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Microsoft MVP: Development, MCT, MCSD, MCSE

Cloud Applications Development

Microsoft Azure

NSWI152

Platform Services

Security & Management

- Portal
- Active Directory
- Multi-Factor Authentication
- Automation
- Key Vault
- Store / Marketplace
- VM Image Gallery & VM Depot

Compute

- Cloud Services
- Service Fabric
- Batch
- Remote App

Web and Mobile

- Web Apps
- API Apps
- API Management
- Mobile Apps
- Logic Apps
- Notification Hubs

Developer Services

- Visual Studio
- Azure SDK
- Team Project
- Application Insights

Hybrid Operations

- Azure AD Connect Health
- AD Privileged Identity Management
- Backup
- Operational Insights
- Import/Export
- Site Recovery
- StorSimple

Integration

- Storage Queues
- Biztalk Services
- Hybrid Connections
- Service Bus

Analytics & IoT

- HDInsight
- Machine Learning
- Data Factory
- Event Hubs
- Stream Analytics
- Mobile Engagement

Data

- SQL Database
- SQL Data Warehouse
- Redis Cache
- Search
- DocumentDB
- Tables

Media & CDN

- Media Services
- Content Delivery Network (CDN)

Infrastructure Services

Compute

- Virtual Machines
- Containers

Storage

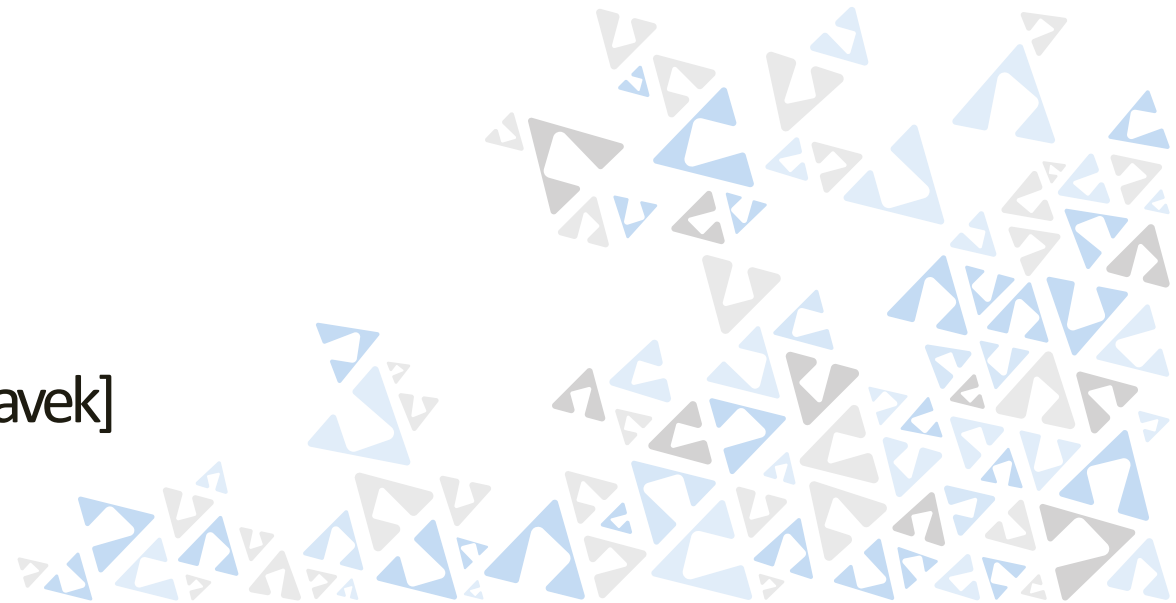
- BLOB Storage
- Azure Files
- Premium Storage

Networking

- Virtual Network
- Load Balancer
- DNS
- Express Route
- Traffic Manager
- VPN Gateway
- Application Gateway

AGENDA

- 19.2. – Azure Introduction, App Services [Robert Haken]
- 26.2. – Azure App Services, Deployment [Robert Haken]
- 4.3. – Azure SQL, Azure Storage [Robert Haken]
- 11.3. – Azure CDN [Jiří Kanda]
- 18.3. – Azure CosmosDB [Jiří Kanda]
- 25.3. – Azure Application Insights [Jiří Kanda]
- 1.4. – Azure Serverless Computing [Ondřej Václavek]
- 8.4. – Azure Cognitive Services [Ondřej Václavek]
- 15.4. – Azure KeyVault [Jiří Kanda]
- 22.4. – SignalR / IoT / Kubernetes – AKS [Ondřej Václavek]



What Is Azure

<https://www.azure.com>

<https://docs.microsoft.com/azure/>

IaaS, PaaS, SaaS

Windows, .NET, MS SQL, Linux, Java, PHP, Python, Oracle, Redis...

