Managing VM Availability

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Overview

Implement availability at multiple levels

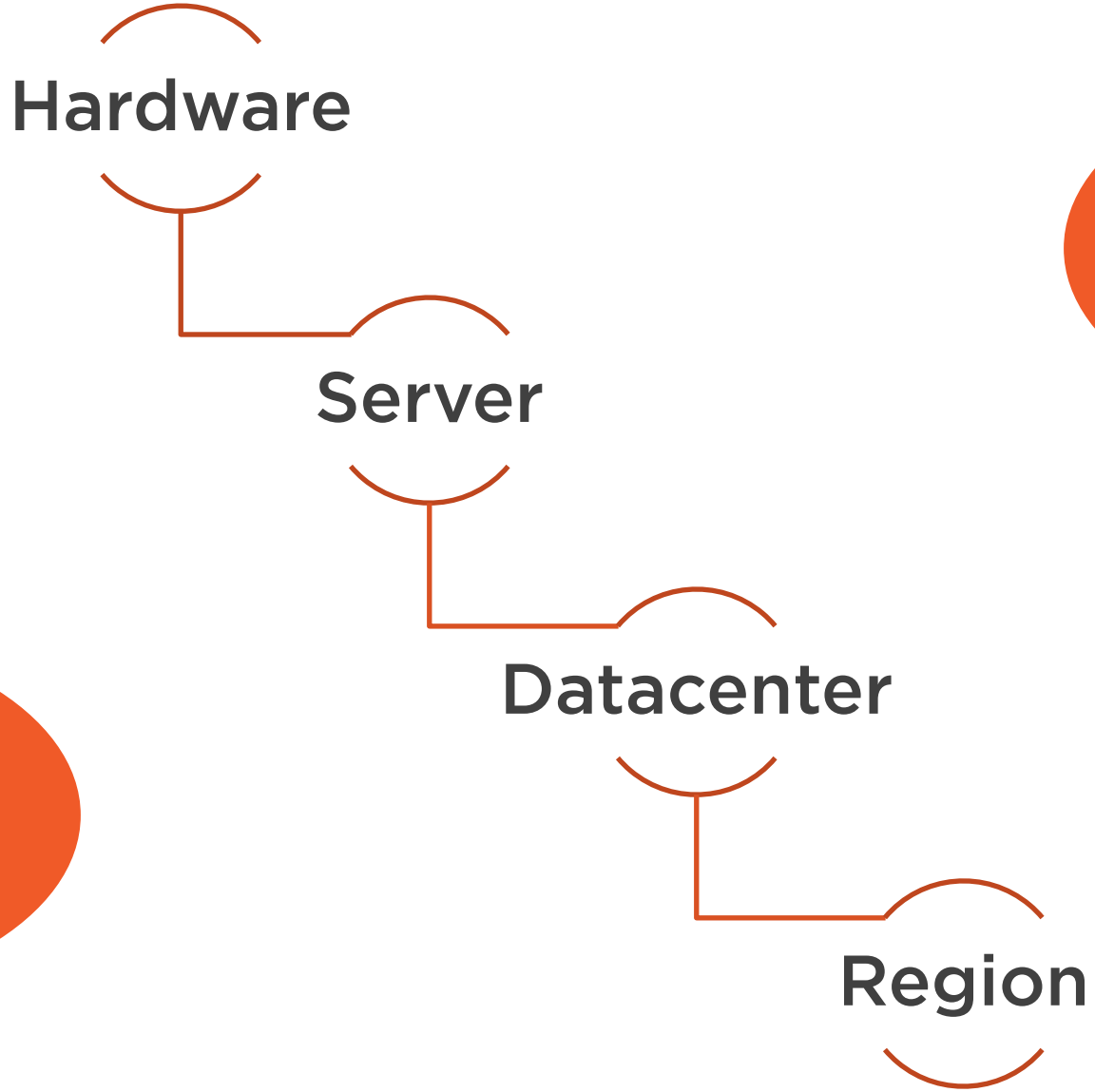
- VM
- Datacenter
- Region

Configure failover recovery with ASR

Introduce Azure Advisor

Availability at Many Levels in Azure

High Availability = Redundancy



Unexpected downtime events

