Ready for take-off

How to get your databases into the cloud

Andre Essing
Technology Solutions Professional
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Microsoft

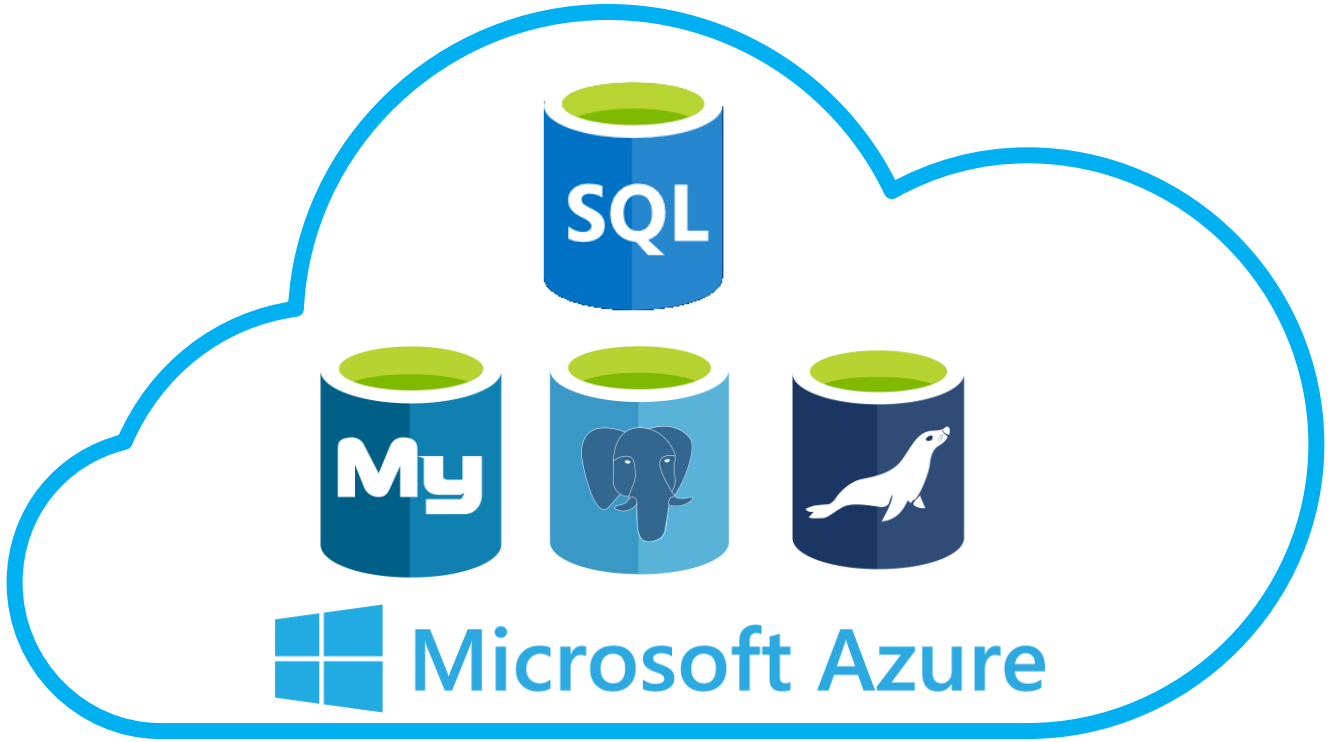
Ready for take-off

HOW TO GET YOUR DATABASES INTO THE CLOUD

Cloud: the next frontier?

Azure offers many solutions to get your databases into the cloud.

- SQL Server
- MySQL
- Maria DB
- PostgreSQL
- MongoDB
- Cassandra



Andre Essing

Technology Solutions Professional
Microsoft Deutschland GmbH

Andre advises customers in topics all around the Microsoft Data Platform. Since version 7.0, Andre gathering experience with the SQL Server product family. Today Andre concentrates on working with data in the cloud, like Modern Data Warehouse architectures, Artificial Intelligence and new scalable database systems like Azure Cosmos DB.

