

Building an Azure Business Intelligence Solution End to End

Hands On Workshop

Paul Andrew | Senior Consultant

Terry McCann | Principal Consultant

Simon Whiteley | Cloud Architect



Gold Data Analytics
Gold Data Platform
Gold Cloud Platform

Agenda for the Day

Module 1

Microsoft Azure

Module 2

Storage
Uploading Data
Data Lake

Module 3

Real-time Data
Streaming
Power BI

Module 4

U-SQL - Data
Transformation
Basics

Module 5

USQL - Advanced
Analytics
Cognitive Services

Module 6

Data Factory
Orchestration
Dynamic Pipelines

Module 7

Data Presentation
& Consumption
Power BI Models

Module 8

Other Services
Q&A



<https://github.com/mrpaulandrew>

AdatisBlinAzureWorkshop

Agenda

Getting Data to
the People

Power BI
Overview

Power BI
Considerations

Power BI
Extensibility

Agenda

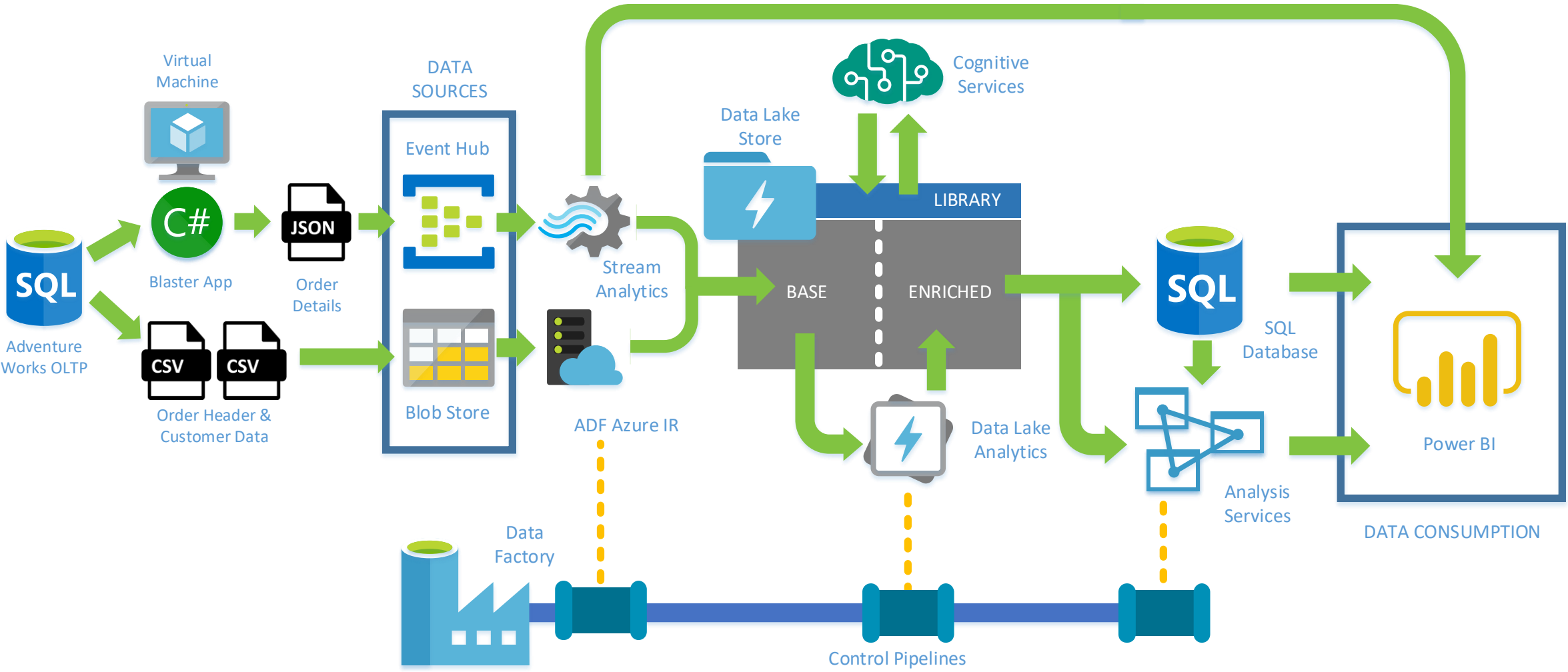
Getting Data to
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Power BI
Overview

