

# Azure: Backup and Recovery

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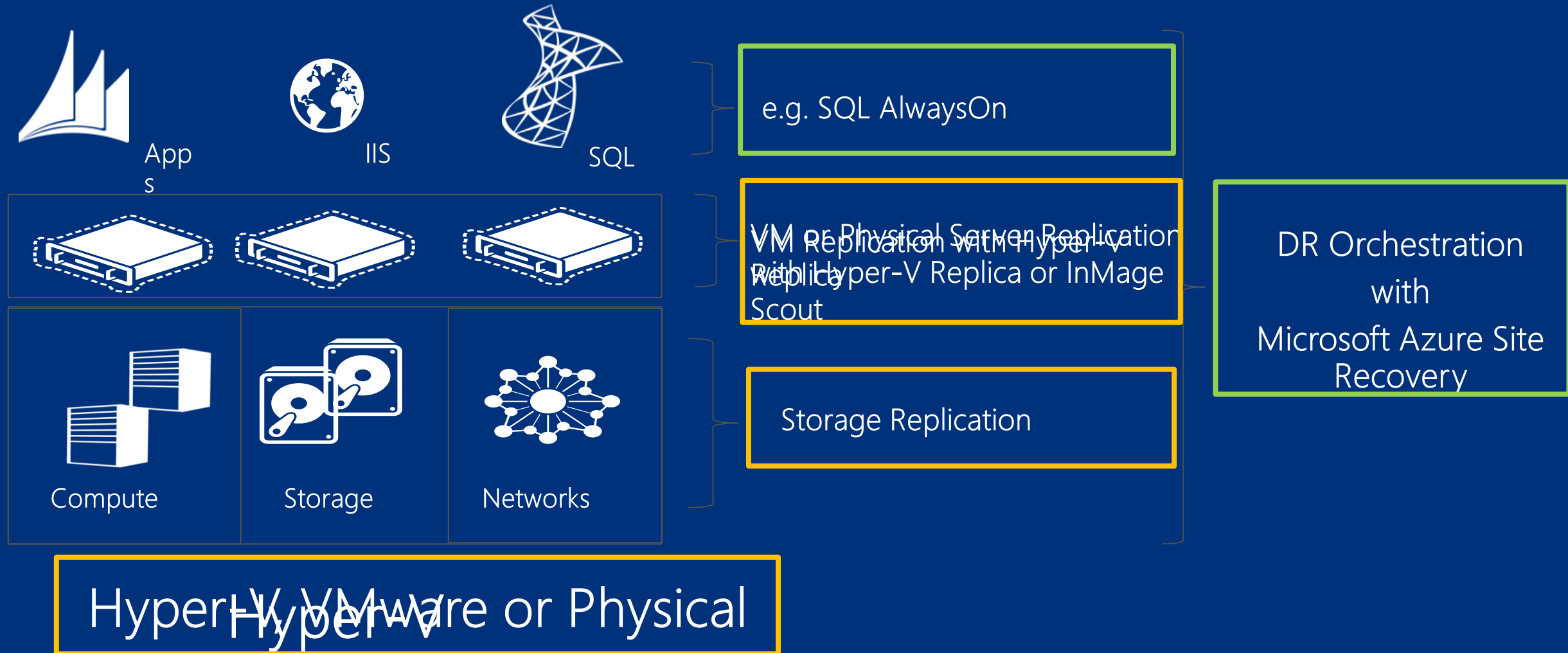
Microsoft Azure

Windows Server

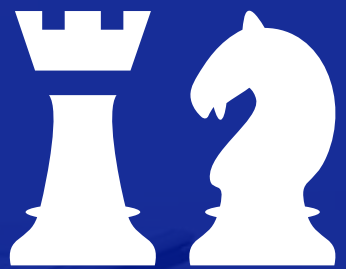
Microsoft System Center



# Microsoft's Disaster Recovery Stack

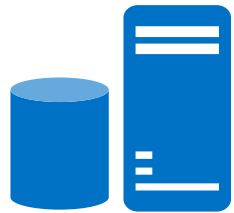


# Business continuity With Azure Backup



# Protect your data

## Powerful solutions for SMB



Simplified protection and recovery, built into Windows Server with Windows Server Backup



Enhanced through integration with Microsoft Azure Backup

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With Microsoft, customers can recover quickly from human error, service outages, and disasters with cost-effective solutions that automate protection and recovery of key data and applications and that are cloud-integrated for reliable off-site protection.

# Microsoft Azure Backup

## Extending Windows Server Backup into the cloud

**Reliable offsite data protection:** Backups are encrypted before transmission and stored encrypted in Microsoft Azure.

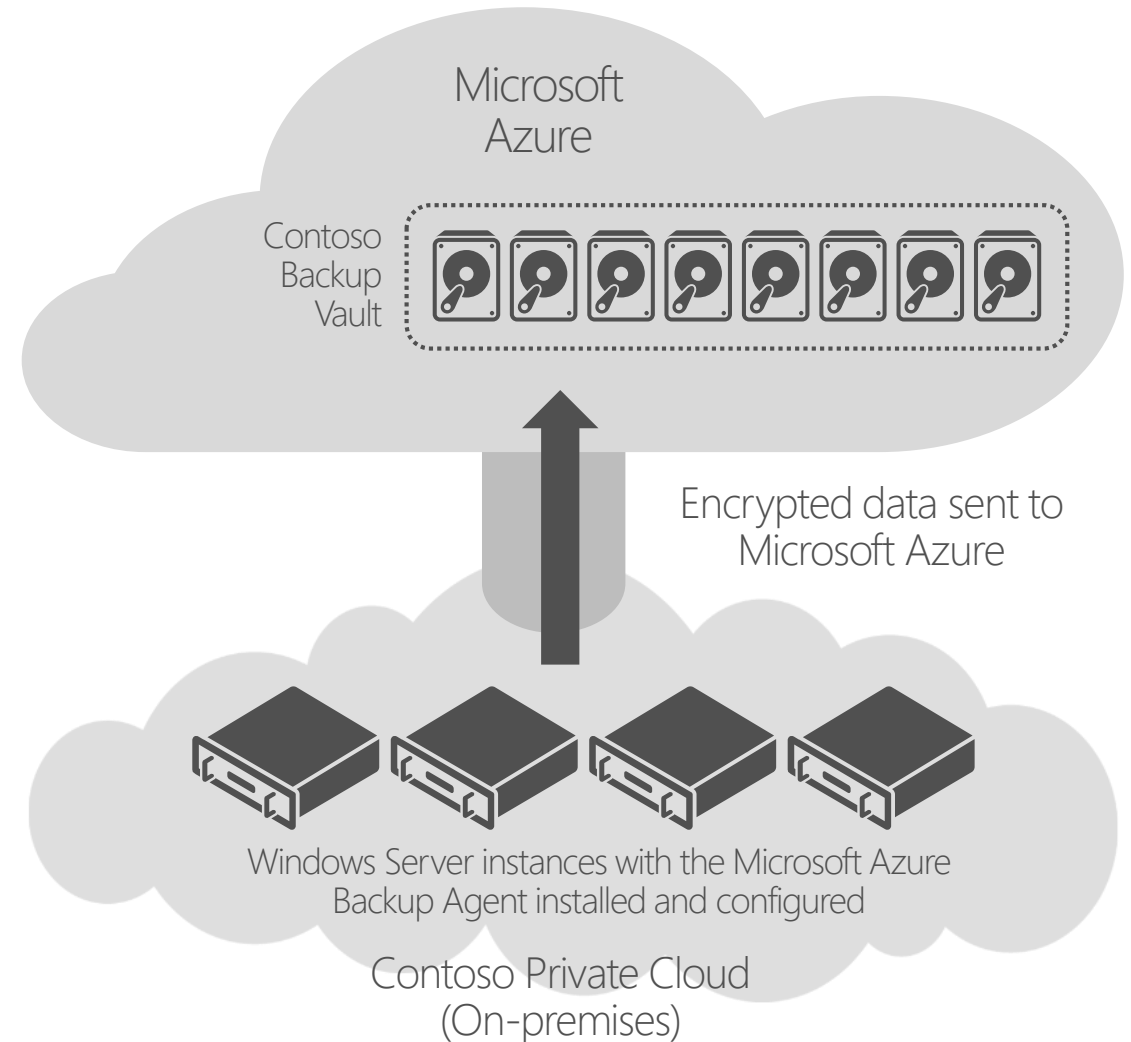
Backups are off-site, away from your datacenter, protected by reliable Azure storage.

