

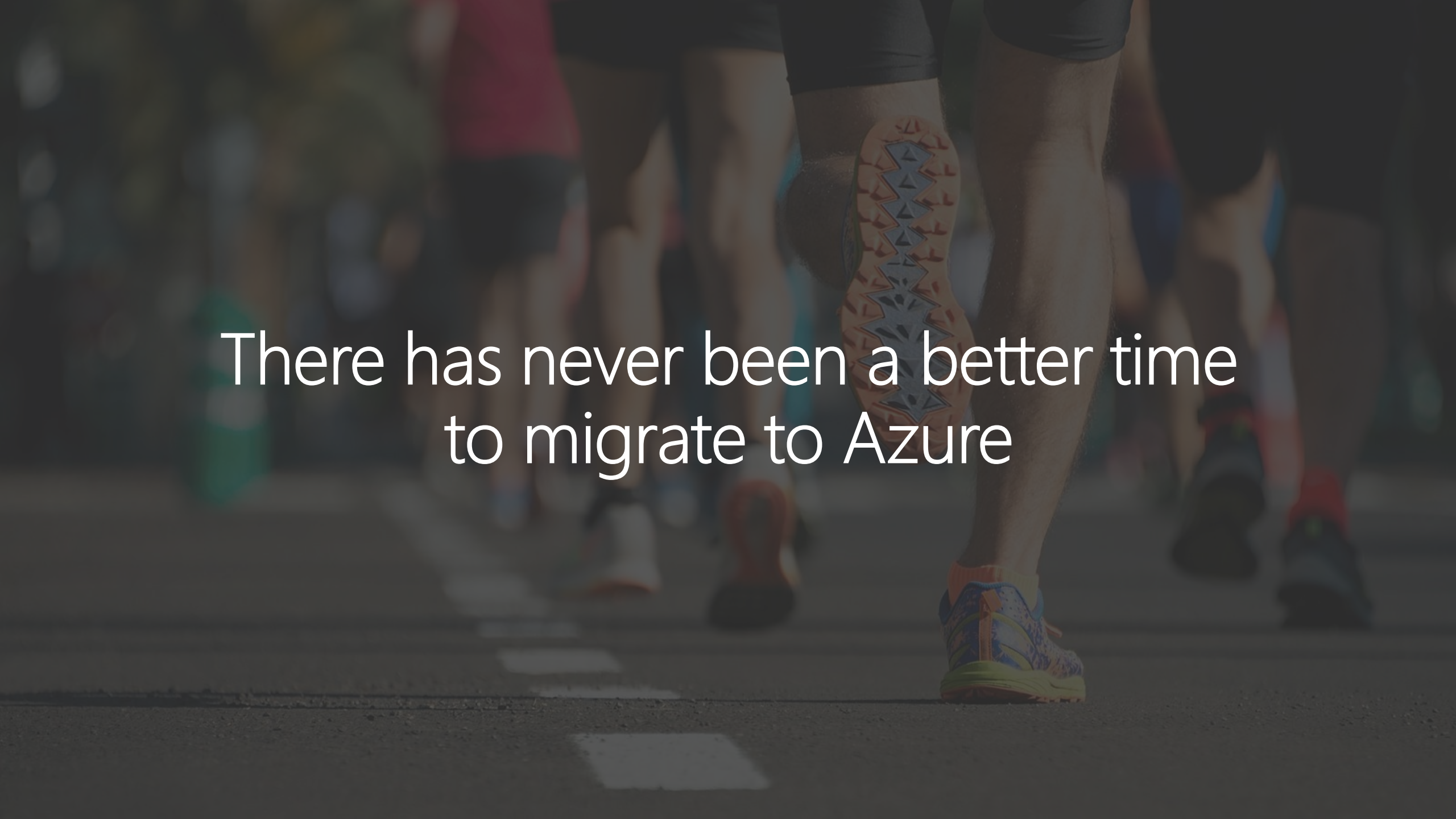
# Azure Assessments and Migration

Onur Dogruoz

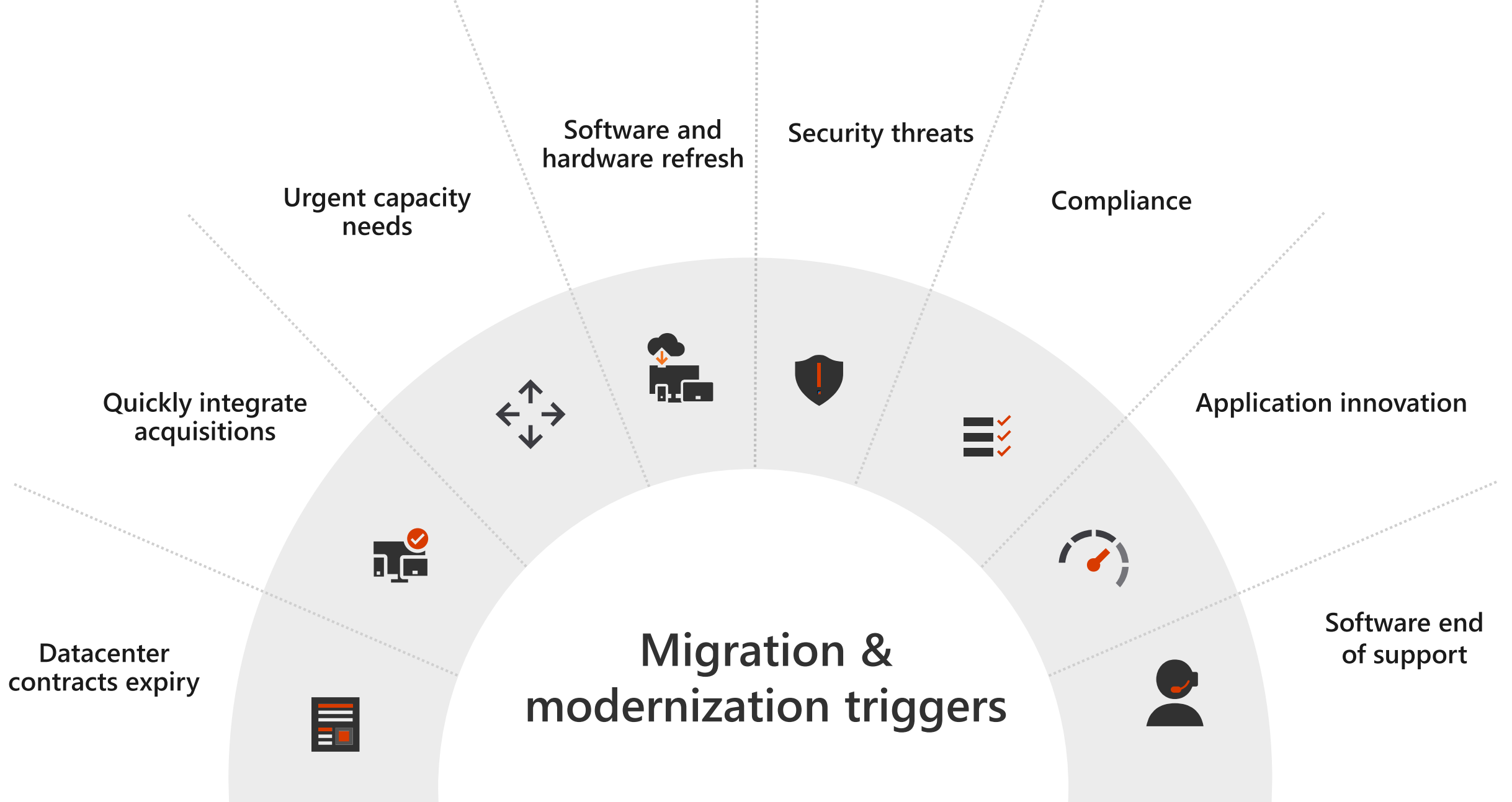
Partner Technology Strategist, US OCP  
Microsoft

