



# SAP on Azure HA / DR

Monday, October 5th, 2020

10am – 12 pm SGT

Nicolas Yuen & Ravi Gangampali  
Microsoft APAC

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# SAP on Azure Partner Enablement

Module One – Week Three

Day 1 – HA-DR Solutions on Azure



**Nicolas Yuen**  
Cloud Solution Architect



**Ravi Gangampalli**  
Cloud Solution Architect – SAP on Azure

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## Agenda draft

Impact of outages  
Azure resilient foundations  
Resiliency as a Platform  
Patterns for resilient Cloud applications

# Check-in

We are happy to host you 😊

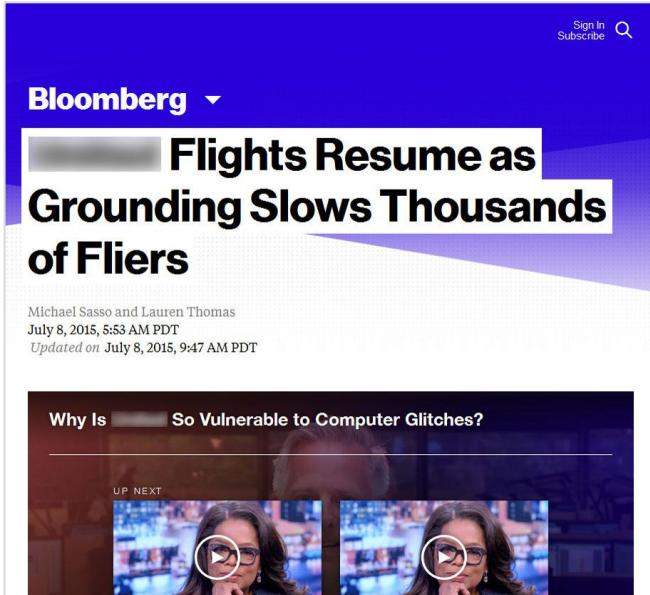
<https://aka.ms/apac-enablement-check-in>



# The impact of an outage on your digital business

Business continuity and data protection are critical

## The outage itself



Bloomberg - Sign in Subscribe Search

### Flights Resume as Grounding Slows Thousands of Fliers

Michael Sasso and Lauren Thomas  
July 8, 2015, 5:53 AM PDT  
Updated on July 8, 2015, 9:47 AM PDT

Why Is [REDACTED] So Vulnerable to Computer Glitches?

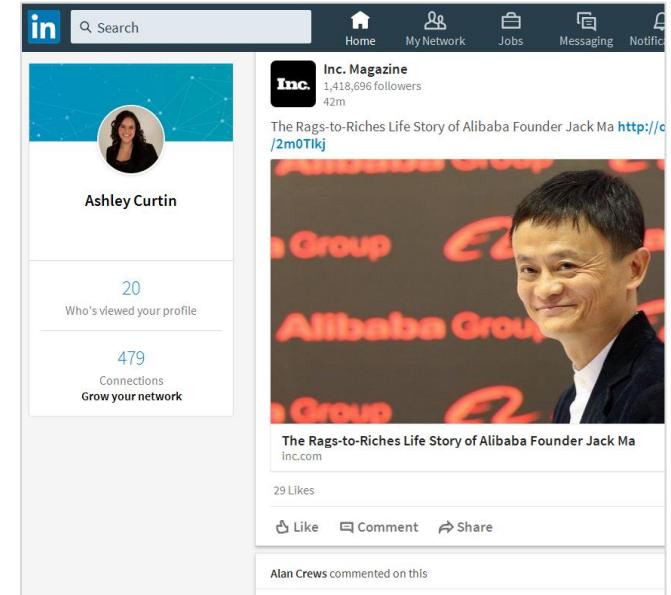
UP NEXT: [REDACTED]

This image shows a screenshot of a Bloomberg news article. The headline reads "Flights Resume as Grounding Slows Thousands of Fliers". Below the headline, it says "Michael Sasso and Lauren Thomas" and "July 8, 2015, 5:53 AM PDT Updated on July 8, 2015, 9:47 AM PDT". There is also a section titled "Why Is [REDACTED] So Vulnerable to Computer Glitches?" with two small video thumbnail images below it.

## Your brand



## Your IT career



in Search Home My Network Jobs Messaging Notifications

Inc. Magazine 1,418,696 followers 42m

The Rags-to-Riches Life Story of Alibaba Founder Jack Ma <http://c/2m0TIk>

Ashley Curtin 20 Who's viewed your profile 479 Connections Grow your network

29 Likes Like Comment Share

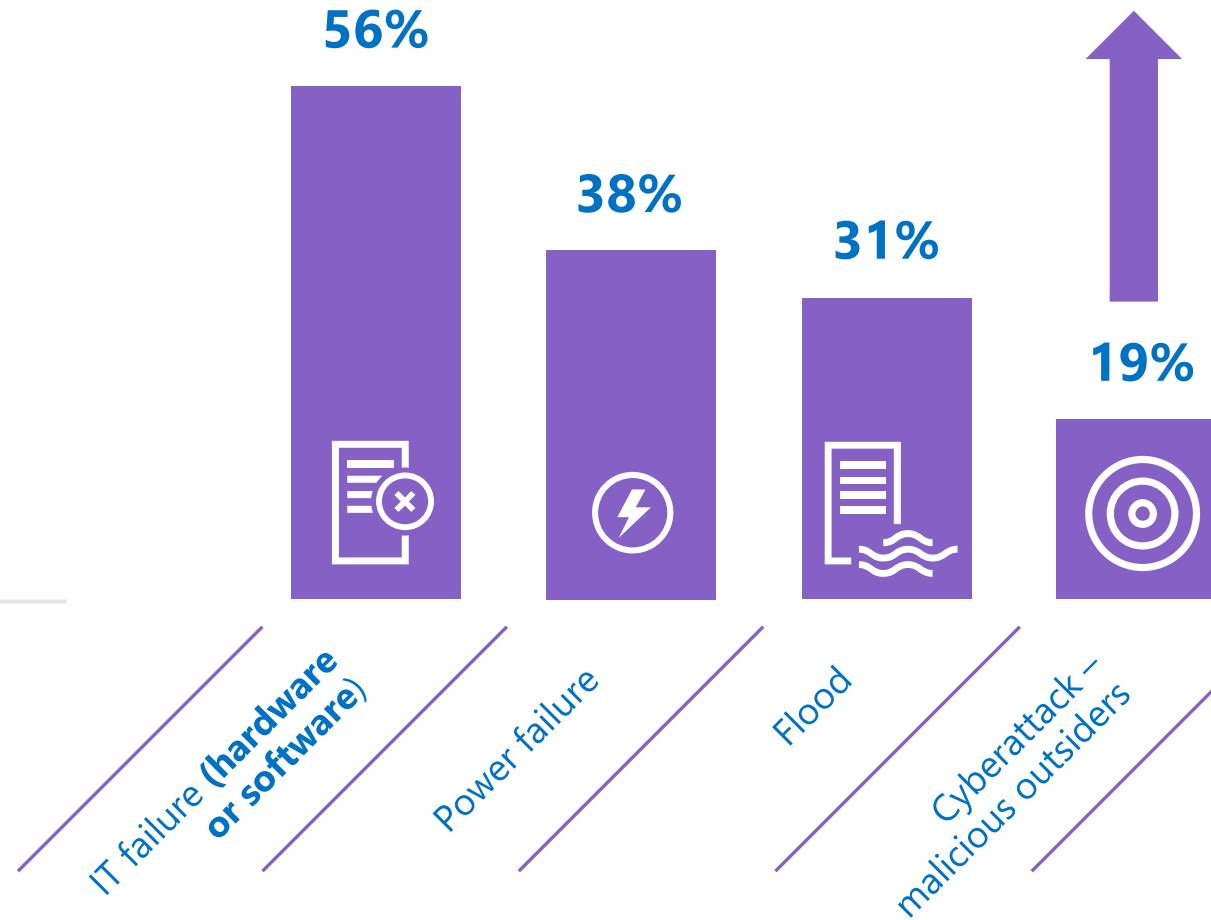
Alan Crews commented on this inc.com

This image shows a LinkedIn profile page for Ashley Curtin. It includes her profile picture, name, follower count (1,418,696), a post by Inc. Magazine about Jack Ma, and some engagement metrics like likes and comments.

# Causes of IT disasters

"What was/were the cause(s) of your significant disaster declaration(s) or major business disruption?"

(Multiple responses accepted)



# IT challenges implementing business continuity

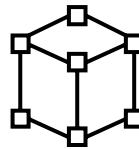
Business continuity and data protection are critical issues for every organization



## Cost

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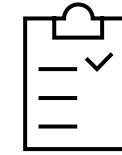
Datacenter cost  
Resource cost  
Hardware cost



## Complexity

---

Multiple datacenters  
Restoring tape  
Managing management software

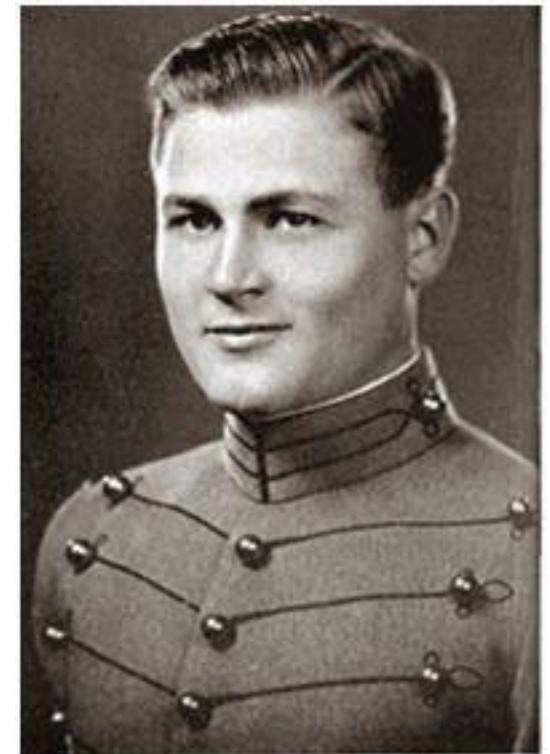


## Compliance

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Need to retain data  
Need to provide service  
Challenging to comply

*"If it can happen, it will happen"*

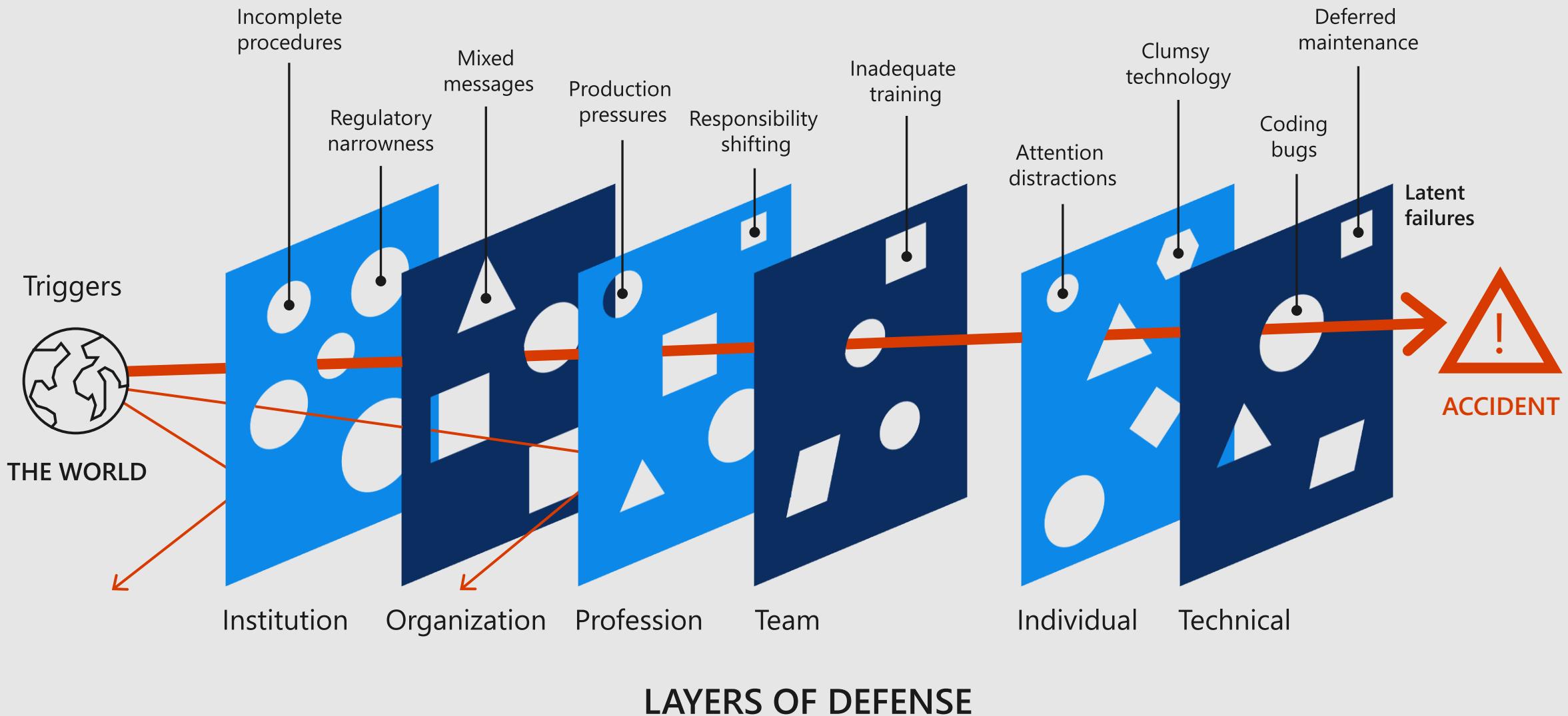


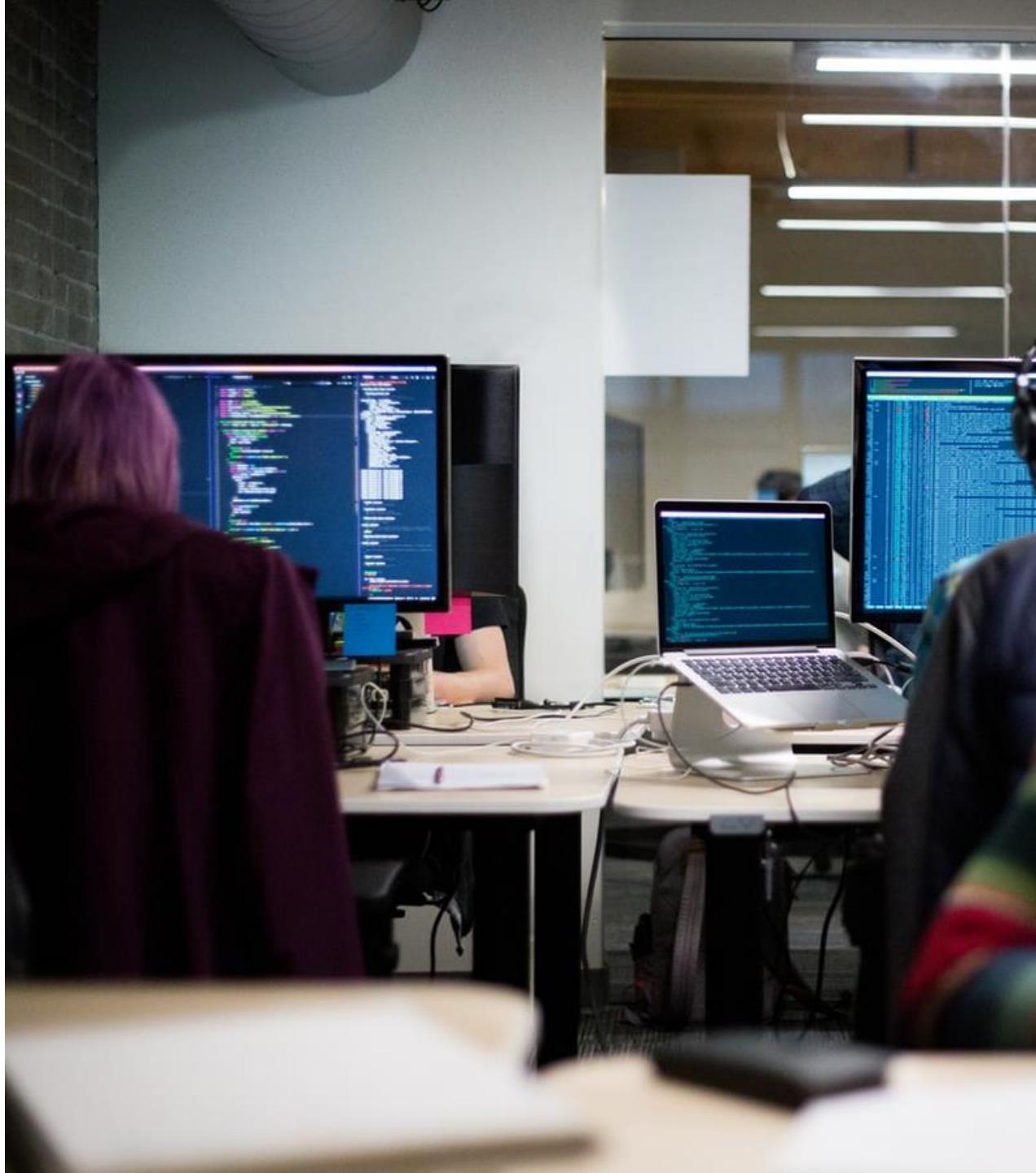
*"Anything that can go  
wrong will go wrong"*



# Why do bad things happen?

Modified from  
Reason, 1991





# Top trigger of outages in the industry? **Change.**

## **Unavoidable platform changes:**

- Customer resources are created, modified, deleted – and constantly ‘breathing’ scaling up & down 24/7.
- Automated management services on the backend introduce infrastructure change as required.
- Software updates roll out around the world – both to the platform and to specific services/components.
- Constant addition of capacity in every region, balancing workloads.

