

Building an Azure Business Intelligence Solution End to End

Hands On Workshop

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Gold Data Analytics
Gold Data Platform
Gold Cloud Platform



<https://github.com/Adatis>

ModernDataWarehouseWorkshop

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

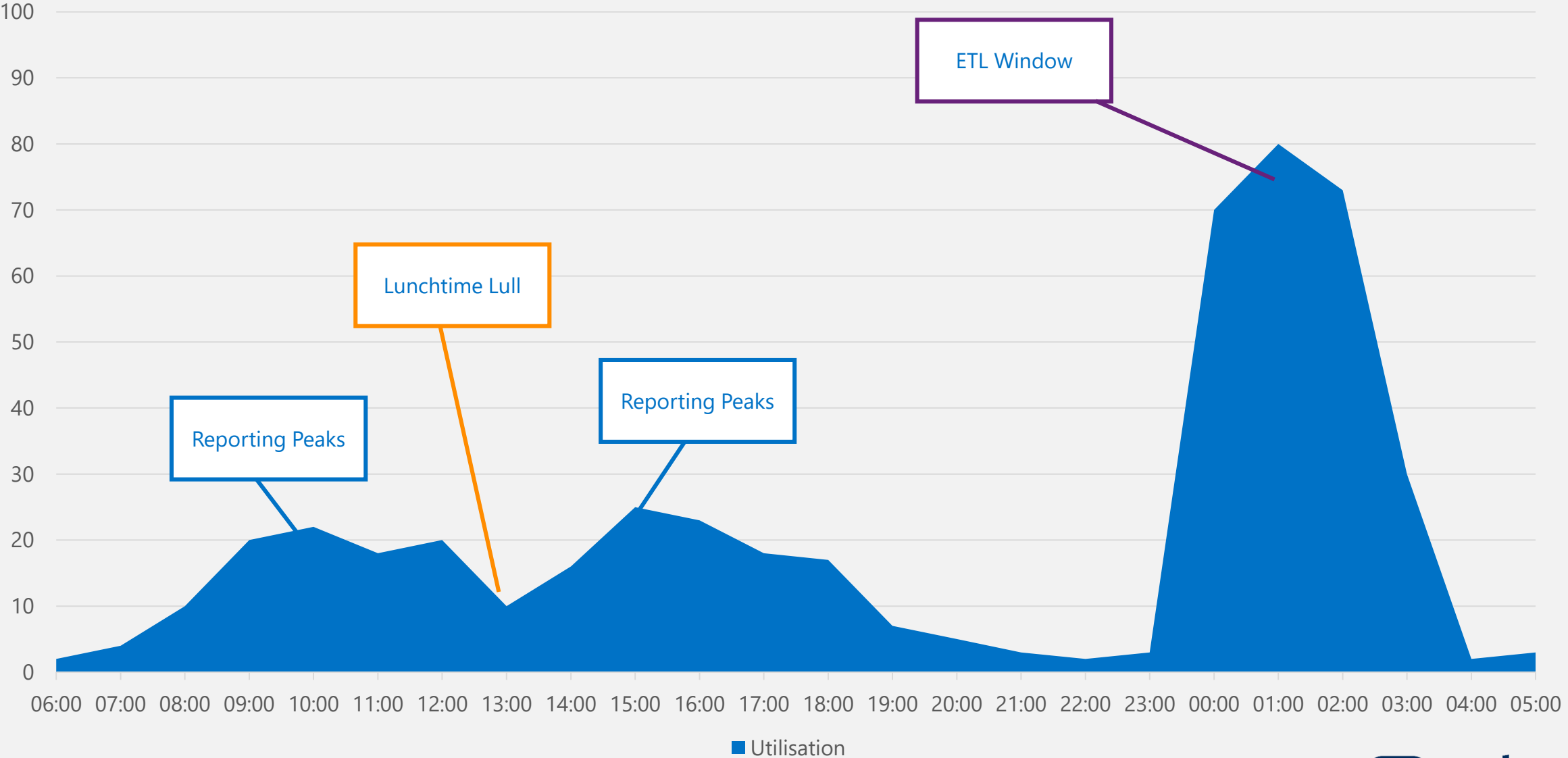
Module 7

Data Presentation
& Consumption
Power BI Models

Module 8

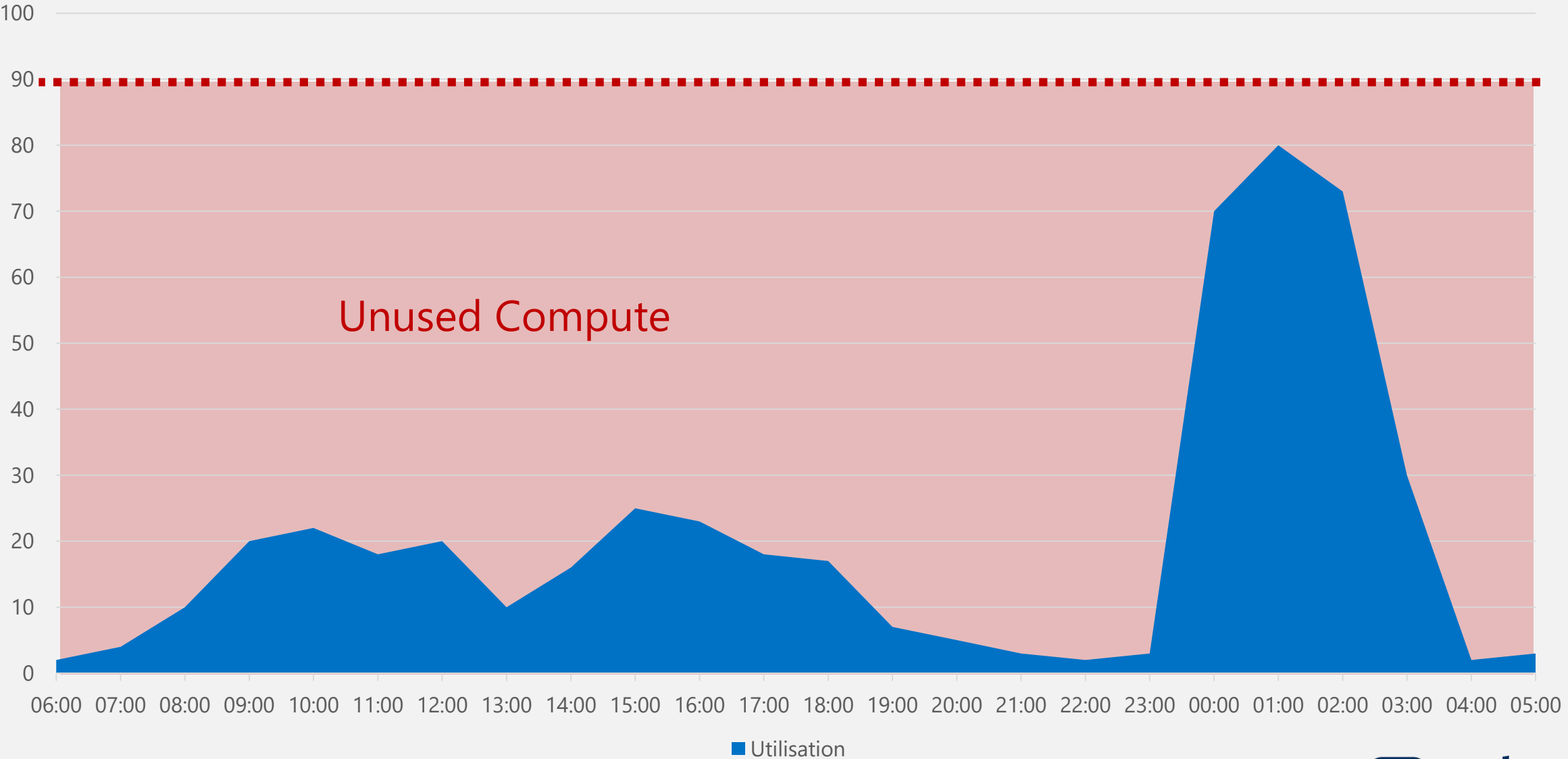
Other Services
Q&A

Daily Server Utilisation



How do you size your server?

Daily Server Utilisation



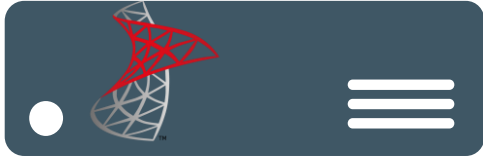
Unused Compute =
Wasted Money

Effective Cloud Solutions manage cost
by managing compute

Concepts – Stuff as a Service

On Premises	Infrastructure as a Service (IaaS)	Platform as a Service (PaaS)	Software as a Service (SaaS)	
Applications	Applications	Applications	Applications	
Data	Data	Data	Data	
Runtime	Runtime	Runtime	Runtime	
Middleware	Middleware	Middleware	Middleware	Managed by Microsoft
Operating System	Operating System	Operating System	Operating System	Managed by You
Virtualization	Virtualization	Virtualization	Virtualization	
Servers	Servers	Servers	Servers	
Storage	Storage	Storage	Storage	
Networking	Networking	Networking	Networking	