**Simple, and integrated solution:** Integrates with GUIs of Windows Server Backup or System Center Data Protection Manager.

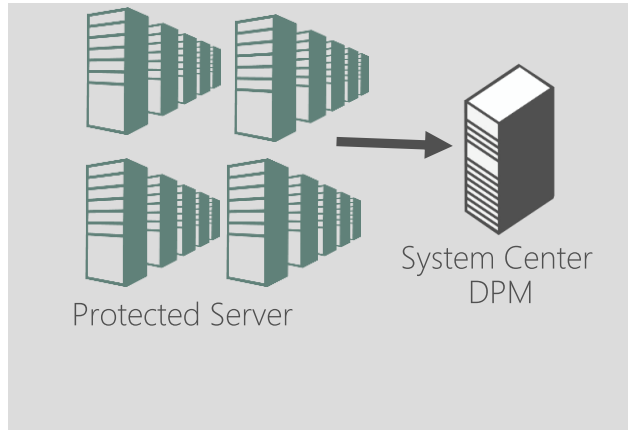
**Efficient and flexible backup and recovery:** Incremental backup transfers only delta changes to the cloud.

Supports Point-in-Time Recovery of multiple versions of your data.

Configurable data retention policies, data compression, and data transfer throttling offer added flexibility and efficiency.

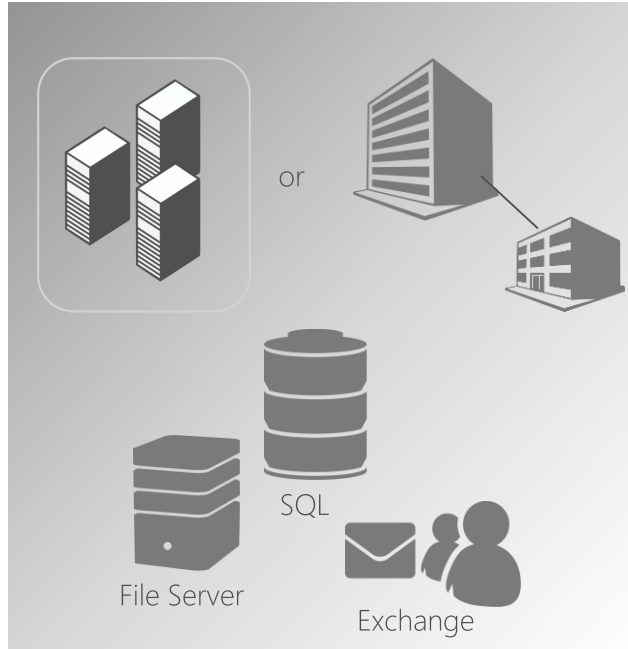


# When to choose Windows Azure Backup



Already using System Center Data Protection Manager?

Windows Azure Backup integrates easily.



Small business or branch office?

Windows Azure Backup integrates with the in-box Windows Server backup tool.

Suitable for any workload.



# Application and workloads which can be backed up to Azure

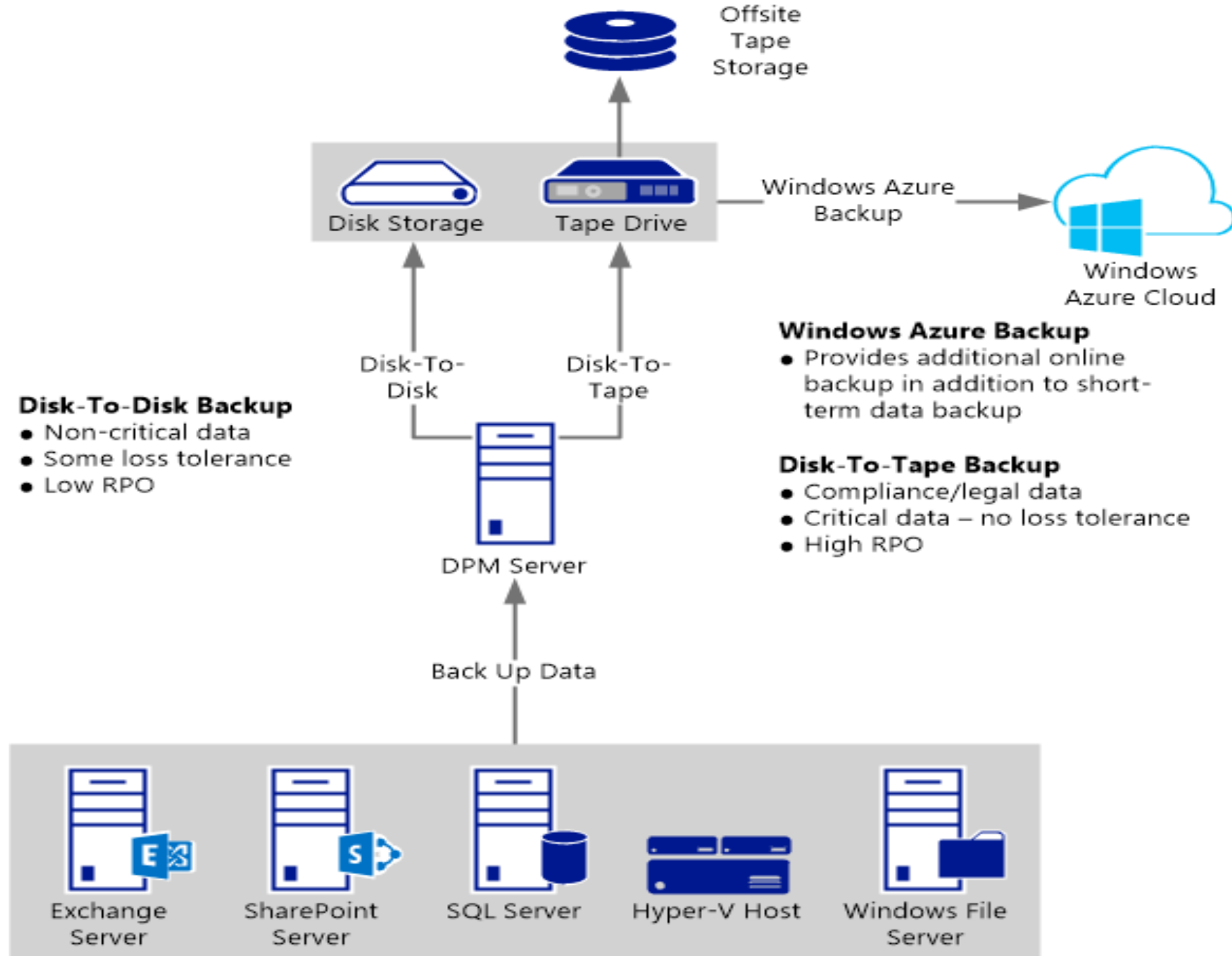
Combined with SCDPM Azure Backup can backup:

