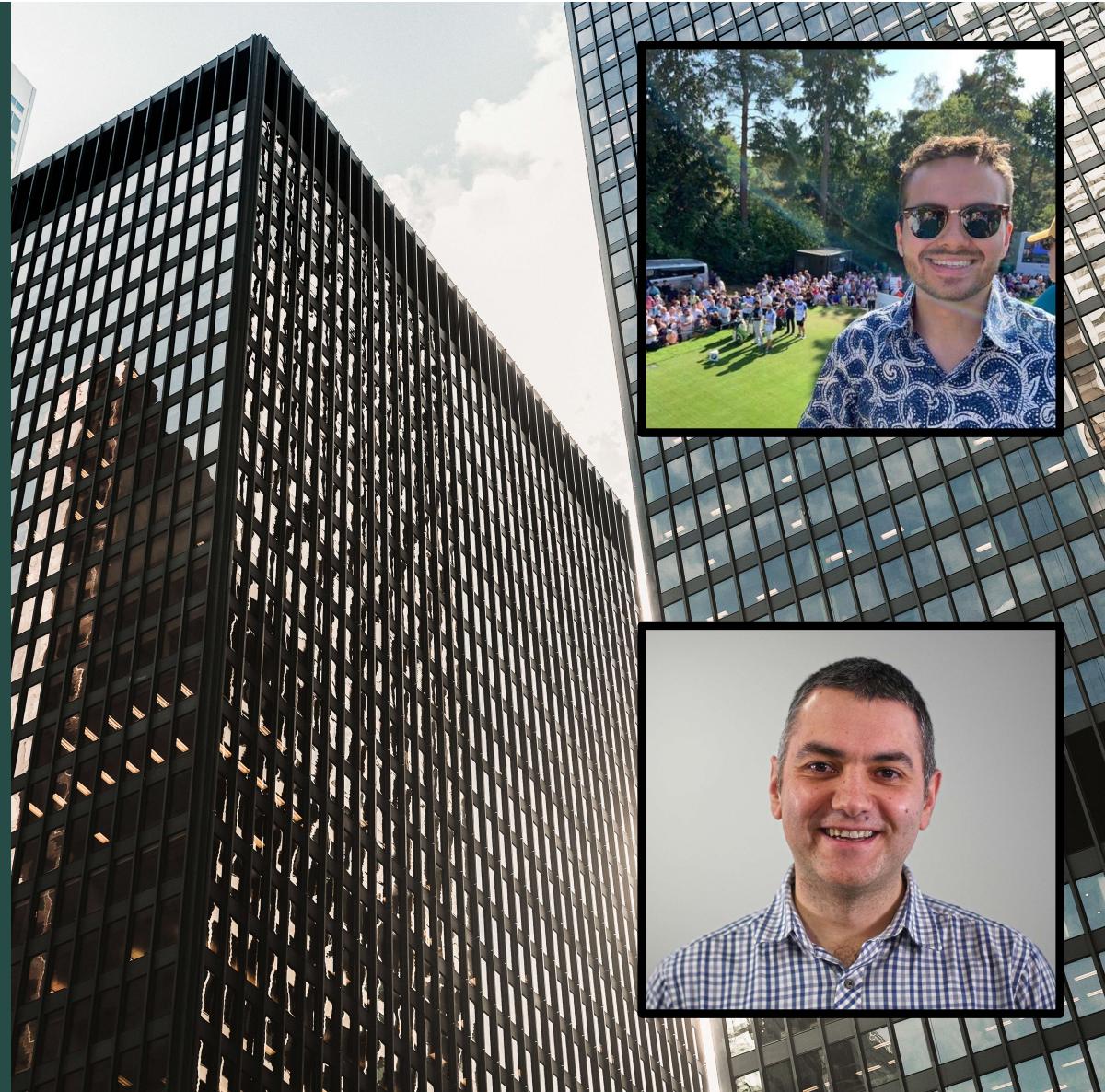




# Azure Fundamentals in a hurry

December 2019



# AZ-900 Azure Fundamentals



UNDERSTANDING CLOUD  
CONCEPTS



UNDERSTANDING CORE  
AZURE SERVICES



UNDERSTAND SECURITY,  
PRIVACY, COMPLIANCE,  
AND TRUST



UNDERSTAND AZURE  
PRICING AND SUPPORT

