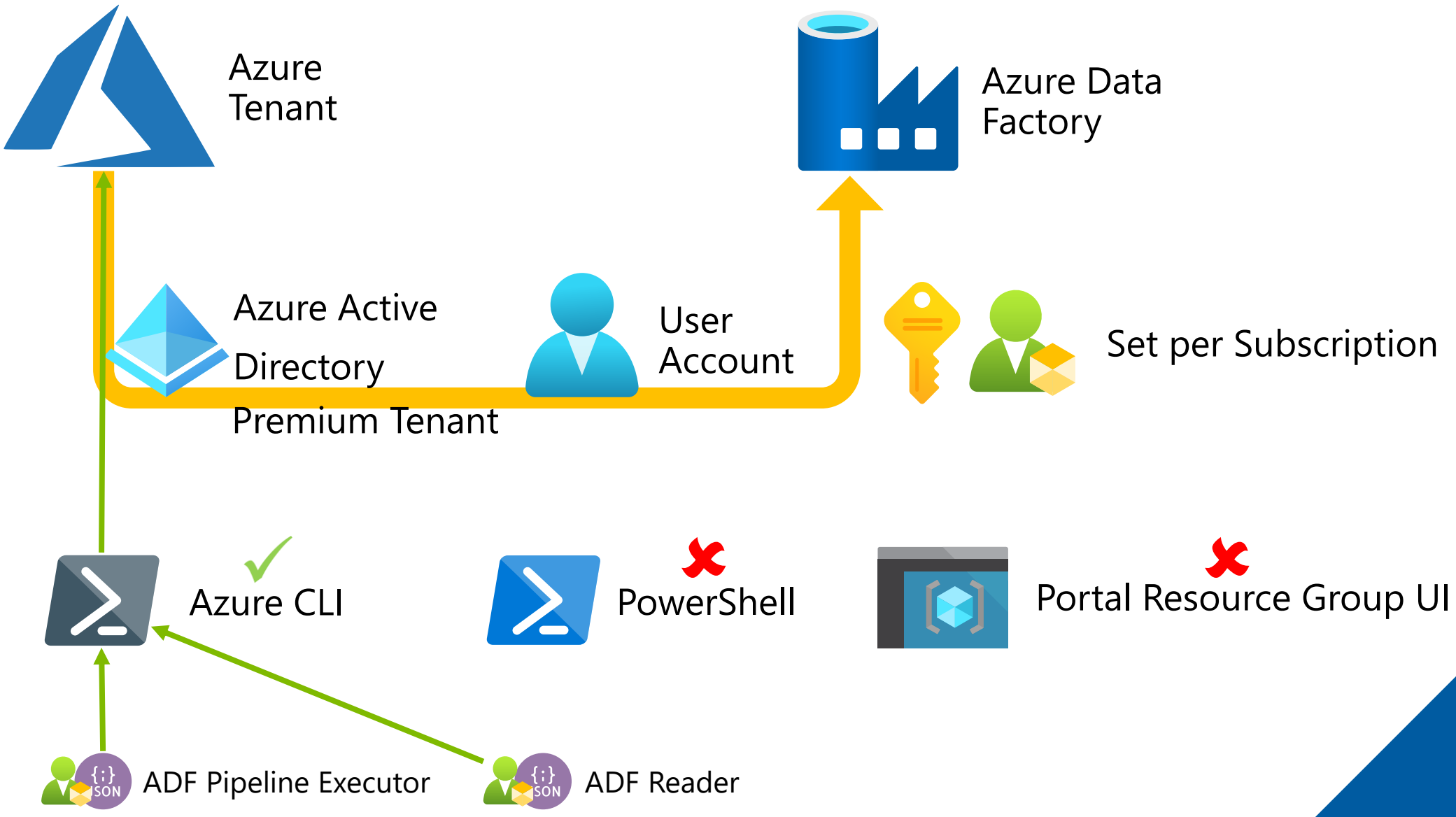


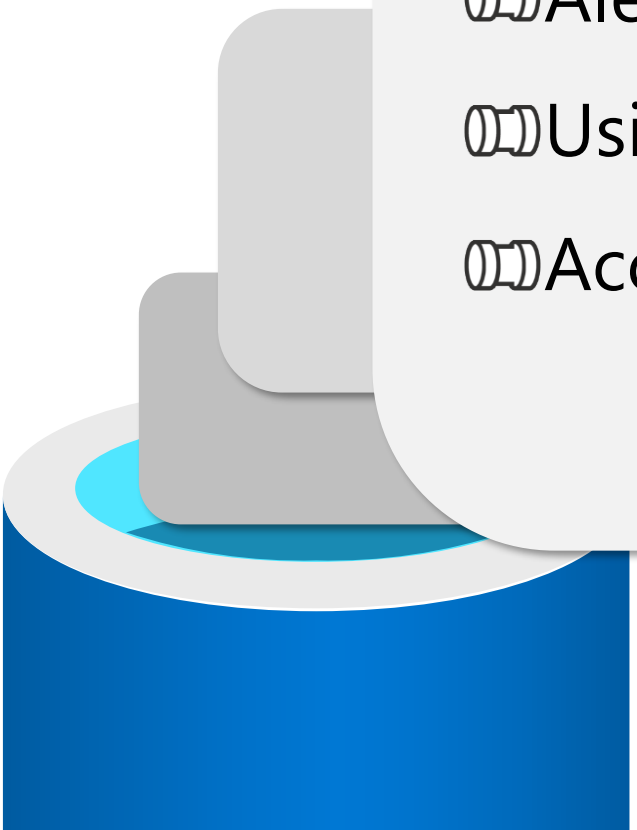

```
"Actions": [
    "Microsoft.DataFactory/operations/read",
    "Microsoft.DataFactory/factories/pipelines/read",
    "Microsoft.DataFactory/factories/linkedServices/read",
    "Microsoft.DataFactory/factories/datasets/read",
    "Microsoft.DataFactory/factories/dataflows/read",
    "Microsoft.DataFactory/datafactories/read"
],
```

ADF Pipeline Executor

ADF Reader

Accessing Data Factory – Custom Roles



Module 6:
Monitoring Alerting Security

- Logging - Kusto Queries ✓
- Alerting ✓
- Using Azure Key Vault ✓
- Access & Permissions ✓