Holly Klein

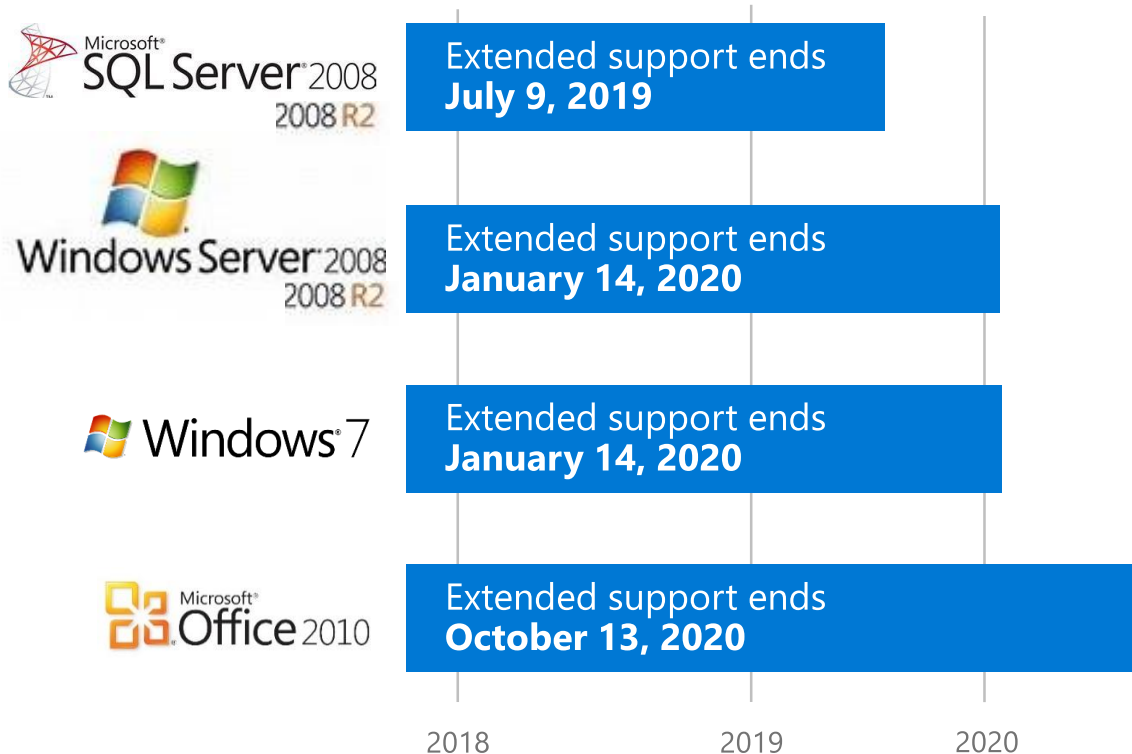
Market Development Executive Azure  
Ingram Micro



There has never been a better time  
to migrate to Azure



# Get ready for end of support



Microsoft Lifecycle Policy: [www.microsoft.com/lifecycle](https://www.microsoft.com/lifecycle)



## Avoid business risk

End of support means:



No security updates



Compliance concerns



Missed innovation opportunities

### Some examples

### What it means

### Severity/impact

Ransomware  
(Petya, WannaCry)

Blocking access to your data  
and asking for ransom

Critical/remote code  
execution

Hardware vulnerabilities  
(Meltdown/Spectre)

CPU vulnerability that allows  
hackers to steal sensitive data  
(resolved through OS security  
updates)

Important/  
information disclosure

GDPR & industry  
regulations

Additional security and  
features needed to comply  
with specific regulations

Lost customer trust, impact  
to brand image, and  
financial penalties

Microsoft Security Response Center: [www.microsoft.com/msrc](https://www.microsoft.com/msrc)



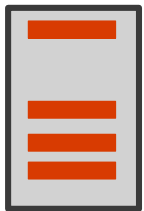
2008 | R2



Windows Server



Ends January 14, 2020



SQL Server



Ends July 9, 2019

**Free** Extended security updates

Free security updates, only on Azure

3 years of security updates after support ends

75% of the license cost to buy standalone

Reuse existing licenses with Azure Hybrid Benefit

# 3 reasons to migrate 2008 server applications to Azure now



---

## Improve security and compliance

Secure cloud foundation

Built-in, multi-layered security controls

More certifications than other providers



---

## Realize significant cost savings vs. on-premises

Azure Hybrid Benefit

Free extended security updates

Infrastructure optimization



---

## Use cloud innovation to retire technical debt

Azure IaaS

Azure SQL Database

Azure App Service

# Azure is the best destination for Windows Server and SQL Server



Unique hybrid experiences:  
Server + Azure



Unparalleled consistency & innovation:  
Azure SQL Database Managed Instance



Deep trust with  
enterprises

Azure Security Center + built-in OS security

Windows Admin Center

Integrated backup, disaster recovery, & identity

Full parity with 100% code consistency

Unmatched support & backward compatibility

Machine learning-based performance & security

More certifications than other providers

Single vendor support

Reuse familiar skills and toolsets

**AWS is 5 times more expensive than Azure for Windows Server and SQL Server**

Learn more: [Windows Server on Azure](#) | [SQL Server on Azure](#)

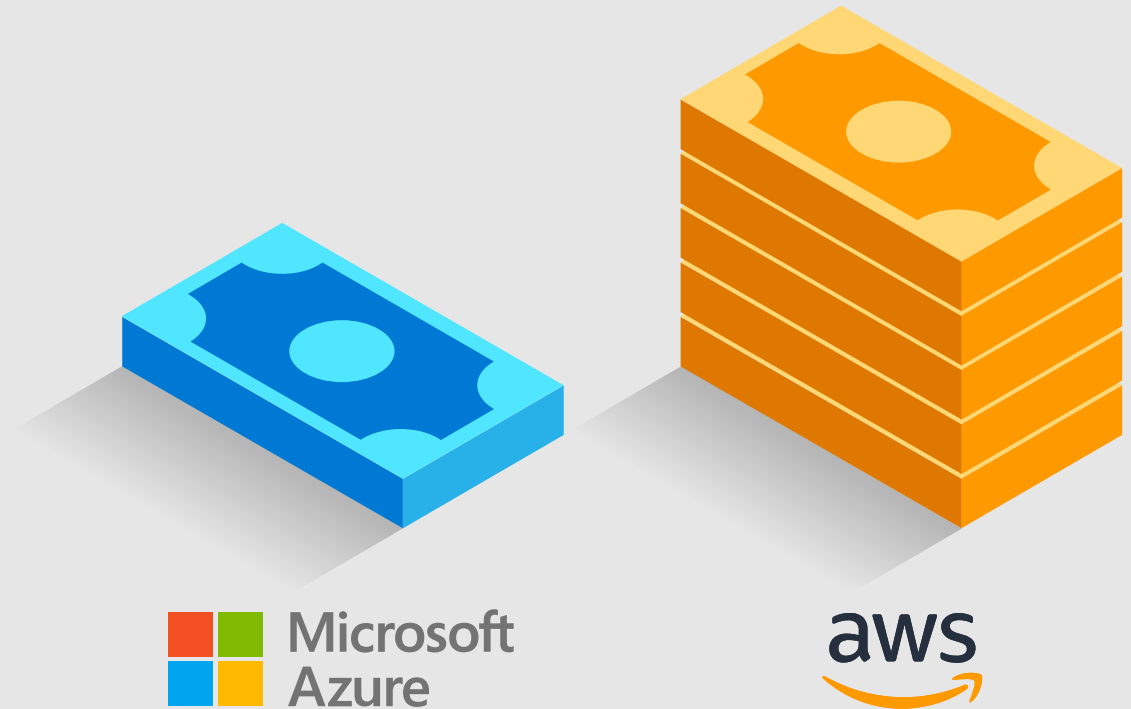
# Pay less with Azure

**AWS is 5 times more expensive than Azure for Windows Server and SQL Server**

## How the savings add up

- No need to re-purchase licenses in the cloud—use the **Azure Hybrid Benefit** with existing licenses to save on Azure IaaS or PaaS services
- **Only Azure offers free extended security updates** for 2008/2008 R2 workloads
- **Reserved capacity** helps you save even more

Learn more at: <http://aka.ms/Why5xmore>





# How the cost savings add up with Azure



## Save with your existing licenses

Eligible customers pay a reduced rate for Azure Virtual Machines and Azure SQL Database with the Azure Hybrid Benefit.

