

# Modernize on-premises SQL Server databases to Azure using Azure Database Migration Service (DMS)

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Check In



# Top of Mind for Data and AI Solutions: FY21 Sales Priorities

**\$15B**

FY21 sales and partner priorities

Applications & Infrastructure, Data & AI

*Migrate existing apps  
to Azure and optimize*

*Innovate with new apps  
and modernize existing apps*

Windows & SQL Server

Linux & OSS DB

SAP on Azure

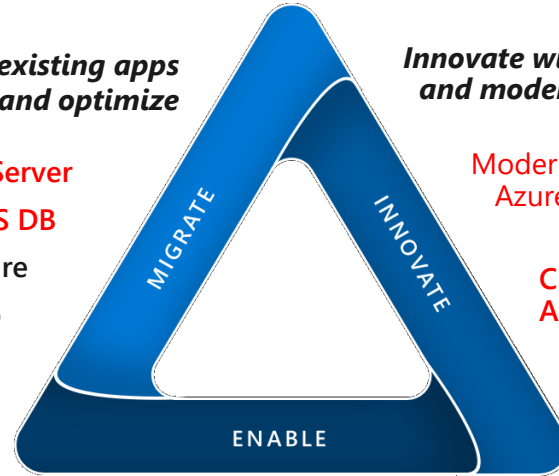
Windows Virtual Desktop

Hybrid Cloud Solutions

Modernize .NET apps with App Service,  
Azure SQL DB

Cloud native app with AI, containers,  
Azure Cosmos DB / PostgreSQL

Analytics & AI



*Enable customers for successful cloud use*

Cloud adoption Framework | Well-Architected | Skills  
building Developer engagement | DevOps with GitHub



Specialized Areas

**Applications:** IoT,  
Mixed Reality, Gaming

**Infrastructure:** Azure VMware  
Solutions, HPC, Advanced  
Networking, Azure Sentinel

We lead with outcomes-driven  
conversations that give our solutions  
greater industry relevance