**There is NO CLOUD, just**



**other people's computers**



**Tea Company**

**For the  
programmers...**

**Company<T>**



# Why cloud?



On-demand  
self-service



Rapid  
elasticity



Measured  
service:  
Consumption  
Based



Ubiquitous  
network  
access



# Public Cloud

- No CapEx
- Agility
- Consumption-based



## Private Cloud

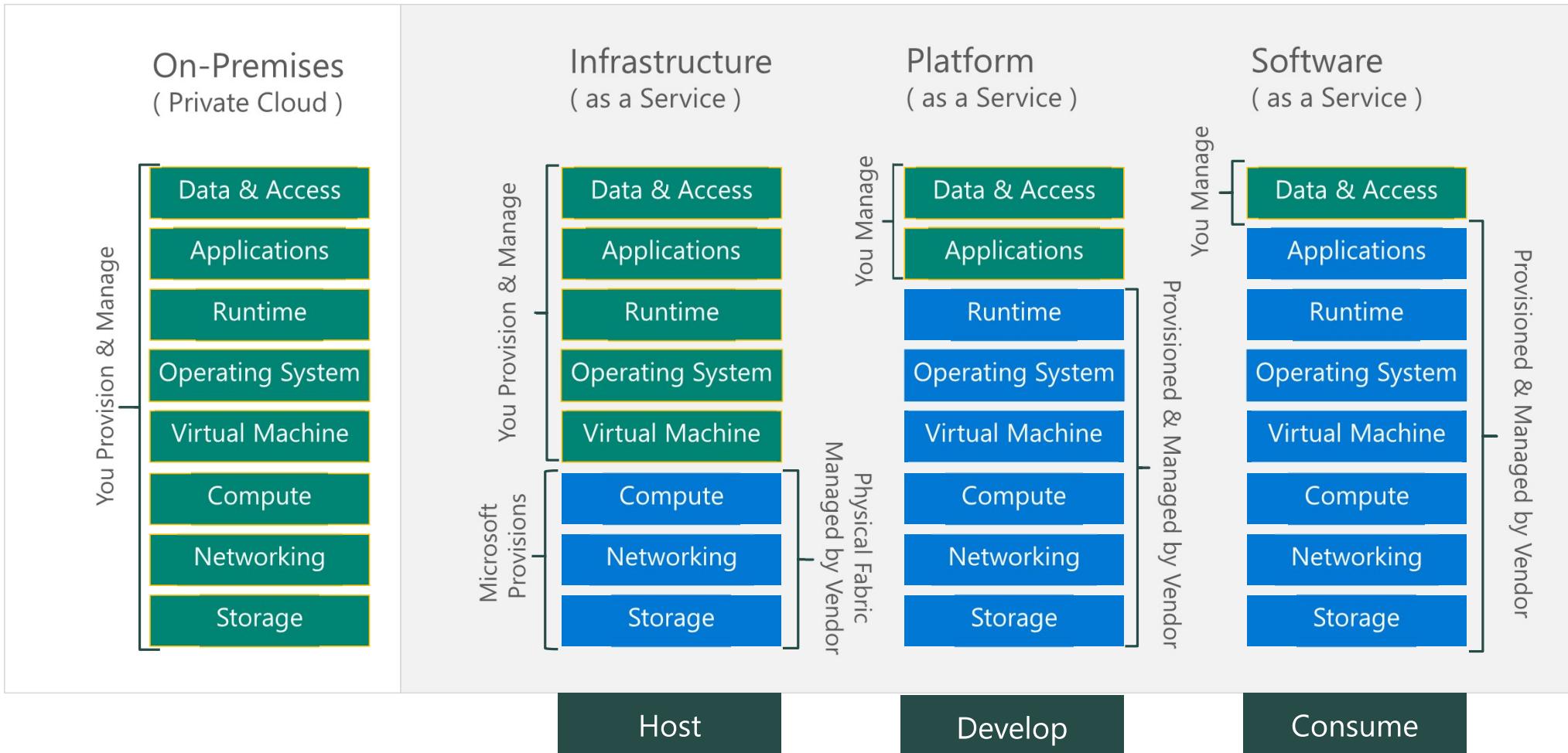