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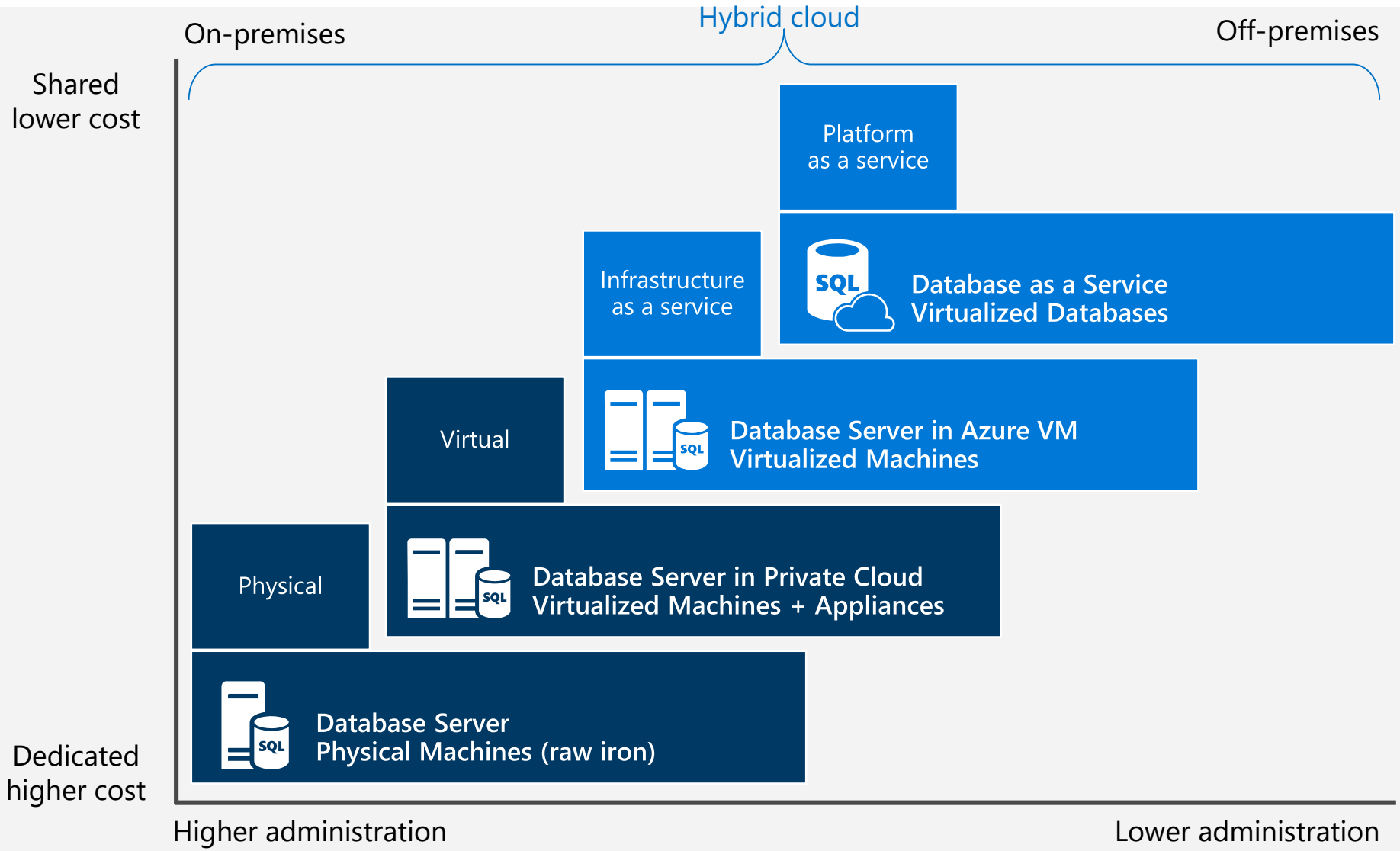
