

Zerto **CON**

Resilient & Ready

May 21–23, 2018

Azure Part 2 - Cloud Agility with ZVR

Mike Nelson, Cloud Architect

Shannon Snowden, Sr. Technical Architect



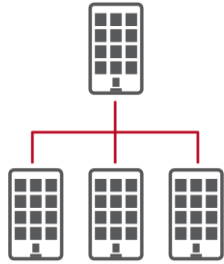
Digital Transformation

NETFLIX

DVDs > Streaming Video

Distributing Content > Producing Content

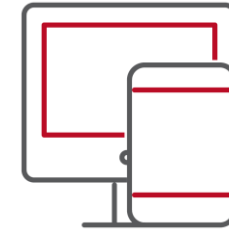
Netflix- Then



DVD Model

- Managing warehouse utilization
- Physical distribution costs

Netflix- Now



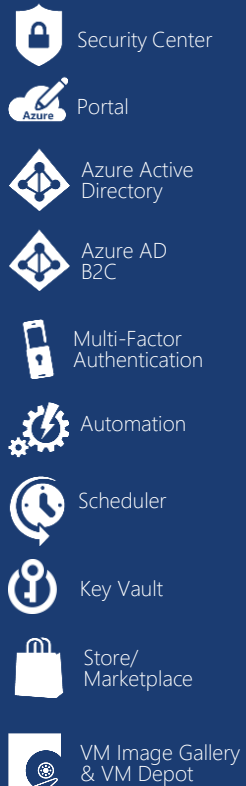
Streaming Model

- Managing website & bandwidth costs
- Cloud

Architecture

Platform Services

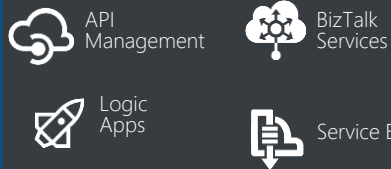
Security & Management



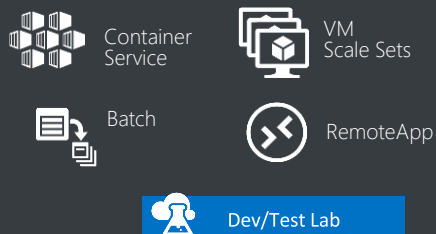
Media & CDN



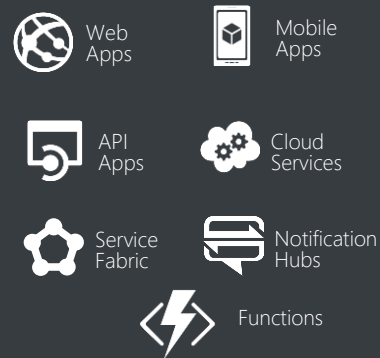
Integration



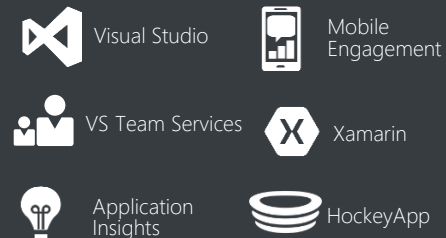
Compute Services



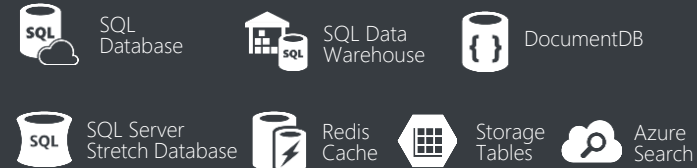
Application Platform



Developer Services



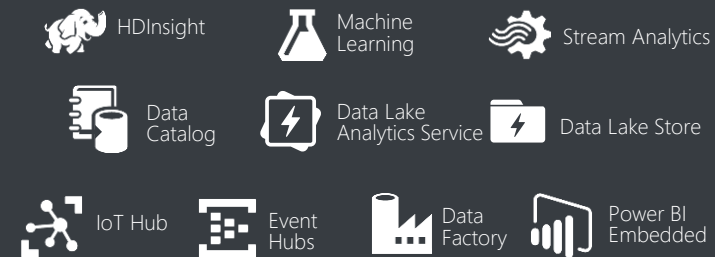
Data



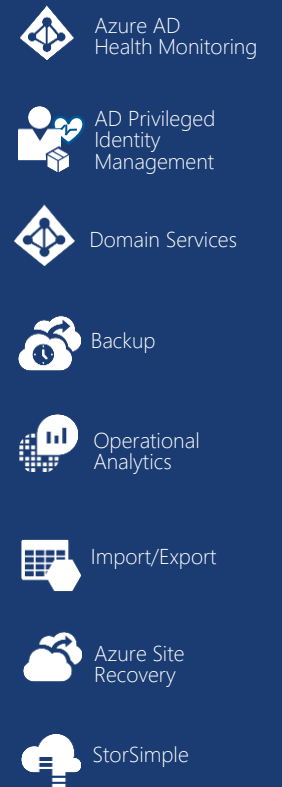
Intelligence



Analytics & IoT

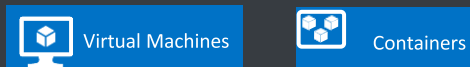


Hybrid Cloud



Infrastructure Services

Compute



Storage



Networking



Datacenter Infrastructure (50 Regions, 46 Online)



Platform Services

Security & Management

- Security Center
- Portal
- Azure Active Directory
- Azure AD B2C
- Multi-Factor Authentication
- Automation