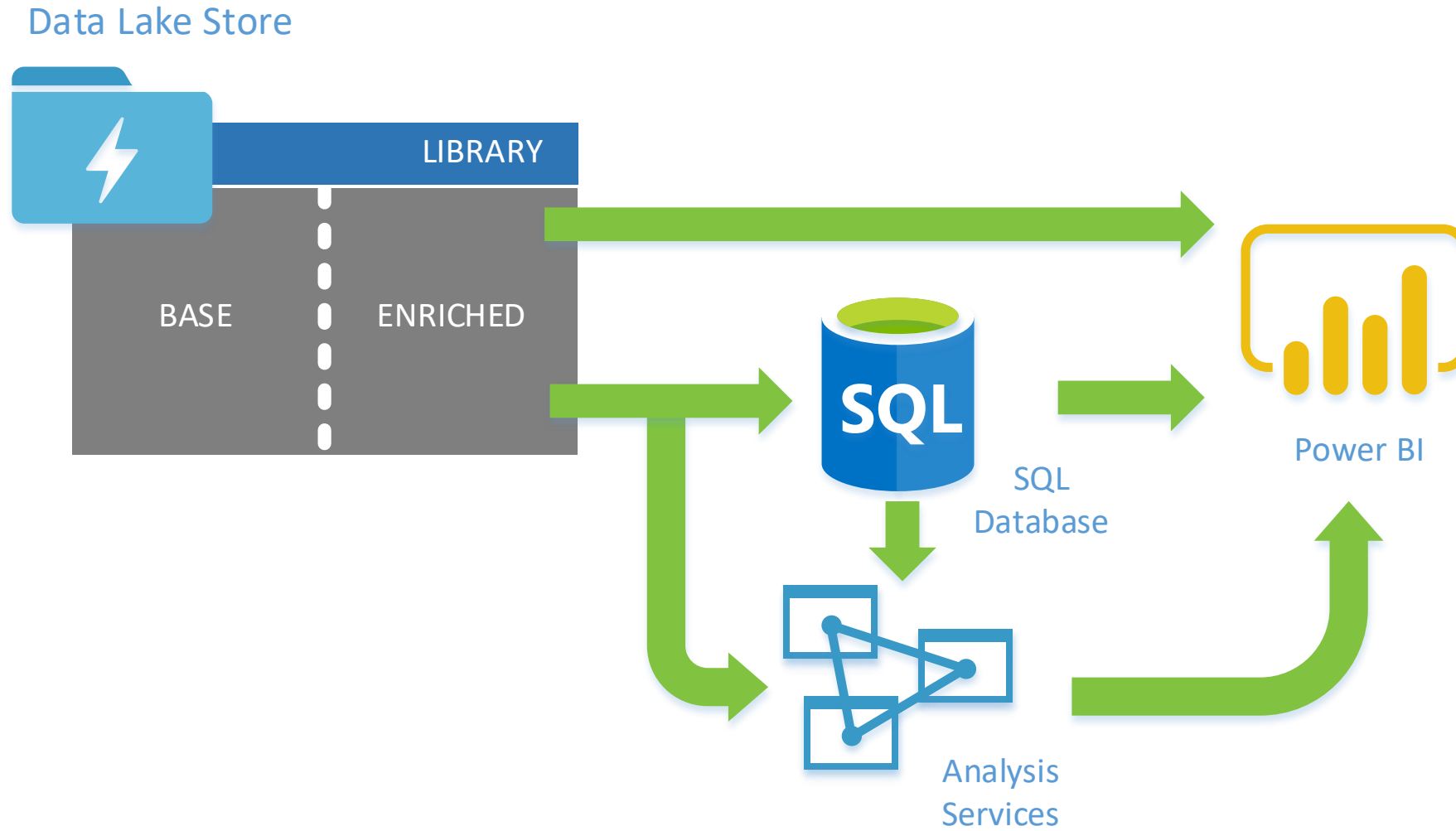
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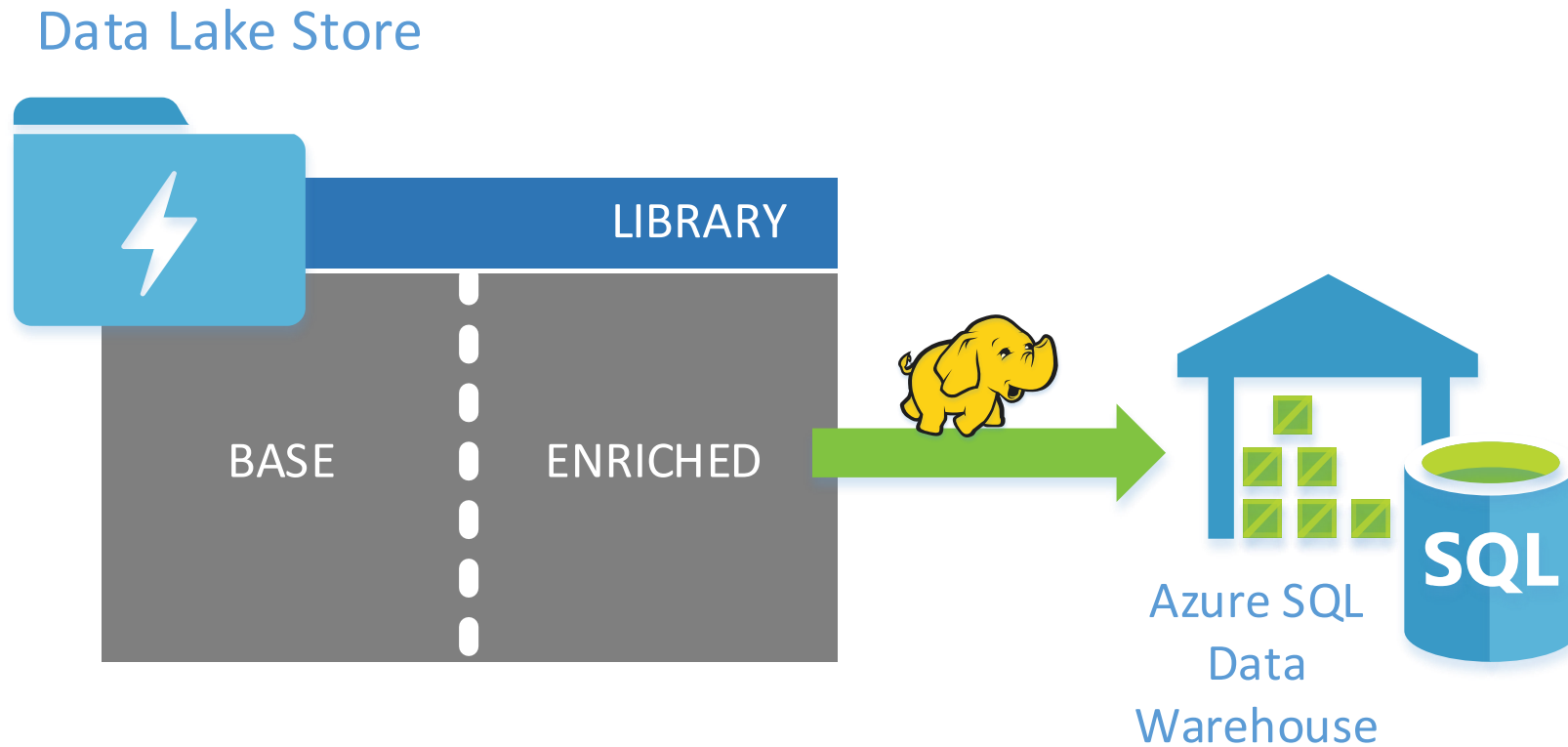
Our Architecture