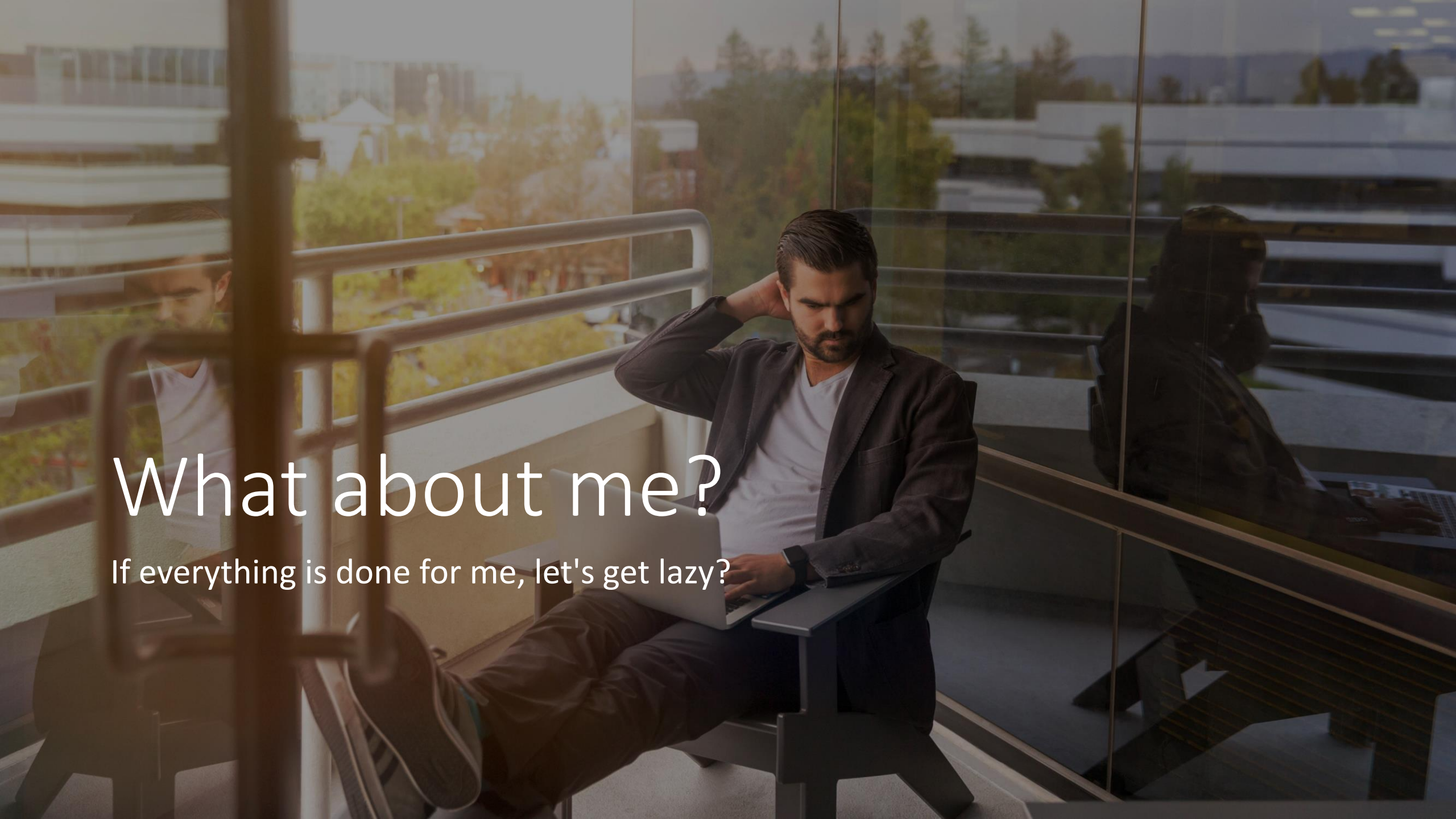
DATA PLATFORM CONTINUUM