- File & folders from enterprise client, server machines
- Host-level virtual machine backups of Microsoft Hyper-V VMs
- Microsoft SQL Server
- Microsoft SharePoint
- Microsoft Exchange

# Got bigger and larger workload to Protect?

Easy integration with with DPM

## Data Backup Solution

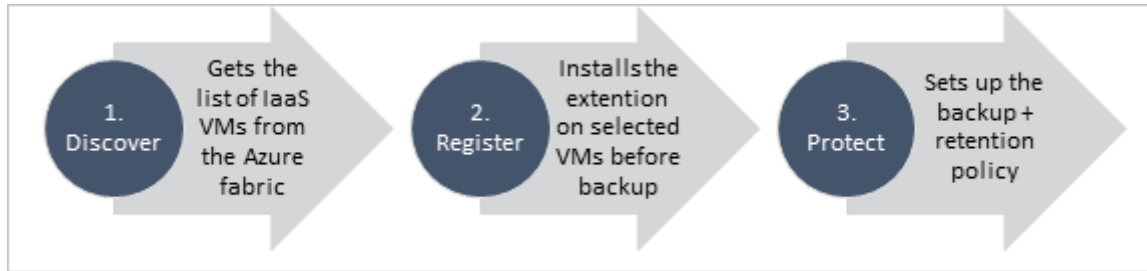




# Azure IaaS workload protection

## Protection of key workloads running in Microsoft Azure IaaS

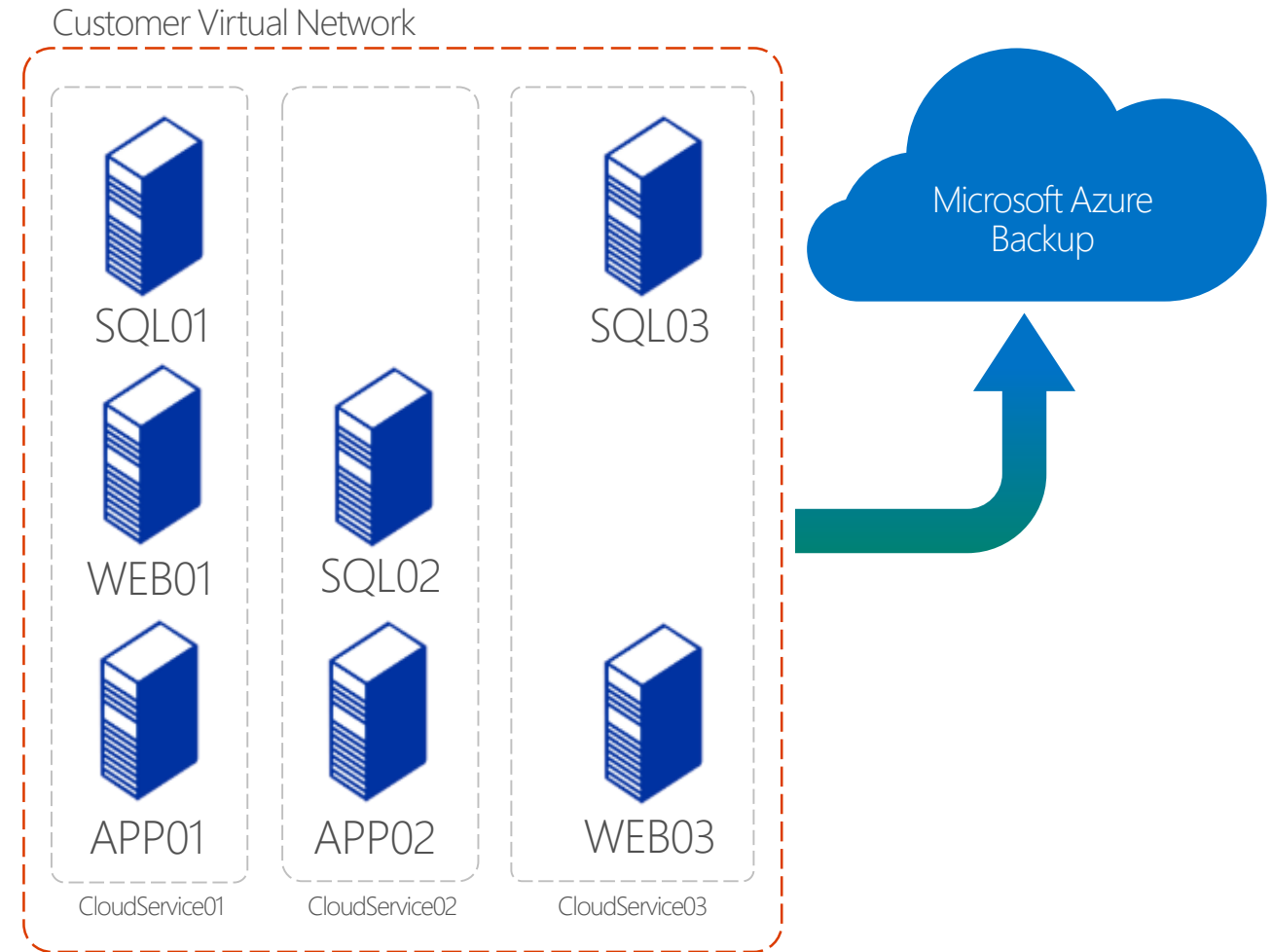
### Backup Azure virtual machines



Virtual machines are protected with a policy and scheduled backups created.

Azure Backup service creates a backup job for each virtual machine that needs to be backed up.

As a part of the backup operation, the Azure Backup service issues a command to the backup extension in each virtual machine to flush all writes and take a consistent snapshot.