# Complex systems need resilience to deliver reliability



## Reliability

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Reliability is the 'what'.

It is the goal for production systems, to ensure availability of their services.

You want to maintain reliable systems, with the appropriate level of availability/uptime.



## Resilience

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Resilience is the 'how'.

It is the way in which production systems can achieve reliability.

The objective is not to avoid any and all failures – it is to respond to failure in a way that avoids downtime and data loss.

# IT challenges implementing business continuity

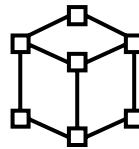
Business continuity and data protection are critical issues for every organization



## Cost

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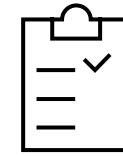
Datacenter cost  
Resource cost  
Hardware cost



## Complexity

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Multiple datacenters  
Restoring tape  
Managing management software



## Compliance

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Need to retain data  
Need to provide service  
Challenging to comply

# Building reliable systems is a shared responsibility

## Your application

Your **app** or **workload** architecture, built on the below.

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## Resiliency features

Optional Azure capabilities **you enable as needed** – high availability, disaster recovery, and backup.

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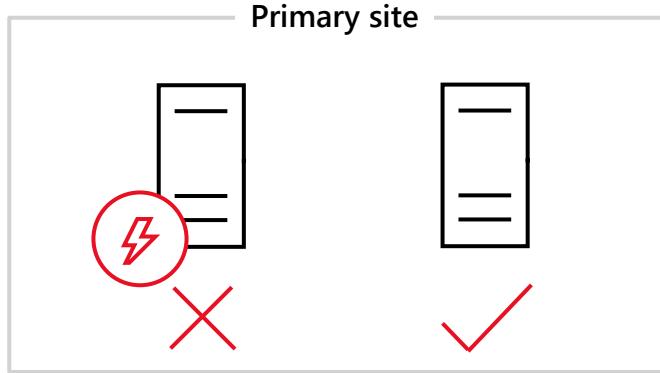
## Resilient foundation

Core Azure capabilities **built into the platform** – how the foundation is designed, operated, and monitored to ensure availability.

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# Business continuity strategy

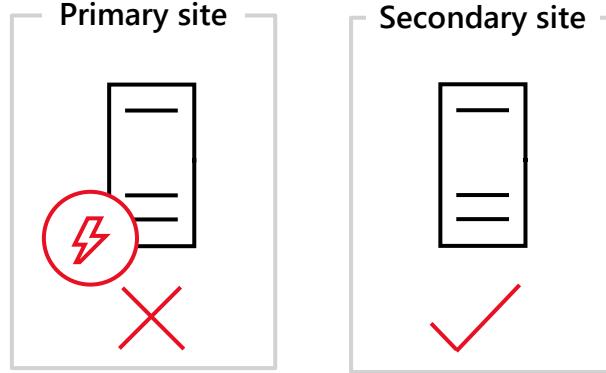
You need all three



## High availability

When your applications have a catastrophic failure, run a second instance

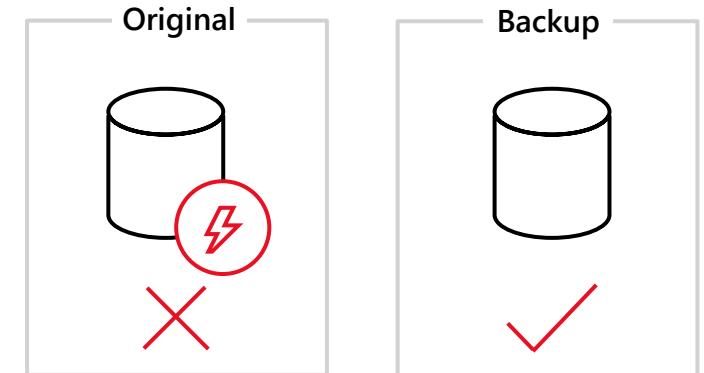
→ Mitigate downtime of a component to keep the system up and running



## Disaster recovery

When your applications have a catastrophic failure, run them in Azure or a secondary datacenter

→ Recover from a major event, mitigate business impact



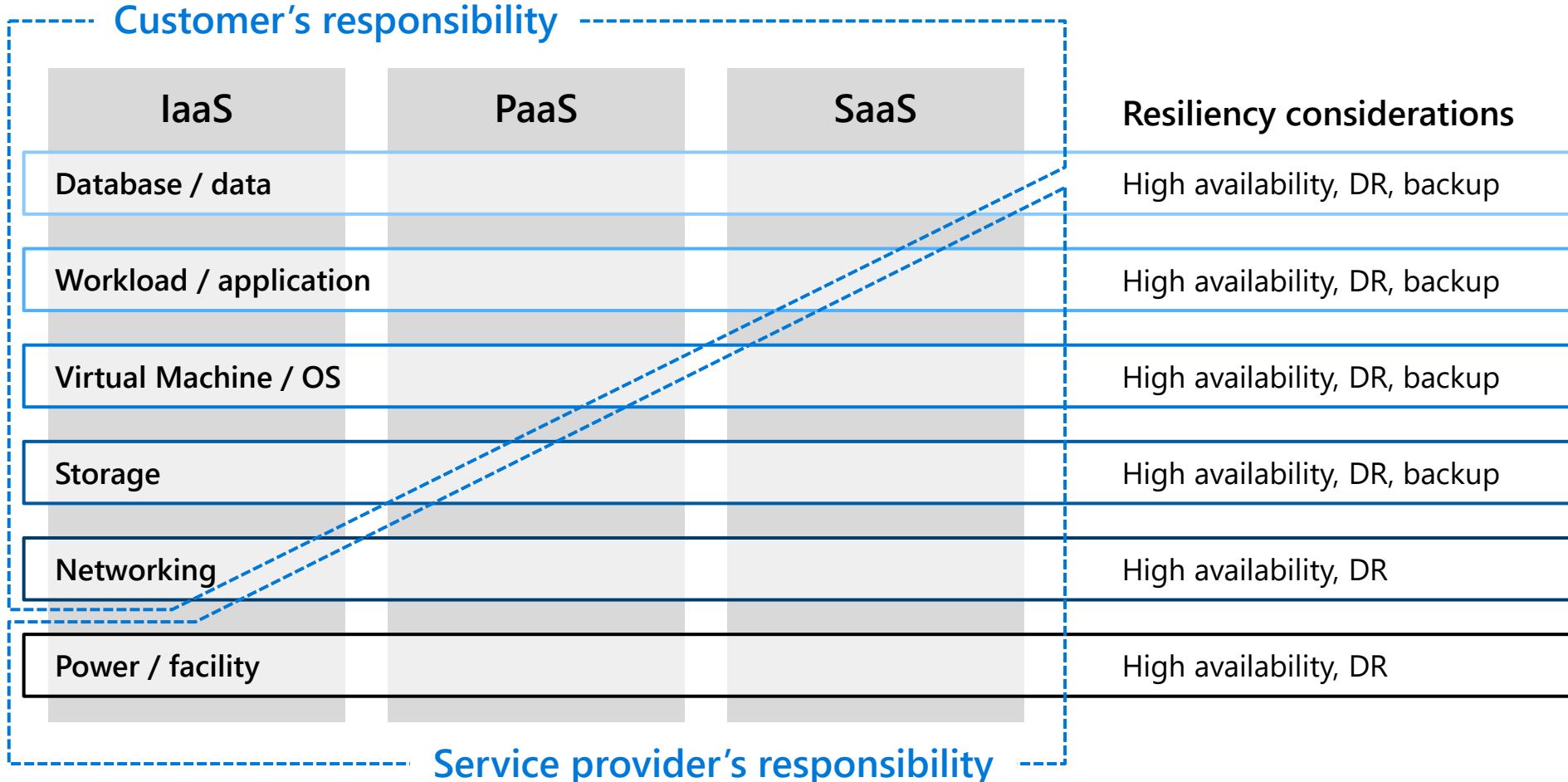
## Backup

When your data is corrupted, deleted or lost, you can restore it

→ Return to a known state

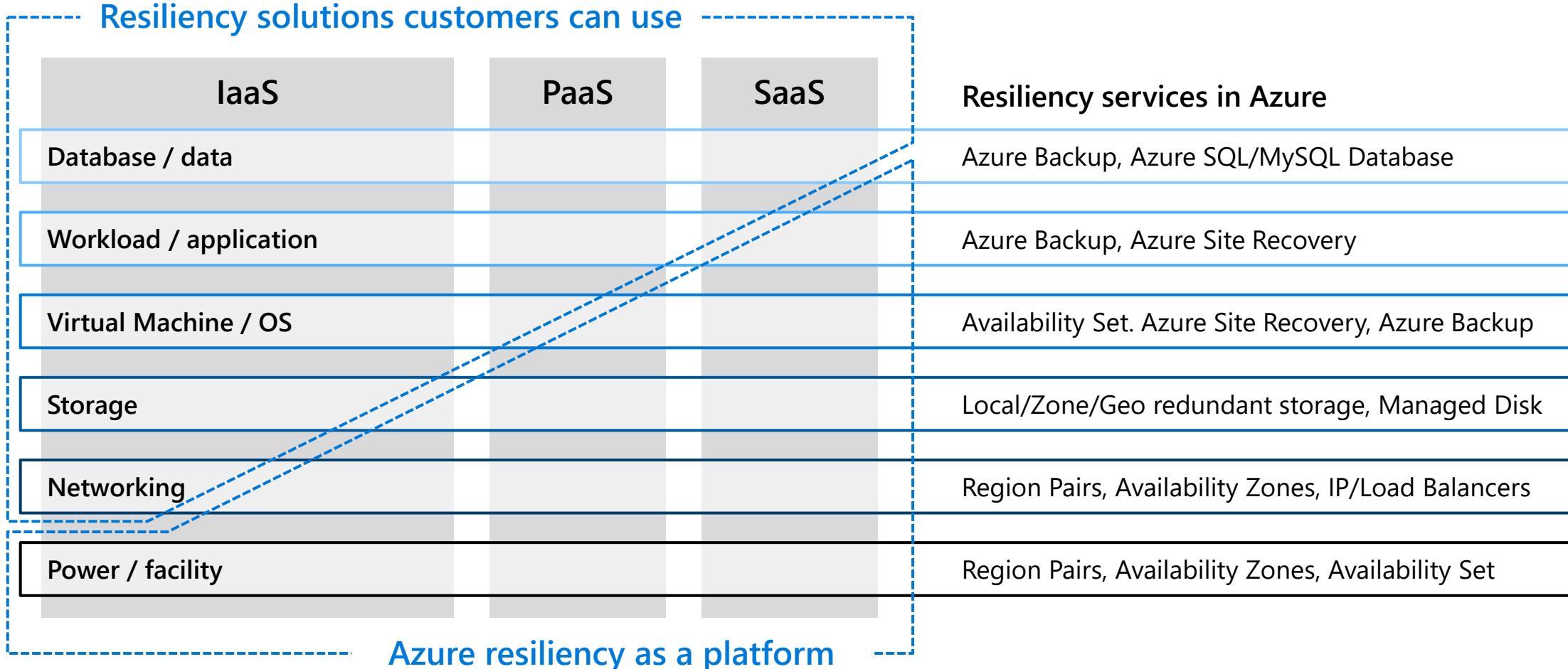
# Resiliency in the public cloud

Resiliency is a joint effort between customers and service providers



# Resiliency in Azure

Azure provides resiliency as a platform and solutions through globe's largest datacenter footprint



**Resilient foundation  
of the Azure platform**

# Building reliable systems is a shared responsibility

## Your application

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## Resilient foundation

Core Azure capabilities **built into the platform** – how the foundation is designed, operated, and monitored to ensure availability.

---

# Resilient foundation

Our investments in global infrastructure, service management, and ensuring transparency



## Design

Global network

Datacenter infrastructure

Storage protection

## Operate

Safe deployment

Maintenance & control

ML & failure prediction

## Observe

Communications philosophy

Service health & alerts

Scheduled events

# Project Tardigrade



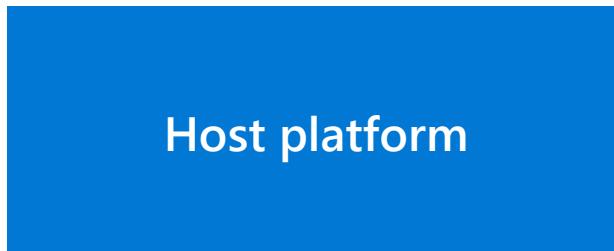
# Project Tardigrade

Enable apps to survive spontaneous platform failures

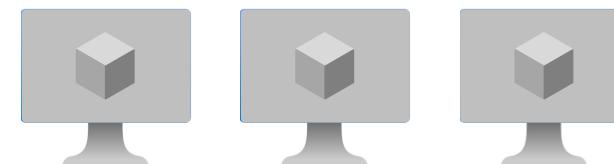
Host failures today



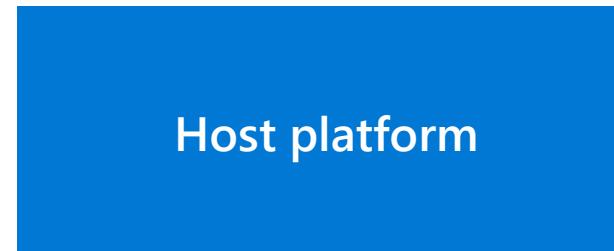
VM 1      VM 2      VM 3



Tardigrade



VM 1      VM 2      VM 3



# Azure Resiliency as a Platform

# Building reliable systems is a shared responsibility

## Your application

Your **app** or **workload** architecture, built on the below.

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Optional Azure capabilities **you enable as needed** – high availability, disaster recovery, and backup.

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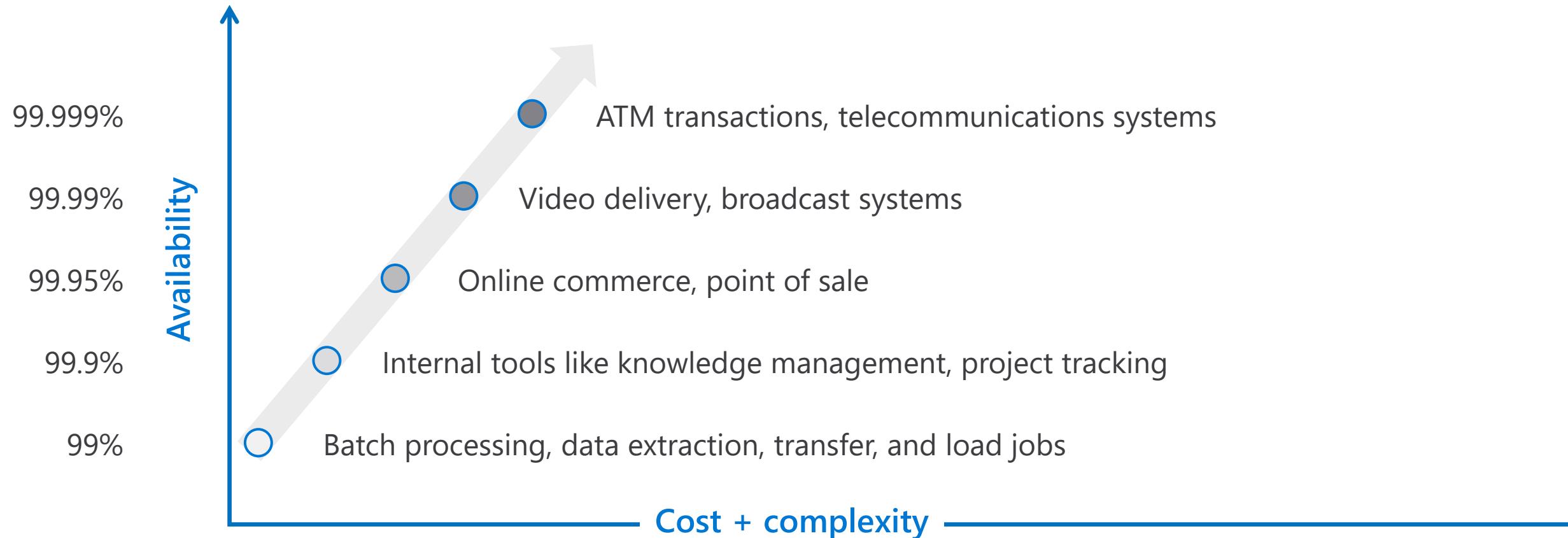
## Resilient foundation

Core Azure capabilities **built into the platform** – how the foundation is designed, operated, and monitored to ensure availability.