[See how the Azure Hybrid Benefit works](#)



## Reserve upfront and pay less

Reserve resources in advance and save over pay-as-you-go pricing—and improve your budgeting and forecasting.

[Learn about reservations](#)



## Extend security updates for free

Move your Windows Server or SQL Server 2008 and 2008 R2 workloads to Azure and get three additional years of security updates for free.

[Learn about extended security updates](#)

# Azure migration tools adoption over the last year

**700K+**

**VMs**

---

Discovered by  
Azure Migrate

**500K+**

**VMs**

---

Assessed by  
Azure Migrate

**41K+**

**databases**

---

Migrated by Azure  
Database Migration Service

# Unified and extensible Azure migration experience



Assess



Migrate



Optimize



Secure and manage

Migration tools | Azure migration center | Scenario guidance | FastTrack for Azure | Azure Expert MSPs

**Foundational best practices:** People | Process & Planning | Technology

# Choice of tools for every stage and every requirement

Goal is successful Azure migration: Pick the right tool for the job



Assess

Azure Migrate

Data Migration Assistant (DMA)

SQL Server Migration Assistant (SSMA)



Migrate

Azure Site Recovery (ASR)

Azure Database Migration Service

Azure Data Box



Optimize

Azure Cost Management



Secure & Manage

Azure Security & Management  
(e.g., Blueprint, Security Center,  
Backup, Monitor)

## We embrace ISV solutions

 MOVE

 Cloudamize

 CloudAtlas®

 BitTitan

 appOrbit

 CHEF™

STRATOZONE®

 turbonomic

 CloudEndure®

 Zerto

 Corent

 intigua

 stiim™

 ATTUNITY

 DATOMETRY

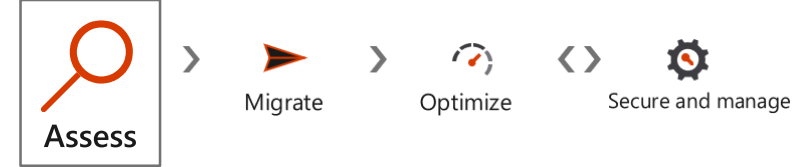
 MORPHIS

 Ispirer

 Informatica

 QuerySurge

# Assess your environments with Azure Migrate



App performance history

---

App configuration data

---

Applicable discounts and offers  
(e.g., Azure Hybrid Benefit, RI)

---

Target Azure location



**Azure Migrate**

Azure suitability analysis  
(e.g., compatibility)

---

Rightsized Azure resource model

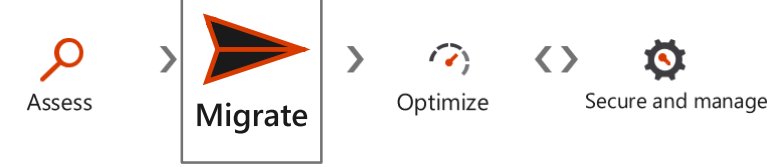
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Azure cost estimates

---

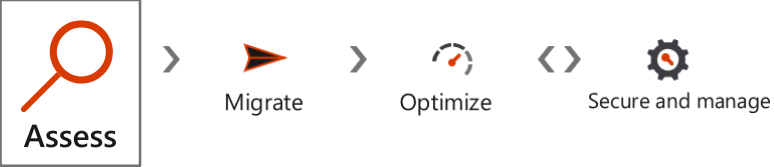
App dependency map

VMware and Hyper-V (NEW!) assessments | Windows and Linux assessments | Free, built in service





# Demo

# Choosing between 1<sup>st</sup> and 3<sup>rd</sup> party assessment tools

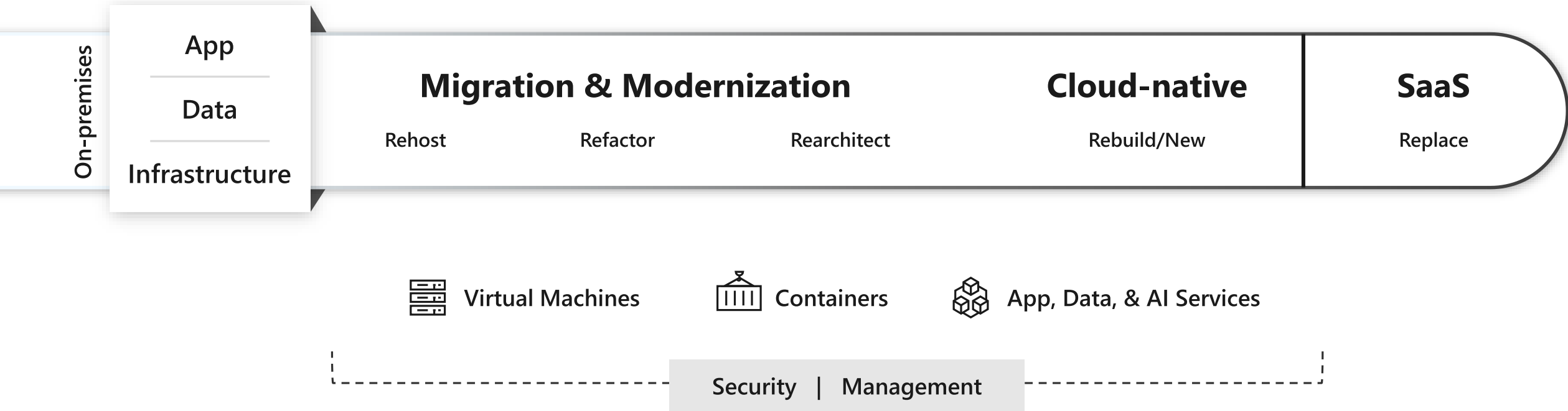
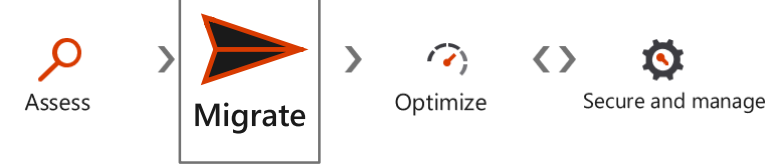


*Use partner tools when you need any of the following additional capabilities*

FEATURES	 Azure Migrate	
No additional cost	✓	
Assessment of VMware environments <sup>1</sup>	✓	✓
Assessment of VMware, Hyper-V and physical environments		✓
Agentless dependency visualization		✓
Advanced cloud economics cost modelling		✓





<sup>1</sup> Azure Migrate support for Hyper-V assessments currently in private preview