IaaS Vs PaaS Features

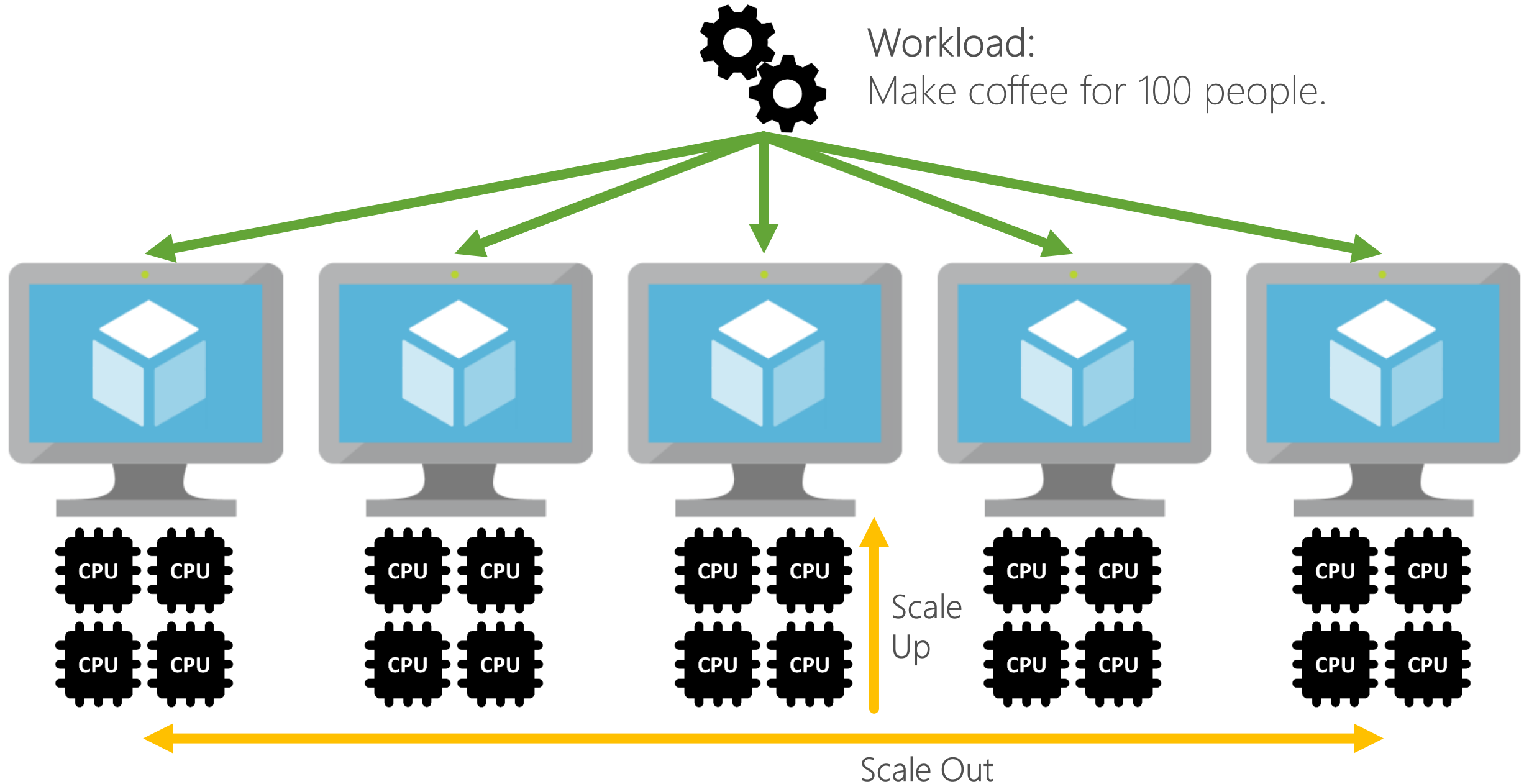


- Requires Infrastructure Monitoring
- Basic Scaling
- Standard Release Cycle