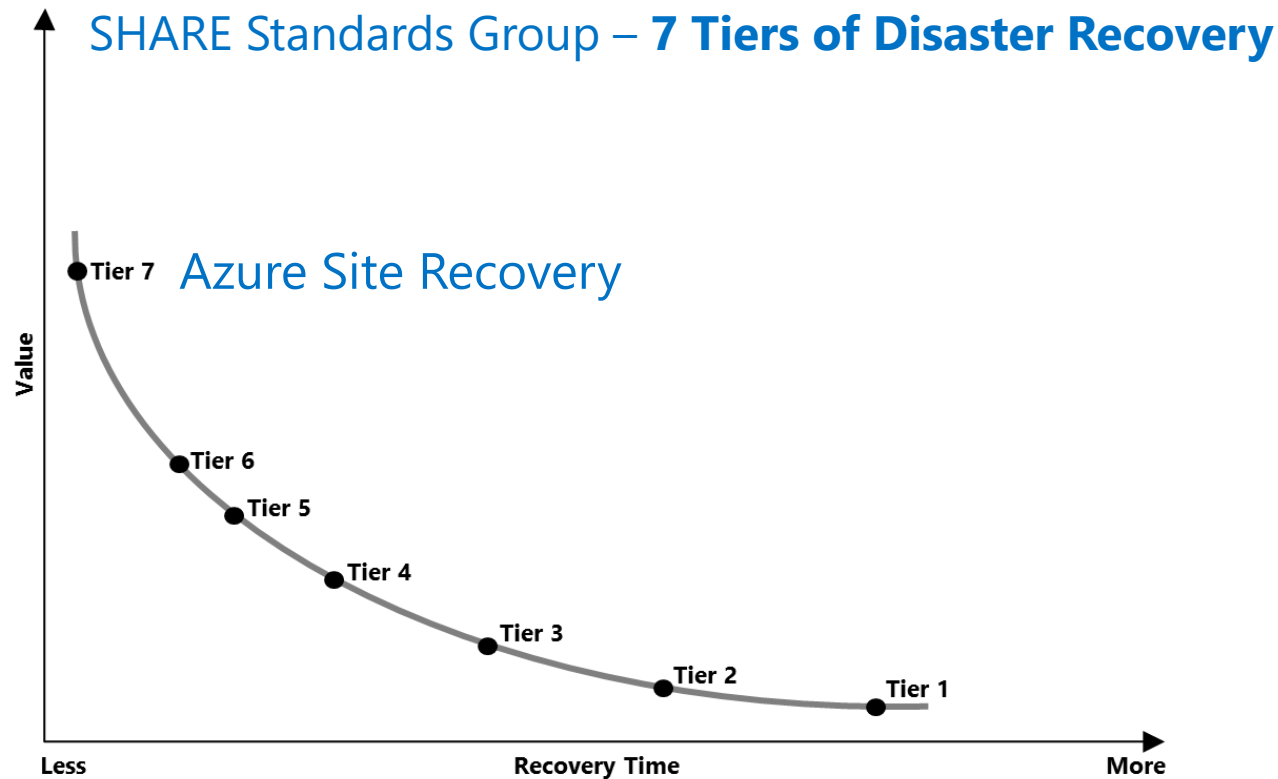


# Safeguard your Workload with ASR



# Safeguard your applications

## Azure Site Recovery: one solution for multiple infrastructures



**Tier 0** – No off-site disaster recovery plan

**Tier 1** – Data backup with no hot site

**Tier 2** – Data backup with hot site

**Tier 3** – Electronic vaulting

**Tier 4** – Point-in-time copies

**Tier 5** – Transaction Integrity

**Tier 6** – Zero or near-zero data loss

**Tier 7** – Highly automated business integrated solution

Protect your data, your applications, or both—at your site, a hoster's site, or in Microsoft Azure

# Azure Site Recovery

- ASR provides single DR solution which works across platforms (Hyper-V, VMWare, Physical) across clouds (public, private and service provider) and across workloads to provide a range of RTO/RPO using multiple channels (Replica, Scout, SAN etc.).

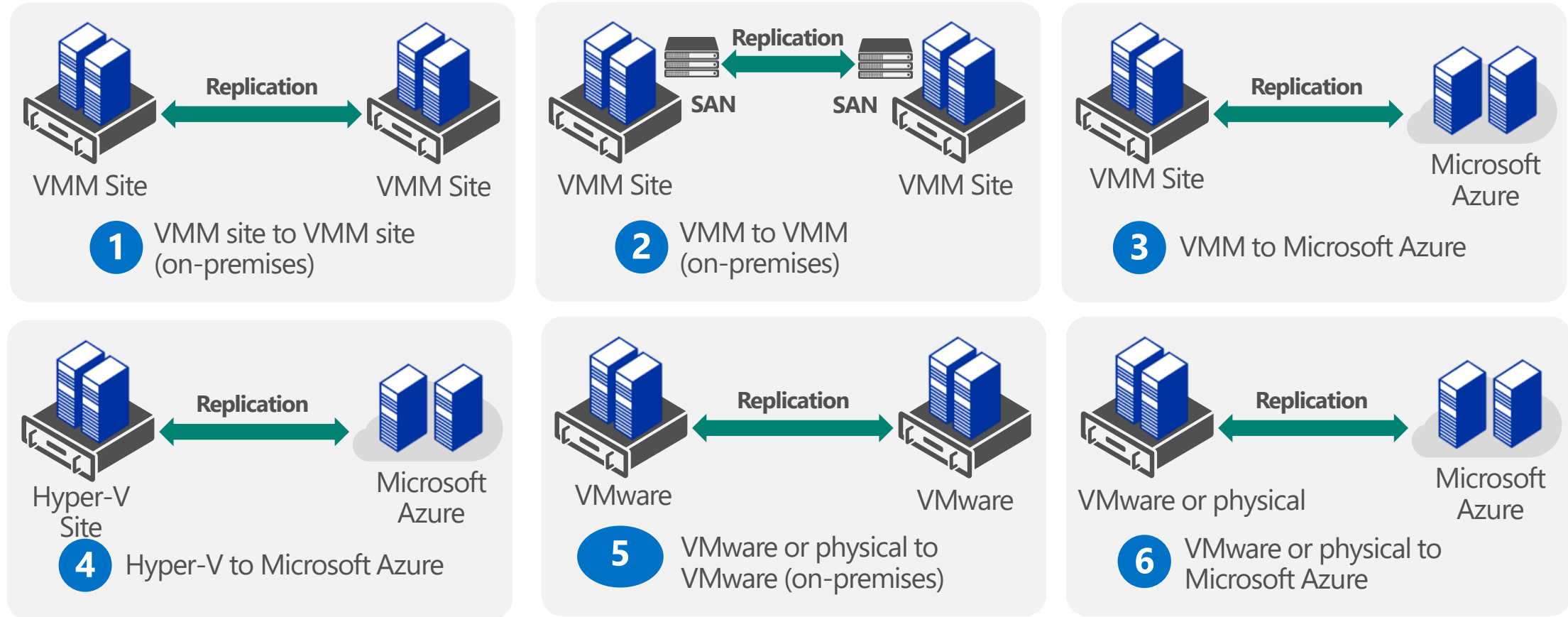
Heterogeneous

Hybrid Solution

Workload Aware

# Microsoft Azure Site Recovery

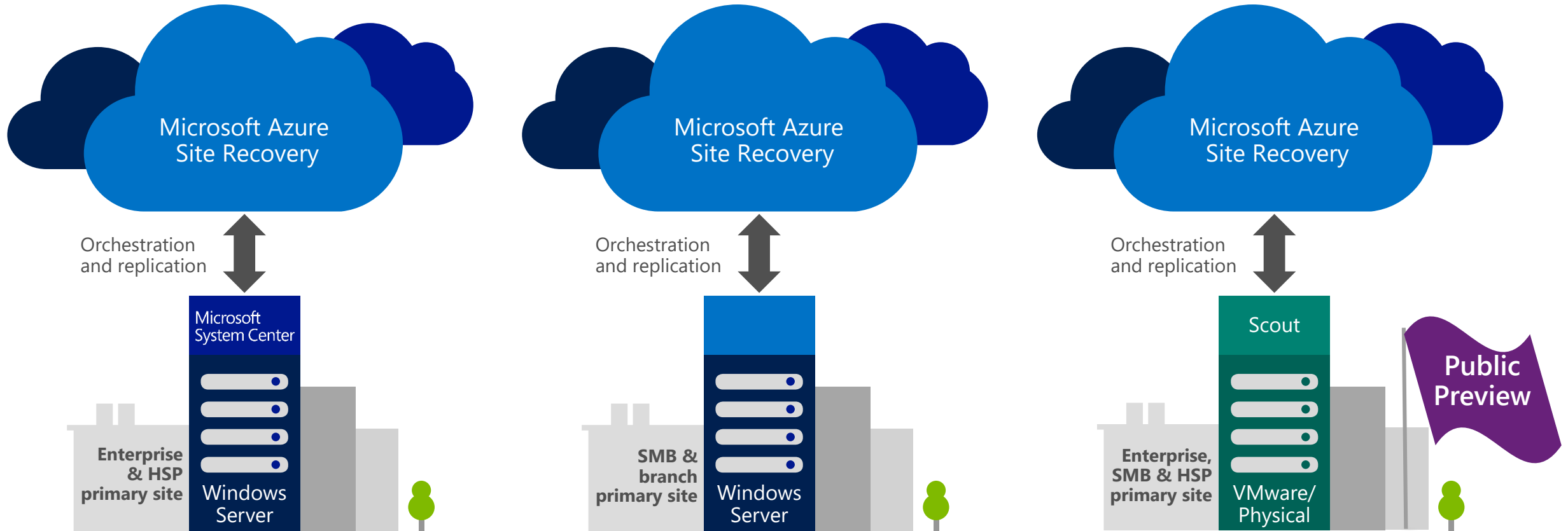
One solution for multiple infrastructures



Protect important applications by coordinating the replication and recovery of private clouds across sites. Protect your applications to your own second site, a hoster's site, or even use Microsoft Azure as your disaster recovery site.