# Azure migration scenarios

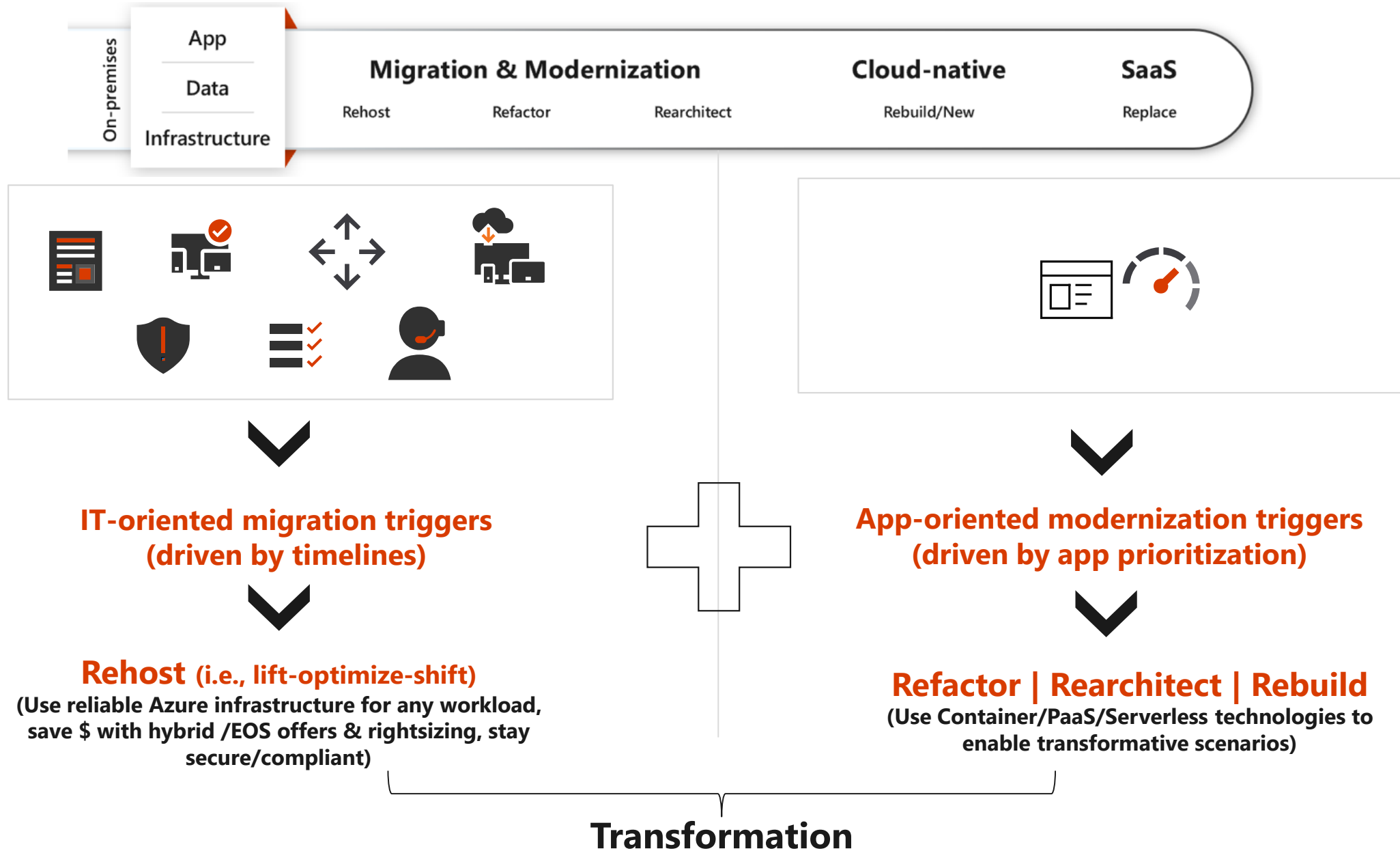




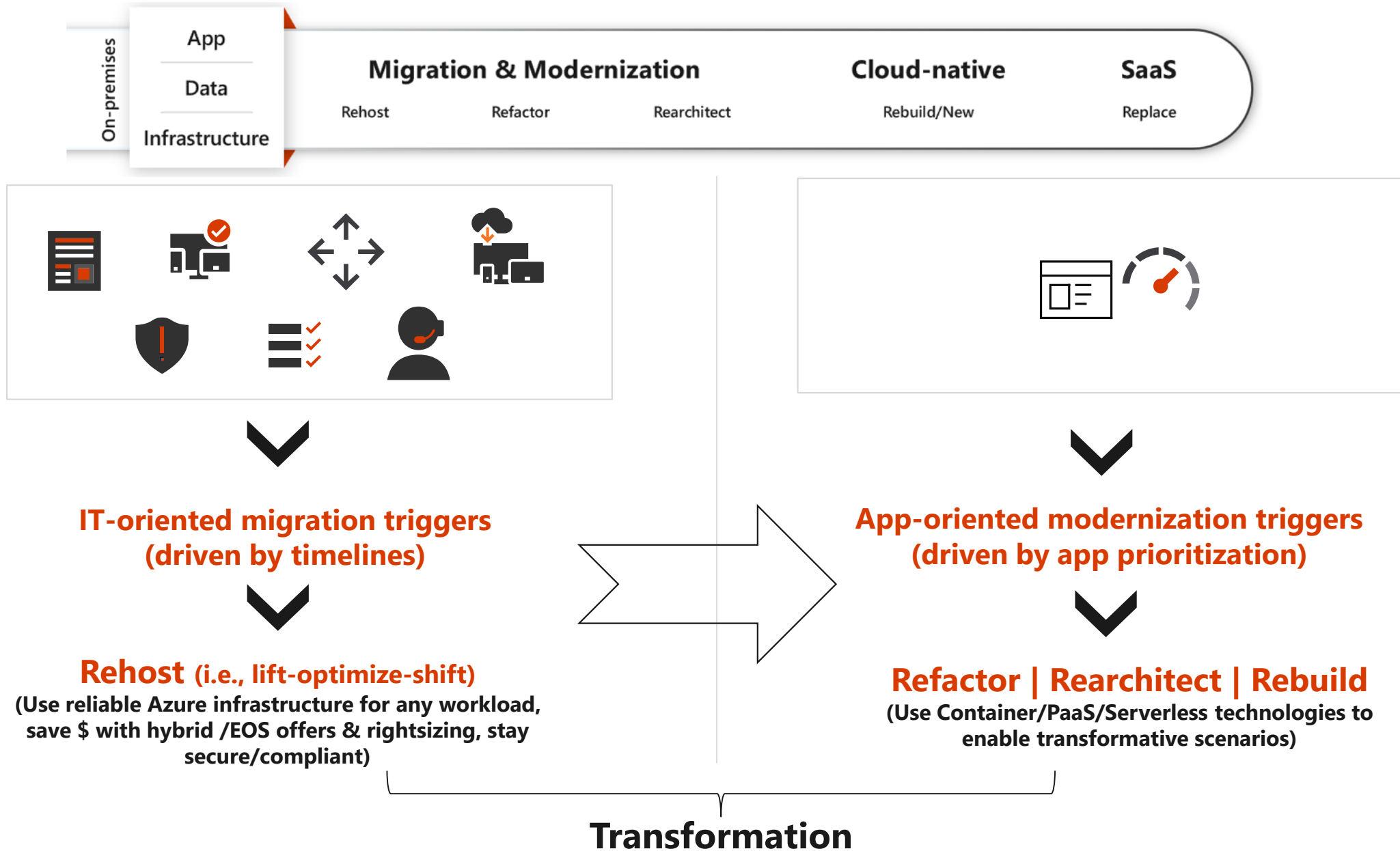
# Summarizing cloud migration strategies

	Rehost	Refactor	Rearchitect	Rebuild
				
Description	Redeploy as-is to cloud	Minimally alter to take better advantage of cloud	Materially alter/decompose application to services	New code written with cloud native approach
Drivers	<ul style="list-style-type: none"><li>• Reduce Capex</li><li>• Free up datacenter space</li><li>• Quick cloud ROI</li></ul>	<ul style="list-style-type: none"><li>• Faster, shorter, updates</li><li>• Code portability</li><li>• Greater cloud efficiency (resources, speed, cost)</li></ul>	<ul style="list-style-type: none"><li>• App scale and agility</li><li>• Easier adoption of new cloud capabilities</li><li>• Mix technology stacks</li></ul>	<ul style="list-style-type: none"><li>• Accelerate innovation</li><li>• Build apps faster</li><li>• Reduce operational cost</li></ul>
Technologies	IaaS	Containers PaaS	PaaS Serverless Microservices	