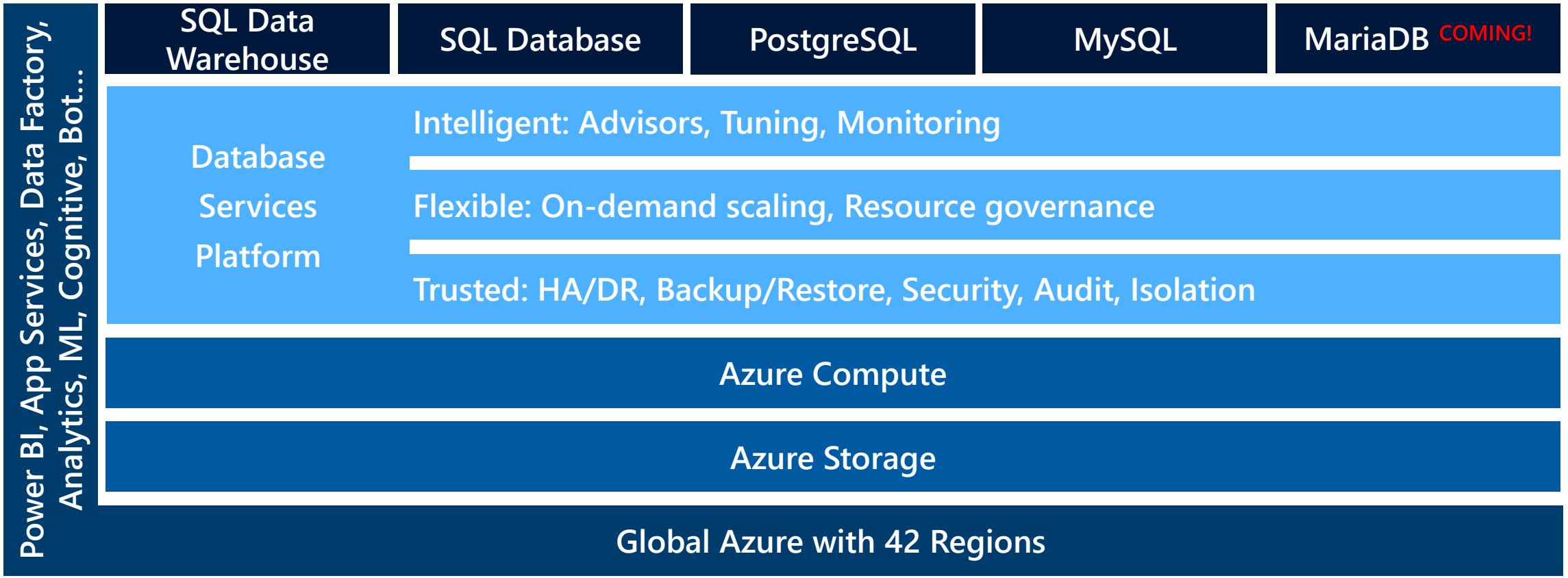
PaaS helps you focus on your business…

Your work so far	How PaaS helps?
Hardware purchasing and management	**Built-in** Scales on-demand
Protect data with backups	**Built-in** Point-In-Time-Restore
Updates and upgrades	**Built-in**
HA	**Built-in** 99.99% SLA and auto-failover
DR	**Built-in** Geo-redundancy and geo-replication
Compliance with standards on your own	**Built-in** / easy to use features
Secure your data from malicious users and mistakes	**Built-in** / easy to use features
Monitor, troubleshoot and manage at scale	**Built-in** / easy to use features
Tune and maintain for predictable performance	**Built-in**/ easy to use features


What about me?
If everything is done for me, let's get lazy?

Database Systems in Azure

AZURE RELATIONAL DATABASE PLATFORM



AZURE SQL DATABASE

THE INTELLIGENT RELATIONAL CLOUD DATABASE SERVICE

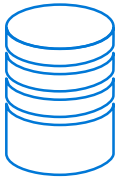
Learns & adapts

Realize automatic performance improvements from continuous assessments

Scales on the fly

Change service tiers, performance levels, and storage dynamically with minimal downtime.

Enables multi-tenant SaaS apps



Easily manage and monitor multitenant apps, and benefit from database isolation

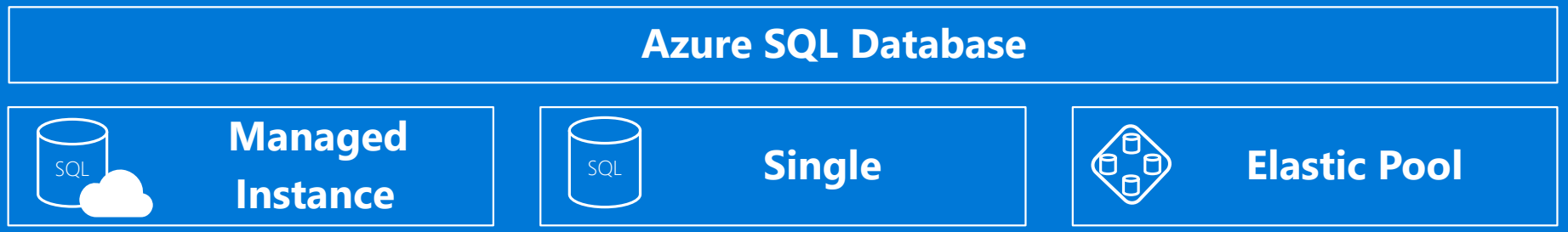
Works in your environment

Develop your app and connect to SQL Database with the tools and platforms you prefer