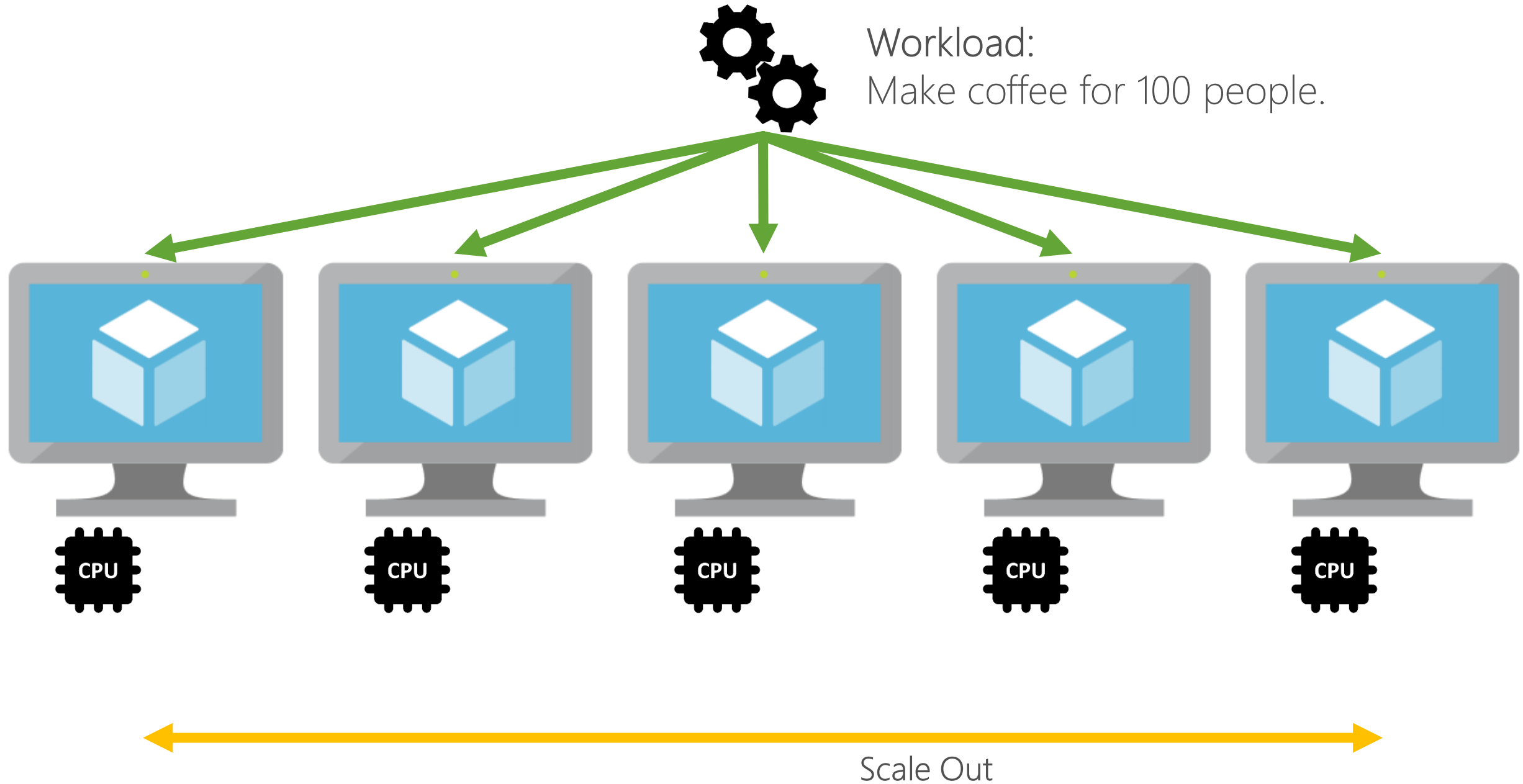


- Low Maintenance
- Granular, Linear Scalability
- Fast Update Cycle
- Additional Specialist Tools