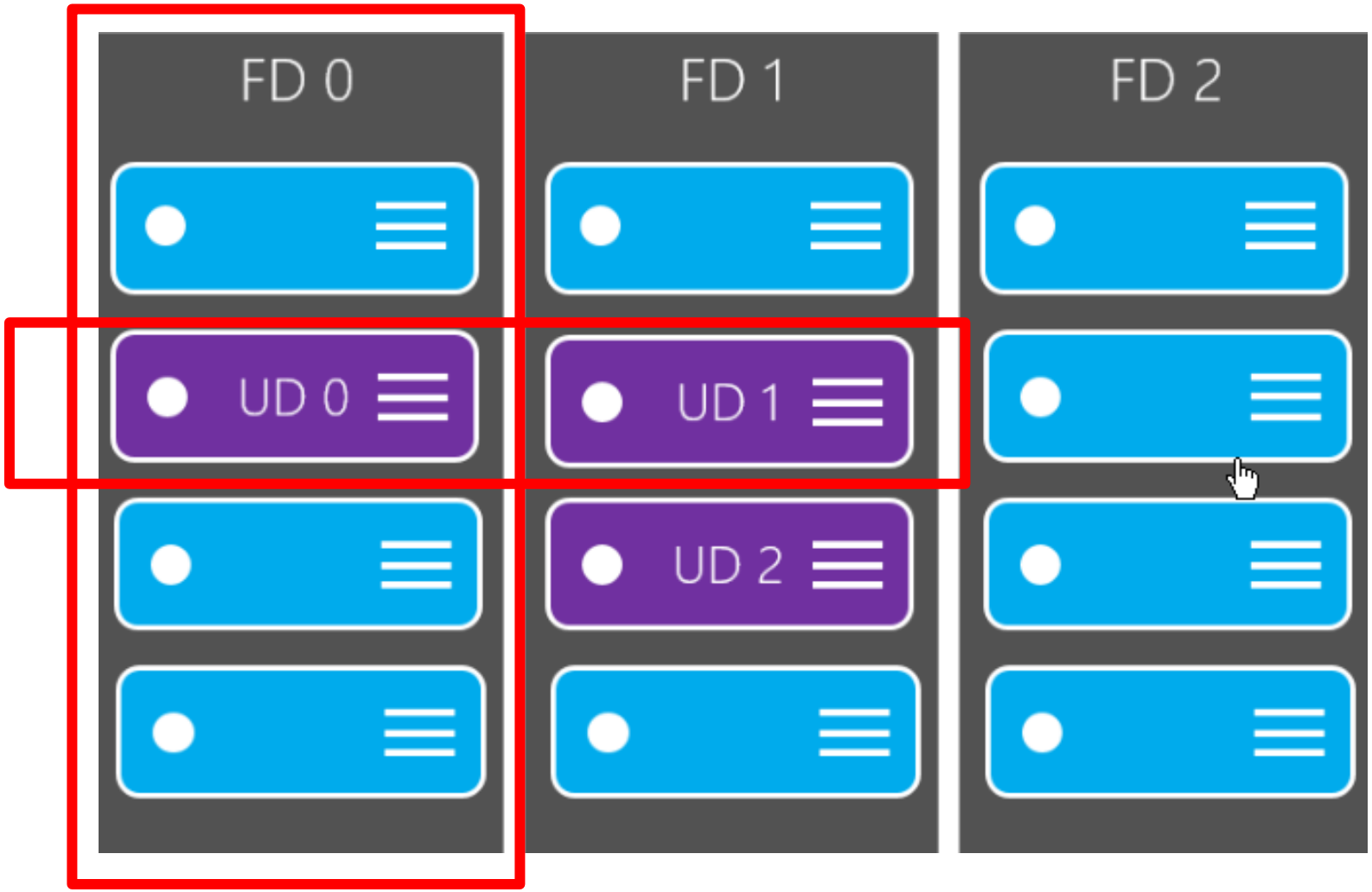
Planned maintenance events

Availability Sets

99.95% availability SLA with availability set

Must assign availability set at VM deployment

99.9% availability single-instance SLA with premium storage



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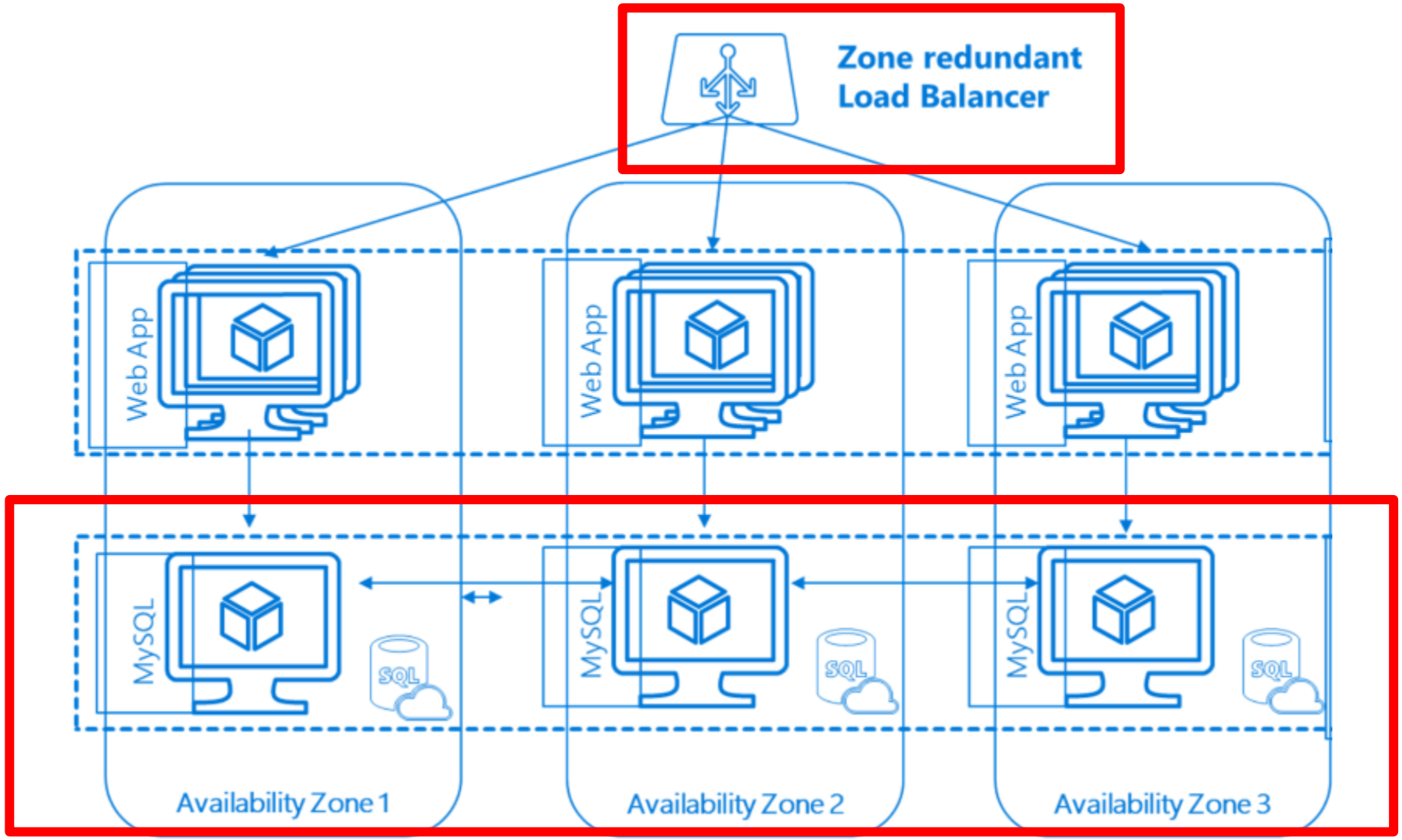
Availability Zones



Standard SKU public IP address

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Demo

1

Create VM to show

- Availability Set
- Availability Zone

Change availability set

- https://docs.microsoft.com/en-us/azure/virtual-machines/windows/change-availability-set

Region-Level VM Failover with Azure Site Recovery (ASR)