- Scheduler
- Key Vault
- Store/Marketplace
- VM Image Gallery & VM Depot

Media & CDN

- Media Services
- Media Analytics
- Content Delivery Network

Integration

- API Management
- BizTalk Services
- Logic Apps
- Service Bus

Compute Services

- Container Service
- VM Scale Sets
- Batch
- RemoteApp
- Dev/Test Lab

Application Platform

- Web Apps
- Mobile Apps
- API Apps
- Cloud Services
- Service Fabric
- Notification Hubs
- Functions

Developer Services

- Visual Studio
- Mobile Engagement
- VS Team Services
- Xamarin
- Application Insights
- HockeyApp

Data

- SQL Database
- SQL Data Warehouse
- DocumentDB
- SQL Server Stretch Database
- Redis Cache
- Storage Tables
- Azure Search

Intelligence

- Cognitive Services
- Bot Framework
- Cortana

Analytics & IoT

- HDInsight
- Machine Learning
- Stream Analytics
- Data Catalog
- Data Lake Analytics Service
- Data Lake Store
- IoT Hub
- Event Hubs
- Data Factory
- Power BI Embedded

Hybrid Cloud

- Azure AD Health Monitoring
- AD Privileged Identity Management
- Domain Services
- Backup
- Operational Analytics
- Import/Export
- Azure Site Recovery
- StorSimple

Infrastructure Services

Compute

- Virtual Machines
- Containers

Storage

- Blob
- Queues
- Files
- Disks

Networking

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

Datacenter Infrastructure (42 Regions, 40 Online)