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# Application availability needs

Examples of applications commonly seen at each availability tier



Customer  
need

Improved  
availability

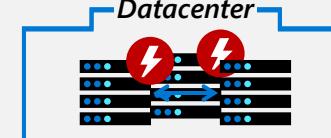
Build and run *highly-available*  
applications with near-zero RPO/RTO

Implement *disaster recovery plans* with  
data residency and minimal RPO/RTO

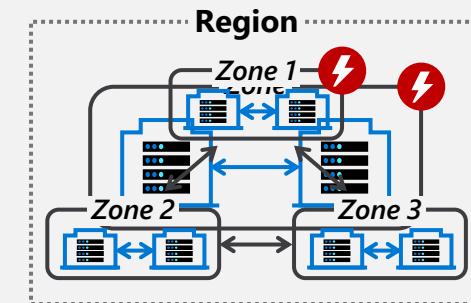
### Premium Storage



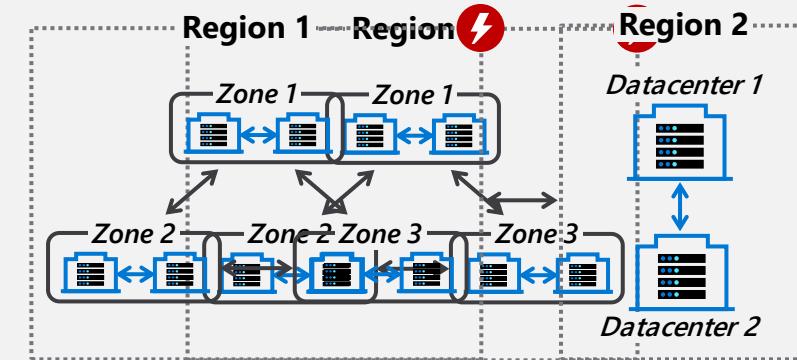
### Availability Sets



### Availability Zones



### Azure Site Recovery / Region Pairs



Scope of Impact...

**SLA 99.9%**

Isolated VM failure  
e.g. OS disk HDD issue

**SLA 99.95%**

Hardware failure  
e.g. server rack issue

**SLA 99.99%**

Entire datacenter failure  
e.g. power/network issue

**Industry-leading RPO/RTO**

Entire region failure  
e.g. natural disaster



Accidental data loss

Data corruption

Ransomware

Rogue administrator

Backup

Go back to *restore* a healthy version of the data

# Azure compute resiliency solutions

Apply autoscaling to virtual machines for high availability

Virtual Machine / OS

VM Scale set (VMSS)

## Reliably deploy and update at a large scale

Deploy hundreds of identical virtual machines in minutes.

## Scale automatically

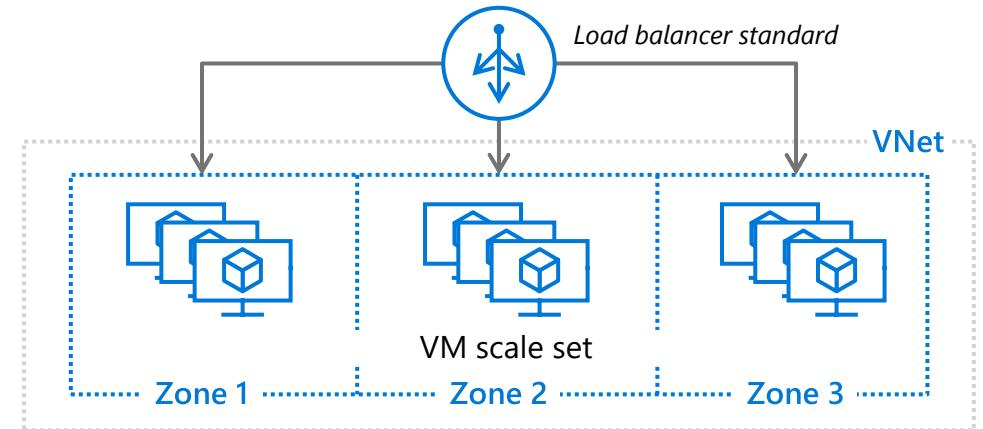
Use only the compute resources your application needs at any time.

## Simplify networking

Easily spread your workloads across the virtual machines in your Virtual Machine Scale Set.

## Support hyperscale workloads

Elastic to support your scale-out workloads—including stateless web front ends, container orchestration, and microservices clusters.



# Azure networking resiliency solutions

## Azure networking resiliency solutions

### Networking

### IP/Load Balancers



#### Simplify load balancing for applications

Create highly-available and scalable applications in minutes supporting TCP/UDP-based protocols



#### High availability and robust performance for your applications

Load Balancer automatically scales with increasing application traffic



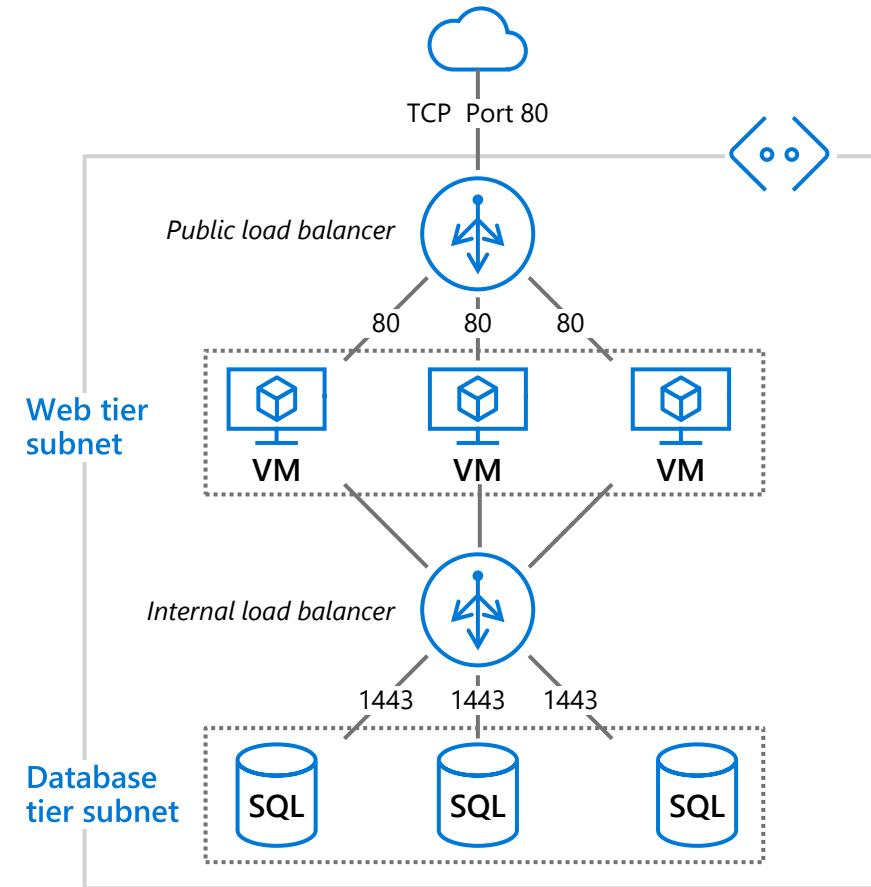
#### Internal load balancer

Use the internal load balancer for traffic between virtual machines inside your private virtual networks



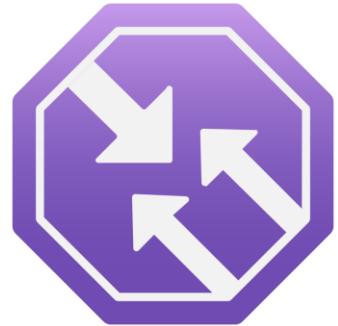
#### Build highly reliable applications

Automatically takes unhealthy instances out of rotation, and reinstates them when they become healthy again



# Azure networking resiliency solutions

Cross region services



Traffic Manager



Azure CDN



Front Door



Cross-region  
Load balancer

# Azure networking resiliency solutions

## Zone-redundant virtual network gateways

Networking

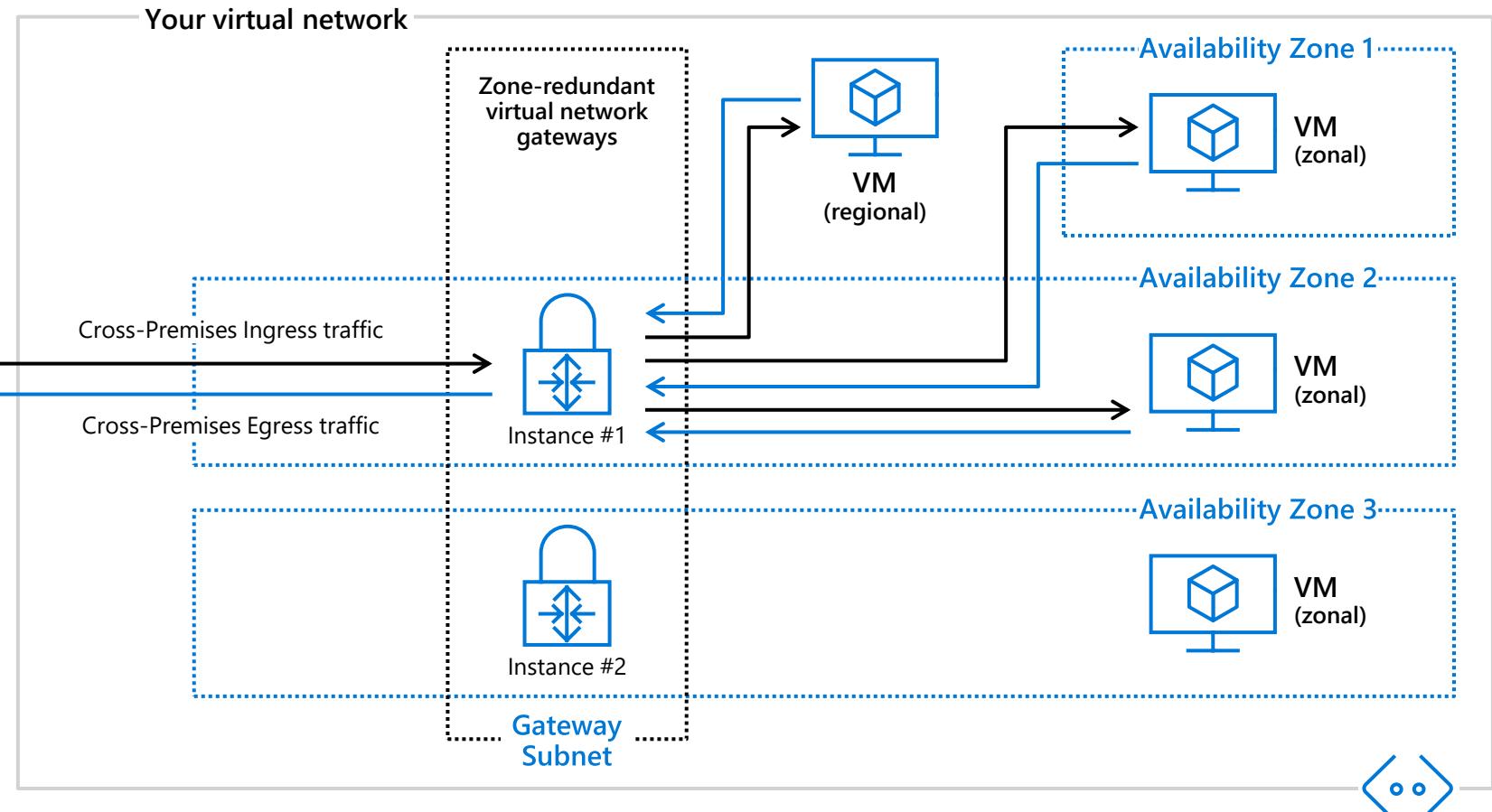
Virtual network gateways

Virtual gateways

99.99%



Zone-redundant virtual network gateway



# Azure storage resiliency solutions

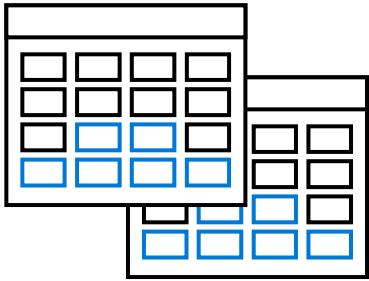
Azure storage provides replication options based on availability needs

Storage

Local/zone/geo redundant storage

LRS

99.99999999% (11 9s)



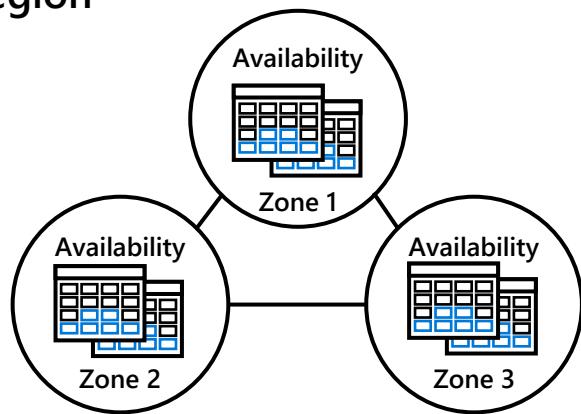
## Locally redundant storage

The simplest, low-cost replication strategy that Azure Storage offers.

ZRS

99.999999999% (12 9's )

Region



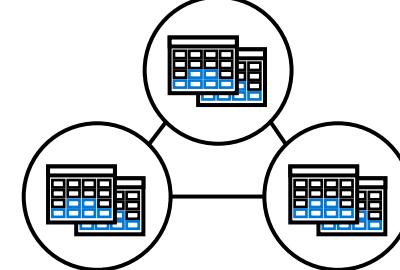
## Zone-redundant storage

A simple option for high availability and durability.

GRS

99.9999999999999% (16 9s)

Region 1



Region 2

## Geo-redundant storage

Cross-regional replication to protect against region-wide unavailability.