Understand the Azure Recovery Services Vault

VM backup

Ad-hoc or scheduled

Includes all disks and configuration

Migration to Azure – ASR

On-premises to Azure

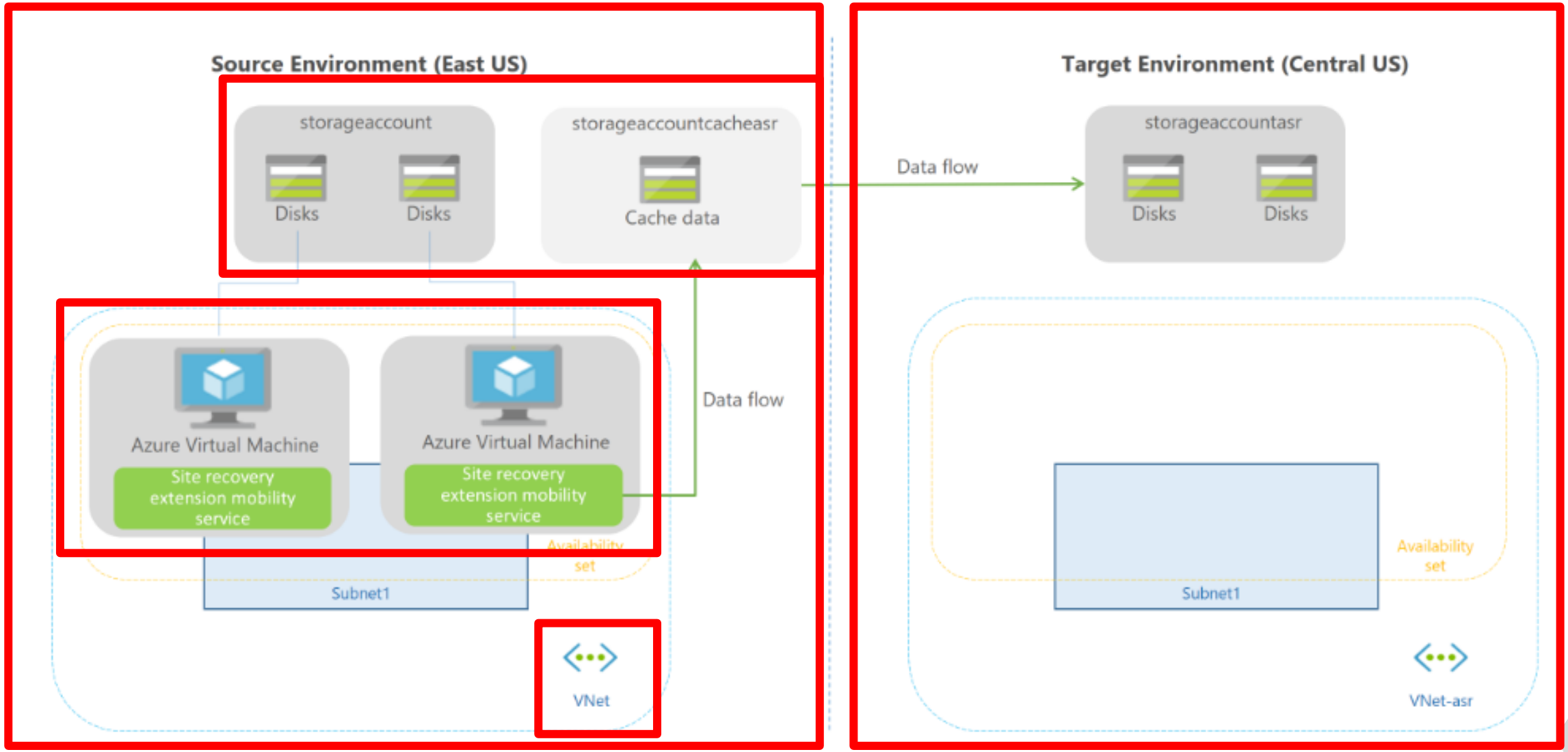
AWS to Azure

Stop replication

Failover recovery – ASR

15-minute RPO

Azure-to-Azure (A2A) ASR Architecture