**Data and AI Industry Support**

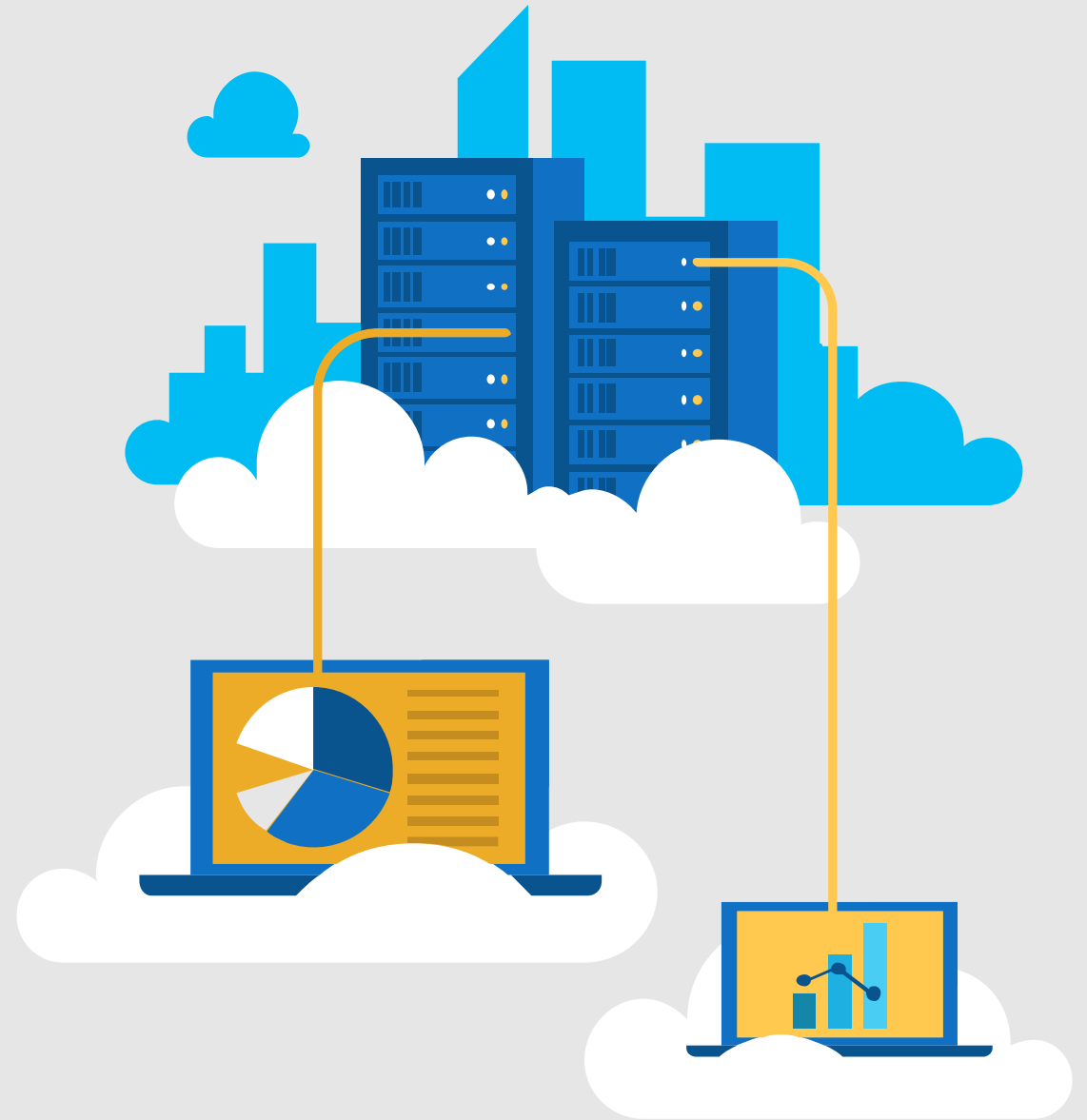
# Pop Quiz 1

Do you know when SQL Server 2008/R2 reaching EOS?