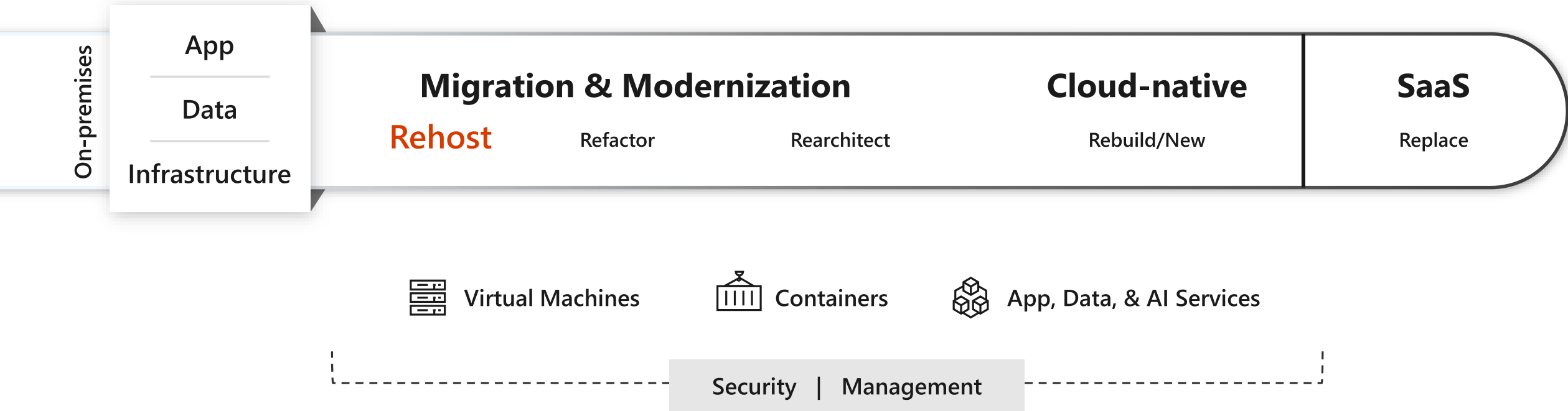
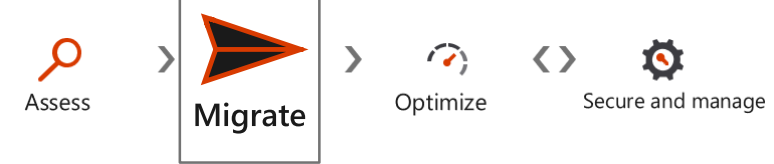
# Approach #1: Migration & modernization strategies



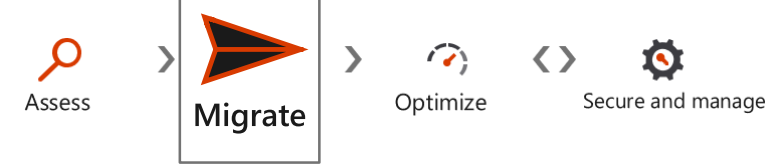
# Approach #2: Migration & modernization strategies



# Azure migration scenarios



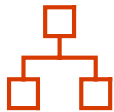
# Reliable infrastructure to **rehost** any workload



## On-demand



Compute



Networking



Storage

## Purpose-built



## Linux, Open Source, and Red Hat



**+40%**  
of Azure VMs are  
running Linux



**1.4x**  
growth of Linux



Co-located support  
with Red Hat on-site  
team

## Best for Microsoft workloads



Unique hybrid experiences:  
Server + Azure

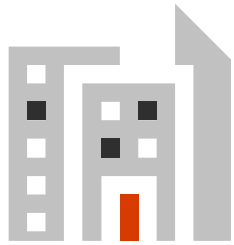


Unparalleled consistency  
& innovation: Azure SQL  
DB Managed Instance

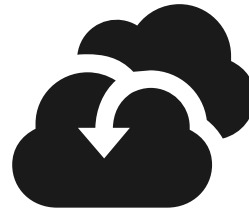


Deep trust with enterprises

# Rehost apps to Azure IaaS with Azure Site Recovery



On-premises



**Azure Site Recovery  
(ASR)**

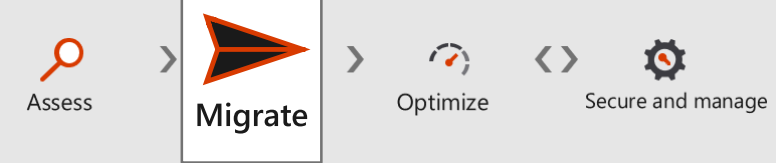
Set up source & target environments  
Set up replication policy  
Begin replication  
Run test migration  
Failover to Azure



Azure

Zero app data loss | Near-zero downtime | Test migration to minimize risk | Free usage during migration

# What's new with ASR

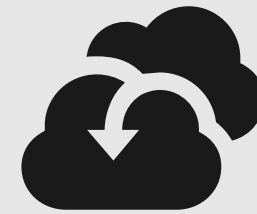


**Windows Server 2008 / R2: 32-bit and 64-bit migration**

**Expanded coverage for Linux distros:**

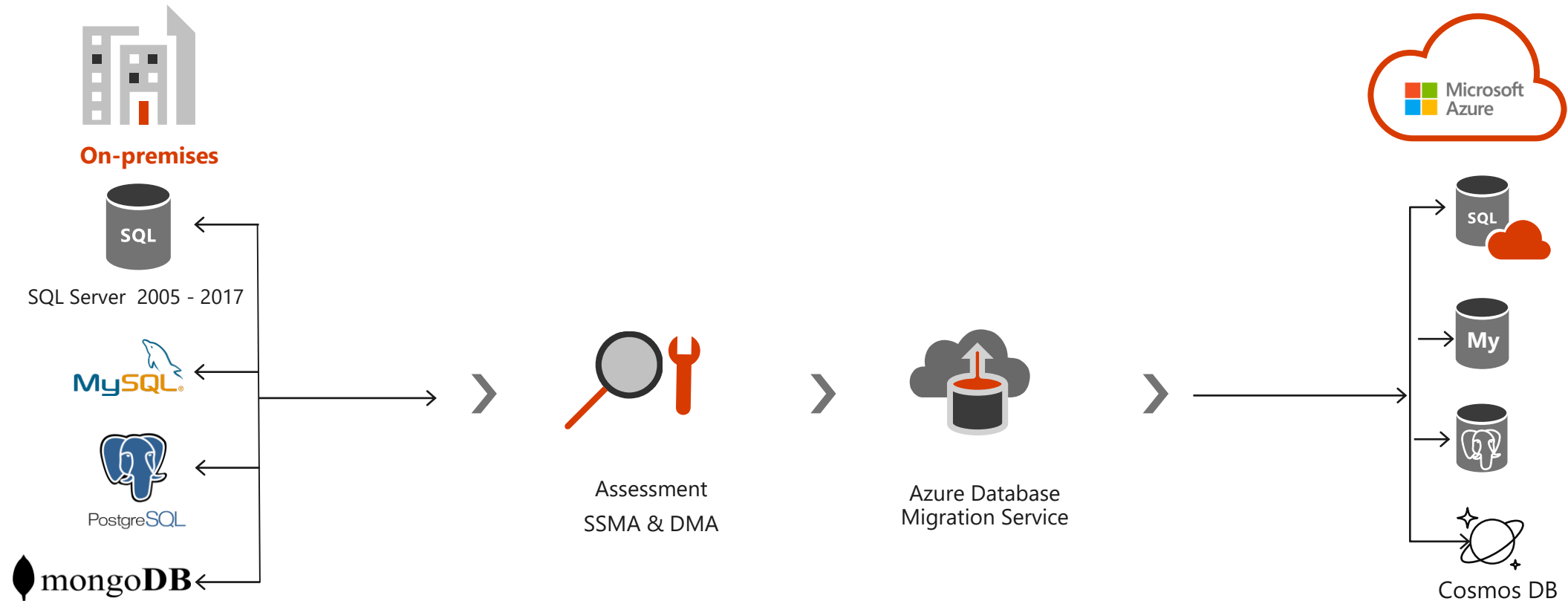
SUSE Linux Enterprise Server 12 (SP1, SP2, SP3),  
RHEL 7.0 to 7.5, Cent OS 7.0 to 7.5