# Disaster recovery as a service

## Azure Site Recovery

Prevent downtime from disrupting your business

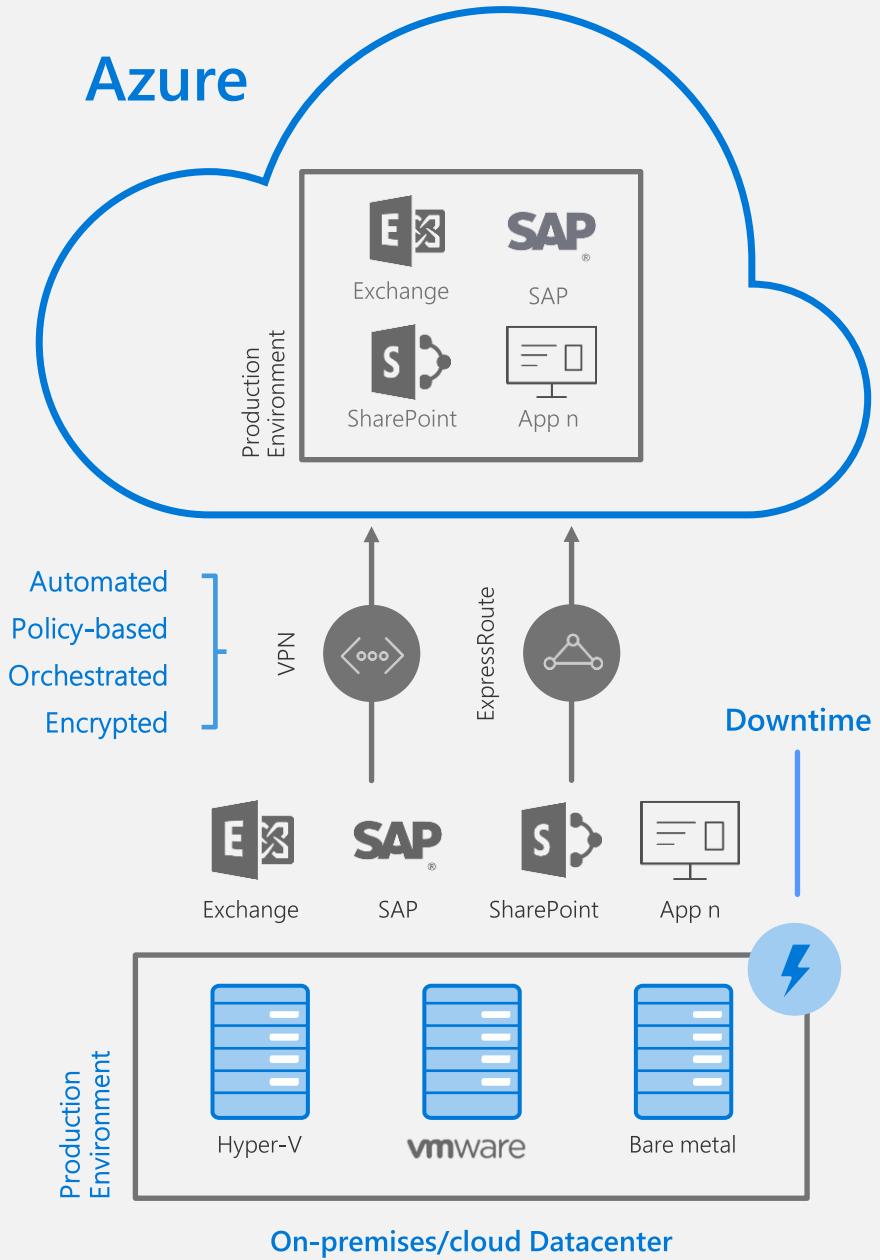
Simple, automated disaster recovery from the cloud to protect applications

Provides application-consistent recovery of critical workloads

Leverage current investments

Orchestrate one-click recovery even for complex multi-tier applications

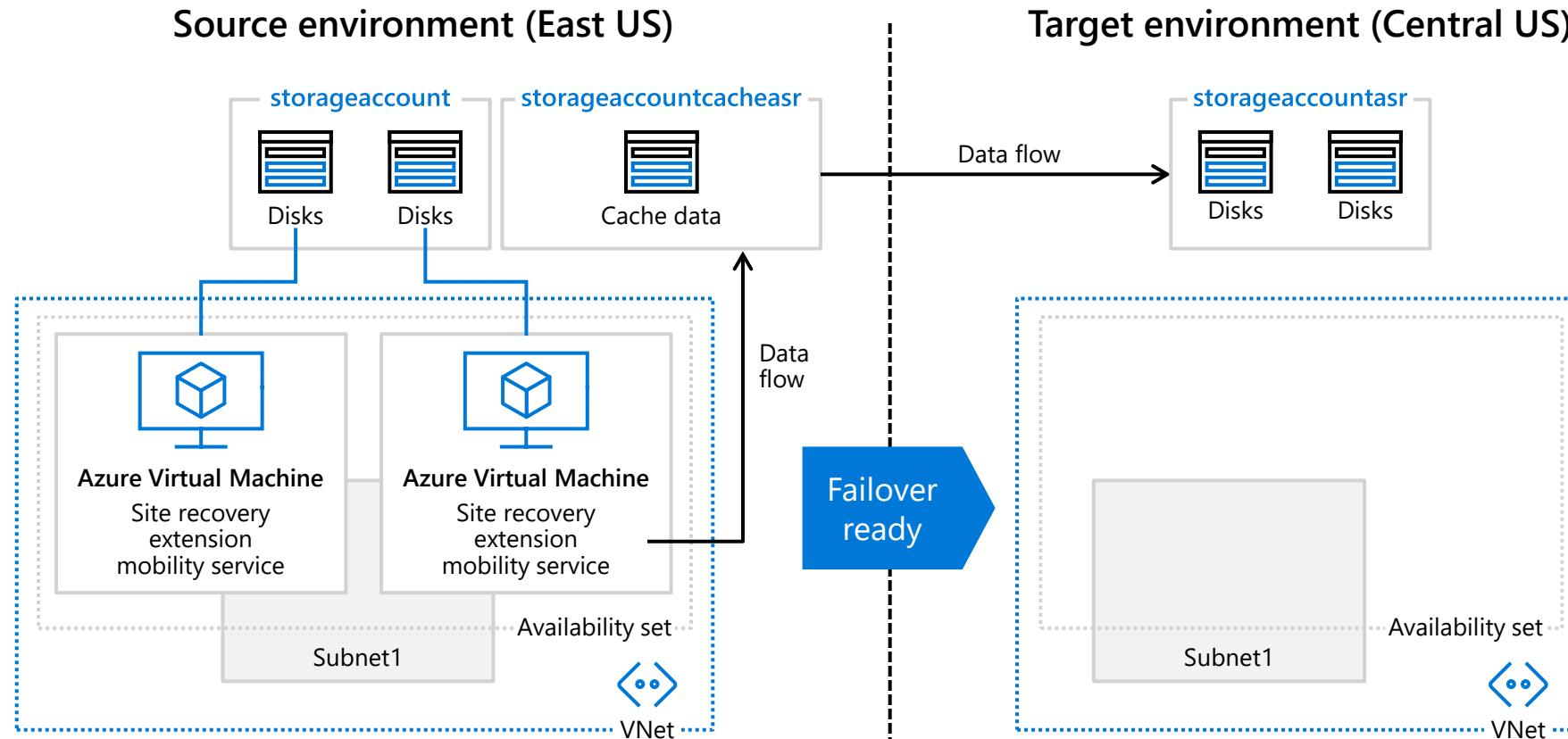
Ensure more applications meet your compliance requirements



# Azure application resiliency solutions

Ensure application availability with cloud-based disaster recovery

Workload / application



## Site Recovery

Replicates workloads running on Azure virtual machines (VMs) from a primary site to a secondary location.

When an outage occurs at your primary site, you fail over to the secondary location and access apps from there. After the primary location is running again, you can fail back to it.

Azure Site Recovery now supports Zone-to-Zone DR

# Backup as a service

## Azure backup

Create virtual machines with fabric-level protection

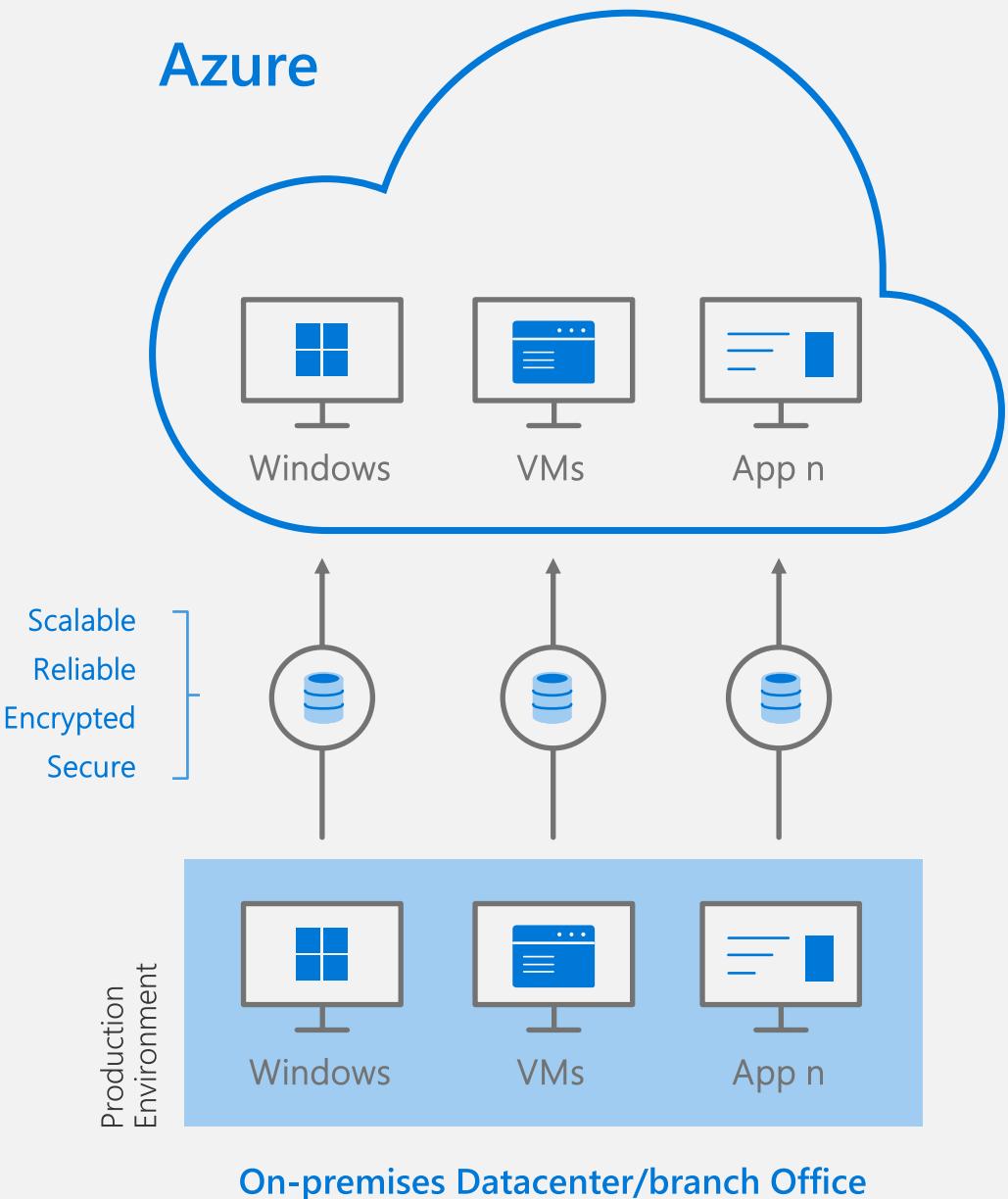
Direct-to-cloud backup of files and folders

Built-in protection against ransomware

Economical cloud pricing with pay-as-you-go storage

Move beyond tape and get unlimited scale and your information back quicker

Gain visibility into centrally stored remote office backups without the complexity of in-house management

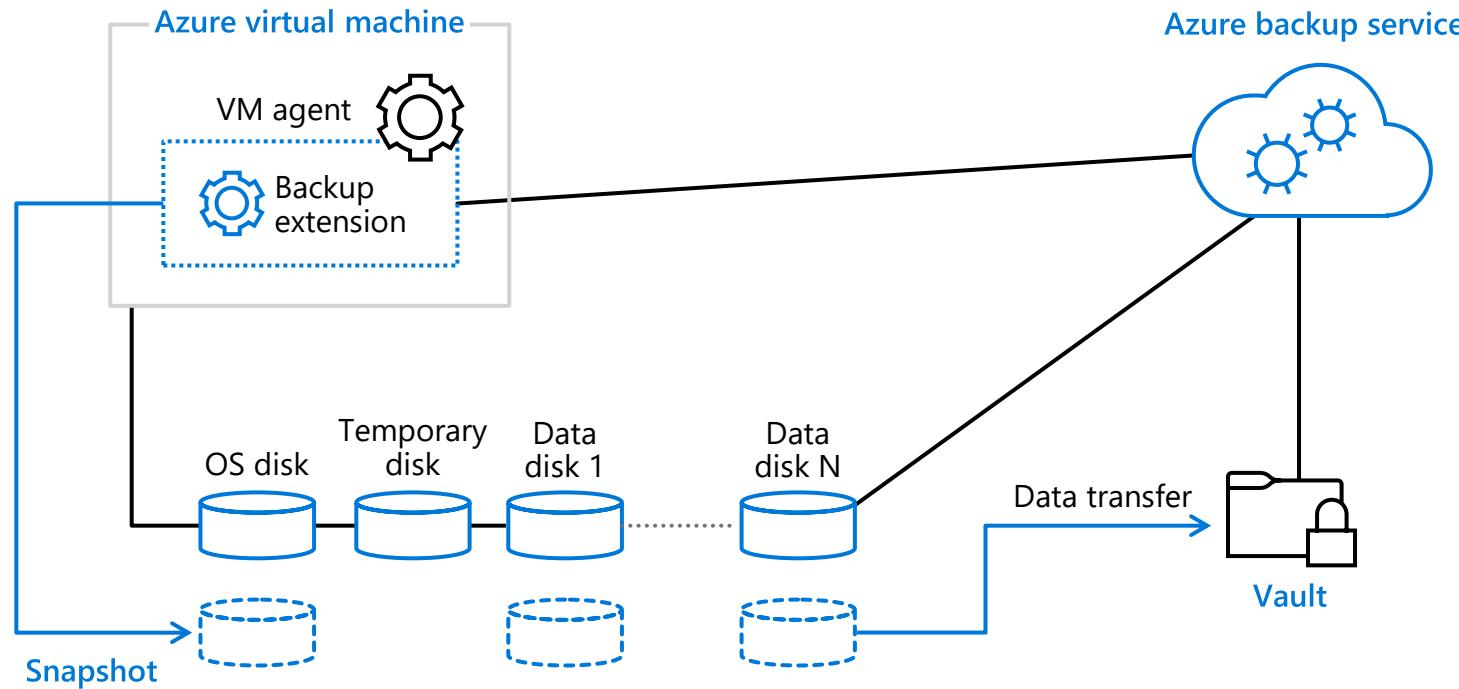


# Azure compute resiliency solutions

Backup your virtual machine without any infrastructure needs

Virtual Machine / OS

Azure Backup



Application-aware snapshots (VSS)

Native backups for Windows/Linux

No specific agent installation required

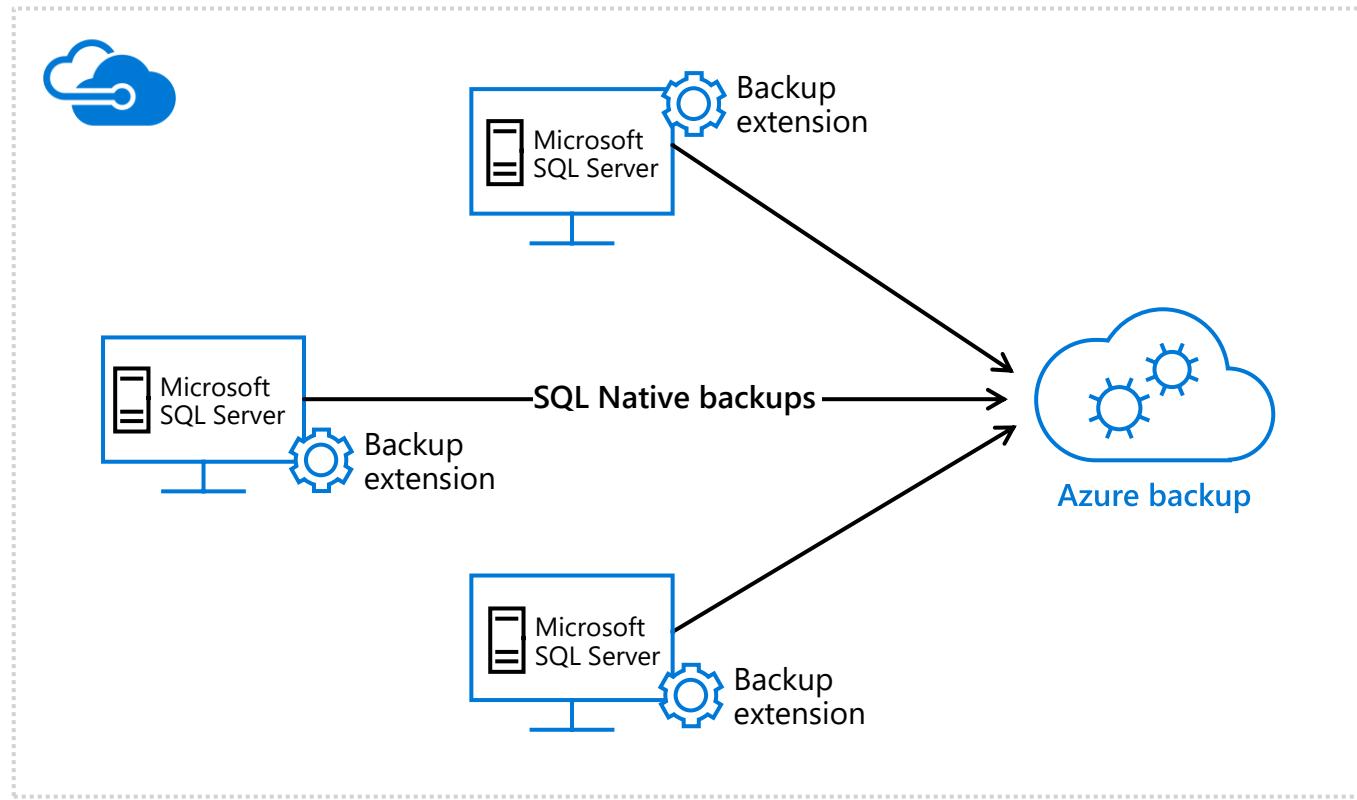
Fabric-level backup with no backup infrastructure needed