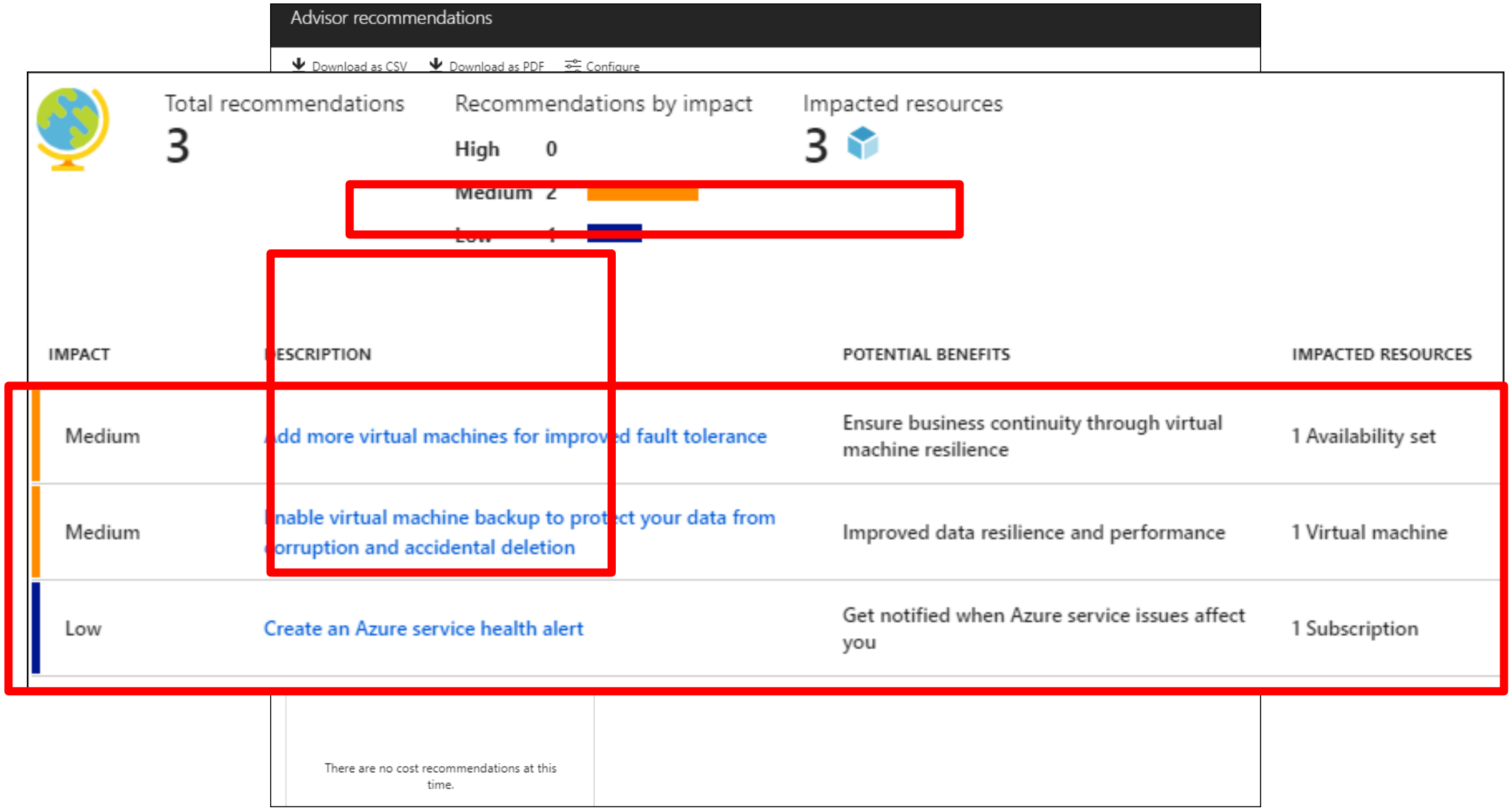
Demo

2

Demo A2A ASR

Azure Advisor

Azure Advisor



Summary

IaaS in Azure underscores the importance of understanding the shared responsibility model

- Azure provides the HA tools
- It's up to you to implement them

Keep in mind:

- Azure SLAs
- Microsoft Trust Center

Next module: Managing VM Security