Traditional Models

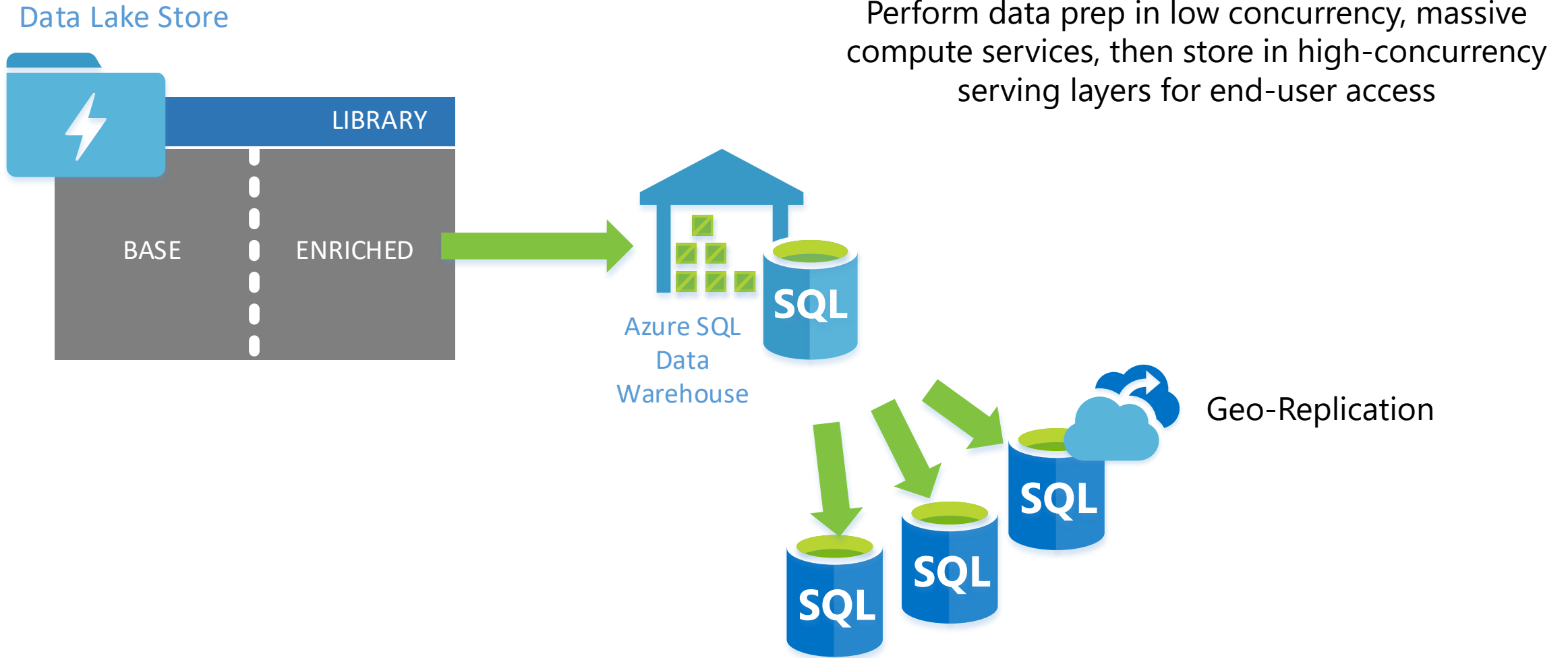


Large Data Warehouses



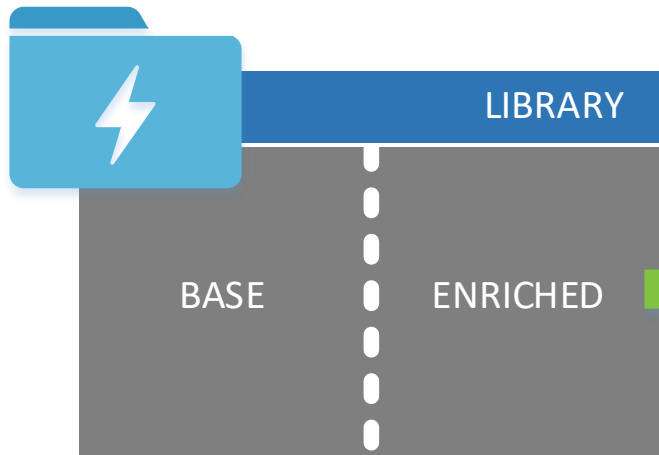
Good for multi-terabyte datastores – any less is likely to be wasting money!