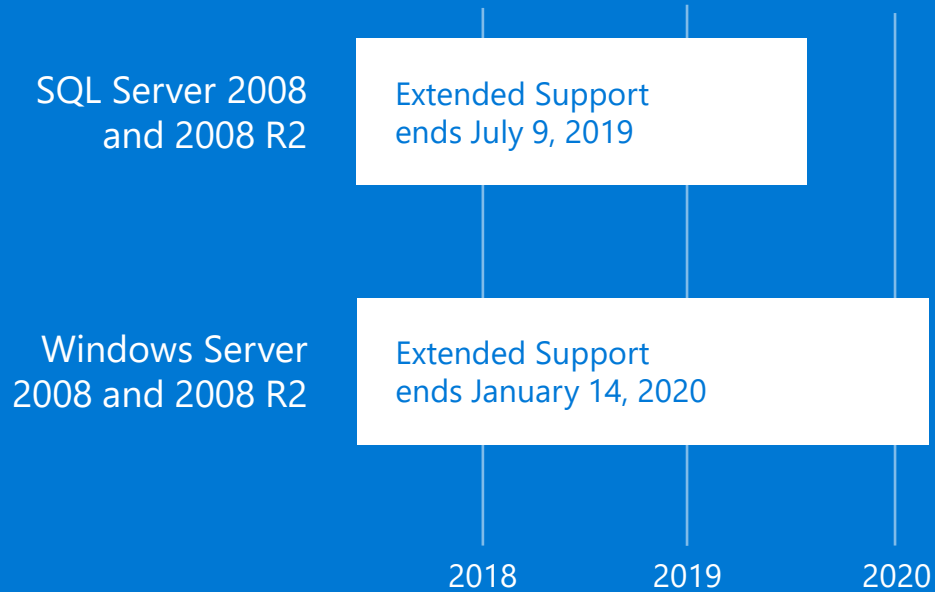
Already  
reached

July 2019

Jan 2020



# Deadline to act before end of support



## Impact of end of support



No security updates

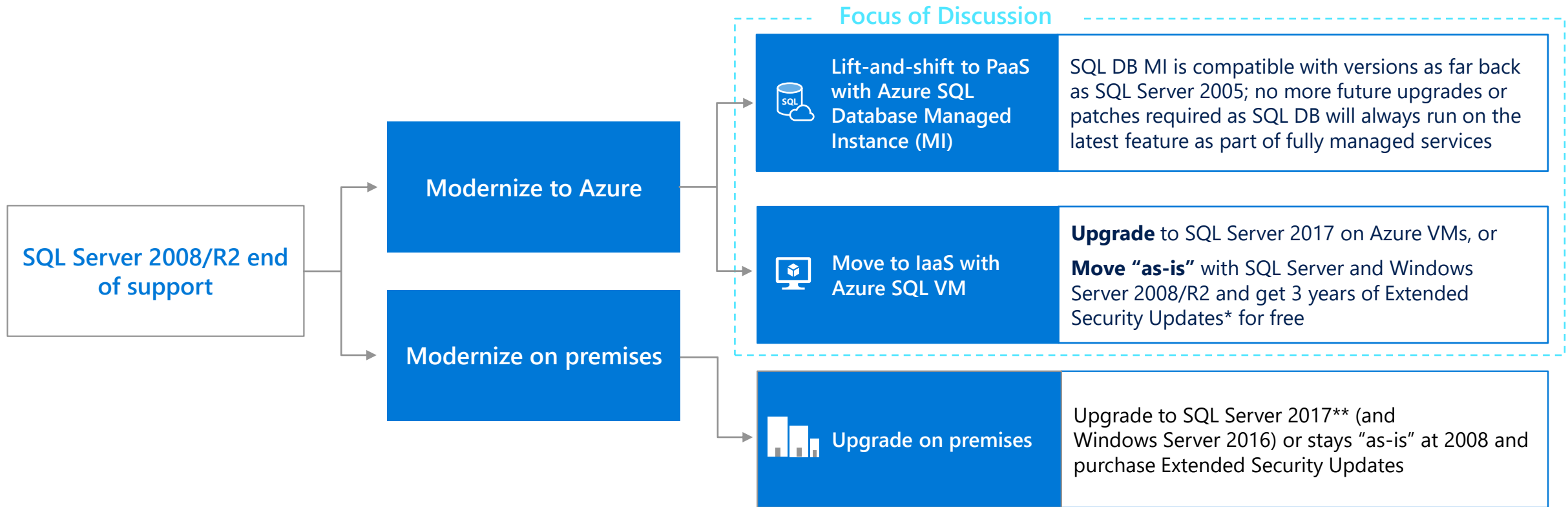


Compliance concerns



Missed innovation opportunities

# End of Support – What are the Options?



\* ESU worth 75% of license every year for the next three years after EOS

# 4 cloud path migration approaches



## Rehost (lift and shift)

Migrate applications as-is for the benefits of the cloud without the risks or costs of making code changes