# Protect your applications

## On-premises to Microsoft Azure protection with Azure Site Recovery



### Key features include:

Use Azure as your disaster recovery site  
Automated VM protection and replication  
Remote health monitoring

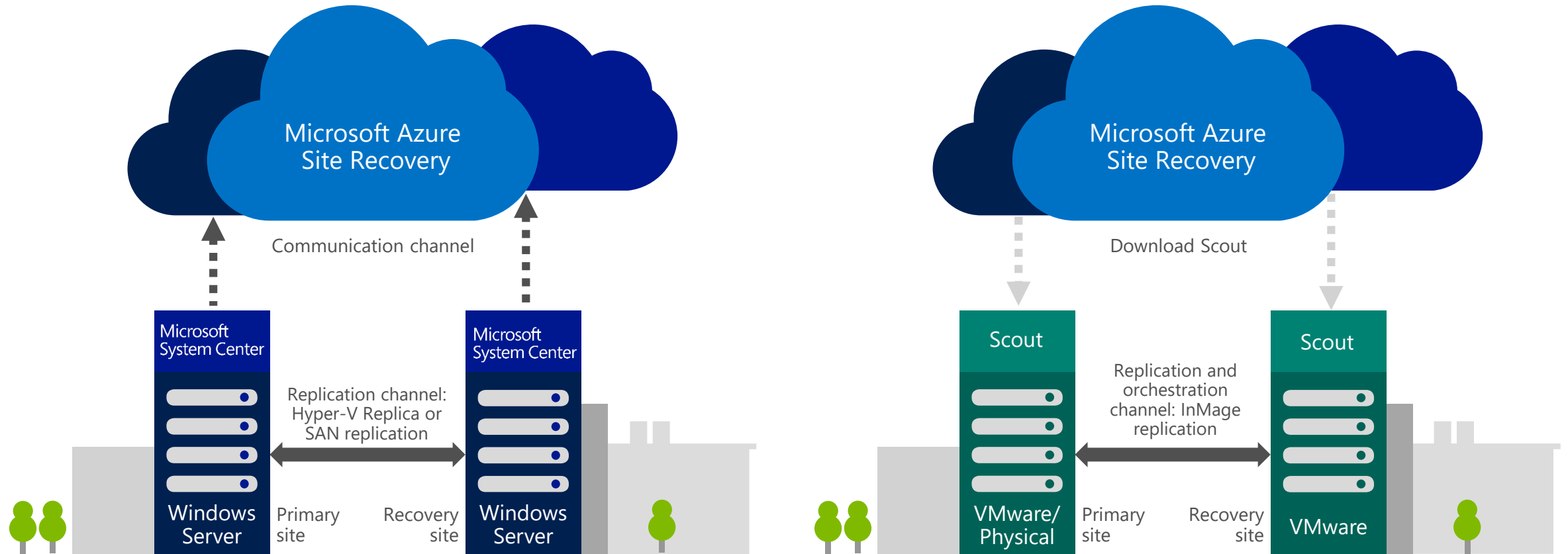
Customizable recovery plans  
No-impact recovery plan testing  
Orchestrated recovery of tiered applications

**New:** Replication into Azure for SMBs and remote branch offices without System Center  
Support for heterogeneous environments



# Protect your applications

## On-premises to on-premises protection with Azure Site Recovery



### Key features include:

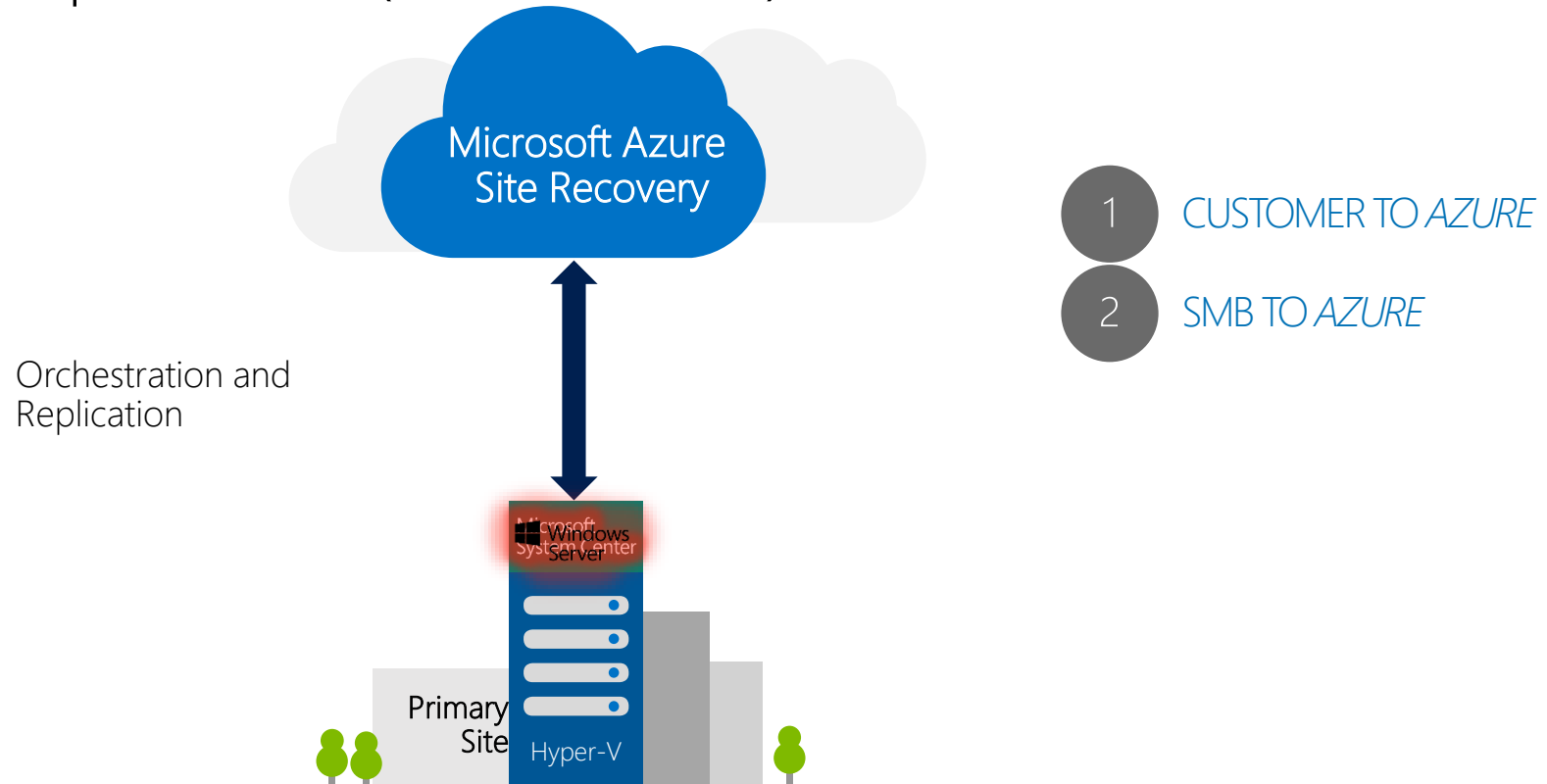
- Automated VM protection and replication
- Remote health monitoring
- Customizable recovery plans