Hub & Spoke

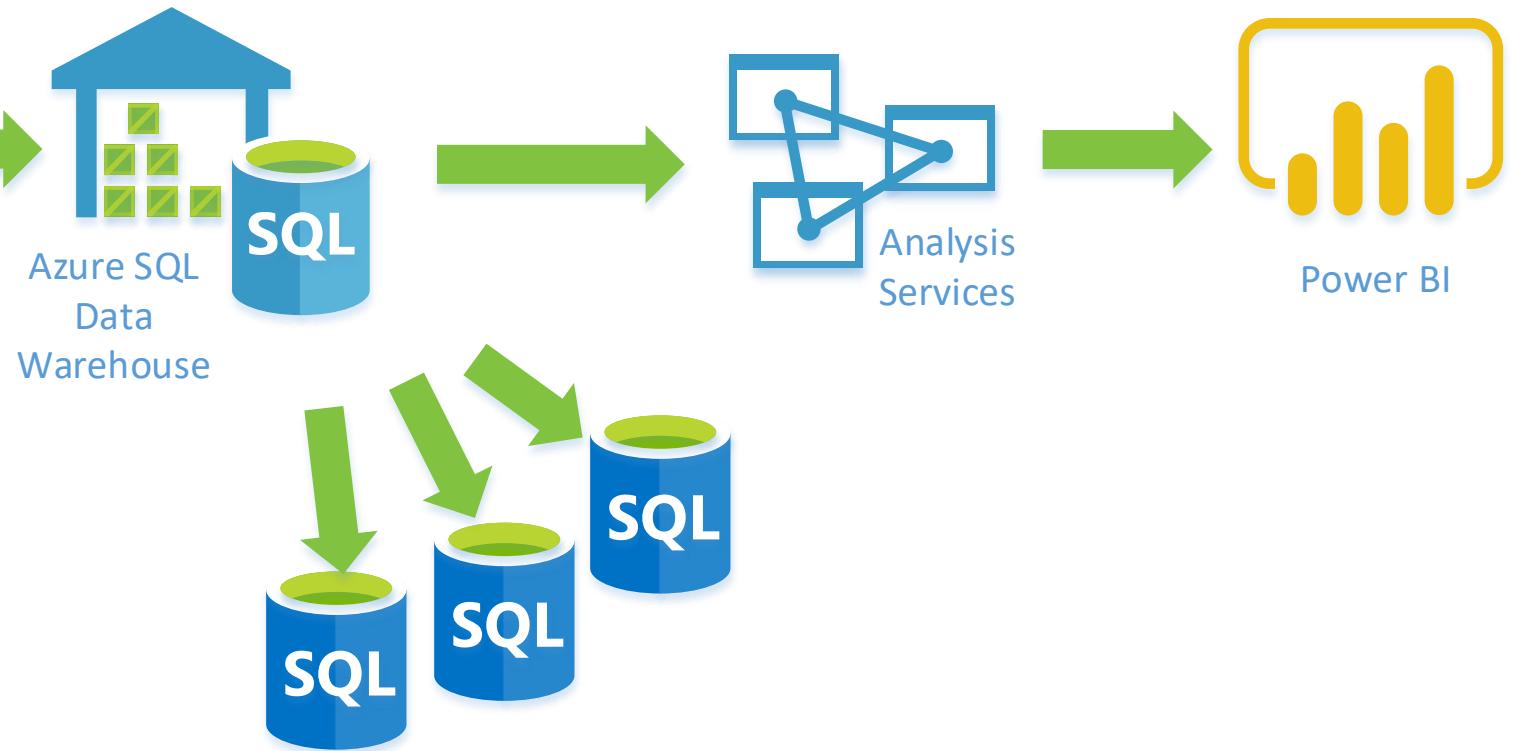


Combination Architectures

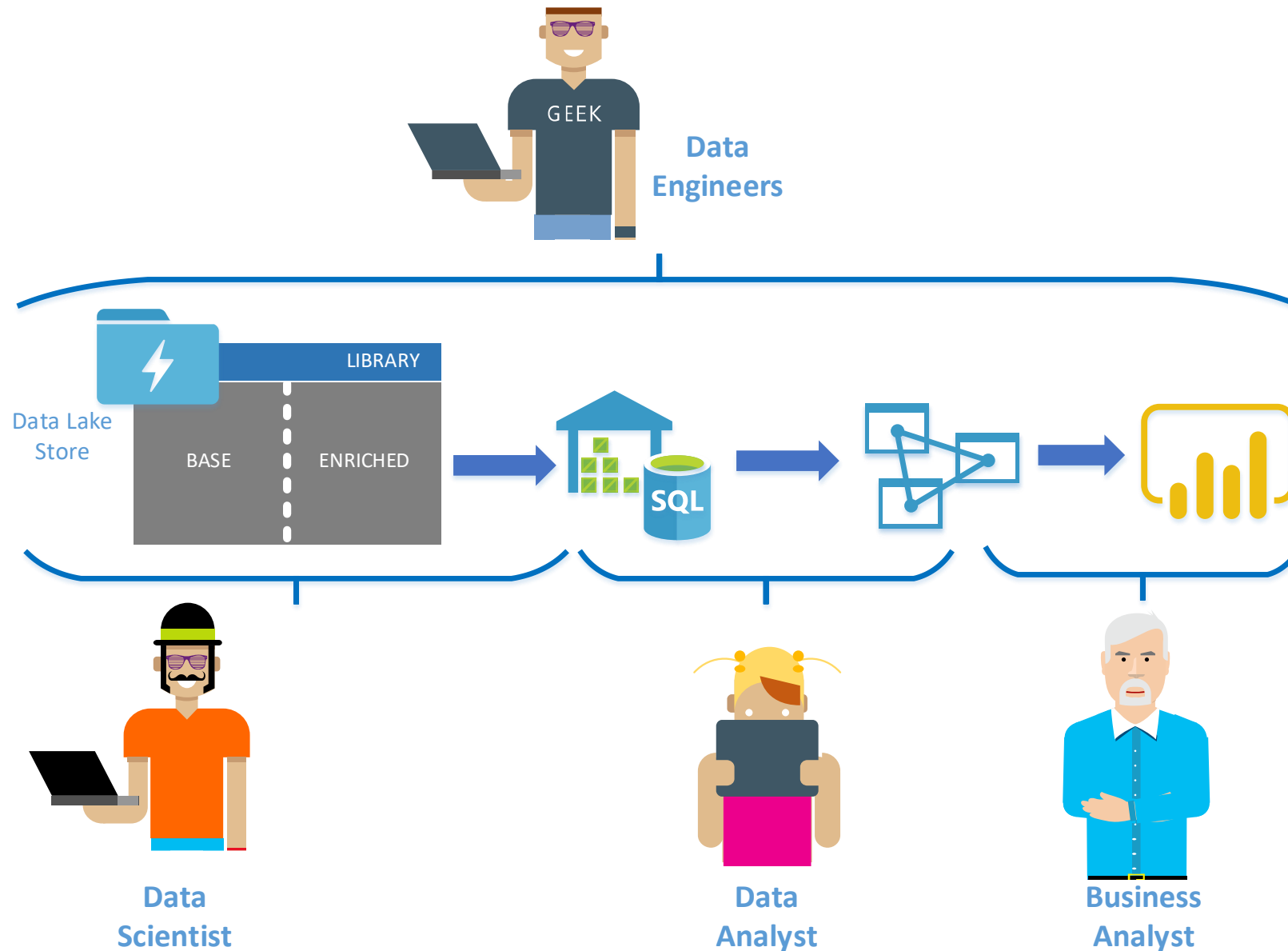