## Refactor

Take advantage of infrastructure as a service (IaaS) and platform as a service (PaaS) with no wholesale code changes



## Rearchitect

Modernize your app into a resilient, highly scalable, independently deployable architecture



## Rebuild

Rebuild an application from scratch using cloud-native technologies

# Pop Quiz **2**

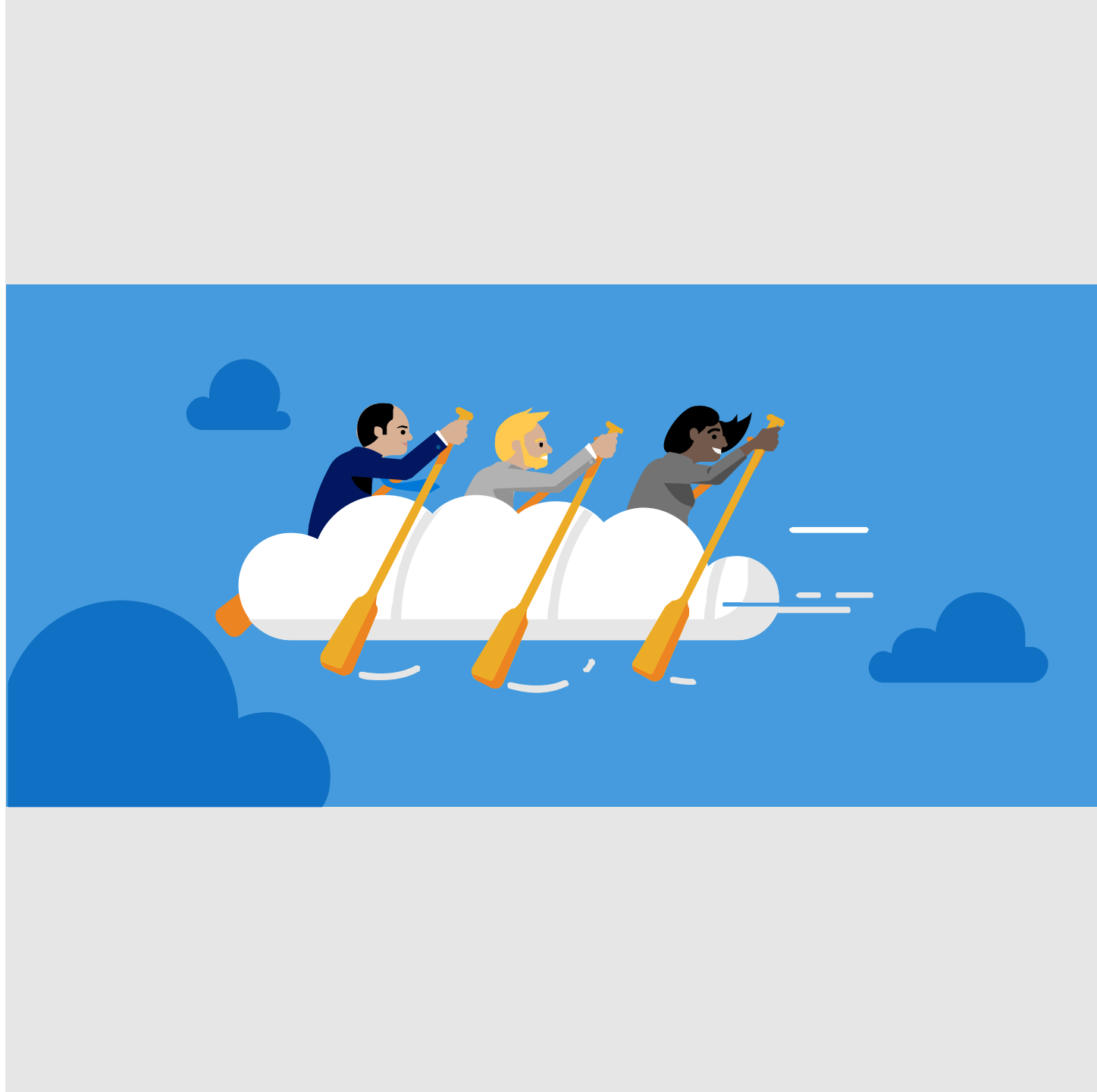
What are top migration approaches customers taking?