Secures & protects

Build security-enhanced, highly compliant apps with built-in protection and intelligent Threat Detection

INTRODUCING AZURE SQL DATABASE MANAGED INSTANCE



Instance-scoped programming model with high compatibility to SQL Server

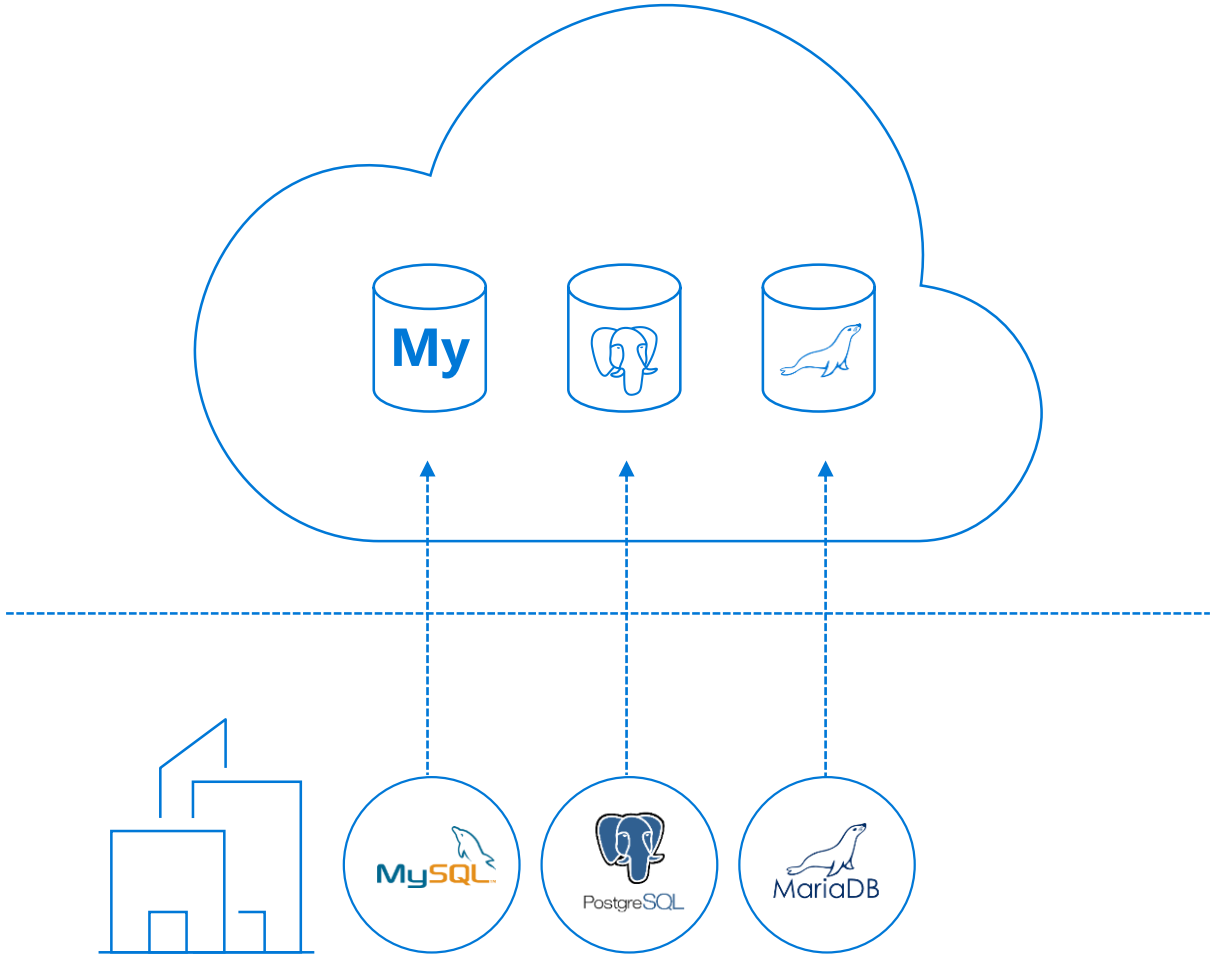
Standalone managed database for predictable and stable workloads