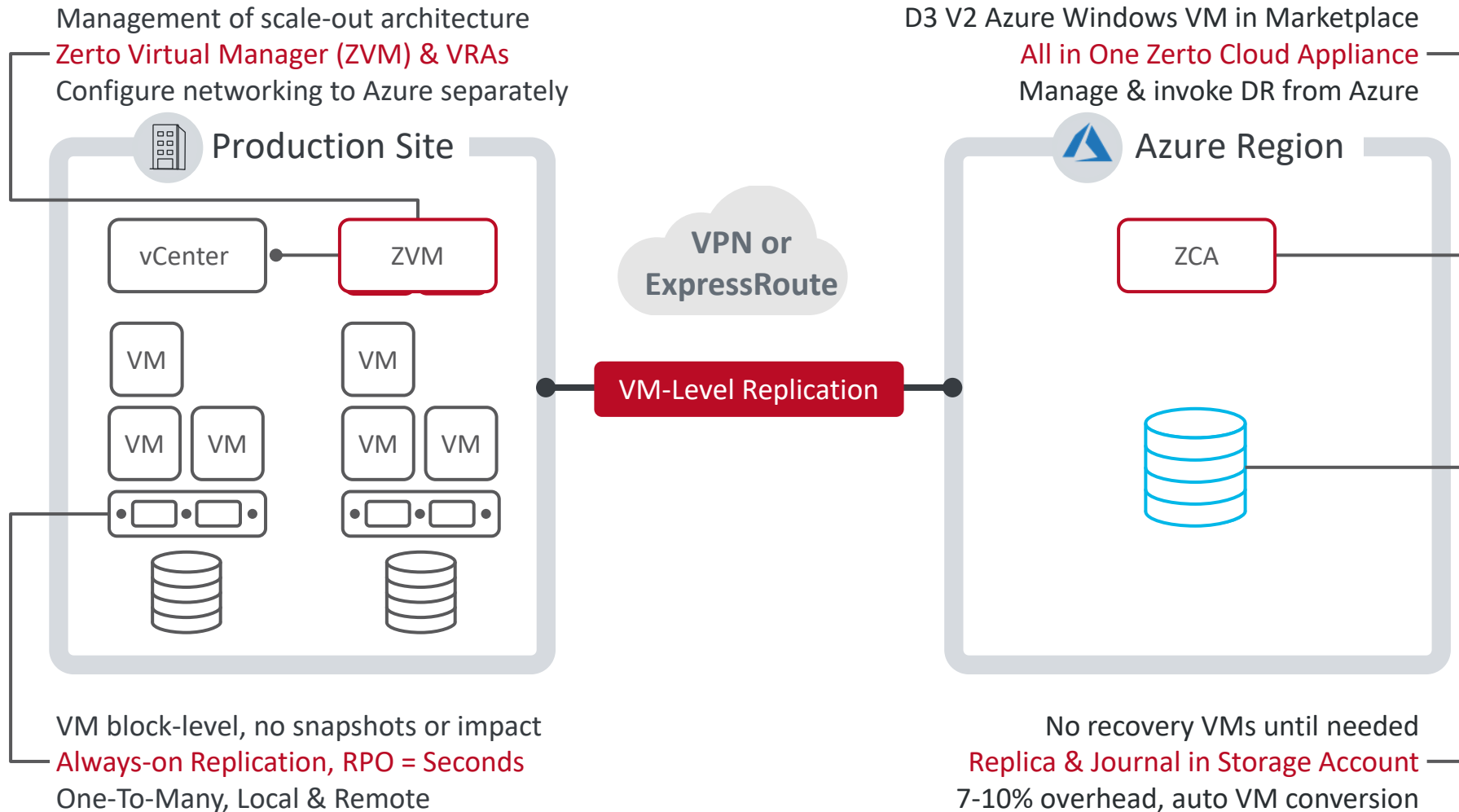
Azure Limits

Virtual Machines	Default	Max
VM's per subscription, per region	10000	10000
VM total cores per subscription	20	varies
VM per series (Dv2, F, etc) cores per subscription	20	varies