- Integration with available investments
- No-impact recovery plan testing
- Orchestrated recovery of tiered applications

- Support for heterogeneous environments

# ASR for SMBs to Azure

On-premises to Azure protection (Site-to-Azure)



## Key features include:

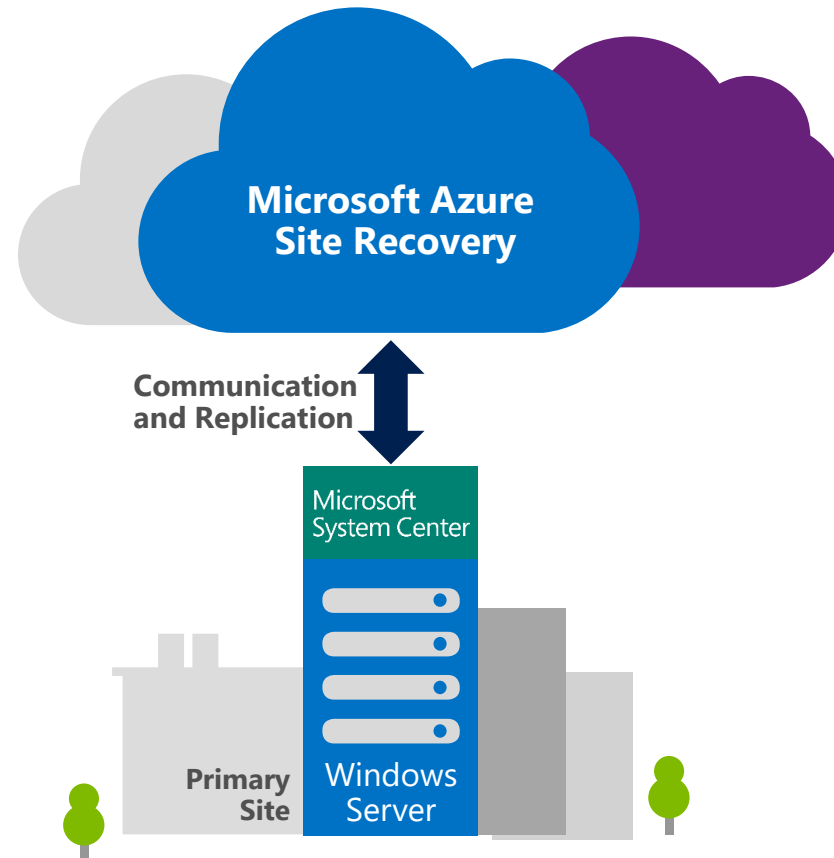
Automated VM protection and replication  
Remote health monitoring  
Near zero RPO

No-impact recovery plan testing  
Customizable recovery plans  
Minimal RTO – few minutes to hours

Orchestrated recovery when needed  
Replicate to – and recover in – Azure  
Heterogeneous physical and virtual support

# Orchestrated Disaster Recovery

for *Hyper-V VMs, between on-premises locations & Microsoft Azure*



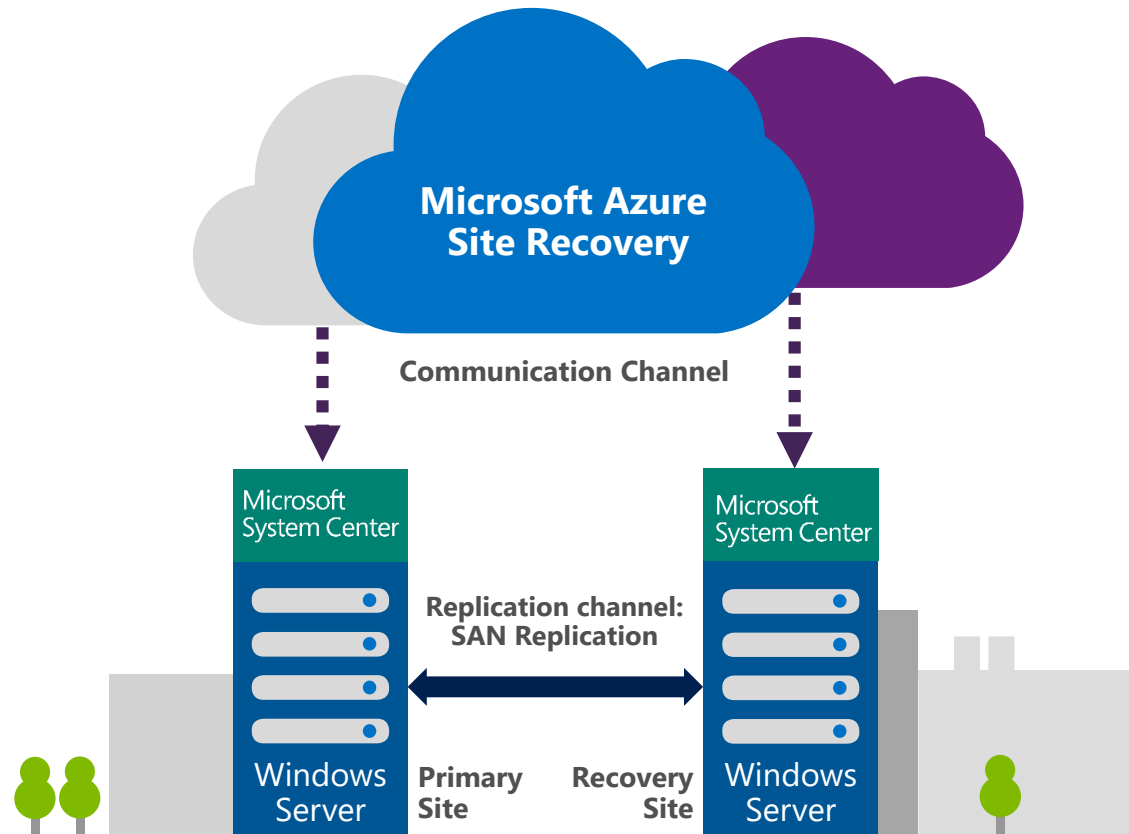
## Key features include:

- Automated VM protection and replication
- Remote health monitoring
- Customizable recovery plans

- No-impact recovery plan testing
- Orchestrated recovery when needed

# Orchestrated Disaster Recovery

Between *on-premises and/or service provider locations*



# SAN Replication

## Harness the power of your SAN Investments

### SAN Replication

Take advantage of SAN Replication capabilities provided by enterprise storage partners, across both FC & iSCSI storage

Supports asynchronous replication for flexibility or synchronous replication for the lowest RPO/RTO