# Azure database resiliency solutions

## Backup your SQL database natively in Azure

Database / data

Azure Backup



### Azure Backup

Automatically discovers if a selected virtual machine is running SQL

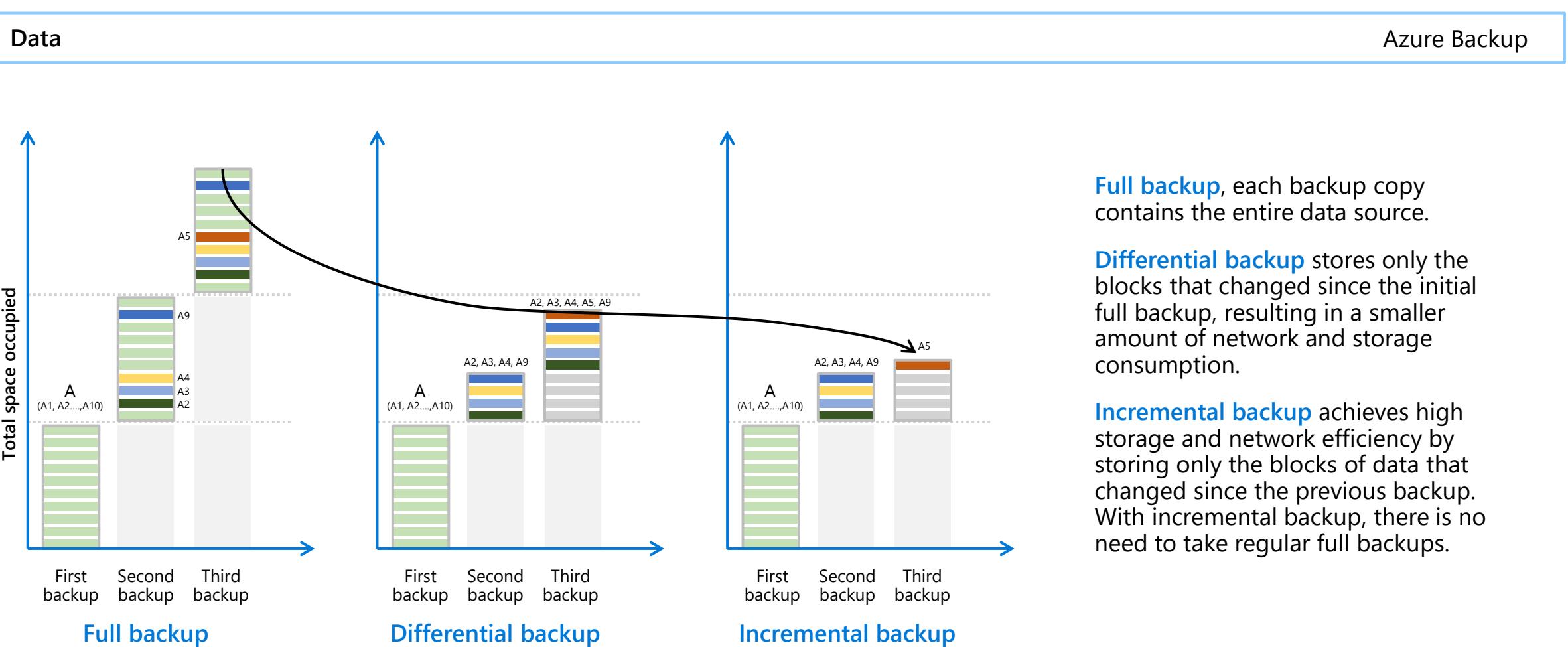
Supports 15 minutes Recovery time objective

True point in time restore

Support for AG

# Azure Backup

## Comparing full, differential and incremental backup



# Backup – what's new on Azure

The screenshot shows the Azure Backup center (Preview) interface. The left sidebar includes sections for Overview, Getting started, Manage (Backup instances, Backup policies, Vaults), Monitoring + reporting (Backup jobs, Backup reports), Policy and compliance (Backup compliance, Azure policies for backup, Protectable datasources), Support + troubleshooting, and New support request. The main area displays backup jobs for the last 24 hours, showing 1 completed scheduled backup. It also shows protection status for Azure Virtual machines, indicating 2 protection configured.

Operation	Failed	In progress	Completed
Scheduled backup	0	0	1
On-demand backup	0	0	0
Restore	0	0	0

**Backup Center**, in public preview, provides a single, unified experience designed for backup management at scale. With Backup Center, customers can dynamically explore large backup inventories across vaults, subscriptions, locations and even tenants.

Backup Center supports the following workload types: Azure Virtual Machines, SQL in Azure Virtual Machines, Azure Database for PostgreSQL servers, and Azure Files.

**Azure Backup will now extend Cross Region Restore** of Azure VMs to support SQL and SAP HANA backups. With Cross Region Restore, customers will be able to restore their backup data in secondary regions at any given time for audit and compliance, and when a primary region is unavailable.

# Patterns for resilient cloud applications

# Reliability pillars

Reliable applications are:

**Resilient** and recover gracefully from failures, and they continue to function with minimal downtime and data loss before full recovery.

**Highly available (HA)** and run as designed in a healthy state with no significant downtime.



# Building reliable systems is a shared responsibility

## Your application

Your **app** or **workload** architecture, built on the below.

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## Resiliency features

Optional Azure capabilities **you enable as needed** – high availability, disaster recovery, and backup.

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## Resilient foundation

Core Azure capabilities **built into the platform** – how the foundation is designed, operated, and monitored to ensure availability.

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# The 12-factor app

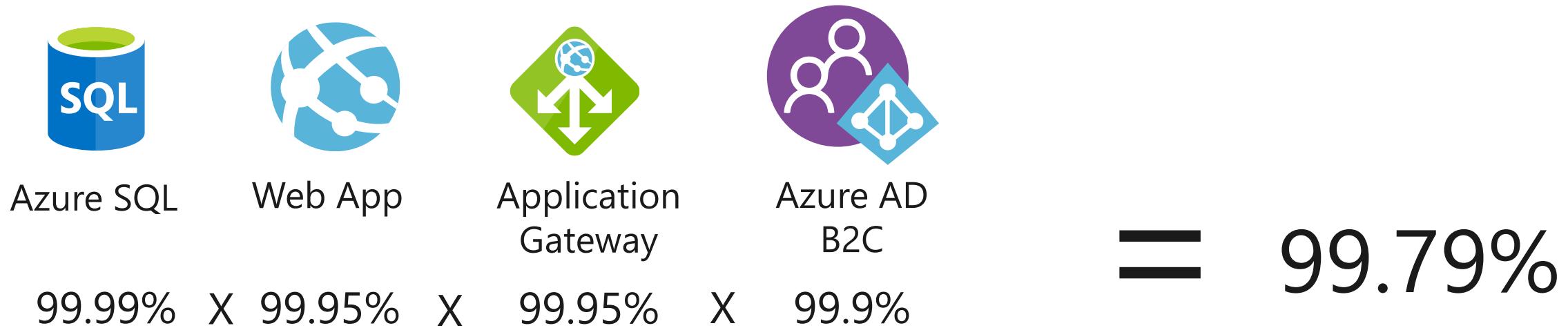


THE TWELVE-FACTOR APP

- methodology for building software-as-a-service apps that :
  - Use **declarative** formats for setup automation, to minimize time and cost for new developers joining the project;
  - Have a **clean contract** with the underlying operating system, offering **maximum portability** between execution environments;
  - Are suitable for **deployment** on modern **cloud platforms**, obviating the need for servers and systems administration;
  - **Minimize divergence** between development and production, enabling **continuous deployment** for maximum agility;
  - And can **scale up** without significant changes to tooling, architecture, or development practices.

<https://12factor.net/>

# Composite SLAs - Exercise



# Service Level Agreements

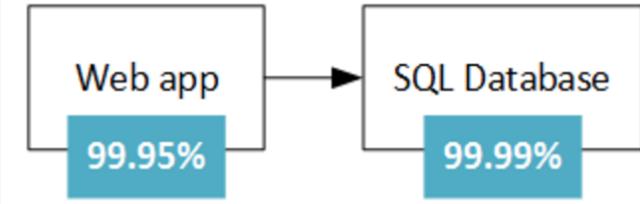
## What are they really worth?

Officially document “confidence” in your platform. The “last resort” if something really goes wrong (sometimes happens)

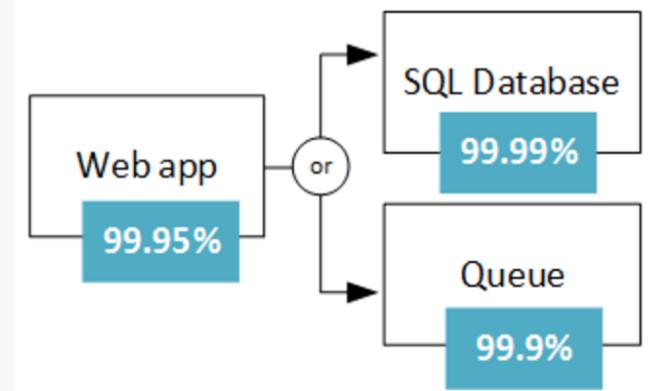
SLA	Downtime per week	Downtime per month	Downtime per year
99%	1.68 hours	7.2 hours	3.65 days
99.9%	10.1 minutes	43.2 minutes	8.76 hours
99.95%	5 minutes	21.6 minutes	4.38 hours
99.99%	1.01 minutes	4.32 minutes	52.56 minutes
99.999%	6 seconds	25.9 seconds	5.26 minutes

Resiliency comes into play to deal with the “Downtimes”...

Composite SLA = **99.94%**

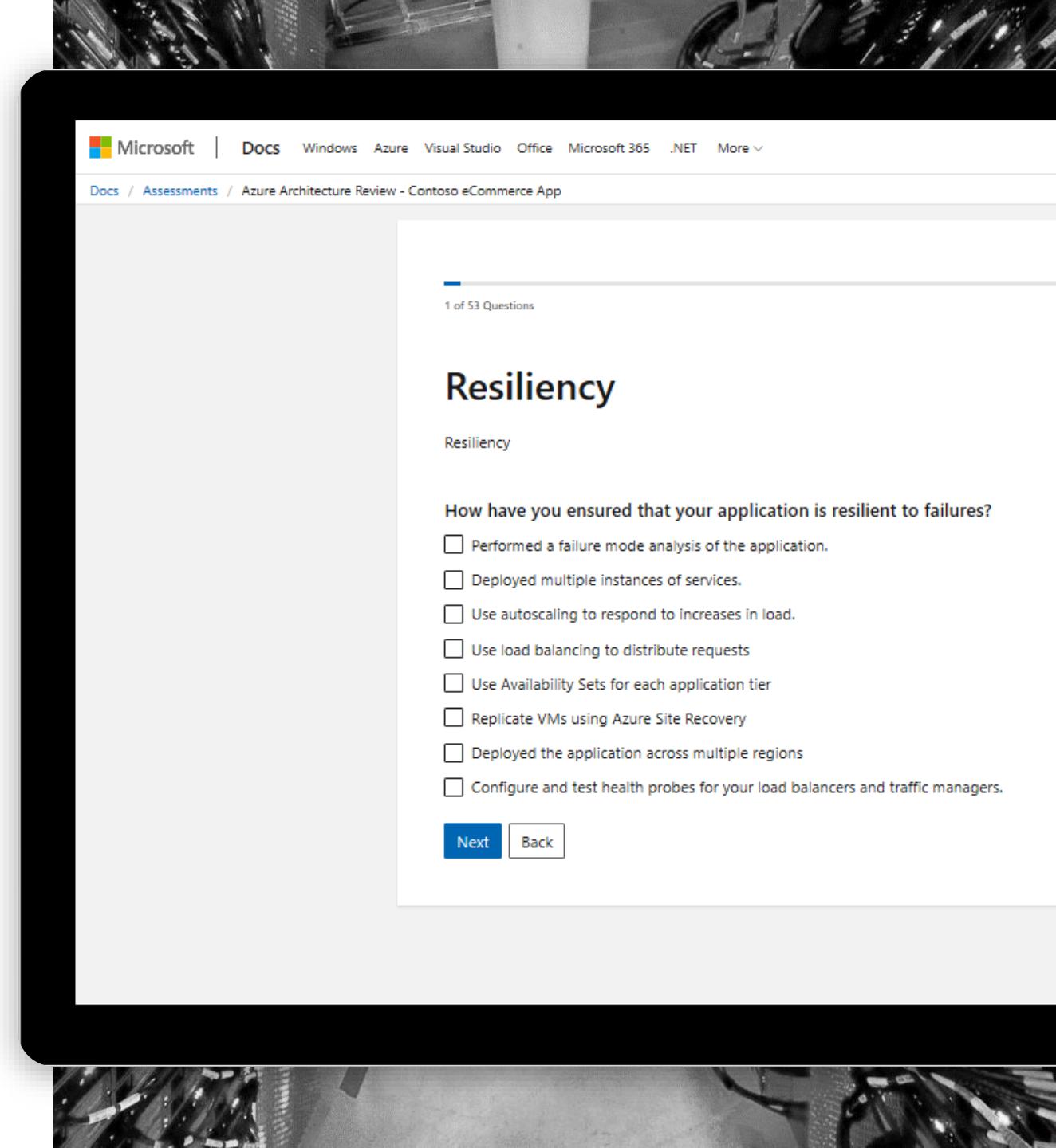


Composite SLA = **99.95%**



# Microsoft Azure Architecture Review

- The Azure Architecture [Framework](#) and the associated Azure Architecture [Assessment](#) are tools for customers to optimize their workloads across the five pillars – Cost, DevOps, Scalability, **Resiliency**, and Security.
- [aka.ms/ArchitectureReview](http://aka.ms/ArchitectureReview)



The screenshot shows a web-based application for performing an architecture review. At the top, there's a navigation bar with links for Microsoft, Docs, Windows, Azure, Visual Studio, Office, Microsoft 365, .NET, and More. Below the navigation, the URL is displayed as [Docs / Assessments / Azure Architecture Review - Contoso eCommerce App](#). A progress indicator shows "1 of 53 Questions". The main content area is titled "Resiliency" and contains the following text: "How have you ensured that your application is resilient to failures?". Below this is a list of eight items, each preceded by an unchecked checkbox:

- Performed a failure mode analysis of the application.
- Deployed multiple instances of services.
- Use autoscaling to respond to increases in load.
- Use load balancing to distribute requests
- Use Availability Sets for each application tier
- Replicate VMs using Azure Site Recovery
- Deployed the application across multiple regions
- Configure and test health probes for your load balancers and traffic managers.

At the bottom of the page are two buttons: "Next" and "Back".

# Resilience pattern: High-Availability (99.95% SLA)

## Business need

Protect applications and data from hardware and software update failures.