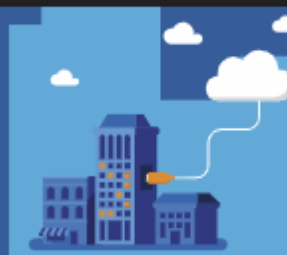
Pricing

- Pay-as-You-Go
- Academic, DreamSpark, BizSpark, MSDN Subscription
- Azure in Open, CSP
- Enterprise Agreement
- www.azure.com/free (\$200/30 days + 12 months free services, card)
- azure.microsoft.com/free/students/ (\$100/year, renewal, no card)



Azure for Students

Get \$100 in Azure credits and free access to popular cloud services plus developer tools like Visual Studio Code



Academic verification required

The account you are signed in is not yet verified to access offer benefits. Please use the form below to verify.

Verification method

School email address ▼

Enter your school email address. If your school is in our database, we will email you a verification link.

Your school email address will be used only for verification purposes, for everything else please use you Microsoft account email. School email address

Re-enter school email address

Verify academic status

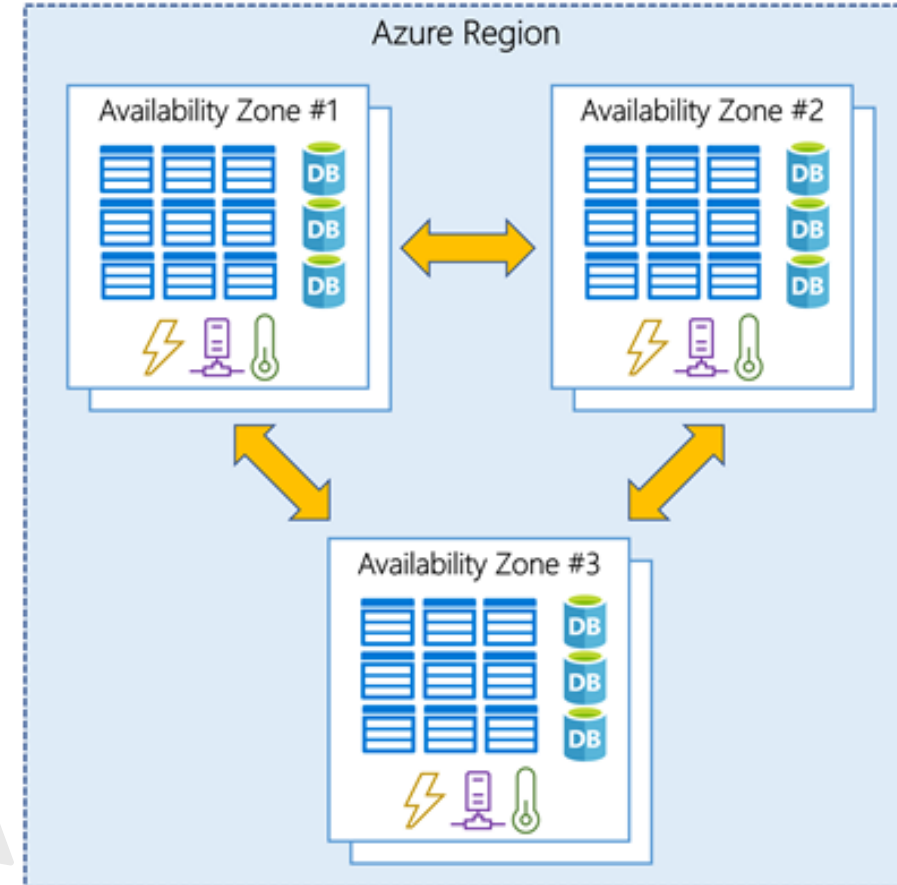


Azure Regions



Azure Datacenters, Availability Zones

- Datacenters – physical, not exposed directly
- Availability Zones = physically separate datacenters within an Azure region
 - Zonal services – pinned to specific zone
 - Zone-redundant services – auto-replicated across zones
- Not every region has support for Availability Zones