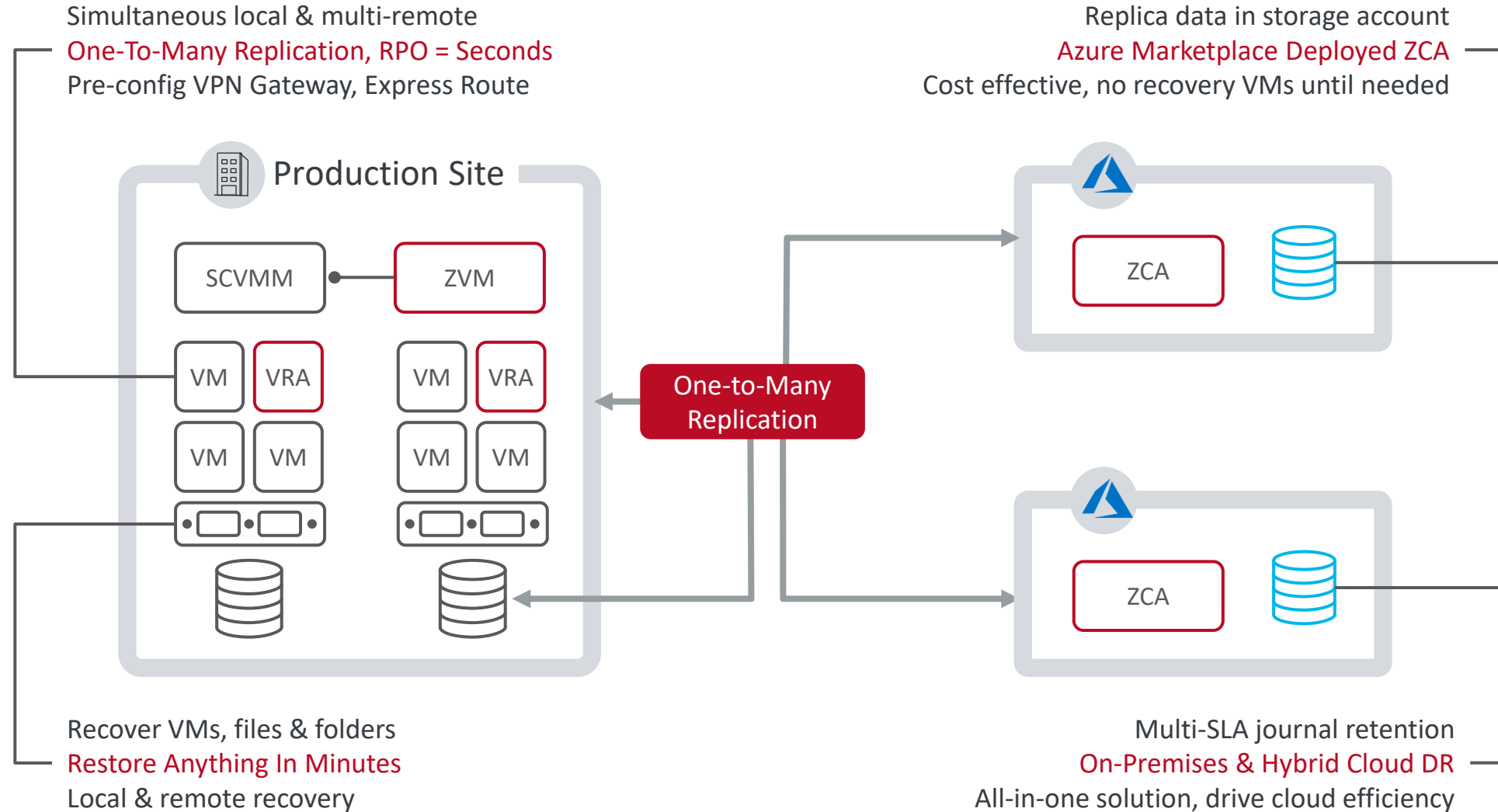
Storage	Default	Max
Storage Accounts per region per subscription	200	250
Storage account capacity	500TB	varies
Maximum request rate (IOPs) per storage account	-	20k
Resources per deployment	800	800

Networking (ARM)	Default	Max
VNets	50	500
VNet peerings per VNet	10	50
Public IP address (dynamic)	5	varies