Data Lake Store



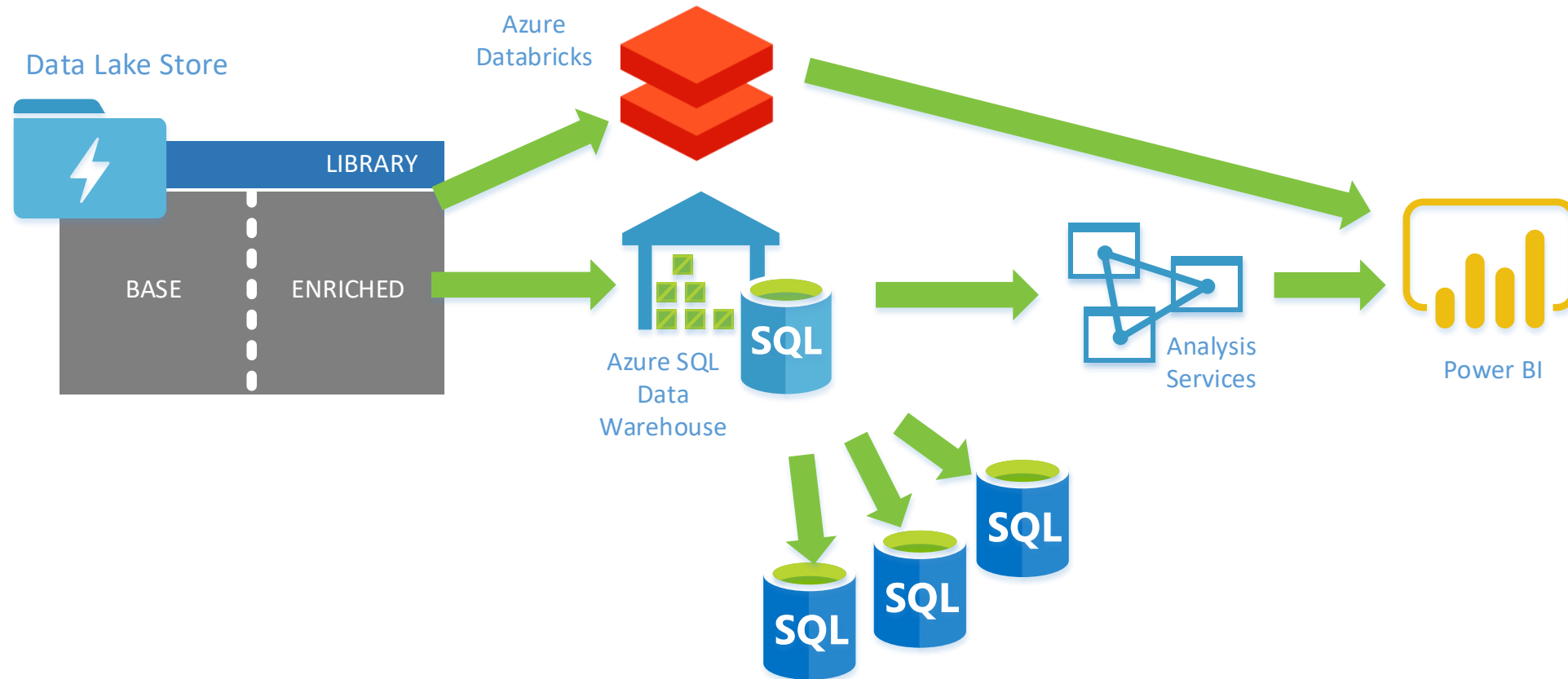
Can easily serve multiple presentation pathways