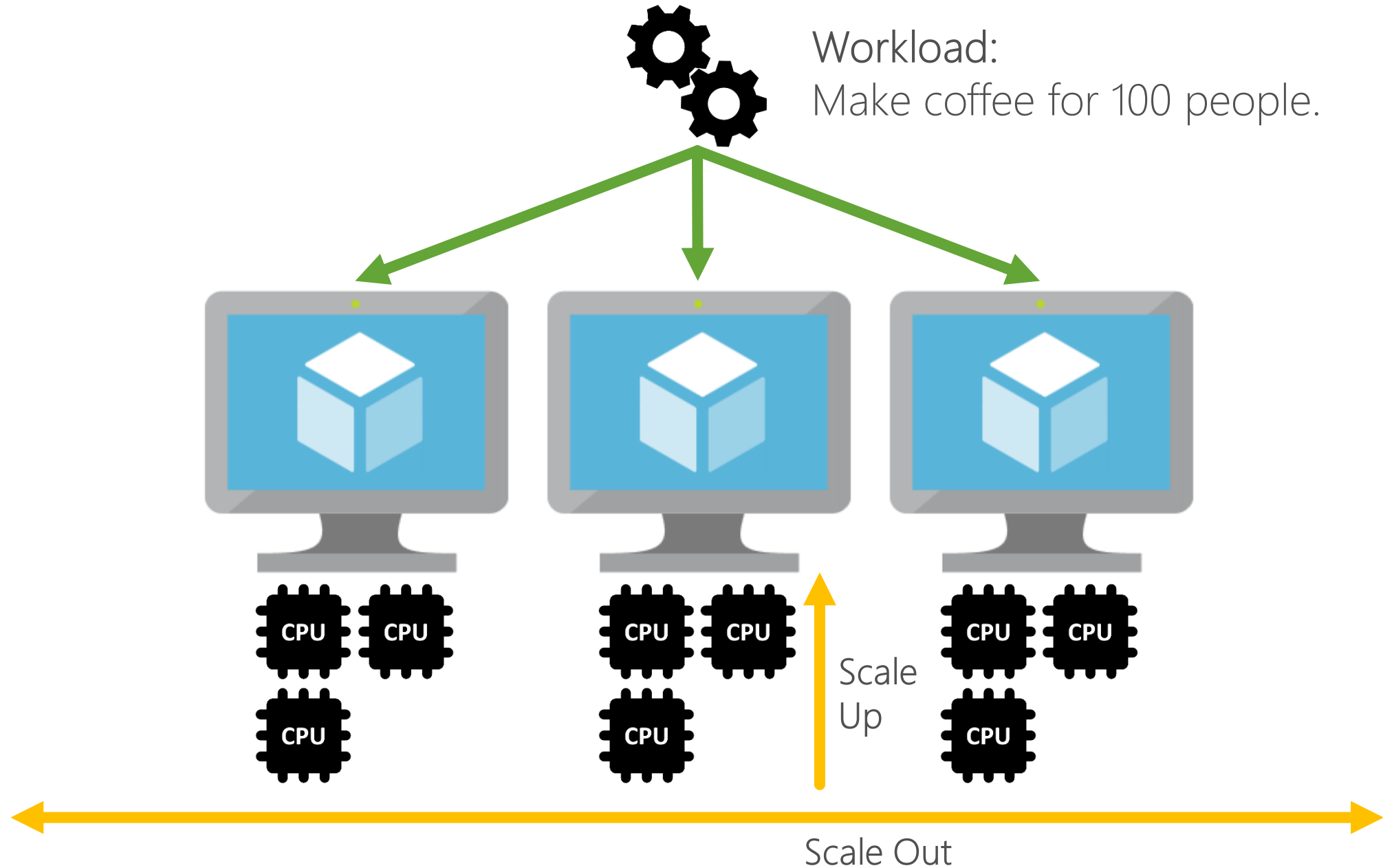
Concepts – Scale Up and Scale Out



Concepts – Scale Up and Scale Out



Concepts – Scale Up and Scale Out



- Create a resource
- All services
- FAVORITES
 - Azure Active Directory
 - Subscriptions
 - Resource groups
 - Log Analytics
 - SQL servers
 - SQL databases
 - SQL data warehouses
 - Analysis Services
 - Azure Cosmos DB
 - Data factories
 - Batch accounts
 - Data Lake Analytics
 - Data Lake Storage Gen1
 - Storage accounts
 - IoT Hub
 - Event Hubs
 - Event Grid Subscriptions
 - Stream Analytics jobs
 - Machine Learning Stu...
 - Automation Accounts
 - Function Apps
 - Virtual machines

Directory - mrpaulandrew

Subscriptions

Resource groups
ALL SUBSCRIPTIONS

Refresh

- SQLSatManchester
- rsgamsdapdev001
- databricks-rg-BricksOfData01-zudww...
- databricks-rg-BricksOfData02-4mp23q...
- DemoVM

See more...

All resources
ALL SUBSCRIPTIONS

Refresh

- TestAutomation001
- sqsatustql01
- AdventureWorksOLTP
- AdventureWorksDW2014
- sqlsatstore02

See more...