Rehost

Refactor

Rearchitect

Rebuild





# Migration journey



## Assess

- Involve stakeholders
- Calculate your TCO
- Discover and evaluate apps



## Migrate

- Select a migration strategy
- Apply the migration strategy
- Find recommended tools



## Optimize

- Analyze your costs
- Save with offers
- Reinvest to do more



## Secure and manage

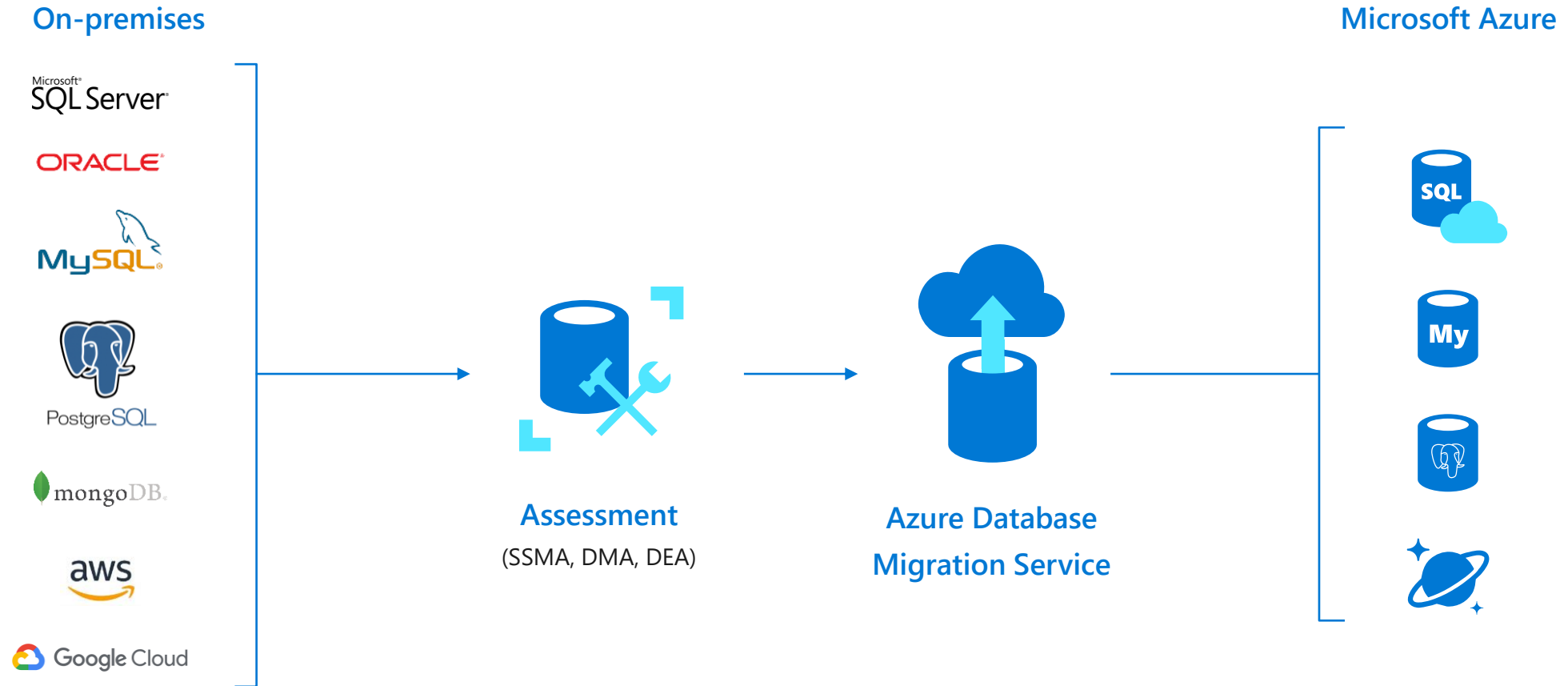
- Security
- Data protection
- Monitoring