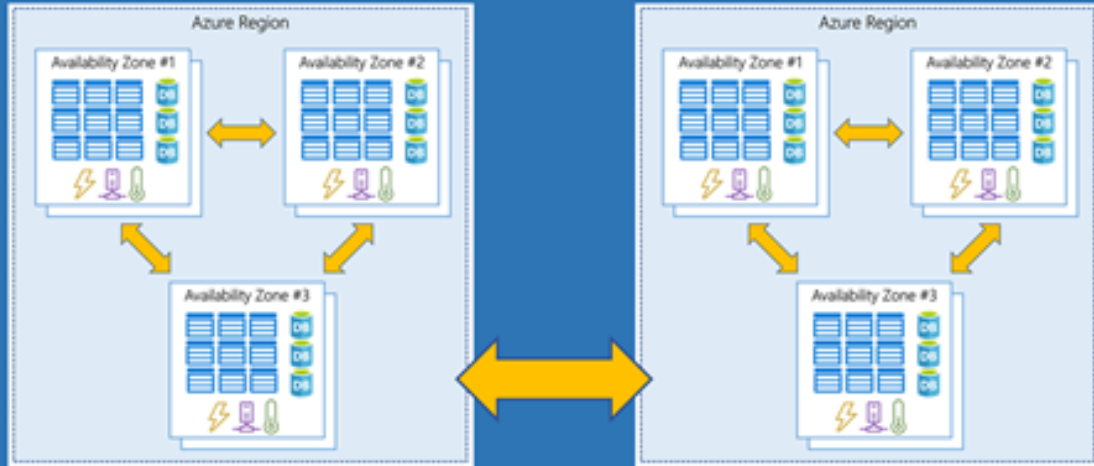


Region Pairs

- automatic geo-redundant storage (300+ miles away)
- Geography = Americas; Europe; Asia Pacific; Middle East and Africa
- Region Pair = e.g. West Europe + North Europe