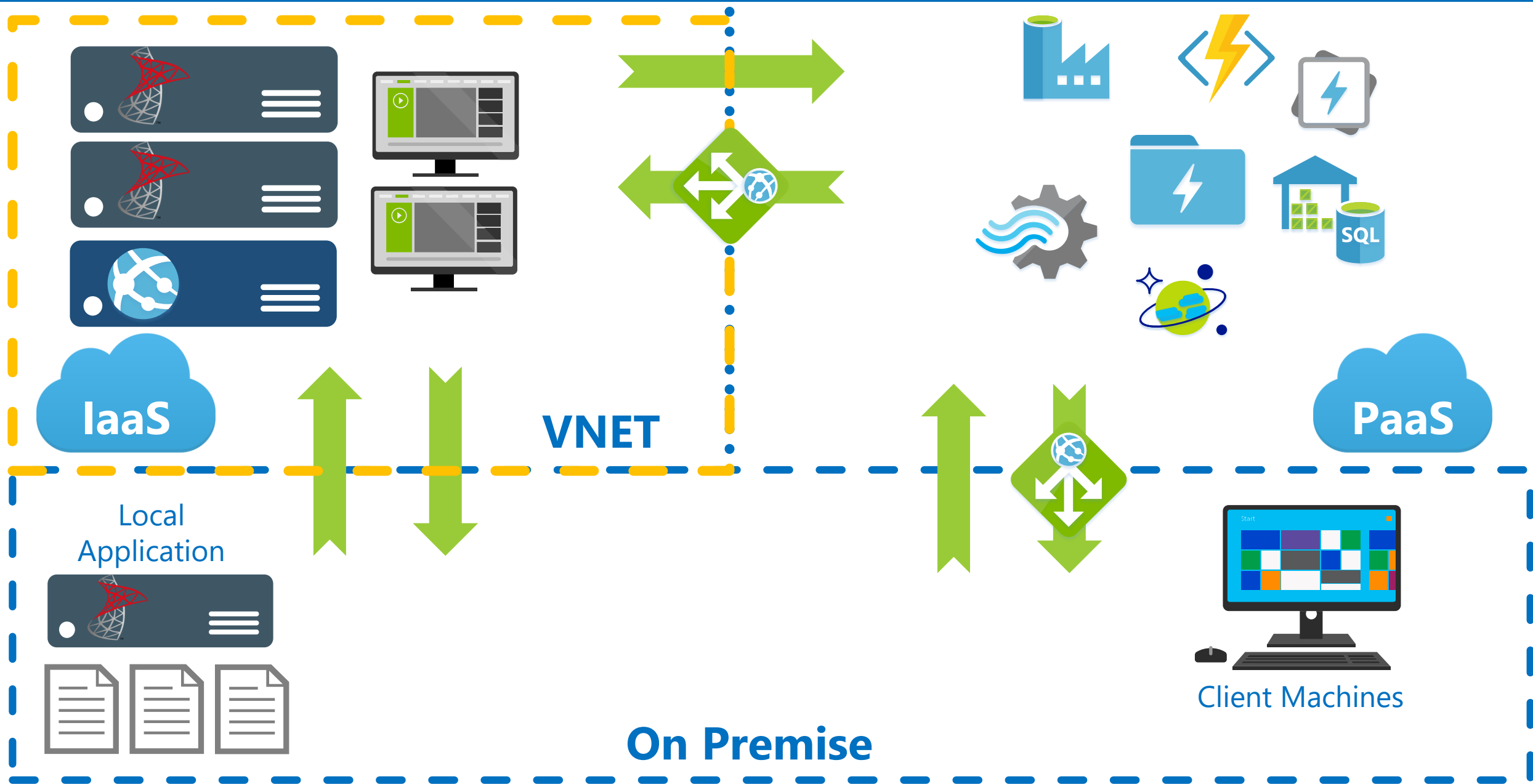
AdventureWorksOLTP
SQL DATABASE

Online

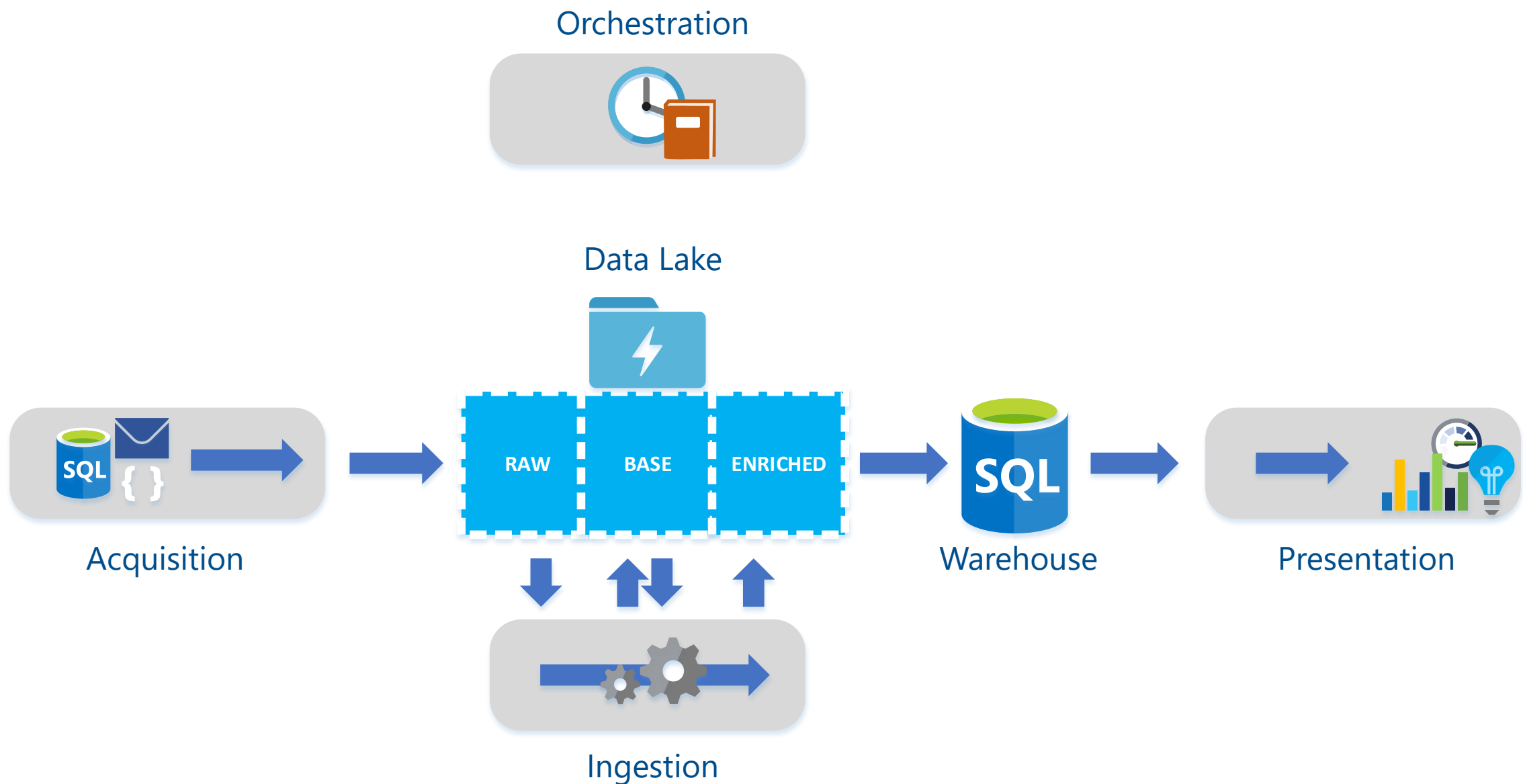
Azure Terminology Edit

- Portal
- Dashboard
- Blades
- Azure AD
- Tenant
- Subscription
- Resource Groups
- Resources
- Services
- Marketplace