On-premises



Azure

# Tools and services for your migration journey





# Demo



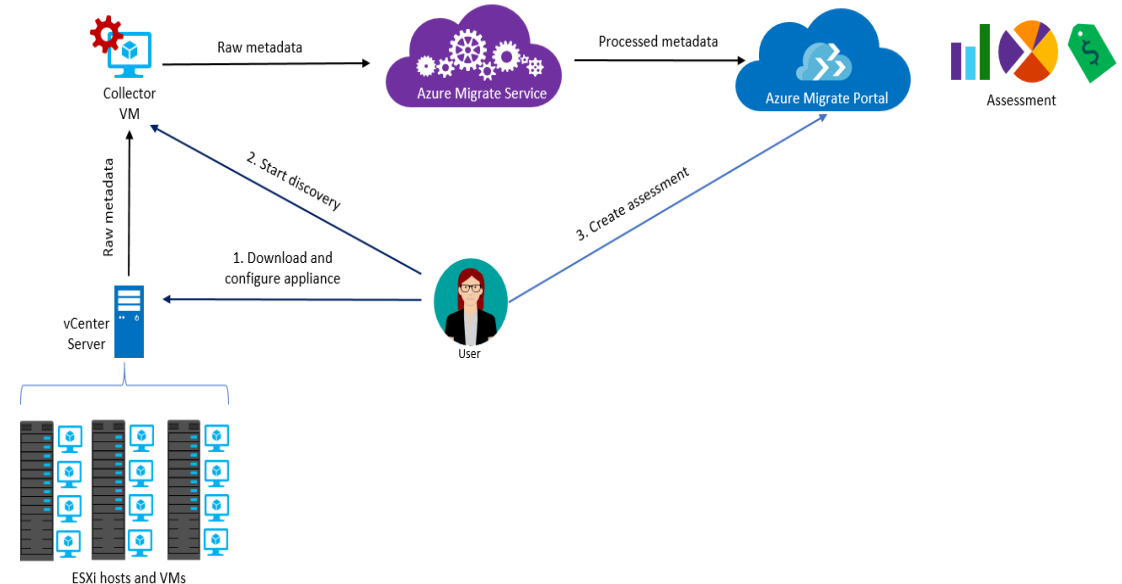
# Migration Demo - Key Takeaways

## 1. **Data Migration Assistant** helps you upgrade to a modern data platform by

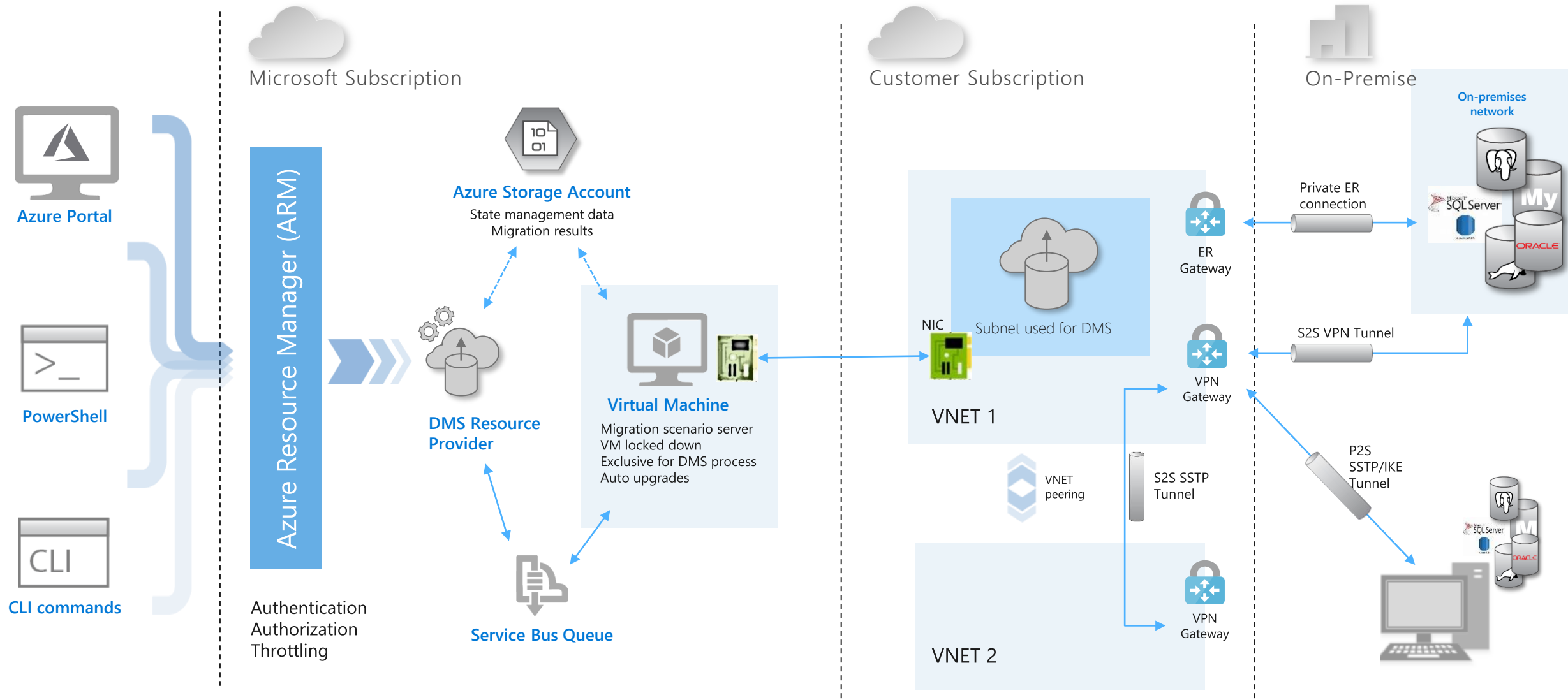
- Discovering, detecting and mitigating potential migration blockers using DMA
- Creating recommendations based on parity and compatibility issues
- Making recommendations to improve performance

## 2. **Azure Database Migration Service**

- Brings tools together to streamline the migration process
- Database validation post-migration
- Support multiple data platform technologies
- Near zero downtime