**Enhanced support for Linux configurations**  
(e.g., VMs that use GUID partition table)



**Azure Site Recovery (ASR)**

# Migrate databases using Azure Database Migration Service



Seamless, end to end solution | Near-zero downtime | Migrate at-scale from multiple sources

New DMS scenarios

SQL Server → SQL Server in Azure IaaS | AWS RDS SQL Server → Azure SQL DB

Mongo DB → Azure Cosmos DB

AWS RDS MySQL/PostgreSQL → Azure DB for MySQL/PostgreSQL

Oracle → Azure SQL DB/ SQL Server in Azure IaaS



## Azure SQL Database Managed Instance – GA (General Purpose)

Migrate SQL Server to fully managed SQL in Azure

Fully compatible with SQL Server

Built-in HA, Failover, Geo-DR, Intelligence

## NEW: Azure SQL Database Hyperscale – Preview

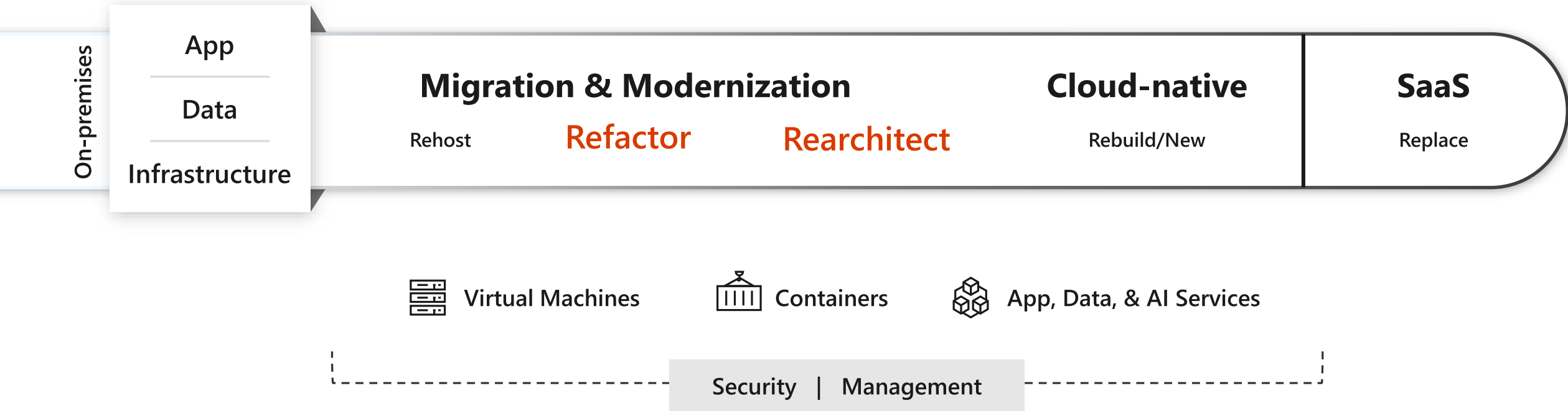
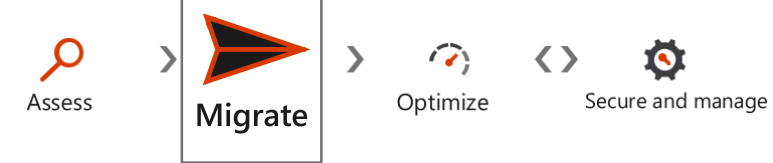
New, highly scalable service tier with built in intelligence

Migrate multi-TB databases to Azure

Auto-scale up to 100 TB per database



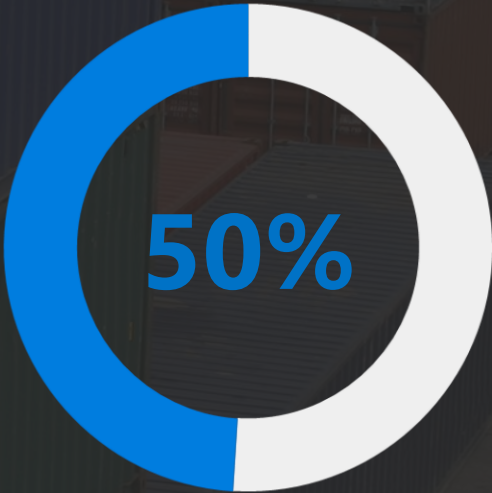
# Azure migration scenarios





By 2020, more than 50% of enterprises will run **mission-critical, containerized applications** in production.

*Gartner*



# Refactor and rearchitect apps using Azure container technologies

Assess



Migrate



Optimize



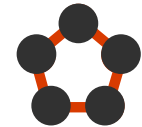
Secure and manage



**Azure Container Instances**



**Azure Kubernetes Service (AKS)**



**Azure Service Fabric**



**Azure App Service**

# Keep migrated workloads secure and managed

Built-in, intelligent services for Azure and on-premises workloads

Assess



Migrate



Optimize



Secure and manage



NEW

## Governance

Proactively apply policies and optimize cloud spend



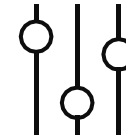
## Security

Industry leading Security with Advanced Threat Protection



## Resiliency

High availability and protection for VMs, apps and data



## Monitoring

Deep operational insights with rich intelligence



## Automate

Powerful scripting, configuration and update management

Turn on security, backup, and monitoring for every migrated resource

# Azure migration center

## All things migration

## Methodology

Migration journey  
and strategies

## Tools

Right tools for the job

## Partners

Migration experts

The screenshot displays the Microsoft Azure Migration Center website. The top navigation bar includes the Microsoft Azure logo, contact information, and links to Overview, Solutions, Products, Documentation, Pricing, Training, Marketplace, Partners, Support, Blog, and More. A 'Free account' link is also present. The main header features the title 'Azure migration center' and a description: 'Azure is the only hybrid cloud to help you with cost-effective, flexible cloud migration paths. Get all the tools and resources you need to migrate your apps, data, and infrastructure at your own pace, with confidence.' A 'Start free' button is prominently displayed. Below this, a navigation bar lists 'Explore Azure migration: Home Assess Migrate Optimize Secure and manage Partners Webinars Workloads'. The main content area is titled 'Azure migration journey' and includes a sub-header: 'Join thousands of customers who are migrating to Azure using a proven methodology, Microsoft and partner tools, and a large ecosystem of partners to help during the move.' The journey is depicted as a four-step process: 1. Assess (Start your Azure migration by discovering and assessing your on-premises apps, data, and infrastructure. Map dependencies across applications and decide their priority for cloud migration.), 2. Migrate (Move your resources confidently using powerful, free tools that guide you through and automate the cloud migration journey while minimizing downtime.), 3. Optimize (Streamline your cloud resources and govern your applications to improve performance, maximize ROI, and stay compliant with organizational standards—all in Azure.), and 4. Secure and manage (Help ensure security and fine-tune management of your migrated resources using the built-in services in Azure.). A timeline at the bottom shows the progression from 'ON-PREMISES' to 'AZURE'.