Shared resource model for greater efficiency through multi-tenancy

MANAGED COMMUNITY MYSQL, POSTGRESQL, AND MARIADB

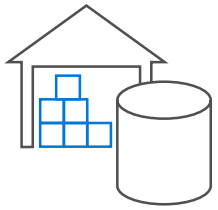
Focus on your apps by leaving the management and patching of your infrastructure and database to an enterprise-ready cloud service

- Automatic updates
- Automatic security fixes
- Automatic new feature updates



AZURE SQL DATA WAREHOUSE

The Fast, Familiar and Flexible data warehouse in the Cloud



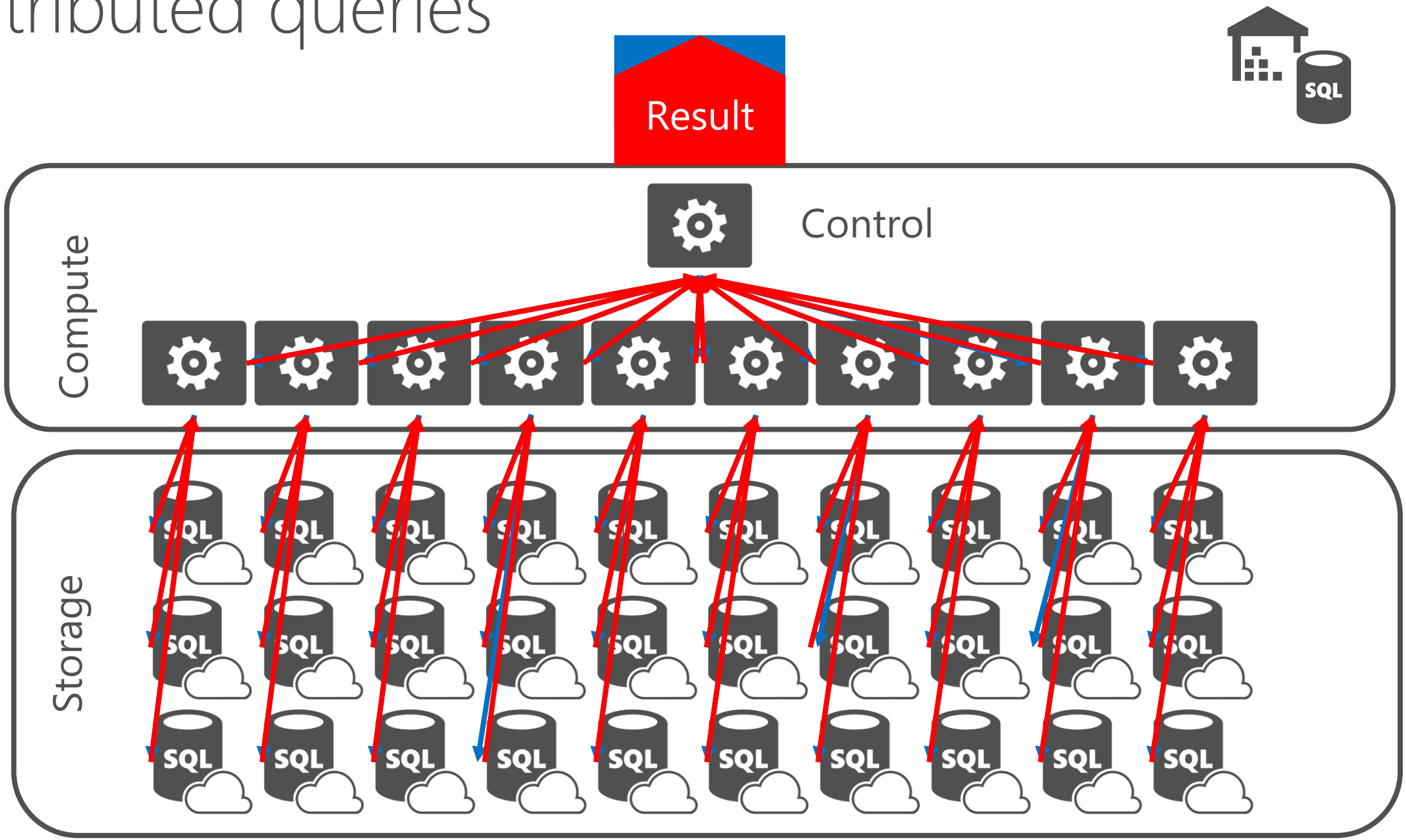
Flexible
Fit your Needs

Trusted
Secure. Compliant. Reliable.