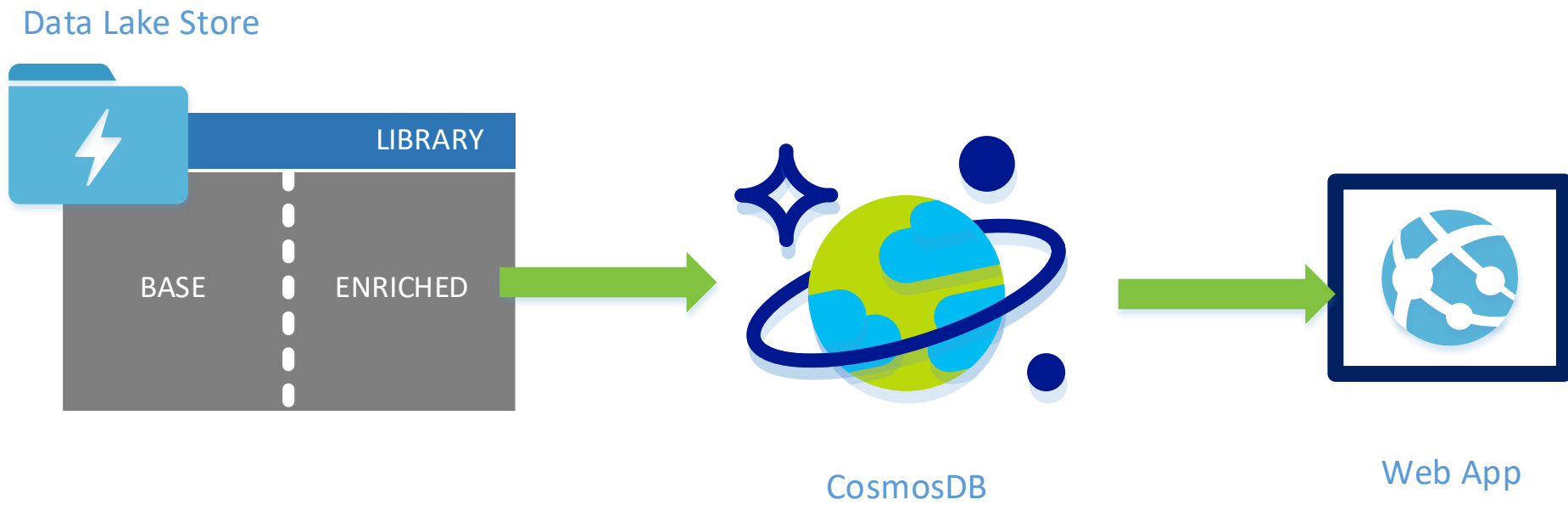
Target different end-users with different services



Alternatives – Spark Processing



Alternatives – Web Backend



Agenda

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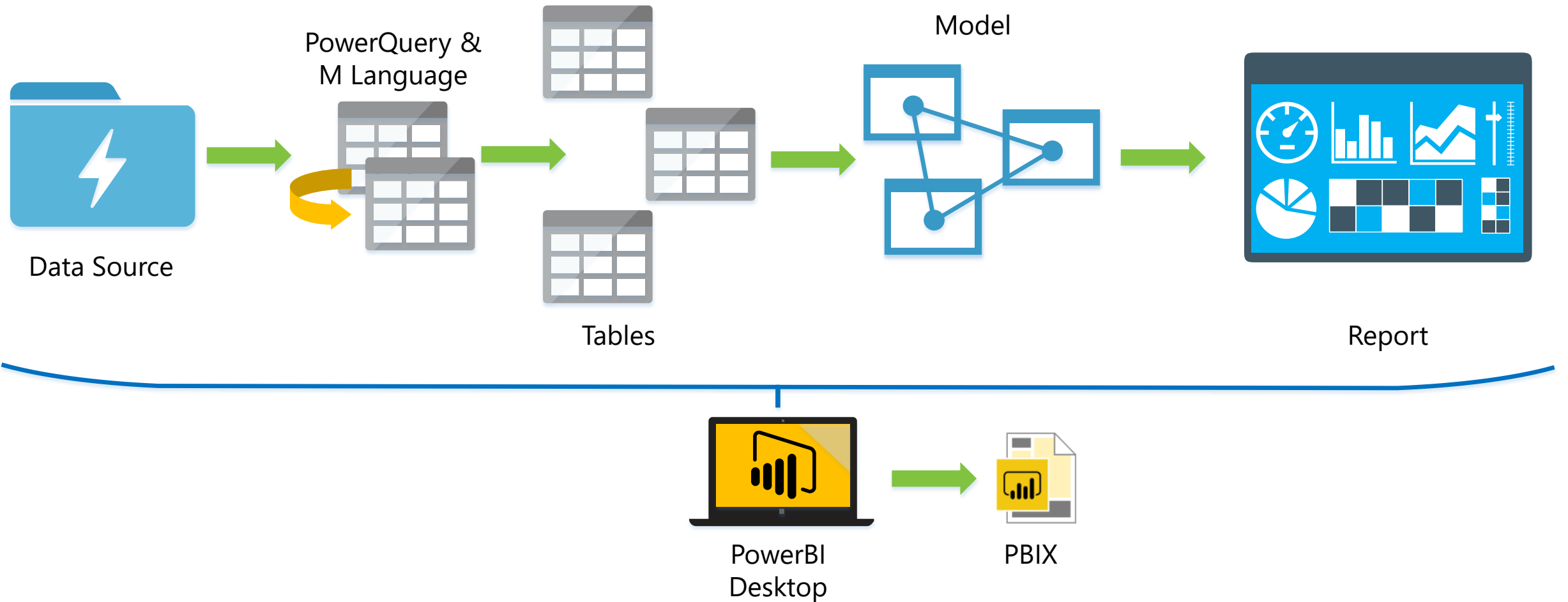
Power BI
Considerations

Power BI
Extensibility

What is PowerBI?