[Azure.com/Migration](https://azure.com/Migration)

# Keep up to date on your Azure skills as you migrate



Microsoft.com/Learn

Build skills quickly

Measure Azure skill proficiency

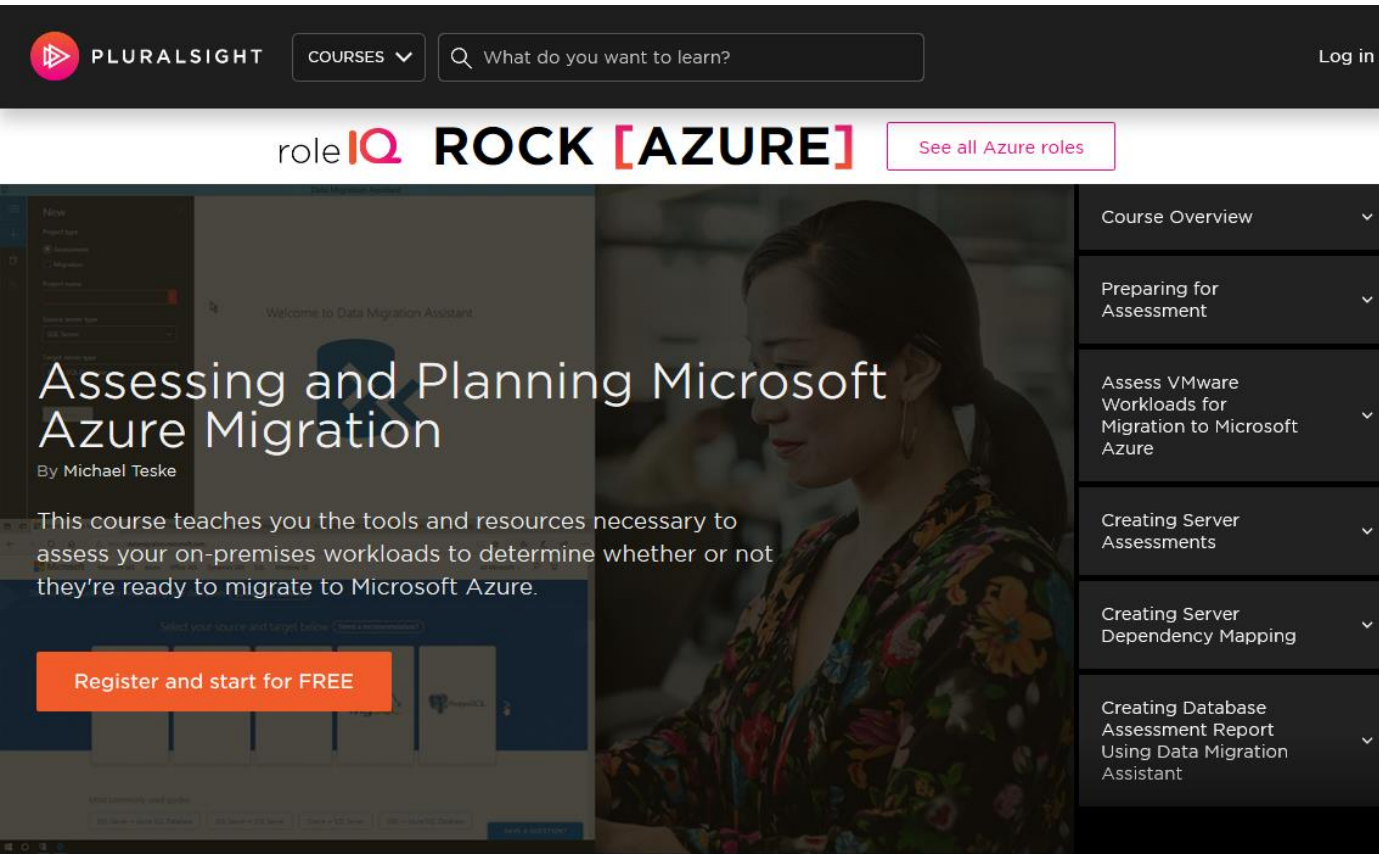
Role based certification & training

**Free migration courses**  
Assessing and Planning Azure Migration  
Rehosting applications to Azure

The screenshot displays the Microsoft Learn website. At the top, there's a navigation bar with the Microsoft logo and links for Learn, Azure, Business Applications, About, Browse All, and Certifications. Below this, a blue banner welcomes users to Microsoft Learn, highlighting a new approach to learning. A 'Welcome to Azure' section offers guided learning modules and paths. The main content area features a 'Start a learning path' section with a 'Select your role' dropdown and a diagram of interconnected learning paths. Below this, the 'Learn Azure' section lists several learning paths, each with a brief description and a 'Begin' button. The paths include 'Cloud Foundations', 'Administer infrastructure resources in Azure', 'Deploy a website with Azure App Service', 'Administer containers in Azure', 'Work with NoSQL data in Azure Cosmos DB', and 'Architect great solutions in Azure'. A sidebar on the right promotes 'Additional Azure Training' with links to 'Free Pluralsight Courses' and 'Azure Certifications'.



# Training



PLURALSIGHT COURSES What do you want to learn? Log in

roleIQ **ROCK [AZURE]** See all Azure roles

## Assessing and Planning Microsoft Azure Migration

By Michael Teske

This course teaches you the tools and resources necessary to assess your on-premises workloads to determine whether or not they're ready to migrate to Microsoft Azure.

Register and start for FREE

- Course Overview
- Preparing for Assessment
- Assess VMware Workloads for Migration to Microsoft Azure
- Creating Server Assessments
- Creating Server Dependency Mapping
- Creating Database Assessment Report Using Data Migration Assistant