### Key Value Propositions

Full Disaster Recovery orchestration for SAN storage

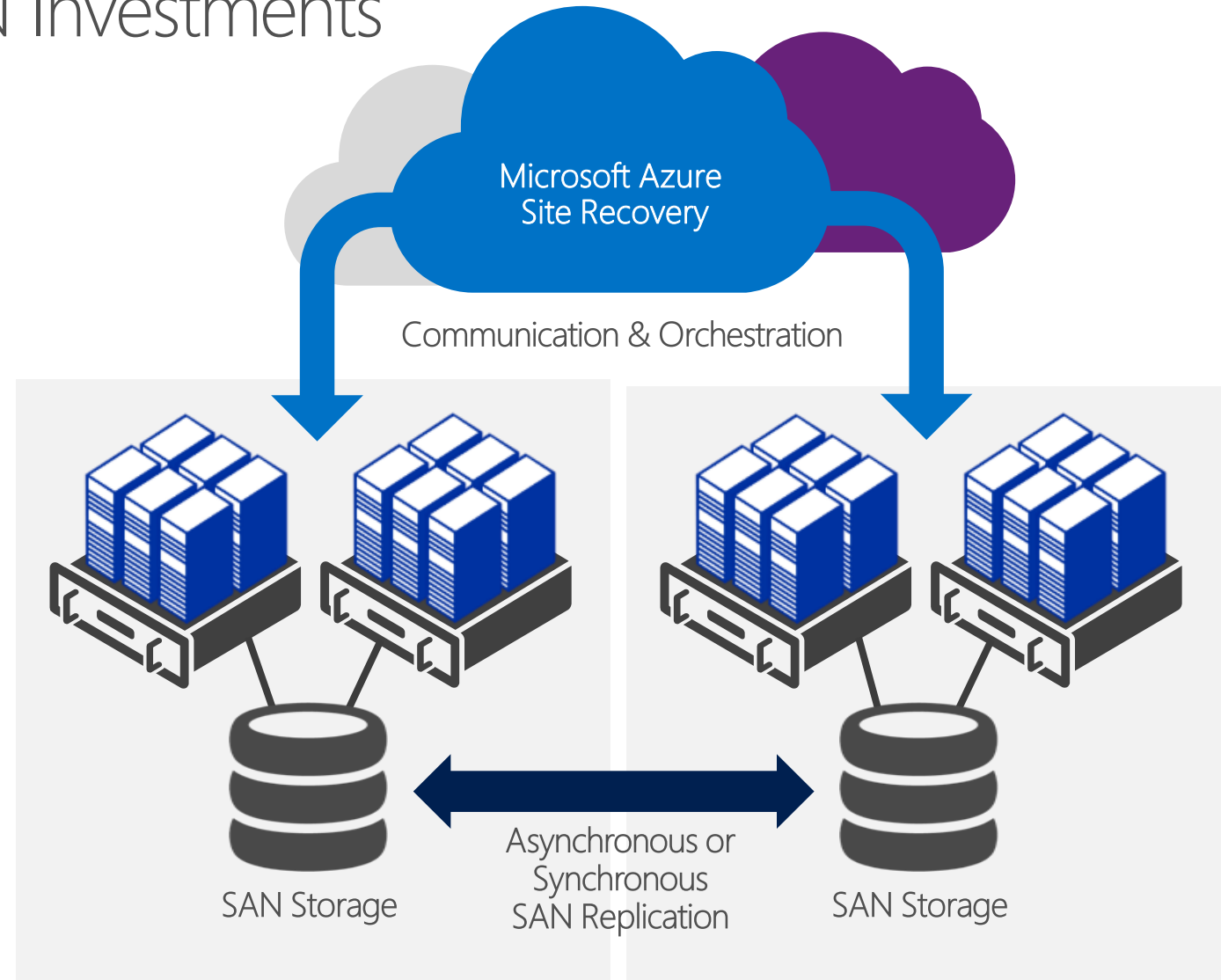
Support for applications that require DR with shared storage, such as SQL Server, SharePoint, SAP etc.

Integrated with Azure Site Recovery for streamlined, consistent experience.

### Integration

Integration with SAN via SMI-S – SCVMM will discover and enumerate existing storage.

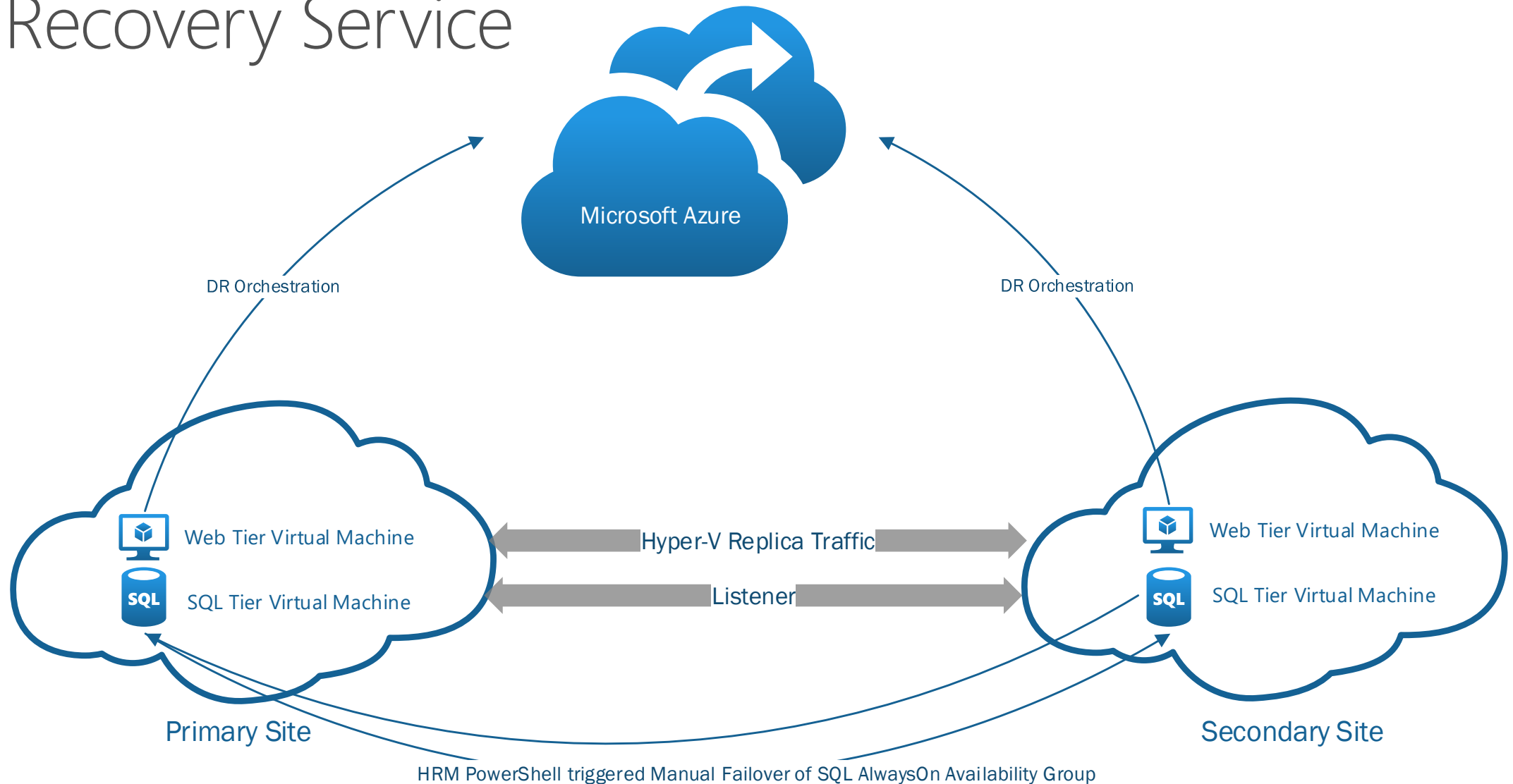
SCVMM provides comprehensive SAN management capabilities within console.