- Control
- Security



# Hybrid Cloud

- Flexibility
- Compliance

# Cloud computing models and responsibilities



# “Pizza as a Service”



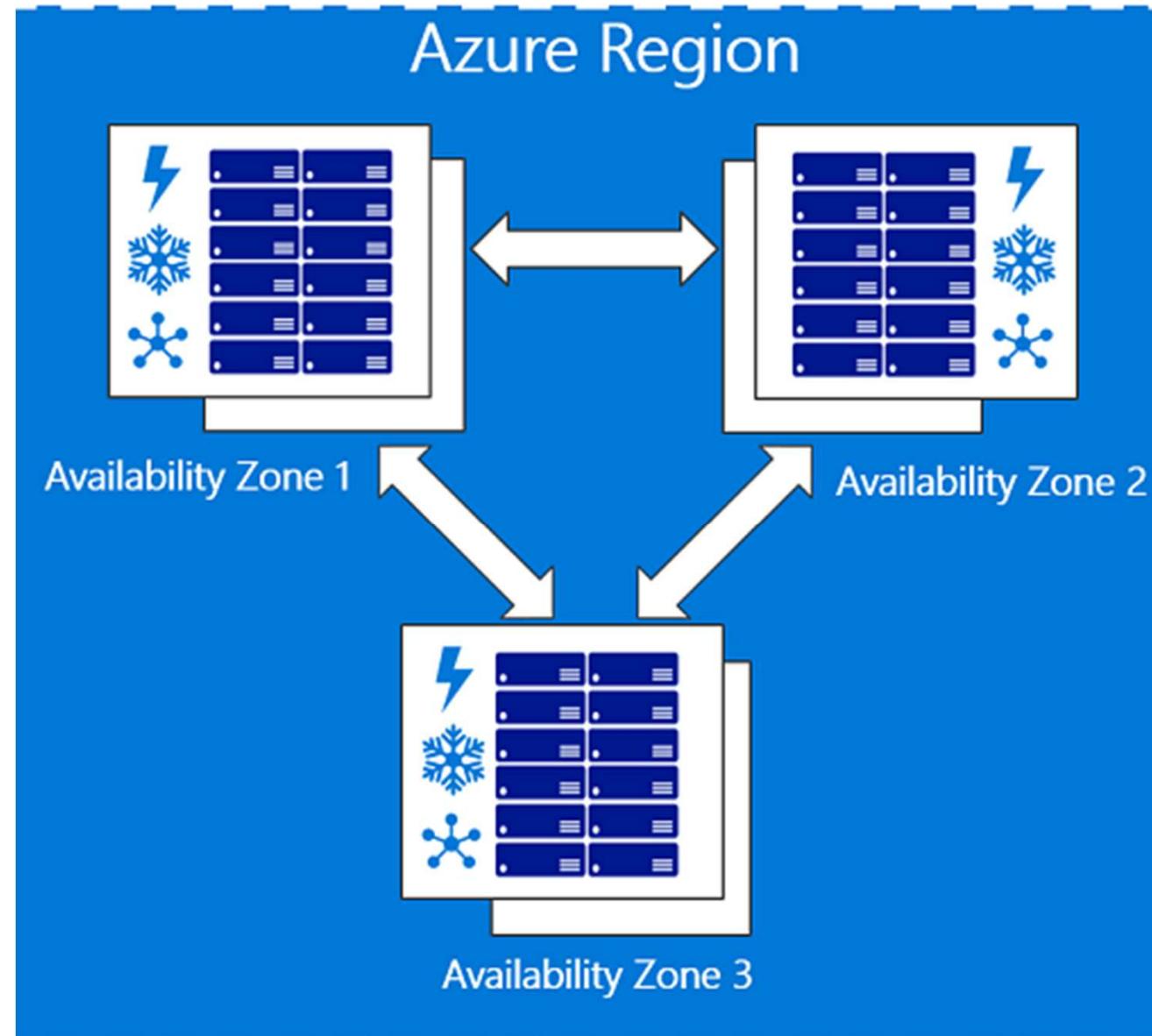
# 54

Azure regions



# Availability zones

- Separate locations
- Independent
  - Power
  - Cooling
  - Networking
- Isolation Boundary