Take the free course on Assessing and Planning Microsoft Azure Migration

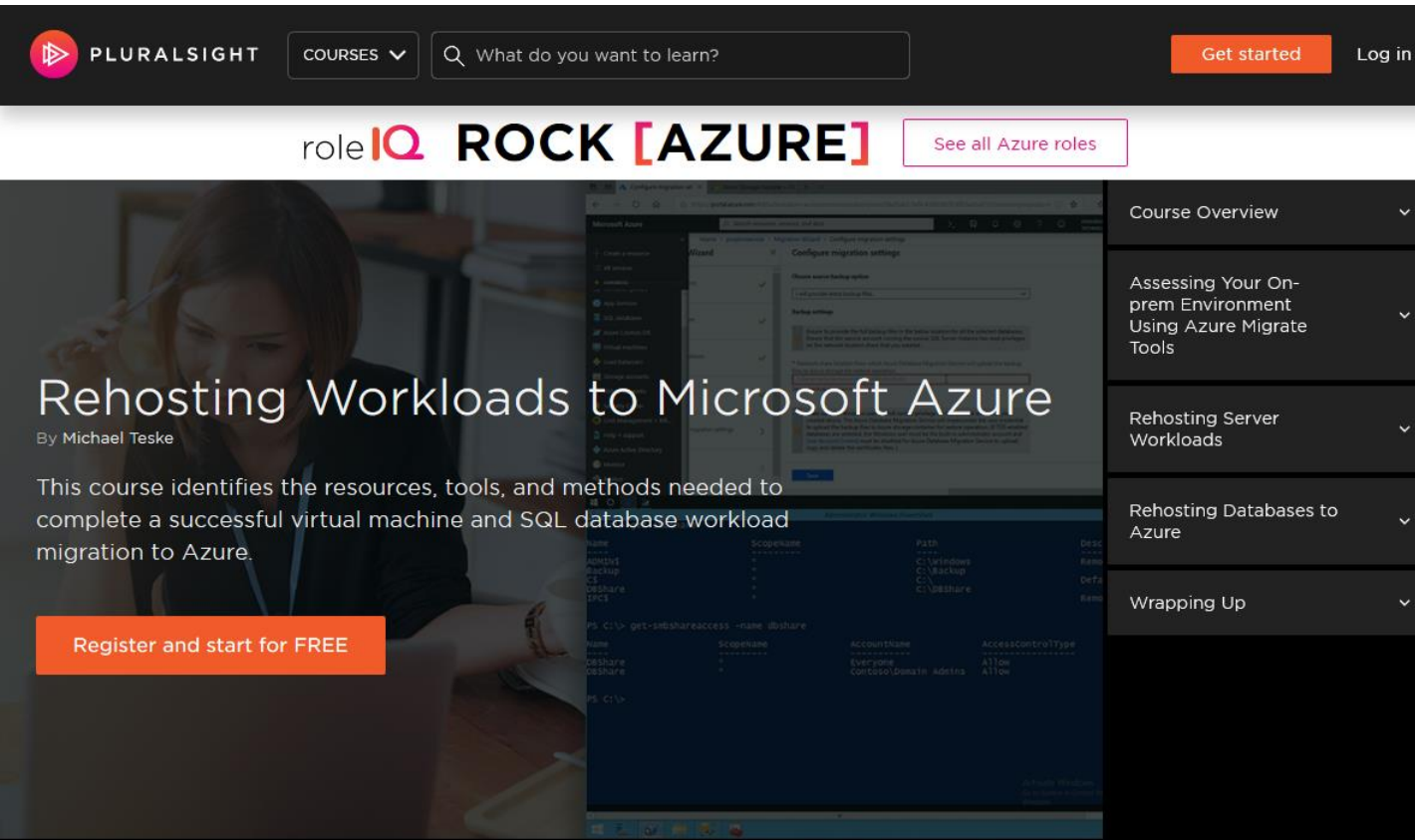
Take the course by January 31, 2018 to be eligible to win a Surface Go.

Register at:

<https://info.microsoft.com/ww-landing-assessing-and-planning-microsoft-azure-migration-contest.html>



# Training (continued.)



PLURALSIGHT COURSES ▼ Q What do you want to learn? Get started Log in

roleIQ **ROCK [AZURE]** See all Azure roles

## Rehosting Workloads to Microsoft Azure

By Michael Teske

This course identifies the resources, tools, and methods needed to complete a successful virtual machine and SQL database workload migration to Azure.

Register and start for FREE

Course Overview ▼

- Assessing Your On-prem Environment Using Azure Migrate Tools ▼
- Rehosting Server Workloads ▼
- Rehosting Databases to Azure ▼
- Wrapping Up ▼

Recommended next course after Assessment.

Learn to rehost an app from beginning to end:

- ✓ Assess with Azure Migrate
- ✓ Rehost Windows Server VMs
- ✓ Rehost SQL Server databases



# Build your case: Azure TCO calculator



Azure.com/tco

### Total Cost of Ownership (TCO) Calculator

Estimate the cost savings you can realize by migrating your workloads to Azure

 Welcome to the preview of the new TCO Calculator. Please [leave feedback](#). 

1

2

3

Define your workloadsAdjust assumptionsView report

#### Define your workloads

Enter the details of your on-premises workloads. This information will be used to understand your current TCO and recommended services in Azure.

##### Servers

Enter the details of your on-premises server infrastructure. After adding a workload, select the workload type and enter the remaining details.

[+ Add server workload](#)

---

##### Databases

Enter the details of your on-premises database infrastructure. After adding a database, enter the details of your on-premises database infrastructure in the Source section. In the Destination section, select the Azure service you would like to use.

[+ Add database](#)

---

##### Storage

Enter the details of your on-premises storage infrastructure. After adding storage, select the storage type and enter the remaining details.

[+ Add storage](#)

---

##### Networking

Enter the amount of network bandwidth you currently consume in your on-premises environment.

Outbound bandwidth ⓘ

1

GB

▼

(1 - 2000)

Next

# Confidently migrate your applications, data, and infrastructure to Azure



## Flexible migration options with hybrid support

Hybrid infrastructure  
(Windows Admin Center, Azure security  
and management, Azure Active Directory)

Hybrid applications and data  
(Azure + Azure Stack, common data  
platform)

On-premises server innovation



## Cost-effective throughout the entire migration experience

Azure Hybrid Benefit

Free security updates for EOS servers  
(for 3 years after EOS timeline)

Free tools to get started

Free cost management solution



## Low risk, high confidence migration

Decades of enterprise experience

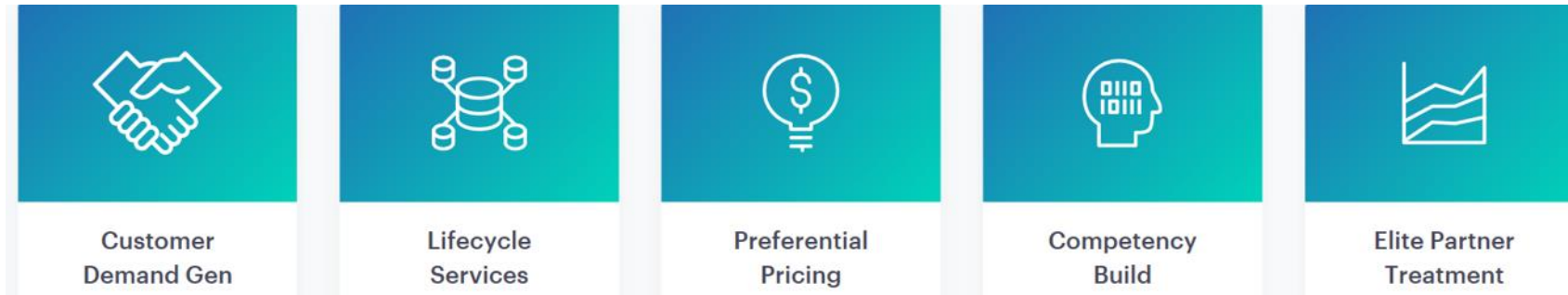
Secure/Compliant EOS servers  
(for 3 years after EOS timeline)

Azure migration center

Rich partner ecosystem

# Ingram Micro's Azure Accelerate Program

*A loyalty program to enable partners across the entire IaaS lifecycle to accelerate time to revenue*



		Fundamentals	Develop	Elite
		<\$10k/mon	\$10k-\$50k/mon	\$50k+/mon
Demand Gen	Playbook: End customer quarterly digital campaign	✓	✓	✓
	Playbook: Partner success story spotlight		Case study	Case study + video
	Prospecting as a Service: Lead Pass Program			✓
Lifecycle Services	White Label Services	Access	Access with discount	Access with discount
	L1 Support Services	L1 (fee)	L1 (fee)	L1 (fee)
Pricing	Exclusive Promotions (Net Tenant Credit)	\$200	\$300	\$500
	Volume Discount Eligibility		Volume Discount	Volume Discount
Certs	Azure Competency Training	Based on Availability	Up to 1 Associate	Up to 2 Associates
Elite Partner	Azure Business Plan Consultation		✓	✓
	Dedicated Account Manager Support		✓	✓
	Exclusive Cloud Summit Promotion and Access	CS19 \$100 Discount	CS19 \$200 Discount	CS19 \$300 Discount

# Get Started with Ingram Micro Today!

Sign Up for the Azure Accelerate Program

<https://microsoft.ingrammicrocloud.com/azure/en-us/>

Nominate Yourself for Ingram's Flight Academy Program

<https://channelmarketing.wufoo.com/forms/ingram-micro-azure-flight-academy/>

Questions?

Email [Azure.Accelerate@ingrammicro.com](mailto:Azure.Accelerate@ingrammicro.com)!

**Thank you | Q&A**