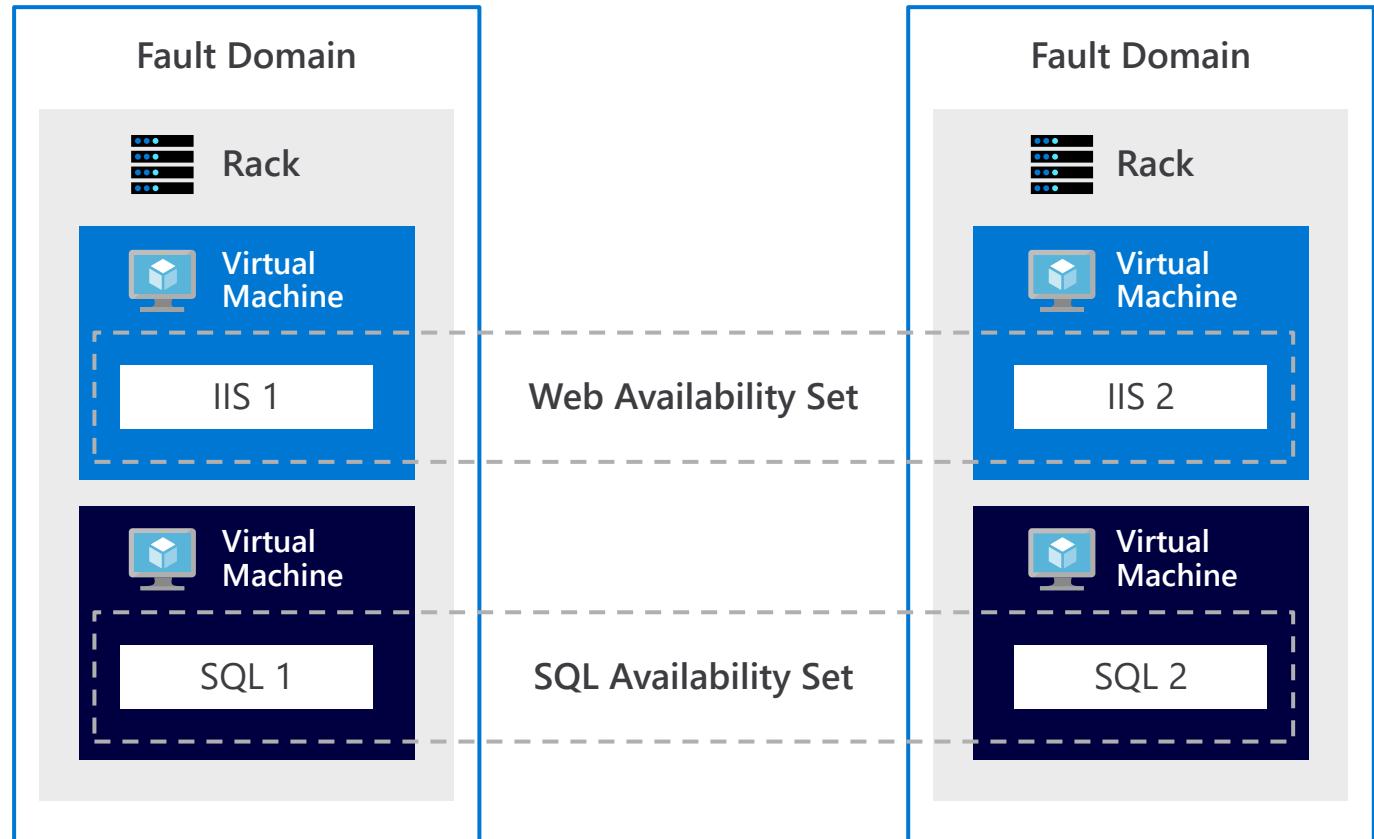
Build and run highly-available active/active applications with synchronous replication.

Latency sensitive applications with <1ms VM-to-VM RTT.

## Azure Solution

An Availability Set is a logical grouping to ensure virtual machines are isolated from each other within an Azure datacenter.

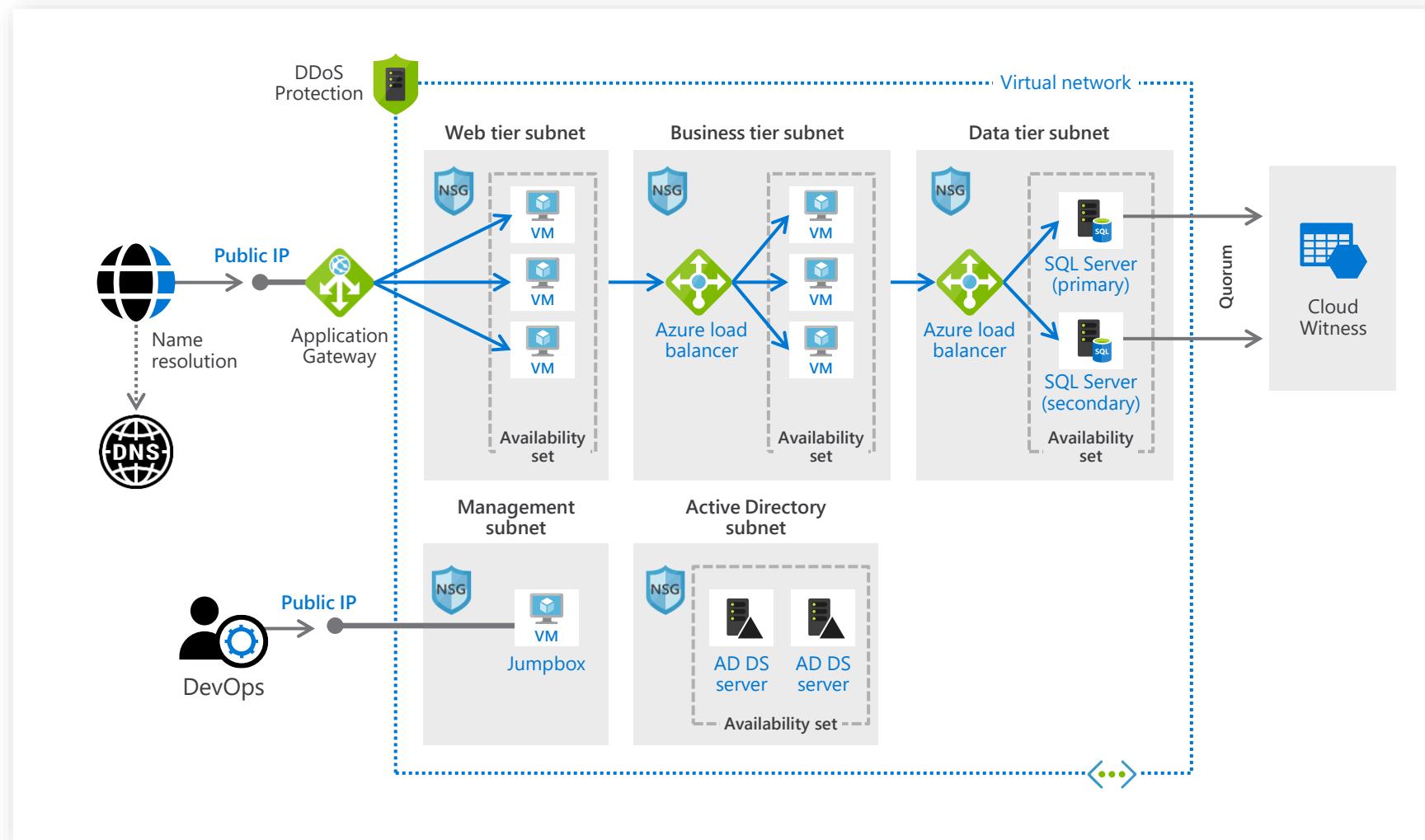
Azure platform distributes VMs within an Availability Set across FDs and UDs providing high-availability.



**Fault Domain:** a logical group of underlying hardware that share a common power source and network switch, within a datacenter.

**Update Domain:** a logical group of underlying hardware that can undergo maintenance or be rebooted at the same time.

# Resilience pattern: High-Availability (99.95% SLA)



# Resilience pattern: High-Availability (99.99% SLA)

## Business need

Protect applications and data from datacenter and software update failures.

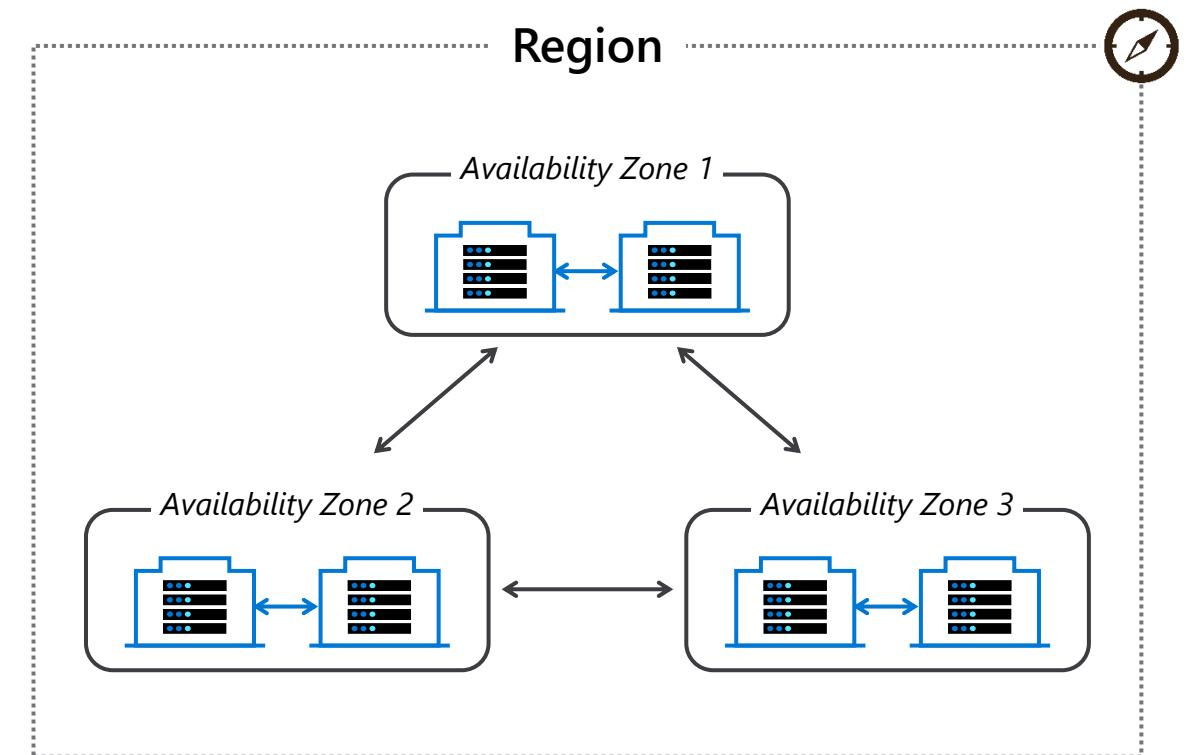
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## Azure Solution

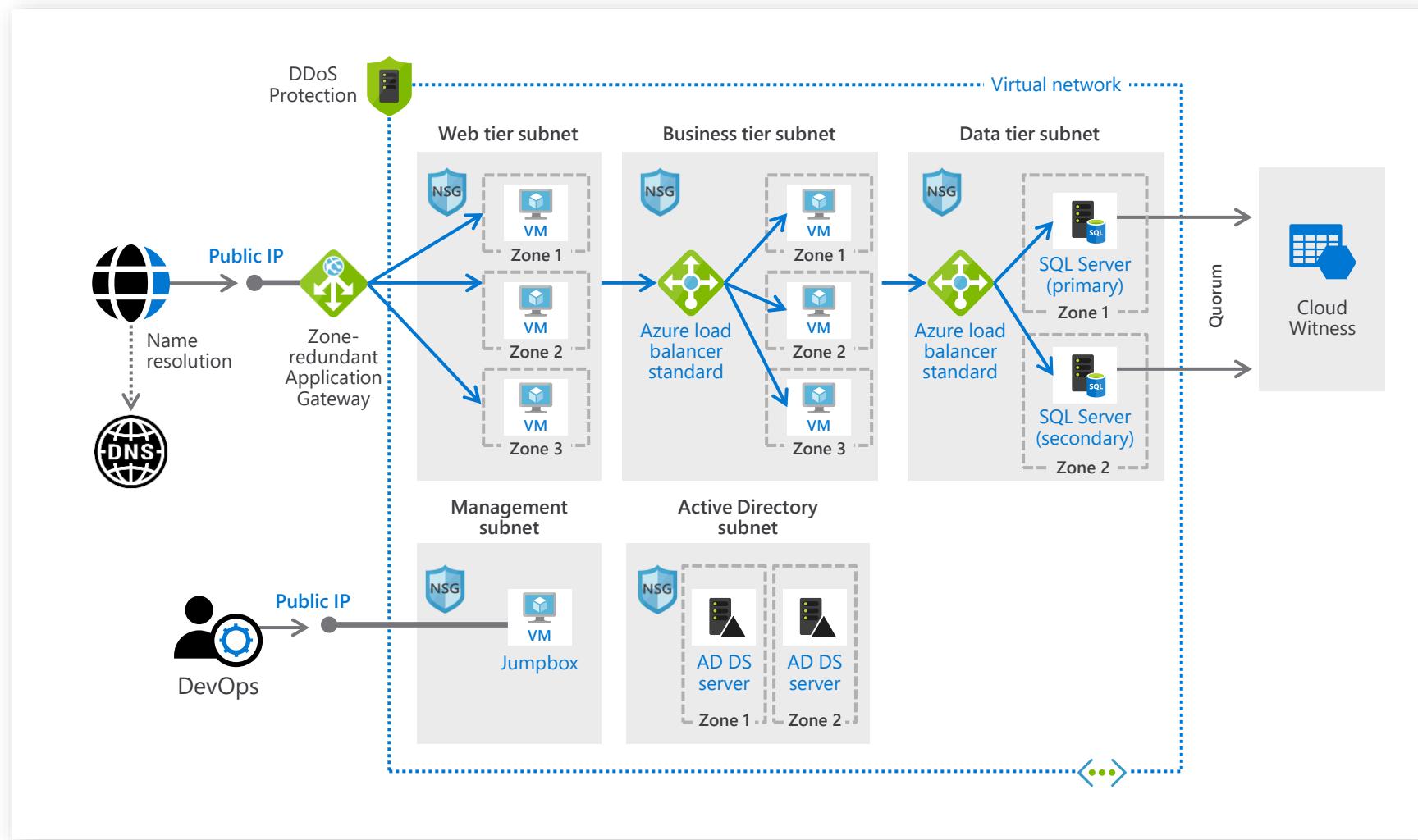
Availability Zones are unique physical locations within an Azure region.

Each Zone consists of one or more datacenters with independent power, cooling and networking.

Availability Zones are designed to meet <2ms VM-to-VM RTT within an Azure region.



# Resilience pattern: High-Availability (99.99% SLA)



# Resilient design pattern: Generic IaaS multi tier application DR

## Business need

Protect applications from datacenter and regional failures

DR should be planned to meet compliance

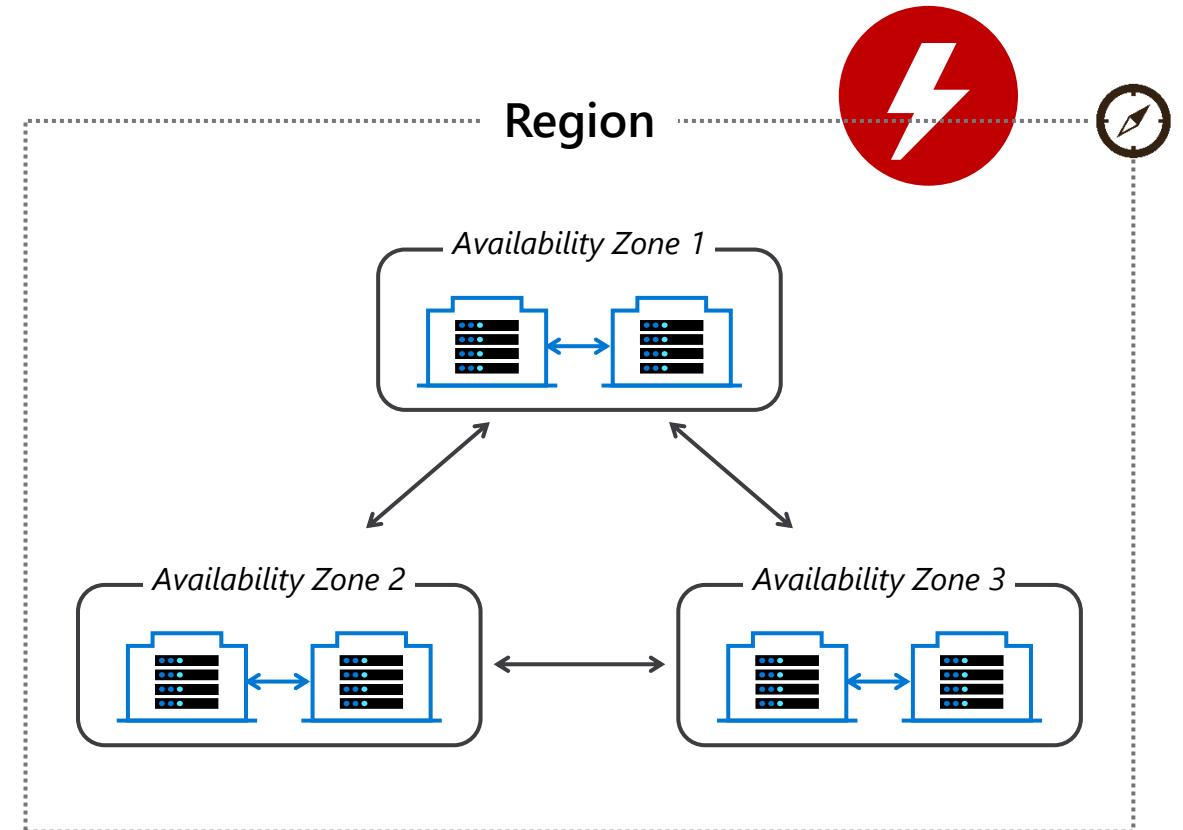
Build highly resilient applications with both high availability and disaster recovery