Performant
Unlimited Scale

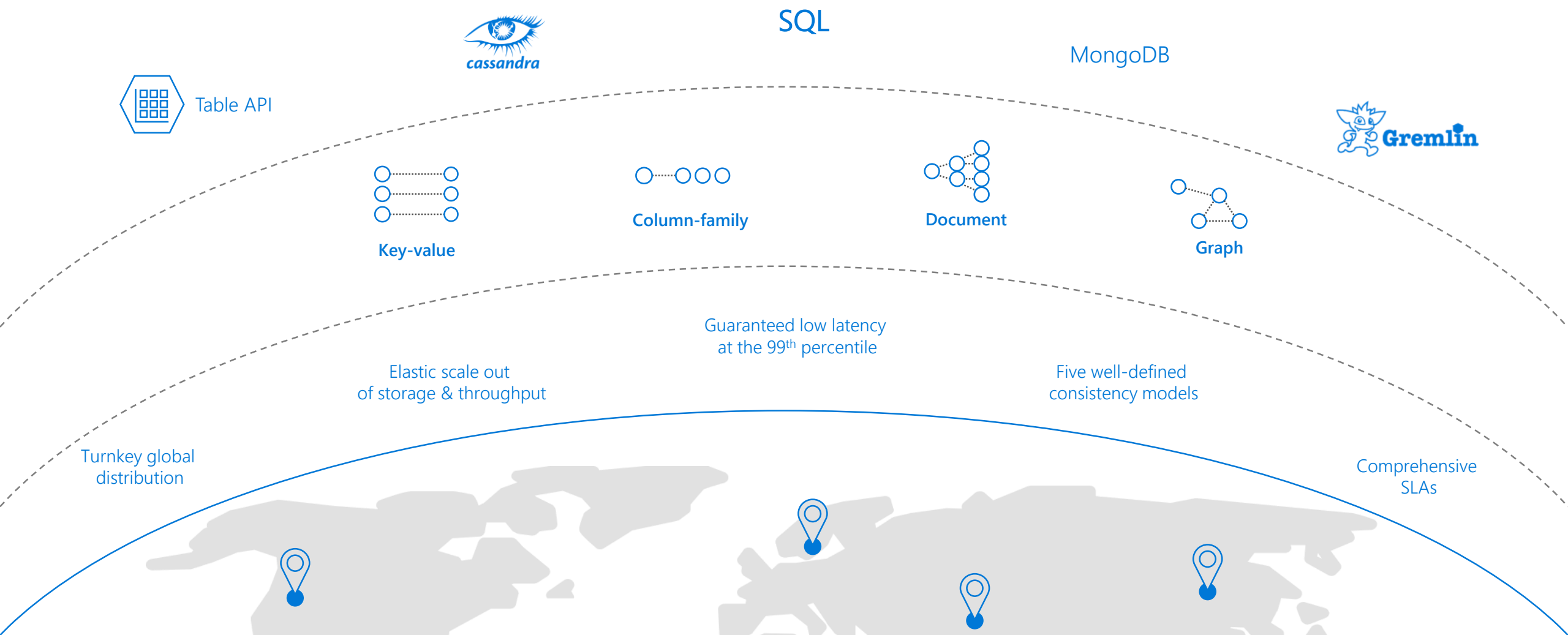
Seamlessly compatible with
Microsoft & 3rd party services