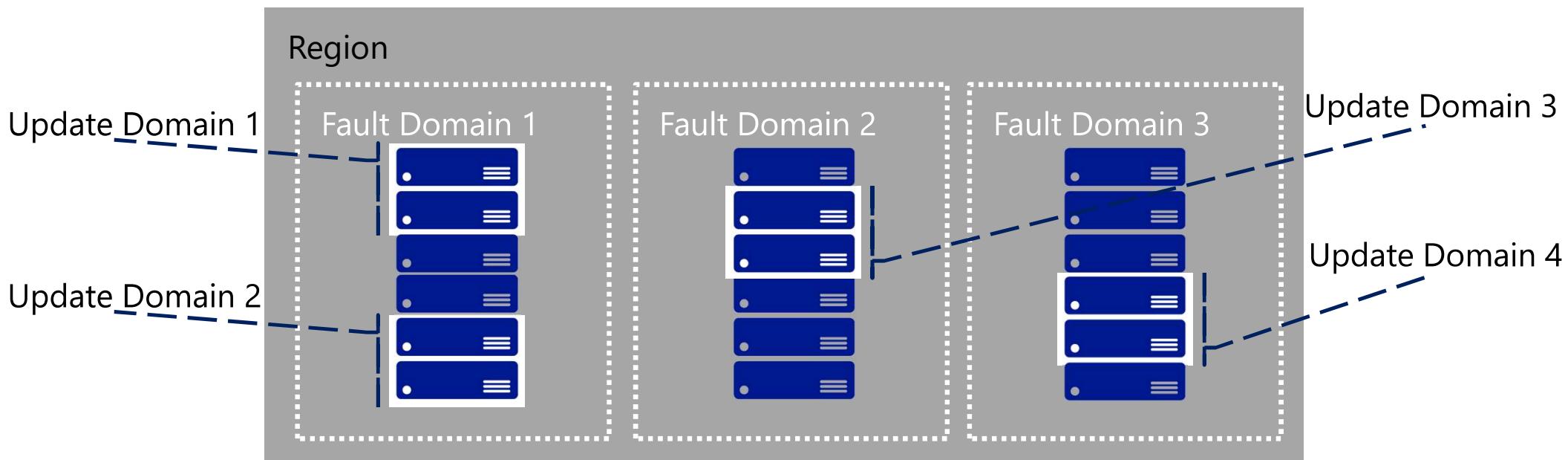
# Availability sets

## Fault Domains

- Segments clusters within a region (Up to 3)

## Update Domains

- Segments updates and patches to clusters (Up to 20)