## Azure Solution

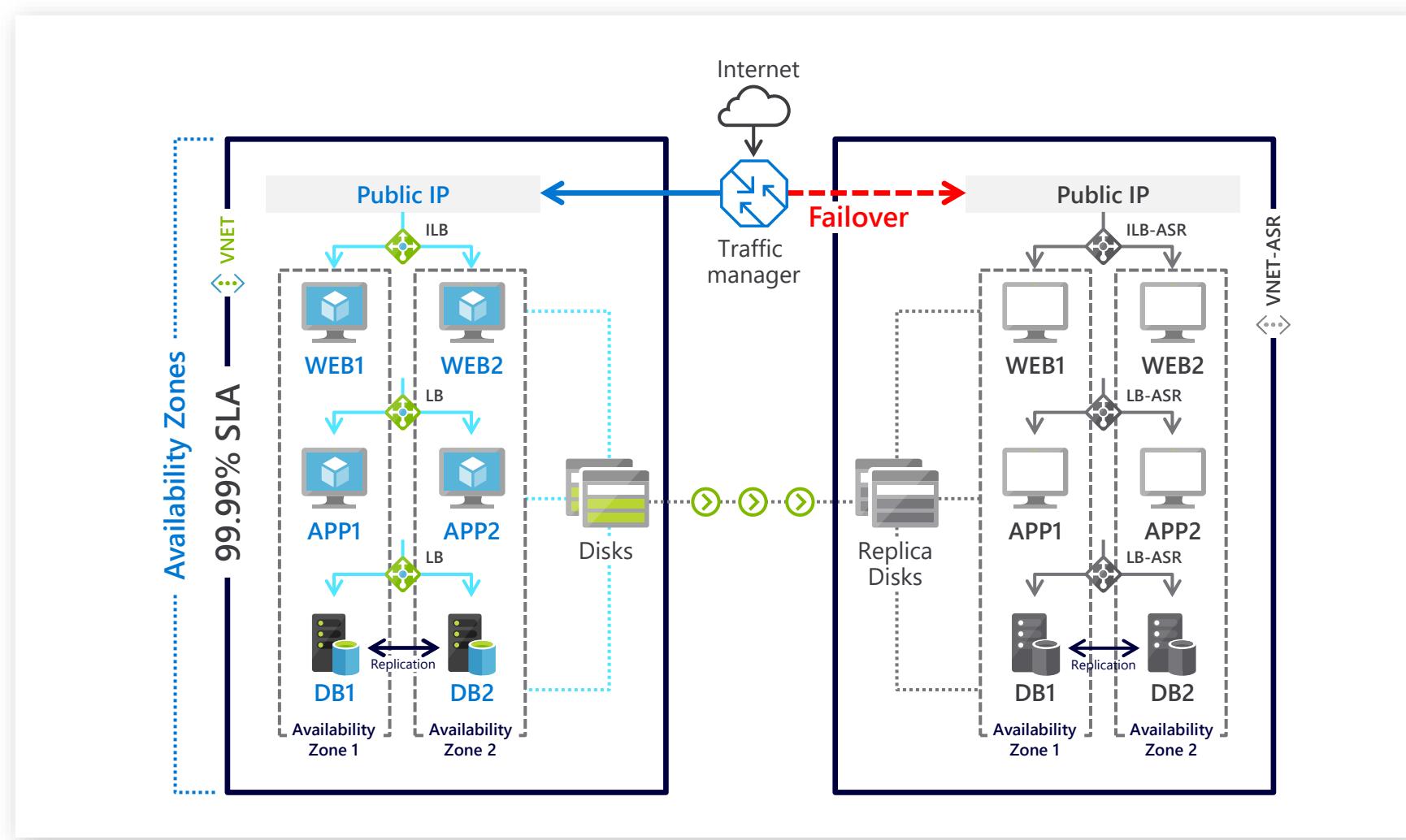
Azure Site Recovery (ASR) replicates VMs to another region within a geographic cluster

Use database replication to replication data to another region

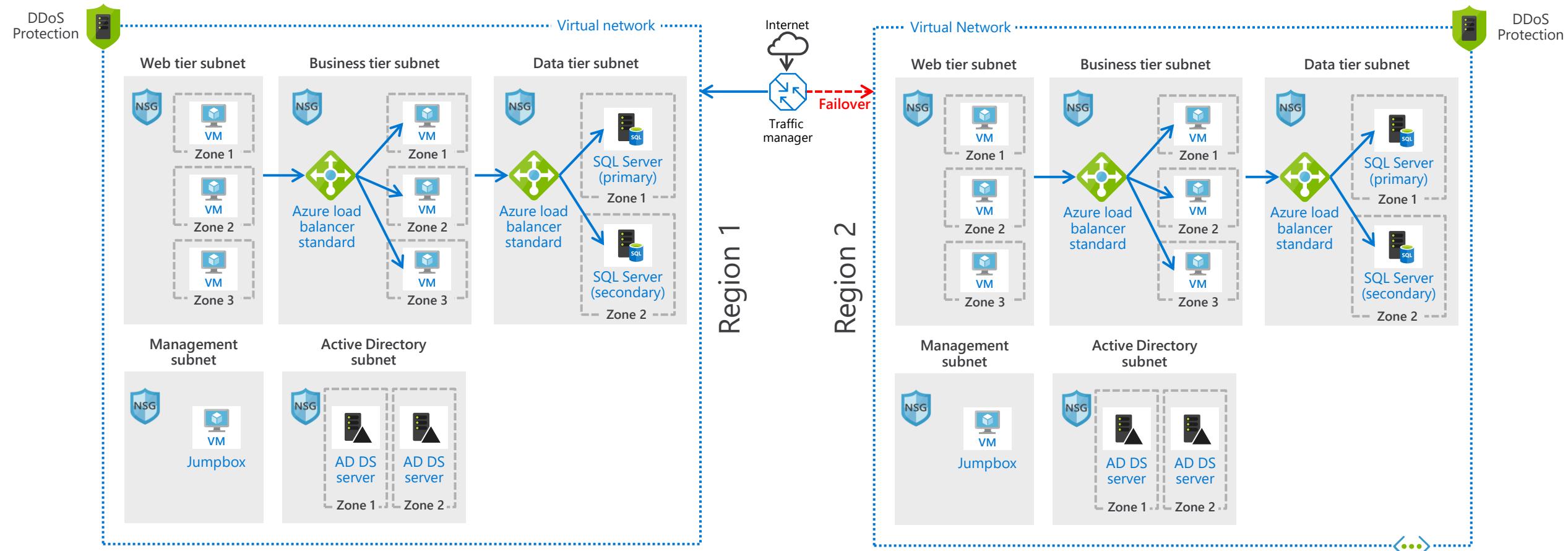
Implement Availability zones for HA in source region to get protection from hardware and datacenter failures



# Resilient design pattern: Generic IaaS multi tier application DR



# Use Azure Site Recovery for DR Orchestration and leverage VM replication of ASR and database replication



# Resilience pattern: BCDR for IaaS + PaaS application with data residency

## Business need

Protect applications and data from datacenter, failures and metropolitan level disaster events.

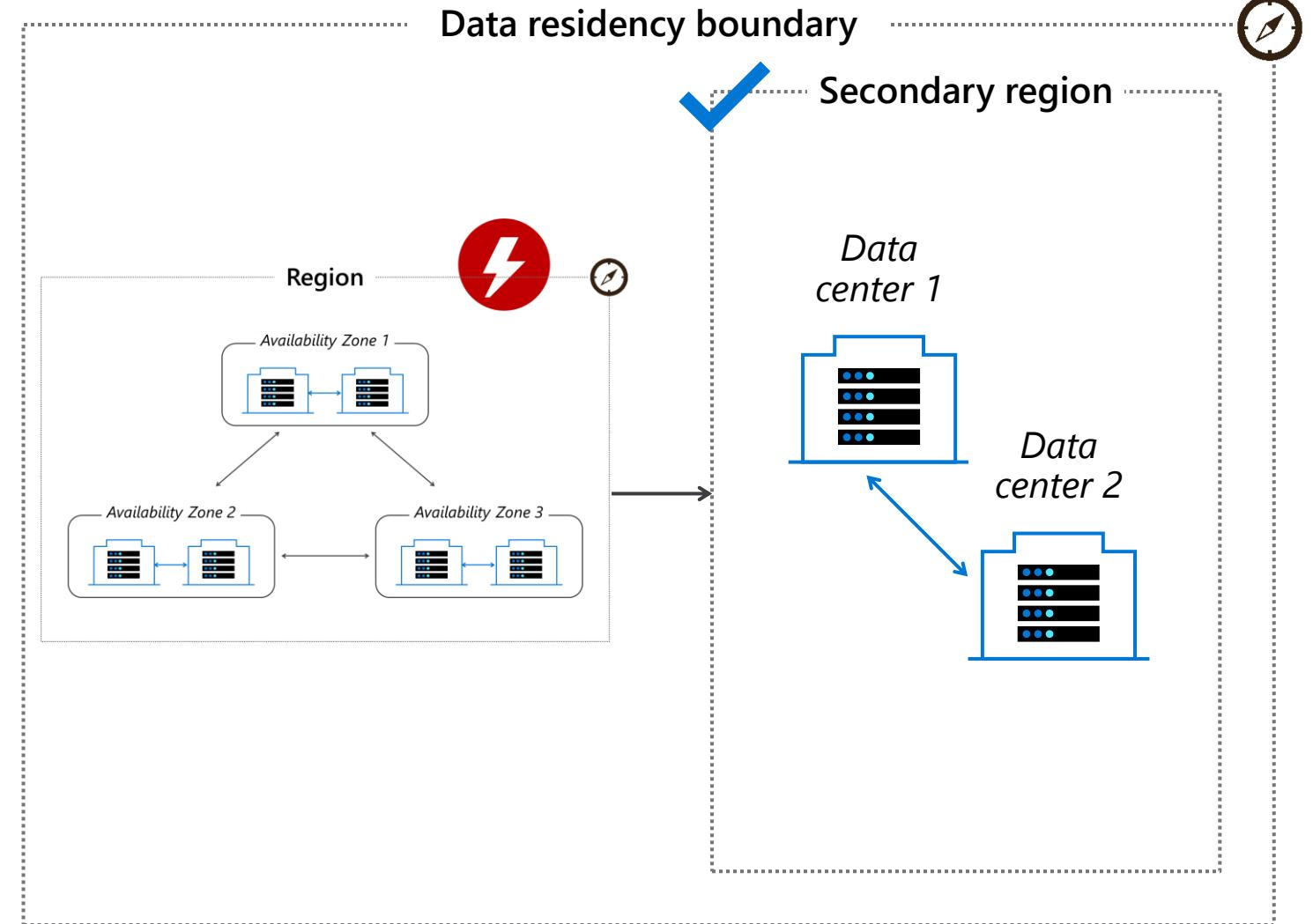
Maintain data residency during disaster recovery.

## Azure Solution

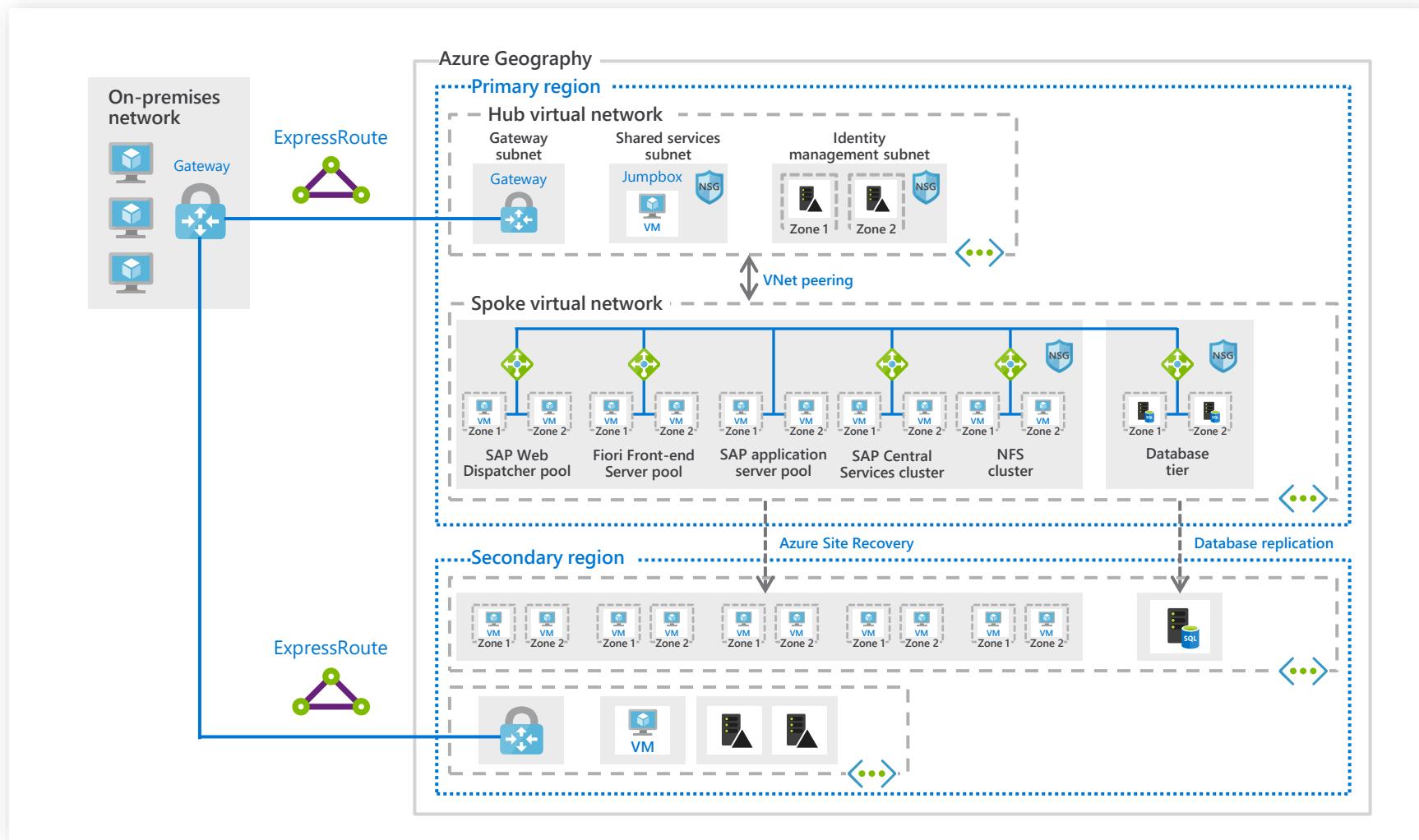
Each Azure region is paired with another region within the same geography.

Run highly-available applications with synchronous replication of data in the primary region.