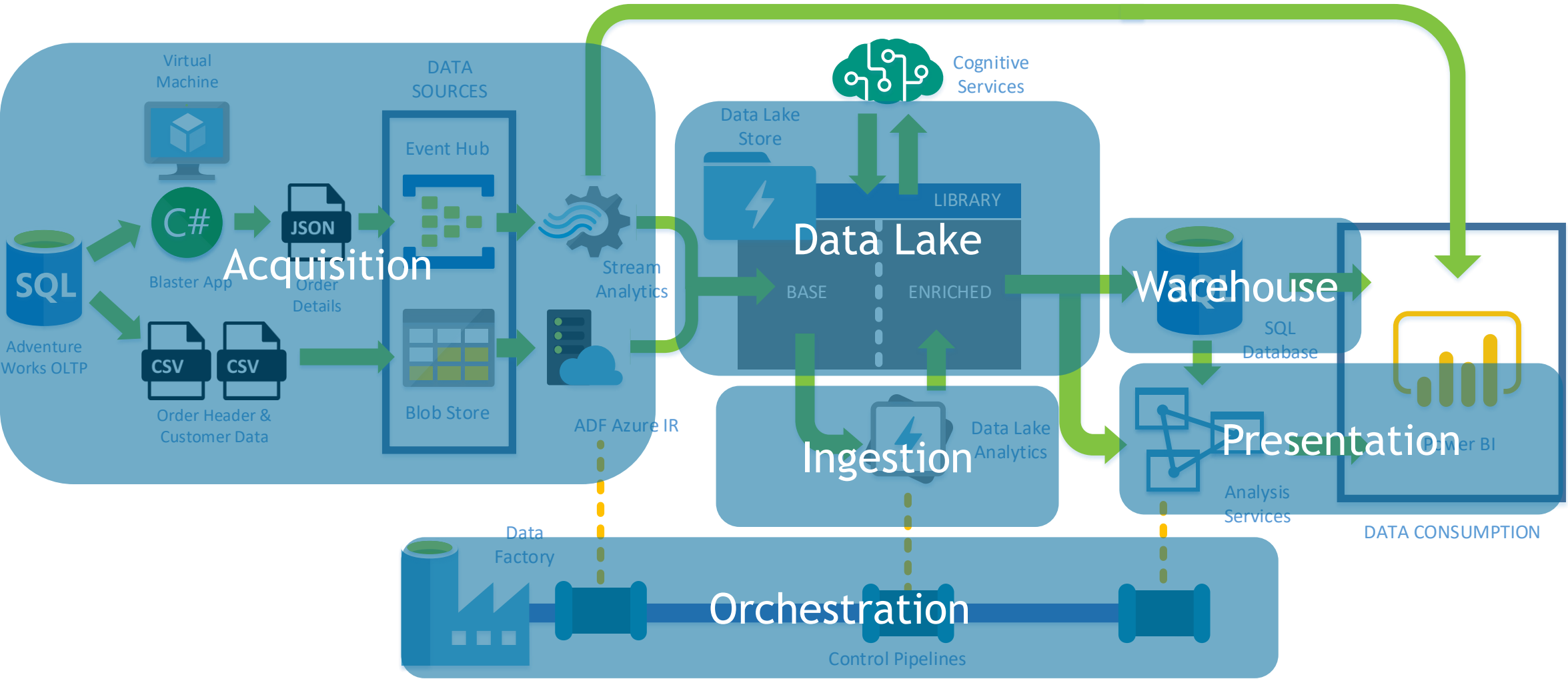
IaaS & PaaS Networking



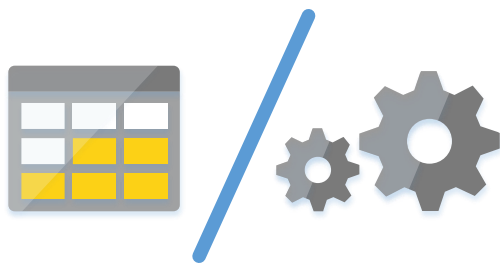
Azure Warehouse Architectures



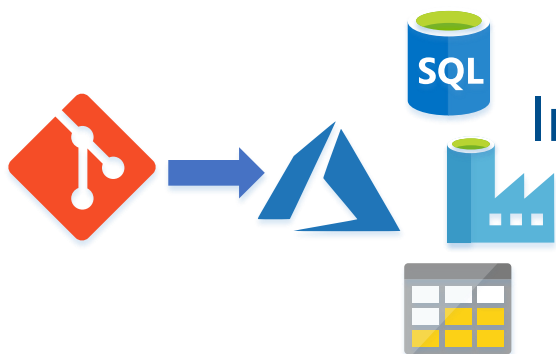
Our Architecture



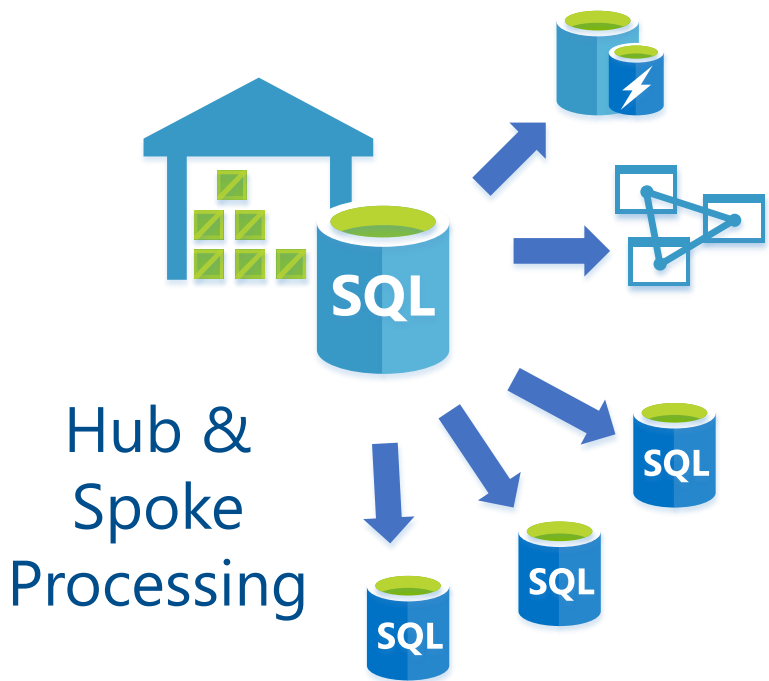
Common Concepts



Separation of
Storage & Compute



Infrastructure as
Code



Hub &
Spoke
Processing



Polyglot Solutions

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