Powerful DR and Migration to Microsoft Azure

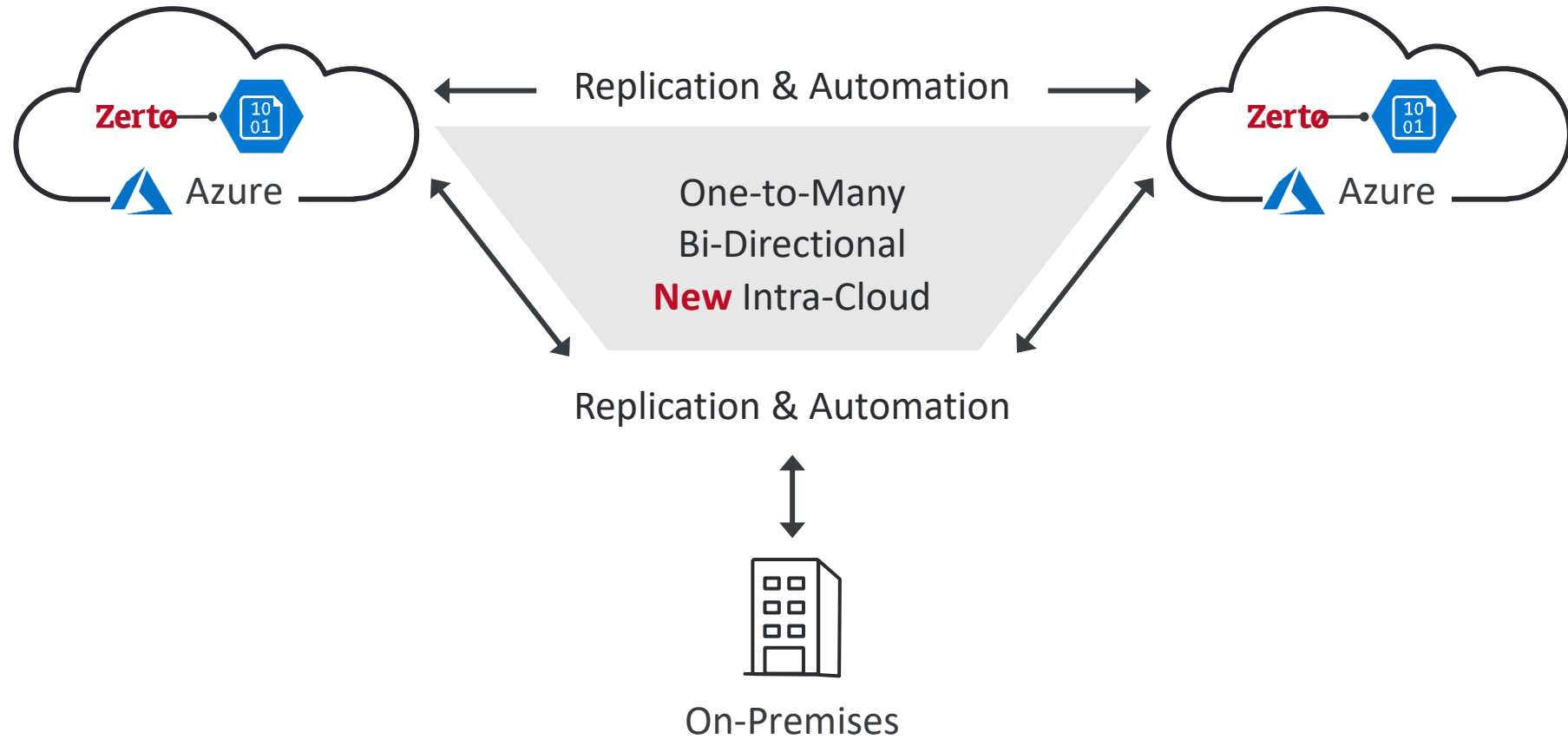


Scalable DR Solution to Microsoft Azure



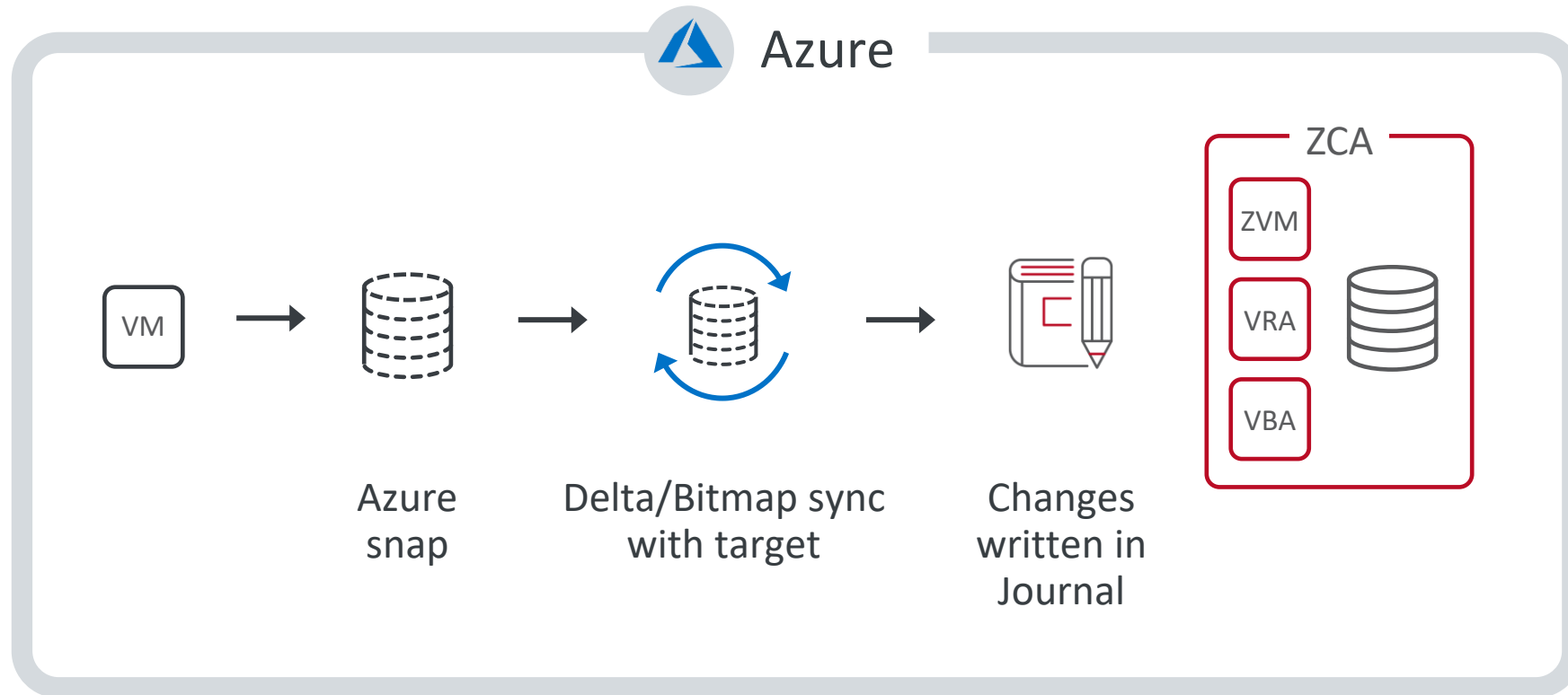
Any2Any: Microsoft Azure

Azure-to-Azure



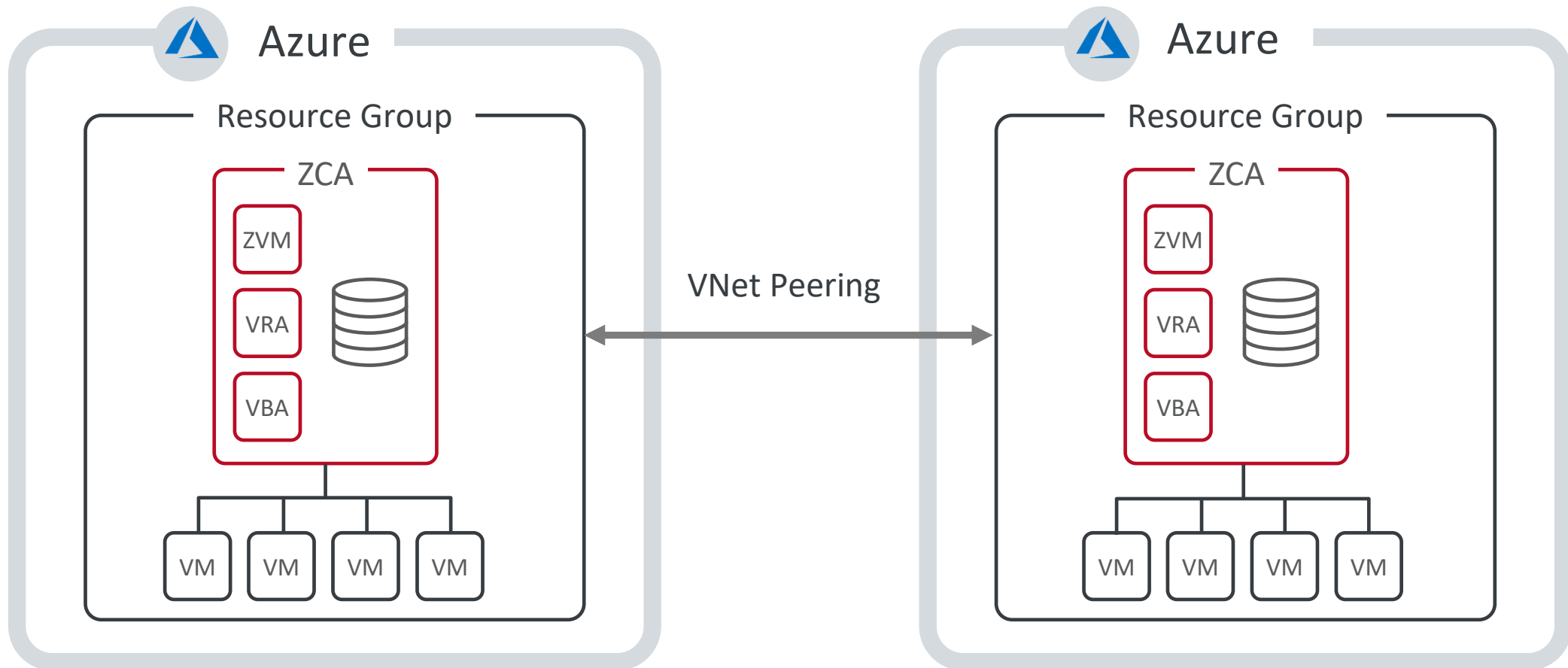
Any2Any: Microsoft Azure

Azure-to-Azure



Any2Any: Microsoft Azure

Azure-to-Azure



Deployment

Simple. Really Simple.

Deployment Options | Quickstart Templates | Azure Marketplace



Tips

- Request more cores → Support Ticket
- More VPGs with fewer VMs in the VPGs.
- Monitor the ZCA Performance
 - Azure Analytics are great for this
 - *Note – High memory consumption alone is not indicative of a problem
 - High CPU = 80%+ > 20 minutes
 - Network Throughput
- Scale Out/Up for constrained system resources (\$)
 - Deploy another ZCA
 - CPU high? Upgrade the ZCA to a larger instance

Tips

- Public cloud RTO's are longer than On-Premises RTO's
 - ZVR requires writing journal data to the target disk before the recovery VM can be powered on. This is called “promotion” & is different than hypervisor-based target sites, where FO can take place without promoting the data.
 - Set the expectation first. Start with 1 hour RTO and build from there.
 - Over 2 hours? Reduce the Configured History to the minimum value that is acceptable. Lower value = faster RTO
 - Alternatively, failover to older checkpoint. Reduces the number of journal checkpoints necessary.
 - Support ‘tweak’

Deployment Demo

Failover Demo

“It just works like Zerto”

This session is part of the Zerto Azure Specialist Certification

Doing the certification?

Enter **AgilitywithAzure** in the "test" on myZerto University to receive credit for this session.

Next step for certification

Complete the lab: Up and Running with ZVR for Azure

Thank You

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B O S T O N