# Azure Database Migration Service



# Online migration with backup and restore technology

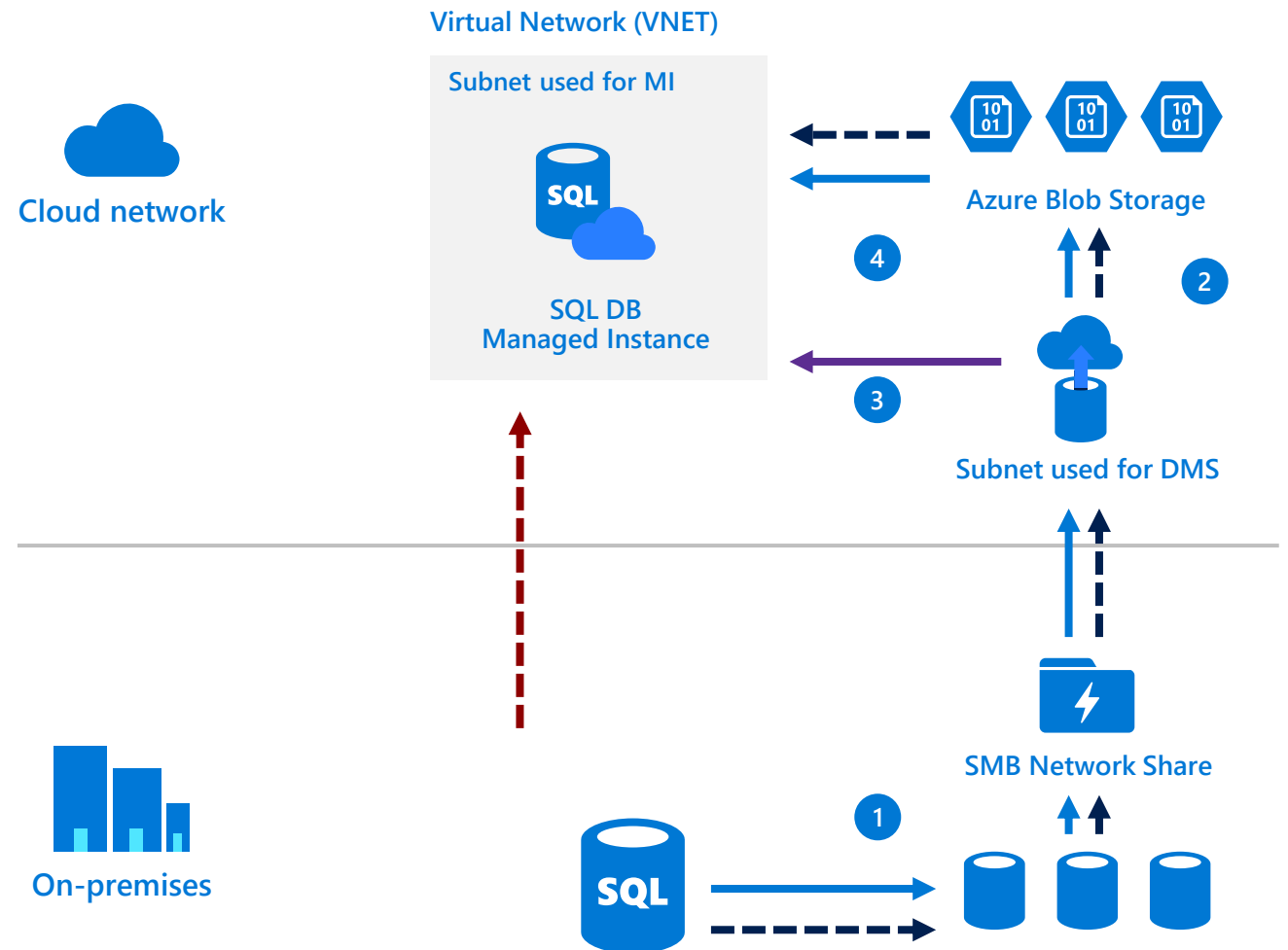
## SQL Server to Azure SQL Database Managed Instance example

- 1 Provide existing backups in network share
- 2 DMS upload backup files to Azure storage
- 3 DMS initiate the migration to Azure SQL MI
- 4 Full backup restored and Transaction log backups continuously applied until cutover

Provide Tail-Log backup, initiate cutover in DMS and change the application connection strings

### Legend

- ➡ Full Database backup files
- ➡ Transaction log backup files
- ➡ Site to site connectivity (VPN or ExpressRoute)