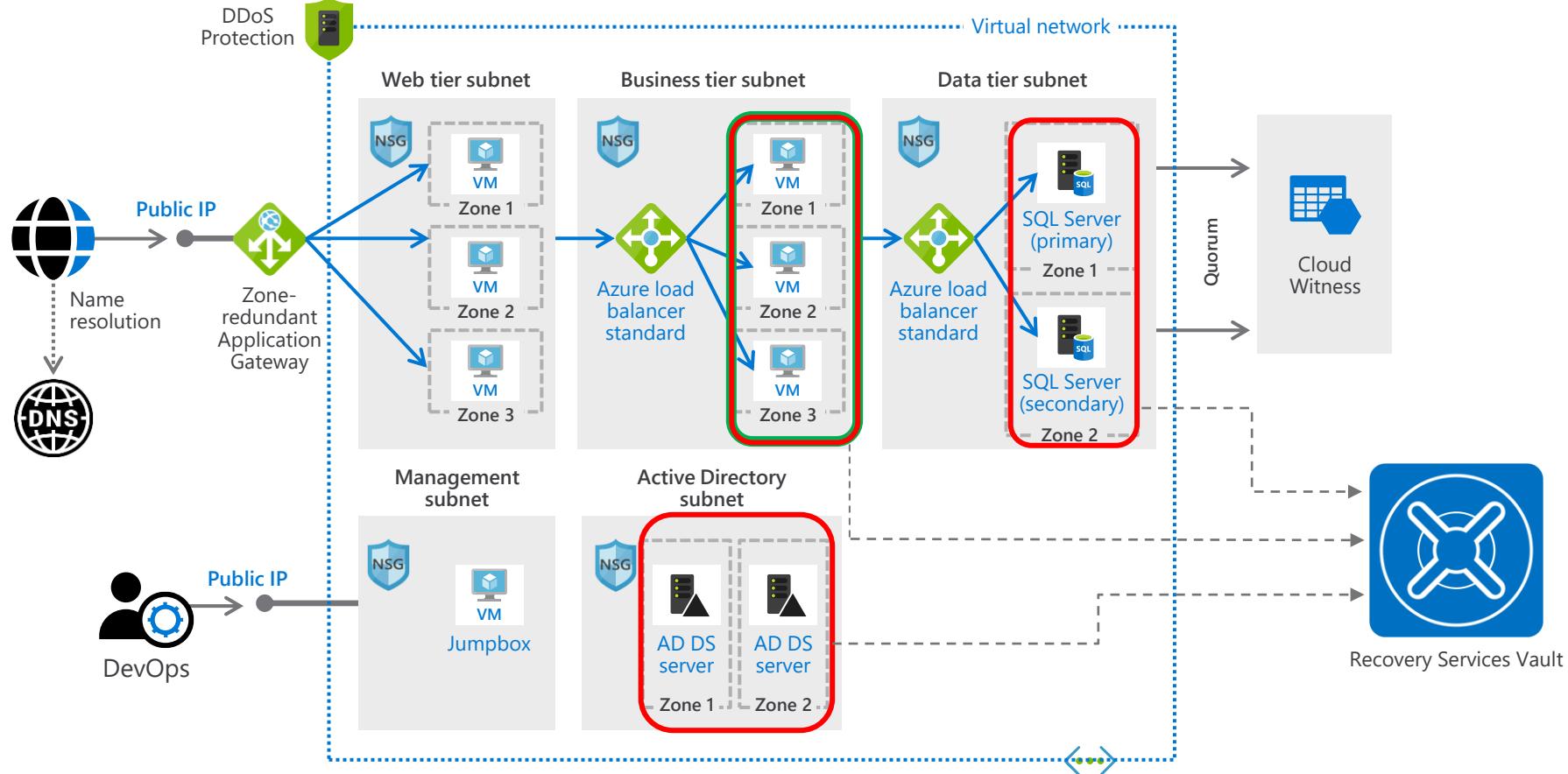
Azure Site Recovery for Azure VMs, Geo-redundant Storage (GRS) for storage blobs, SQL Geo Replication for asynchronous replication in the paired region for disaster recovery.



# Resilience pattern: BCDR for IaaS + PaaS application with data residency



# Use Azure Backup for all data protection scenarios



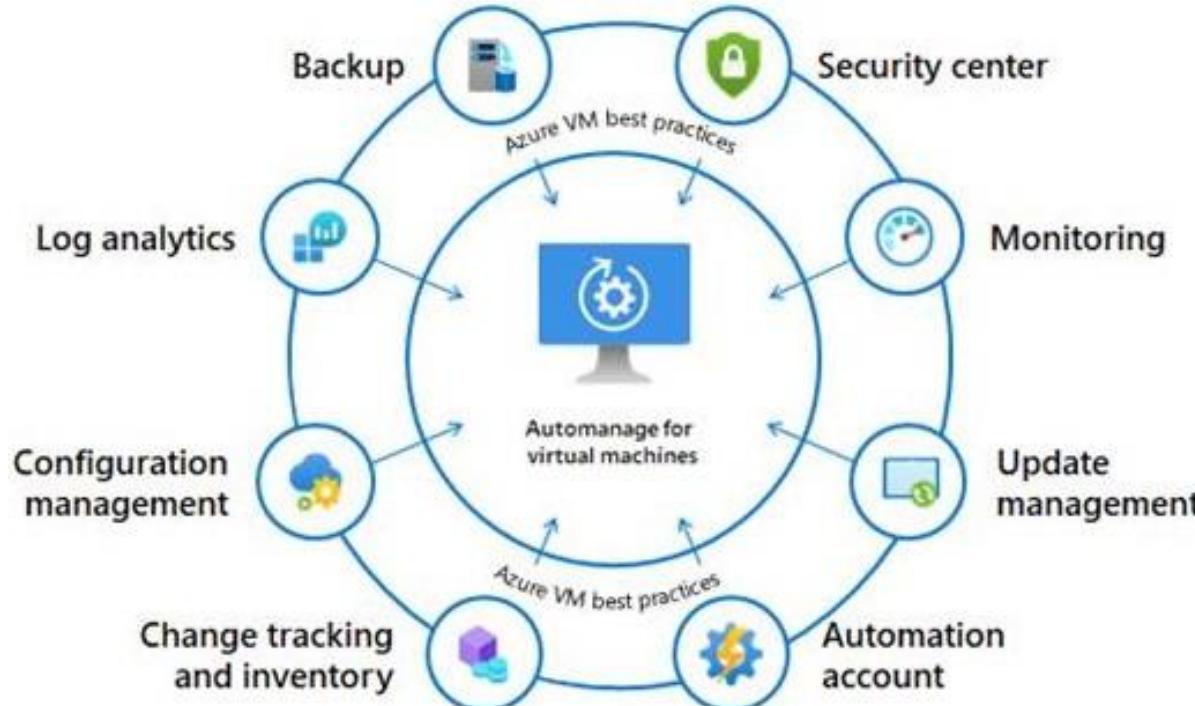
# Azure Resource Mover

The screenshot shows the Azure Resource Mover interface in preview mode. It features a search bar, navigation links for Overview, Move options, and Across regions, and a prominent 'Get started' button. The main content area is titled 'Effortlessly move your resources from one region to another!' and describes the service's purpose. Below this, three large cards outline the process: 'Select the resources to move' (with a blue cube icon), 'Validate and resolve dependencies' (with a network icon), and 'Move resources to the destination' (with a cube on a map icon). Each card includes a brief description and a 'Learn more' link. A 'Get Started' button is located at the bottom.

**Azure Resource Mover** is a new product that allows customers to easily move their resources such as managed disks, networking components and SQL Azure resources across regions.

**Learn more about this update.**

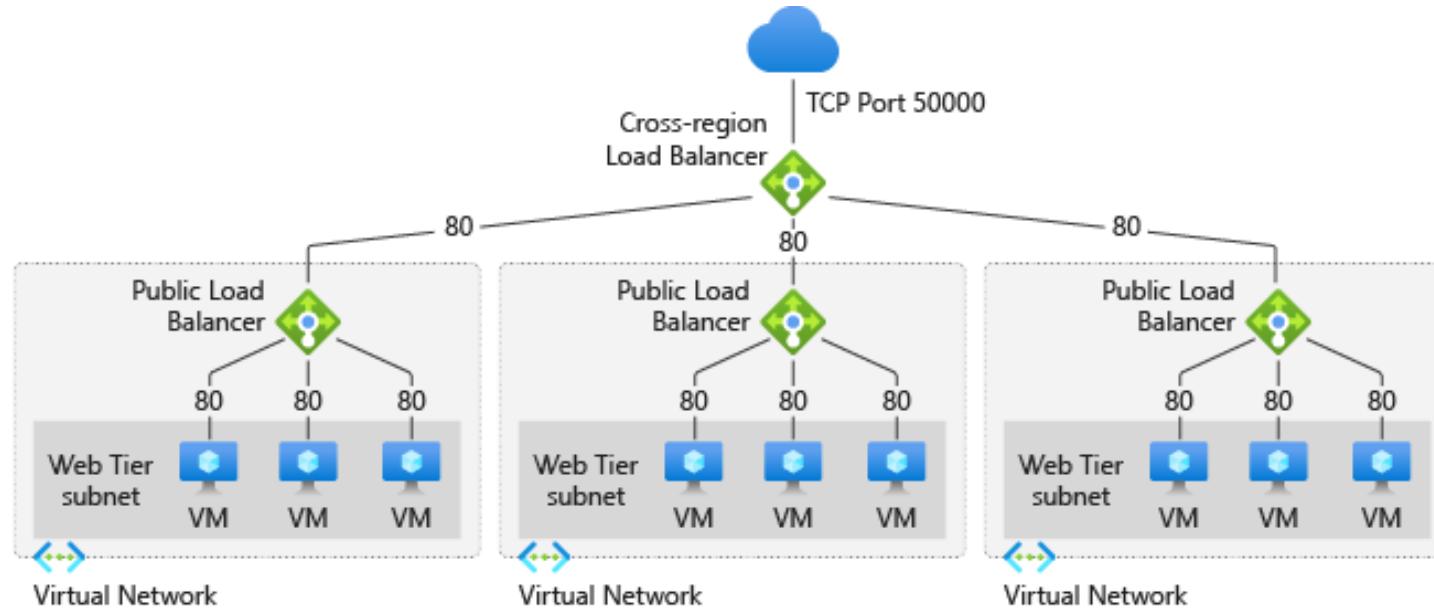
# Azure Automanage



**Azure Automanage** automatically implements VM management best practices for business continuity and operational aspects of security and compliance as defined in the Azure Cloud Adoption Framework

# Cross-region load balancer

Customers can use the feature in the Azure Load Balancer to distribute traffic to their global applications, improving performance and availability.



# Designing resilient applications in Azure

## Best practices

Method of designing a resilient application

<https://docs.microsoft.com/en-us/azure/architecture/Resilience>

Constructing a high available application in Azure

<https://docs.microsoft.com/en-us/azure/architecture/Resilience/high-availability-azure-applications>

Backup and archive your application

<https://azure.microsoft.com/en-us/solutions/architecture/backup-archive-cloud-application/>

Architecture of designing Disaster recovery

<https://azure.microsoft.com/en-us/solutions/architecture/disaster-recovery-smb-azure-site-recovery/>

Best practices in creating SAP/HANA with high availability and Disaster recovery in place

<https://azure.microsoft.com/en-us/solutions/architecture/sap-s4-hana-on-hli-with-ha-and-dr/>



# Backup, High Availability and Disaster recovery services

## Build high availability applications with Availability Zones

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Visit the Azure regions page for availability:  
<http://aka.ms/AzureRegions>

Learn more about Availability Zones:  
<http://aka.ms/AzureAZs>

Build a comprehensive Resilience strategy:  
<http://aka.ms/Resilience>,  
<http://aka.ms/AZOverview>

## Protect your data with Azure Backup

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Azure Backup landing page:  
<https://aka.ms/azure-backup>

Azure Backup's Cloud-First approach:  
<https://aka.ms/azure-backup-cloud-first>

Azure Backup blogs: <https://aka.ms/azure-backup-blogs>

Azure Backup videos:  
<https://aka.ms/azurebackupvideos>

Azure Backup documentation:  
<https://aka.ms/azure-backup-documentation>

Azure Backup support forum:  
<https://aka.ms/azure-backup-support-forum>

Feedback (user voice): <https://aka.ms/azure-backup-user-voice>

## Ensure application availability with Azure Site Recovery

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[Support matrix for replicating one Azure region to another](#)

Site Recovery documentation:  
[https://aka.ms/siterecovery\\_documentation](https://aka.ms/siterecovery_documentation)

Site Recovery blogs:  
[https://aka.ms/siterecovery\\_blogs](https://aka.ms/siterecovery_blogs)

Site Recovery Academy Course:  
[https://aka.ms/siterecovery\\_mva](https://aka.ms/siterecovery_mva)

Support forum: <https://aka.ms/asrforum>

Feedback (user voice):  
<https://aka.ms/ASRuservoice>

Area	Topic
Application capabilities	<p>PaaS Application/Compute/Integration resilience</p> <ul style="list-style-type: none"> <li><a href="#">Auto Scale in App Services</a></li> <li><a href="#">High density hosting on Azure App Service using per-app scaling</a></li> <li><a href="#">Azure Service Fabric Reliable Services</a></li> <li><a href="#">Auto Scale in API Management</a></li> <li><a href="#">Service Bus Geo-Disaster Recovery</a></li> <li><a href="#">Service Bus High Availability</a></li> <li><a href="#">Geo Distributed Scale with App Service Environments</a></li> <li><a href="#">Azure Web App Backups</a></li> <li><a href="#">Deployment Slots in Azure App Service</a></li> <li><a href="#">IoT Hub High Availability and Disaster Recovery</a></li> </ul>
Compute capabilities	<p>IaaS resilience</p> <ul style="list-style-type: none"> <li><a href="#">Availability Sets</a></li> <li><a href="#">Availability Zones</a></li> <li><a href="#">Virtual Machine Scale Sets</a></li> <li><a href="#">Managed Disks for Virtual Machines in Availability Sets</a></li> <li><a href="#">Understanding Virtual Machines Reboots Maintenance vs downtime</a></li> <li><a href="#">Designing, building, and operating microservices on Azure</a></li> <li><a href="#">Azure Site Recovery</a></li> <li><a href="#">Azure Backup</a></li> </ul>
Storage capabilities	<p>Storage resilience</p> <ul style="list-style-type: none"> <li><a href="#">Azure Storage Replication</a></li> <li><a href="#">Locally redundant storage (LRS)</a></li> <li><a href="#">Zone-redundant storage (ZRS)</a></li> <li><a href="#">Geo-redundant storage (GRS)</a></li> </ul>
Area	Topic
Databases capabilities	<p>Database Service resilience</p> <ul style="list-style-type: none"> <li><a href="#">Cosmos DB High Availability</a></li> <li><a href="#">Cosmos DB Global Distribution</a></li> <li><a href="#">SQL Database High Availability</a></li> <li><a href="#">Active Geo-Replication and Auto-Failover Groups Azure SQL Database</a></li> <li><a href="#">Automatic SQL Database Backups</a></li> <li><a href="#">Business Continuity with Azure Database for MySQL</a></li> <li><a href="#">Backup and Restore in Azure Database for MySQL</a></li> <li><a href="#">Business Continuity with Azure Database for PostgreSQL</a></li> <li><a href="#">Backup and restore in Azure Database for PostgreSQL</a></li> <li><a href="#">Business Continuity with Azure Database for MariaDB</a></li> <li><a href="#">Backup and Restore in Azure Database for MariaDB</a></li> <li><a href="#">Redis Clustering for a Premium Azure Redis Cache</a></li> </ul>
Networking capabilities	<p>Network resilience</p> <ul style="list-style-type: none"> <li><a href="#">Azure Load Balancer</a></li> <li><a href="#">Highly Available Network Virtual Appliances</a></li> <li><a href="#">Highly Available Cross-Premises and VNet-to-VNet Connectivity</a></li> <li><a href="#">ExpressRoute</a></li> <li><a href="#">Disaster Recovery using Azure DNS and Traffic Manager</a></li> <li><a href="#">Autoscaling, Zone Redundant Application Gateway</a></li> <li><a href="#">Azure Firewall</a></li> <li><a href="#">Azure Virtual WAN</a></li> <li><a href="#">Azure Front Door and Load Balancing</a></li> <li><a href="#">Protecting DNS Zones and Records</a></li> </ul>
Other capabilities	<p>Security/Regional/Other resilience</p> <ul style="list-style-type: none"> <li><a href="#">Azure Key Vault Disaster Recovery</a></li> <li><a href="#">Azure Scheduler for High Availability</a></li> <li><a href="#">Azure Regions</a></li> <li><a href="#">Availability Paired Regions</a></li> <li><a href="#">Design for resilience</a></li> <li><a href="#">Role Based Access</a></li> <li><a href="#">Azure Monitor</a></li> <li><a href="#">Azure Monitor and Autoscaling Based on Performance or Schedule</a></li> <li><a href="#">Azure Advisor High Availability Recommendations</a></li> <li><a href="#">Azure Service Health</a></li> <li><a href="#">Azure Policy</a></li> <li><a href="#">Azure Blueprints</a></li> </ul>

# Q&A

Reach out to the team  
[sap-on-azure-pe-apac@microsoft.com](mailto:sap-on-azure-pe-apac@microsoft.com)

# Feedback

Your feedback is very important for us.

<https://aka.ms/SAPAPAC-POE-FEEDBACK>





# SAP on Azure Enablement

Next Session – Planning Azure for SAP workloads

Tomorrow - Tuesday, Oct 06, 2020, 10am SGT

Reach out to the team  
[sap-on-azure-pe-apac@microsoft.com](mailto:sap-on-azure-pe-apac@microsoft.com)



# Reach out to the team



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