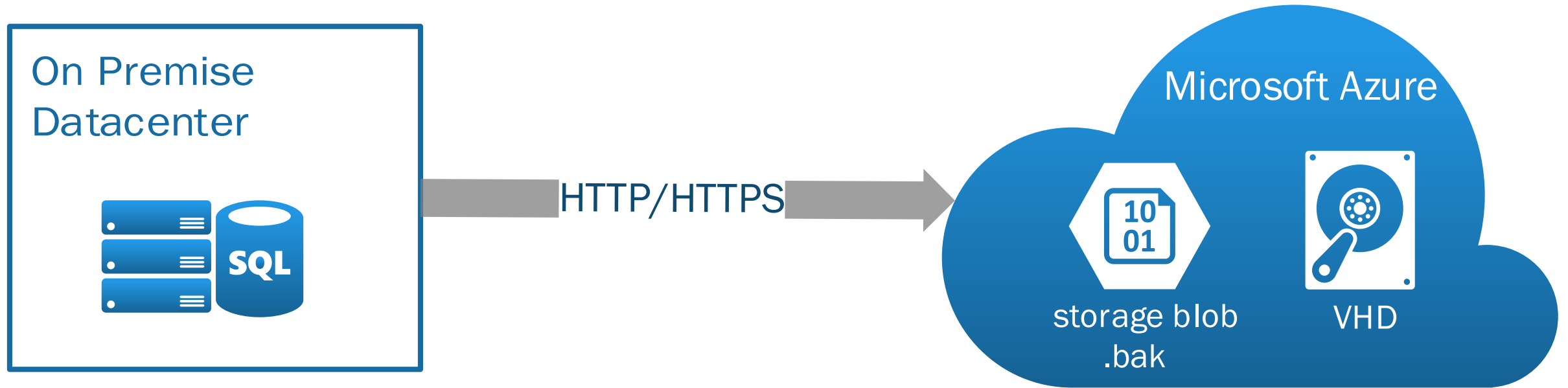
# Business Continuity Solutions SQL Server Workloads



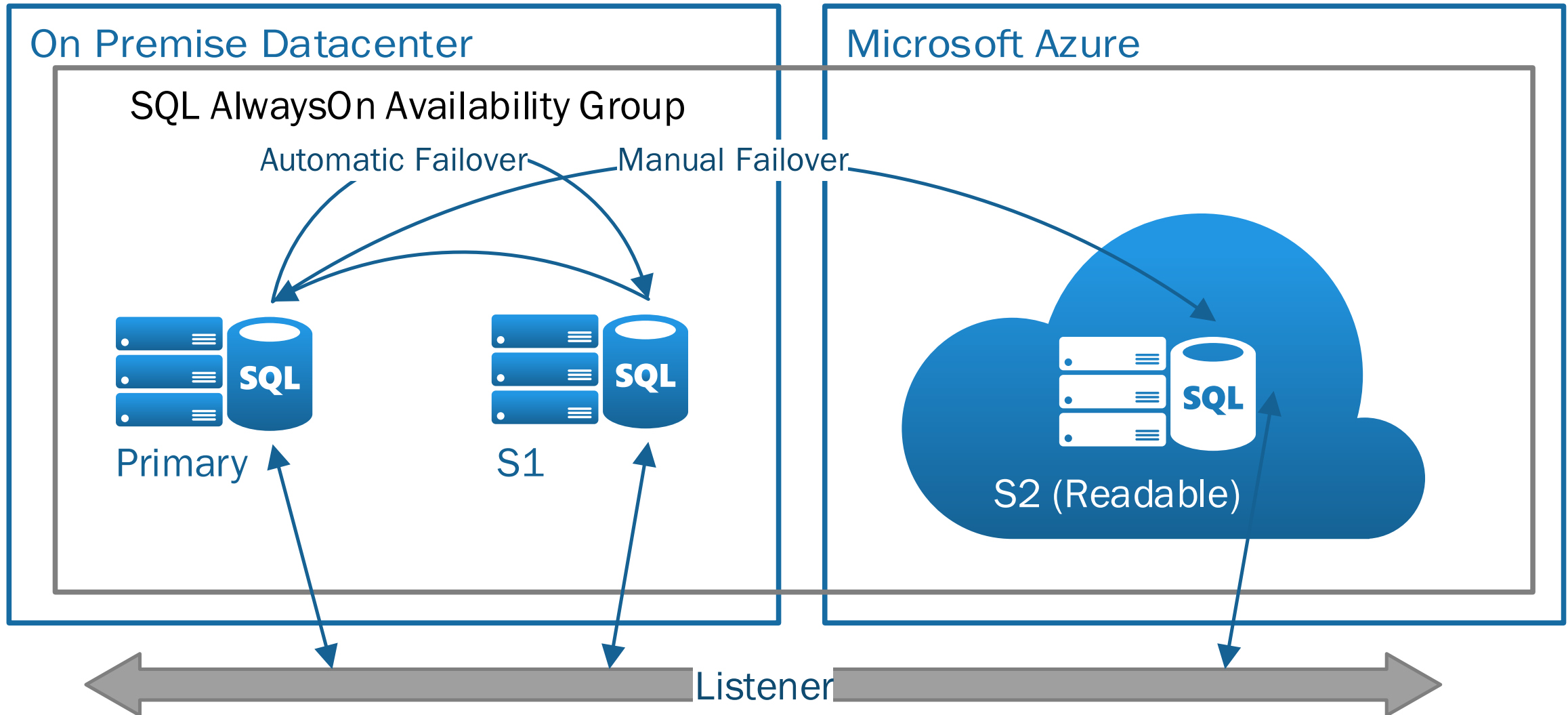
# On-Premises SQL Server Protected by Microsoft Azure Site Recovery Service



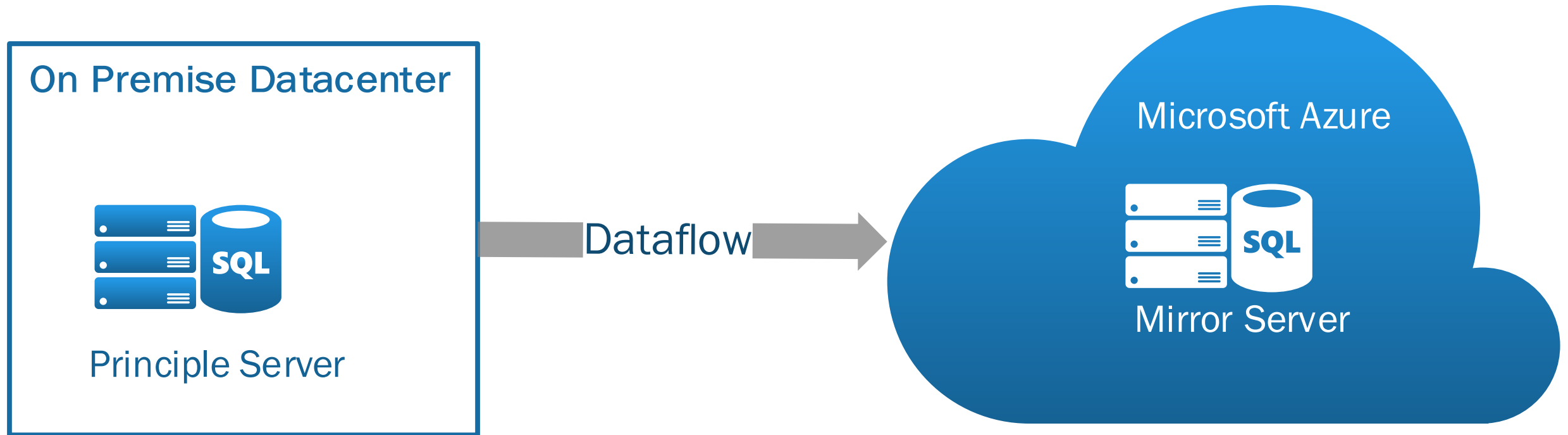
# SQL Server Backup with Microsoft Azure Storage



# On-Premises SQL Server Protected by On-Premises and Microsoft Azure AlwaysOn Availability Groups



# SQL Server Protected by Database Mirroring with the Mirror in Azure VM



**DEMO**