Building a PowerBI Report



Publishing Reports





Agenda

Getting Data to
the People

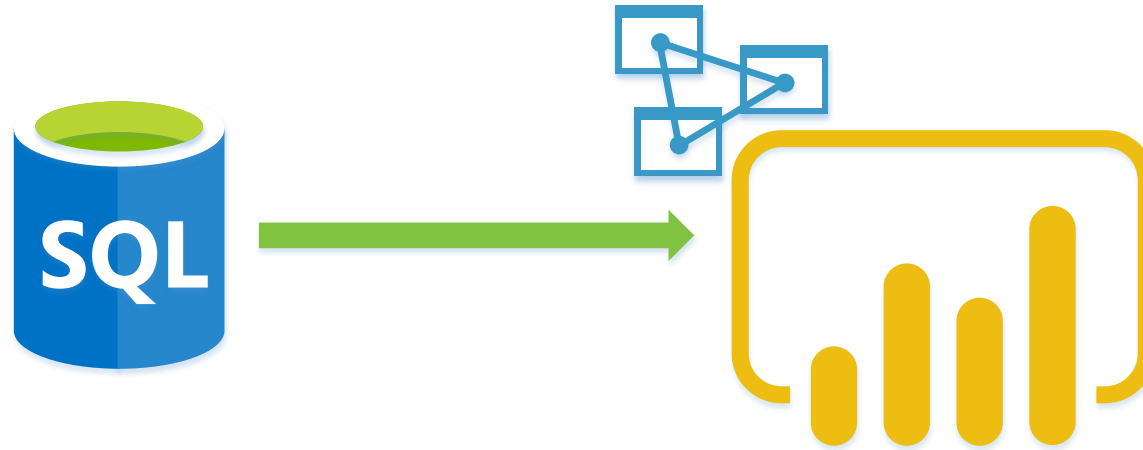
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Power BI
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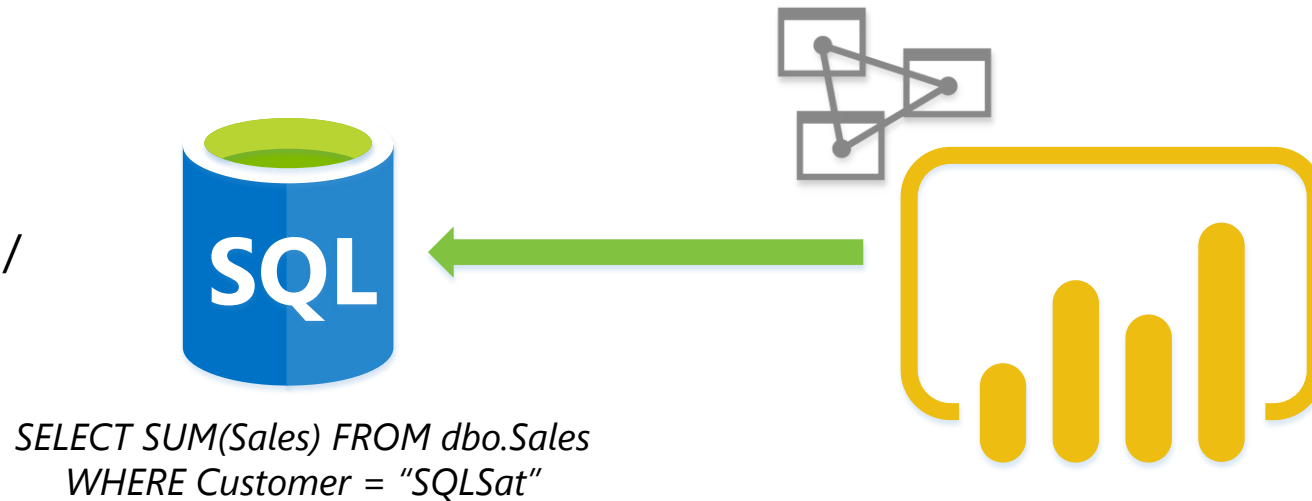
Power BI
Extensibility

Model Types

Imported Data Sets



Direct Connect /
Live Query



Think MOLAP VS
ROLAP!

Direct Query Considerations



Query per Visual = Bad for Concurrency

Limitations

Azure Source	Data Access	Model Editing	Visuals
SSAS	NO	NO	✓
SQLDB	NO	✓	✓
SQLDW	NO	✓	✓
ADLs	✓	✓	✓
Blob	✓	✓	✓



Optimise Query Folding

Sourcing from Data Lake



Data Lake Store can be used as a source – Data Lake Analytics can not!