# Subscription types

Free  
Student  
Pay as you go  
Enterprise Agreement

# Support



Developer



Standard



Professional Direct



Premier

24x7  
Phone  
and  
Email  
Support

< 1 hour  
response  
time

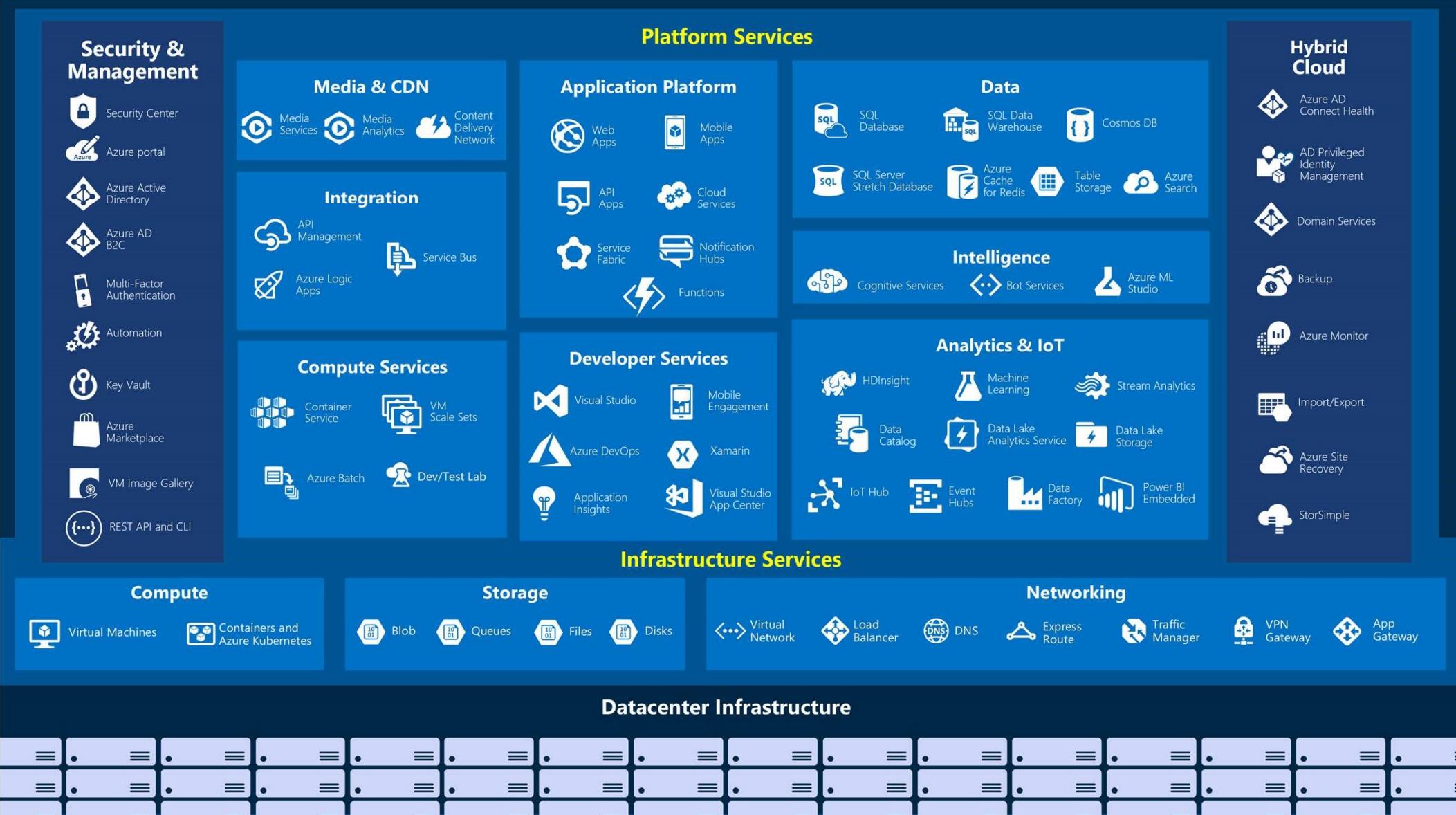
< 15 min

## **DEMO – Azure Portal**

- <https://portal.azure.com>

# Azure Resources





# Compute



Virtual Machines



Containers



Azure Batch



Azure Functions



Web Apps (App Service)



Logic Apps

# Instant Types - 6 Types

General purpose instance	Compute optimised type	Memory optimised	Storage optimised high disk throughput and IO	GPU - VMs for graphic rendering	High performance compute - Fastest and most powerful
<p><b>Purpose:</b></p> <ul style="list-style-type: none"><li>Even distribution CPU strength to memory</li><li>Useful: Development, testing, medium low traffic web server, database server, not strong means</li></ul> <p><b>Instant sizes (series):</b></p> <ul style="list-style-type: none"><li>B, D, A (Very common)</li><li>B: Development servers, not good for production</li><li>A: Not strong</li><li>D: High powered</li><li>DC, DS ( also in memory optimised)</li></ul>	<p><b>Purpose:</b></p> <ul style="list-style-type: none"><li>High CPU to memory</li><li>Useful: Batch computing applications, number of cores is important.</li></ul> <p><b>Instant Sizes:</b></p> <ul style="list-style-type: none"><li>F, FS (Series)</li></ul>	<p><b>Purpose:</b></p> <ul style="list-style-type: none"><li>High memory to CPU</li><li>Useful: Database, caching servers, when you need lots of memory and less CPU</li></ul> <p><b>Instant sizes:</b></p> <ul style="list-style-type: none"><li>E, ES, M, G, GS, D, DS</li></ul>	<p><b>Purpose:</b></p> <ul style="list-style-type: none"><li>Intensive IO tasks</li><li>Database servers, database warehousing, storage speed overwhelming factor</li></ul> <p><b>Instances:</b></p> <ul style="list-style-type: none"><li>LS (S stands for SSD solid state drive, quicker)</li></ul>	<p><b>Purpose:</b></p> <ul style="list-style-type: none"><li>Bitcoin mining etc.</li><li>Video rendering and graphic procession</li></ul> <p><b>Instances:</b></p> <ul style="list-style-type: none"><li>NV, NC, ND</li></ul>	<p><b>Purpose:</b></p> <ul style="list-style-type: none"><li>Limited to specific regions</li></ul> <p><b>Instances:</b></p> <ul style="list-style-type: none"><li>H (fastest network R DMA network)</li></ul>