Geography

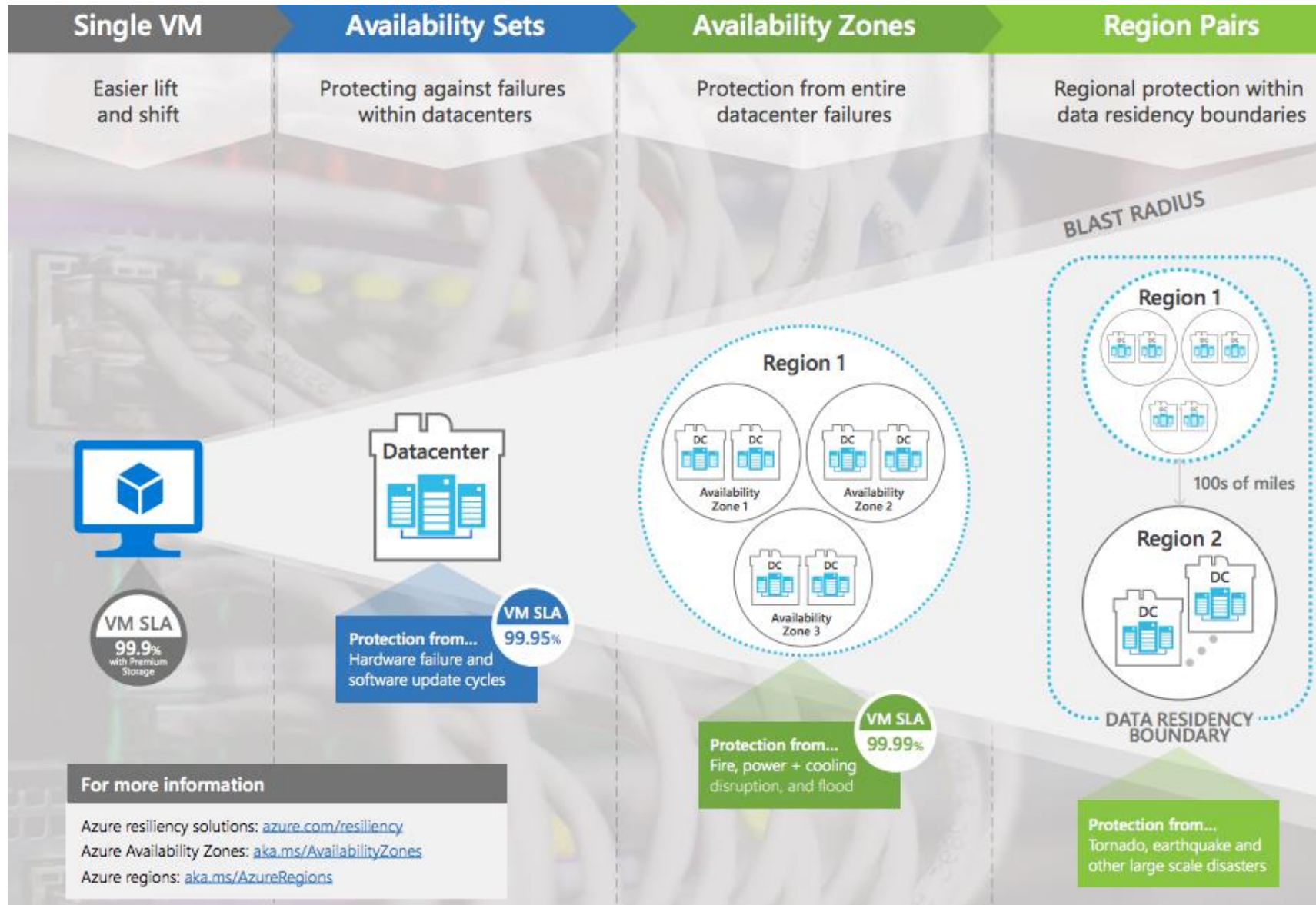
Region Pair



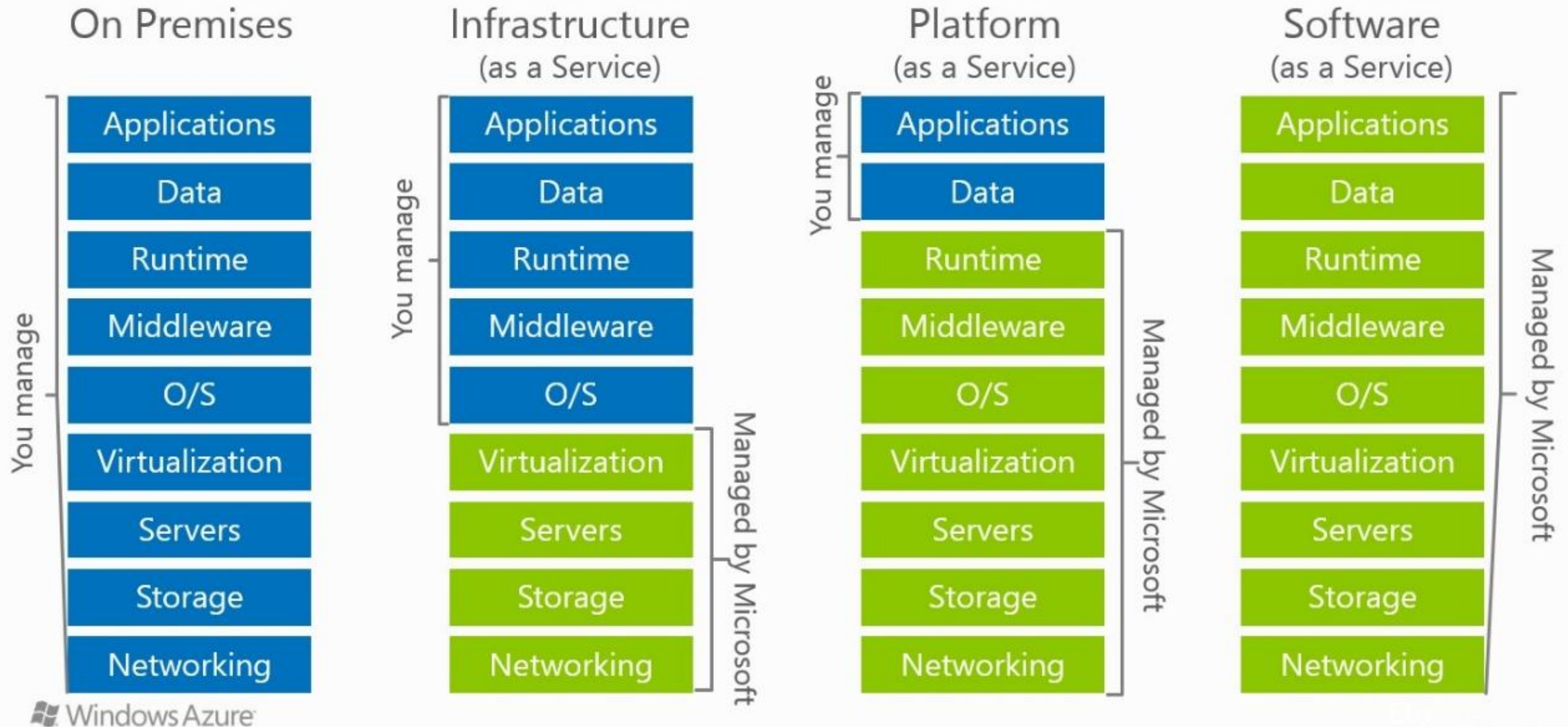
Region Pair



Sample – Azure VM Availability



Cloud Models



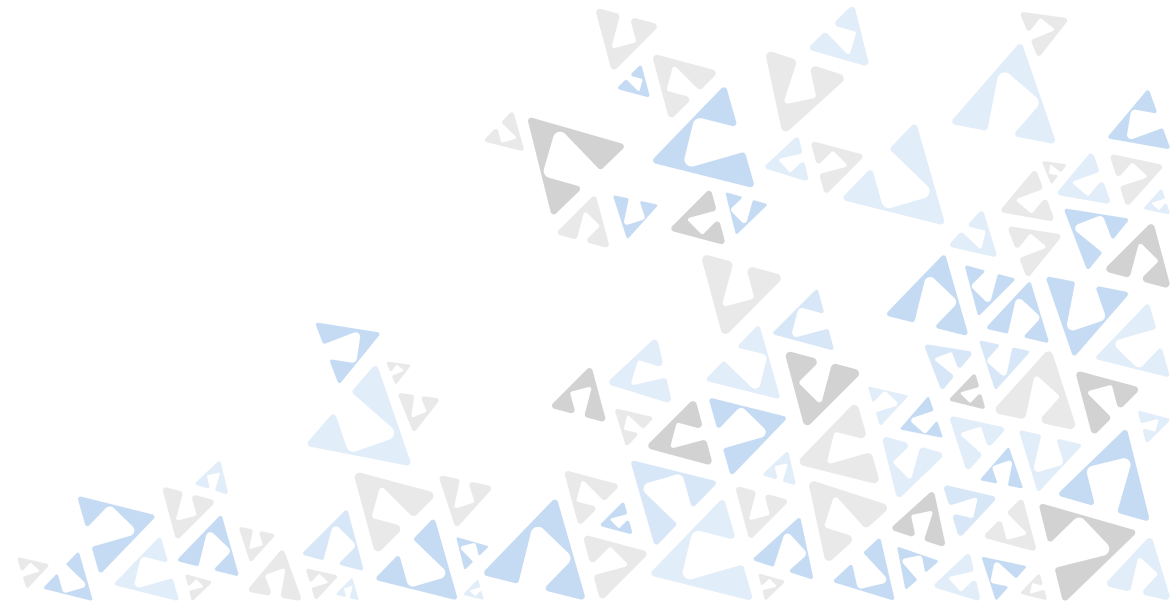
Management & Tools

Management

- Azure Portal (old & new)
 - <https://portal.azure.com>
- PowerShell
 - <https://azure.microsoft.com/cs-cz/documentation/articles/powershell-install-configure/>
- Azure CLI (multi-platform)
 - <https://azure.microsoft.com/cs-cz/documentation/articles/xplat-cli-install/>
- REST API

Developer Tools

- Visual Studio
 - Community Edition (FREE)
 - Azure SDK
 - <https://azure.microsoft.com/cs-cz/downloads/>



Introduction

Microsoft Account

Azure Portal

- Account
- Subscription
- Resource Group
- Resource
- (Directory)

Pricing Calculator, Price Lists

- Bandwidth 5GB/month FREE, data \$8.70/100GB

Spending Limit