Agenda

What is Power BI

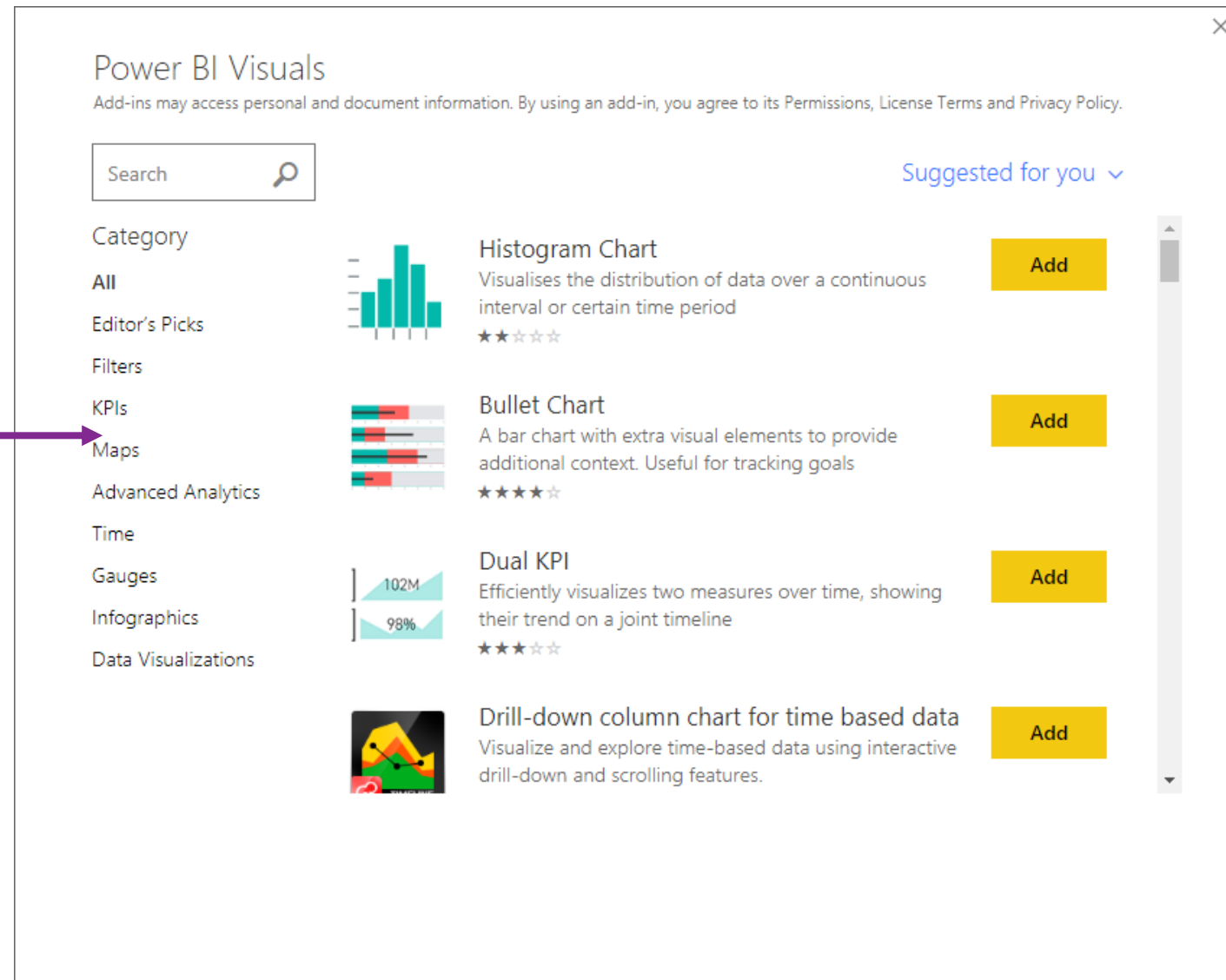
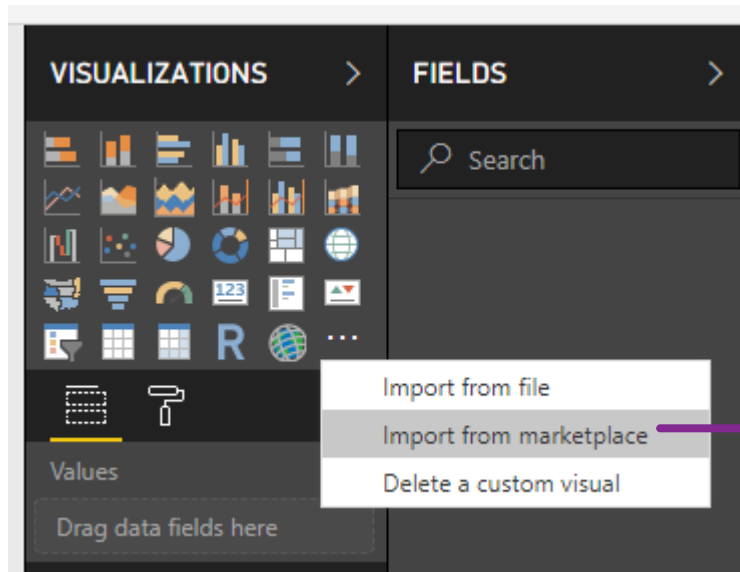
Model Handling

Power BI in
Production

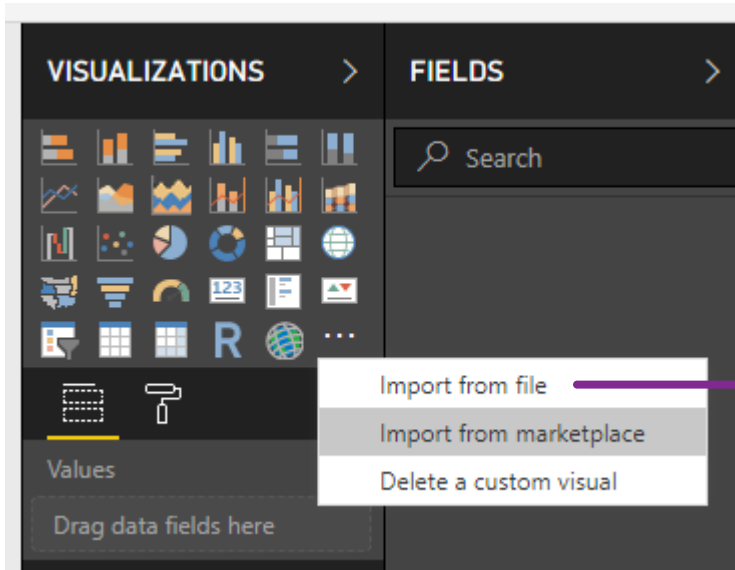
Limitations &
Considerations

Power BI
Extensibility

Custom Visuals - Marketplace



Custom Visuals – Create Your Own



`npm install -g powerbi-visuals-tools`

Building Bar Chart

1. [Building a Visual with Static Data](#)
2. [Adding Databinding to the Bar Chart](#)
3. [Adding Color to the Bar Chart](#)
4. [Adding Selection and Interaction with Other Visuals](#)
5. [Adding Static Objects to Property Pane](#)
6. [Adding Databound Objects to Property Pane](#)
7. [Adding Tooltips to the Bar Chart](#)
8. [Adding A Slider control to the Bar Chart](#)
9. [Adding Locale support to the Bar Chart](#)
10. [Adding URL Launcher element to the Bar Chart](#)
11. [Finally Package for Distribution ... Done!](#)

<https://github.com/Microsoft/PowerBI-visuals>

<https://docs.microsoft.com/en-us/power-bi/service-custom-visuals-getting-started-with-developer-tools>

PowerBI Visuals - Help