# **DEMO – Compute**

# Storage and Data



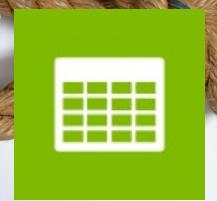
Structured



Semi-structured



Unstructured



# **DEMO – Storage and Data**

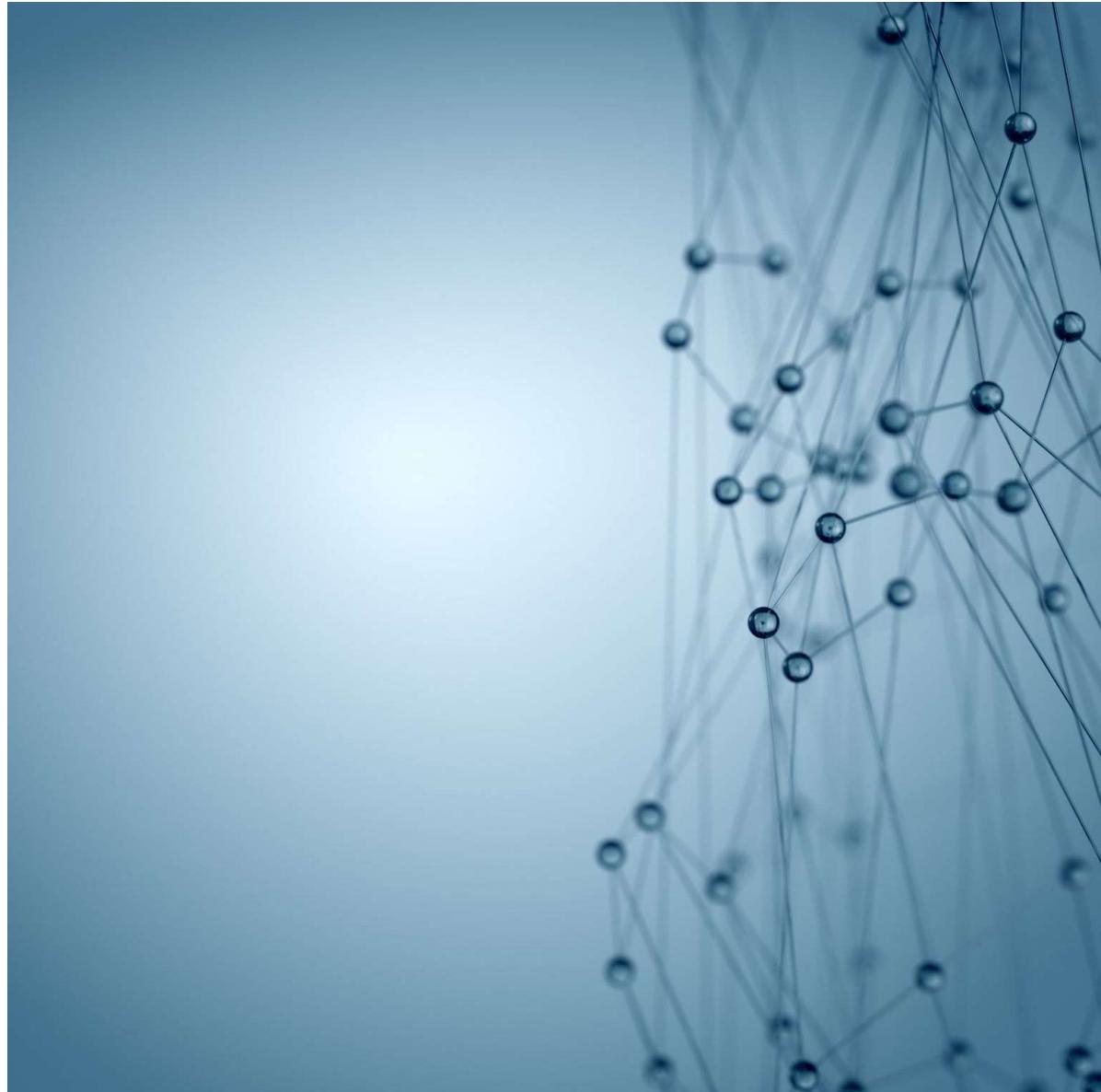
# Networking

Virtual Networks (VNET)

Load Balancers

Firewalls

Virtual Private Networks



# Governance

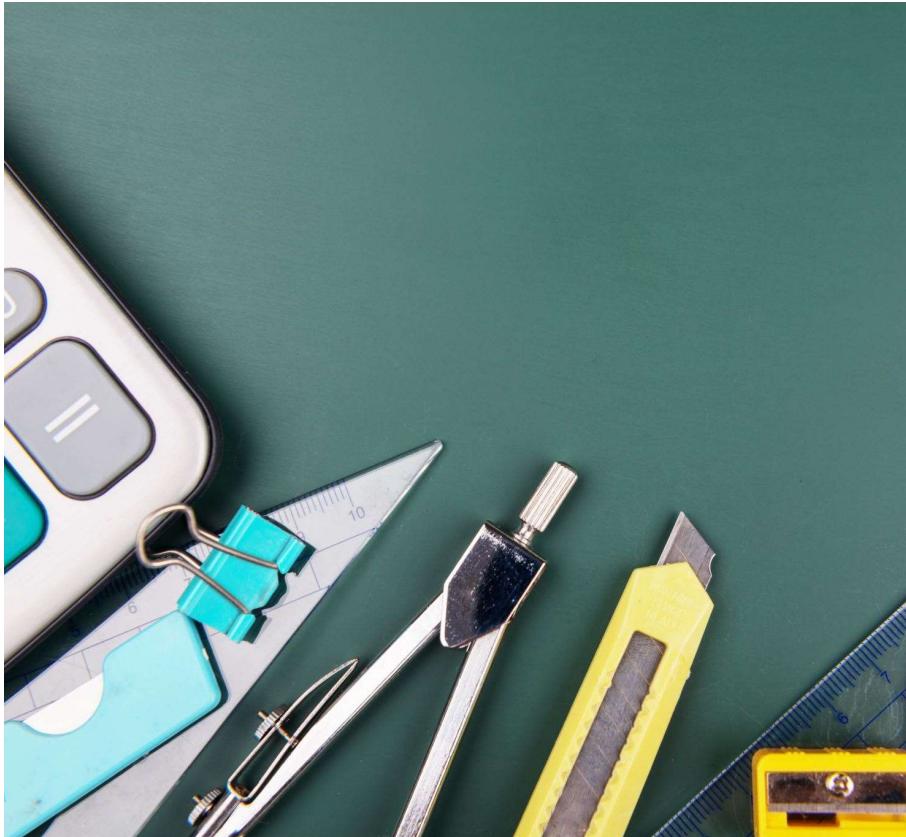
Role based access control

Tags

Policies

Blueprints

# Tools



## **Monitoring**

- Azure Monitor and Alerts

## **Security**

- Azure Security Centre
- Azure Advanced Threat Detection
- Compliance Manager/Service Trust Portal

## **Pricing**

- Pricing Calculator
- TCO Calculator
- Azure Advisor

## Resources

Azure Fundamentals (Microsoft Learn)  
<https://aka.ms/AZ900-CDF-2019>

Podcasts: Azure Flash News

Email: [Matthew.Fortunka@Microsoft.com](mailto:Matthew.Fortunka@Microsoft.com)

Twitter: @memleek

# Questions



What do you  
want to see  
next?

More on IaaS or PaaS?  
Cloud Adoption Framework?  
Data?  
Networking?  
Hosting?  
DevOps?  
Containers?



The End