# Online migration using logical replication

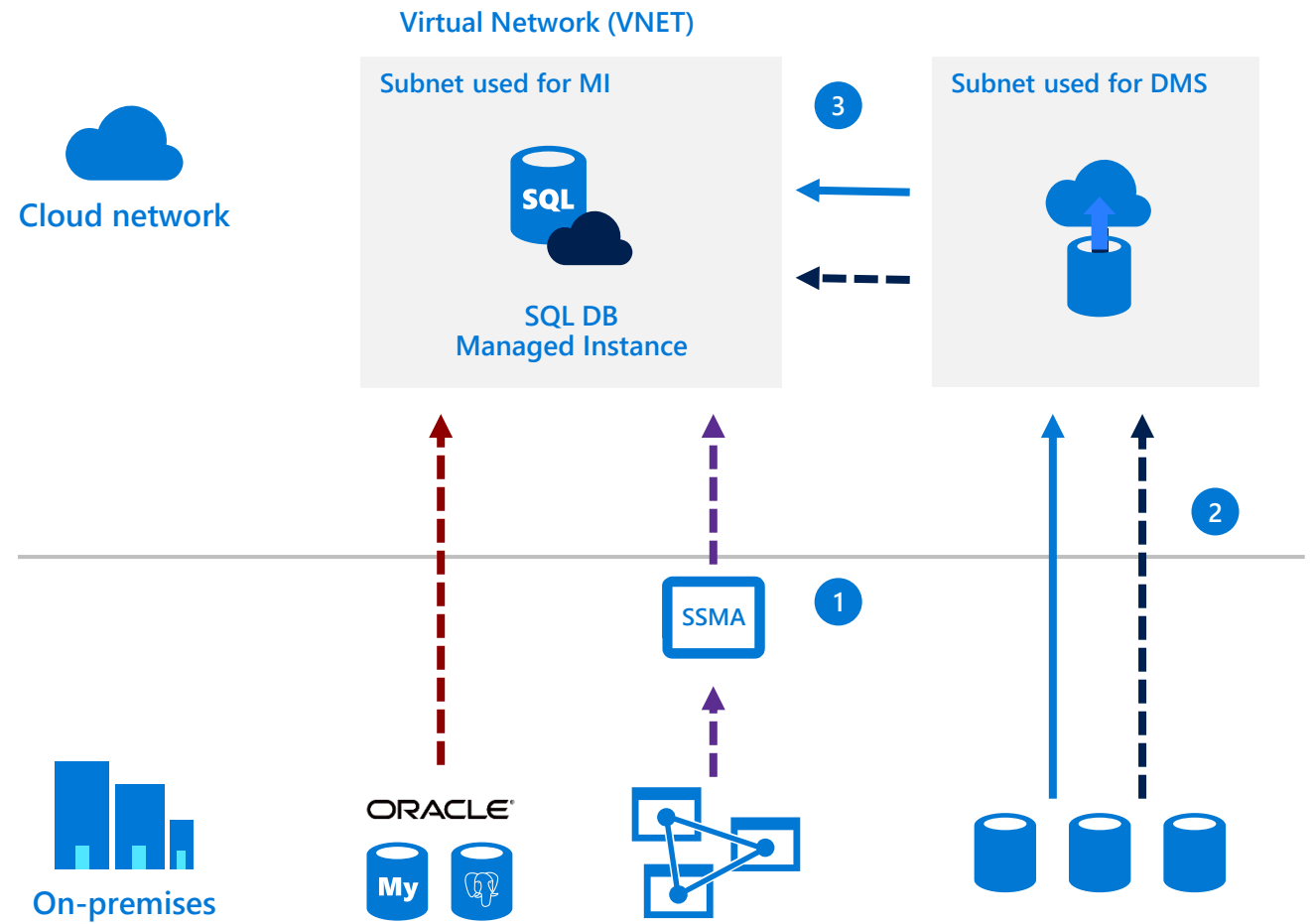
## Competitive, MySQL and PostgreSQL migration example

- 1 Convert database schema using SSMA
- 2 DMS reads existing data and tracks changes
- 3 DMS applies all data changes until cutover

Convert schema with SSMA, setup replication through DMS, initiate cutover and change the application connection strings

### Legend

- ➡ Initial data load
- ➡ Incremental data changes
- ➡ Site to site connectivity (VPN or ExpressRoute)
- ➡ Database schema objects



# Migration resources

## Azure Database Migration Service (Azure DMS)

Designed as a seamless, end-to-end solution for moving on-premises SQL Server databases to the cloud.

<https://aka.ms/AzureDms>

## Database Migration Guide

Review all your options for an upgrade from on premise SQL Server versions to Azure SQL Database.

<http://aka.ms/datamigration>

## Azure Migrate

Easily discover, assess and migrate your on-premises virtual machines to Azure.

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

## Data Migration Assistant (DMA)

Prepare your upgrade to a modern data platform by reviewing compatibility with your new SQL Server.

<https://aka.ms/dma>

## SQL Server Migration Assistant (SSMA)

Automate database migrations to SQL Server from Microsoft Access, DB2, MySQL, Oracle, and SAP ASE.

<https://aka.ms/get-ssma>

## Database Experimentation Assistant (DEA)

An A/B testing solution for changes in SQL Server environments, such as upgrades or new indexes.

<https://aka.ms/dea-tool>

## Microsoft Data Migration Blog

The official team web log for Azure Data Magnet's Database Migration Team

[https://aka.ms/dm\\_blog](https://aka.ms/dm_blog)

For More Information Check out our YouTube Channel, where you can review videos and tutorials on all our migration products. <https://aka.ms/DMyoutube>



# Feedback Please!





# Thank you!