Distributed queries



AZURE COSMOS DB

A globally distributed, massively scalable, multi-model database service

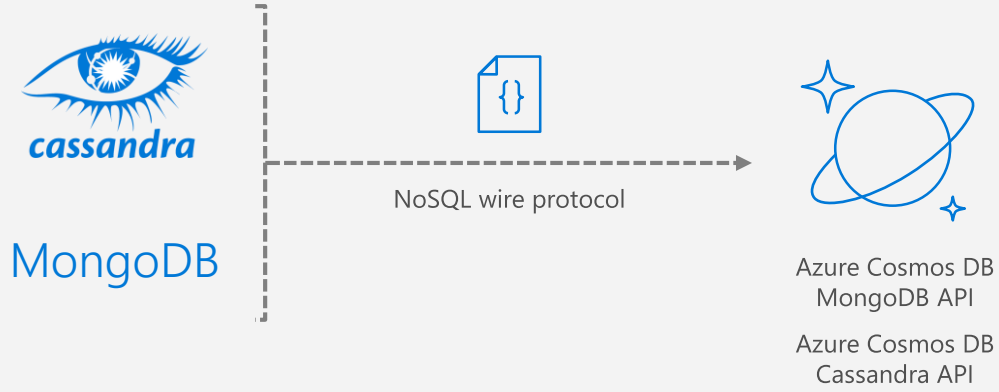


Get your data into Azure

EASY TO LIFT AND SHIFT NOSQL APPS TO AZURE COSMOS DB

Make data modernization easy with seamless lift and shift migration of NoSQL workloads to the cloud.

- Azure Cosmos DB MongoDB API and Cassandra API bring app data from existing MongoDB and Cassandra deployments
- Leverage existing tools, drivers, and libraries, and continue using existing apps' current SDKs
- Turnkey geo-replication
- No infrastructure or VM management required



MIGRATION METHODS OSS DATABASES

1. MySQL dump and PG dump

   Native commands, no additional
2. Migration wizard

   Native or 3rd party tools

- Native way, no additional setup
- Use when application can tolerate downtime

3. Replication

   Attunity, near-zero down time migration

- Third party solution, needs setup
- Use when application ***cannot*** tolerate downtime

4. Azure Database Migration Service (Preview)

- Fully-orchestrated migration service
- Public Preview starting in the first-half of 2018
- Sign up here

MIGRATION RESOURCES FOR FAST DEPLOYMENTS

ACCELERATE YOUR JOURNEY TO THE CLOUD

SQL Server Migration Assistant (SSMA)
Automates database migration to SQL Server from Microsoft Access, DB2, MySQL, Oracle, and SAP ASE.

Data Migration Assistant (DMA)
Enables upgrade SQL Server and Azure SQL Database.

Azure Database Migration Service (preview)
A seamless, end-to-end solution for moving on-premises SQL Server, Oracle, and other relational databases to the cloud.

Works in your environment

AZURE DATABASE MIGRATION SERVICE

Accelerate your journey to the cloud

Azure Database Migration Service (Azure DMS)

A seamless, end-to-end solution for moving on-premises SQL Server, Oracle, and other relational databases to the cloud.

Pricing for DMS

Basic: small-to-medium size data migration

General Purpose: large size data migration

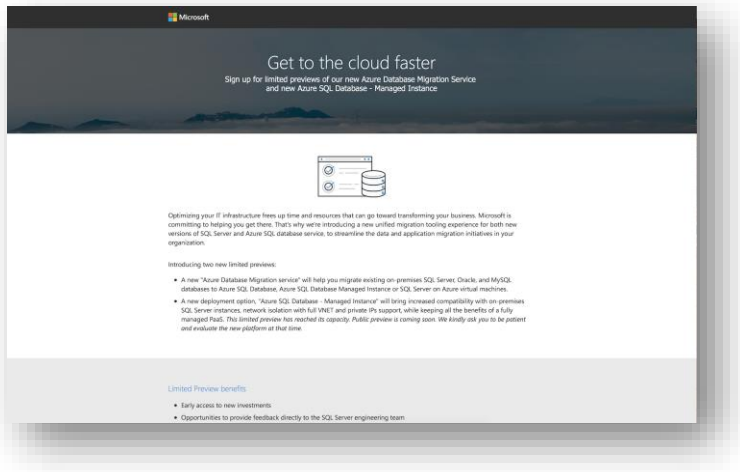
Azure Database Migration Service Pricing

VCORE(s)	Basic preview price*	General Purpose preview price*
1	Free	N/A
2	Free	N/A
4	N/A	Free

*Limited-time promotion. Try the service for free from now until January 31, 2018. Free preview is only applicable for SQL Server to Azure SQL Database migrations.

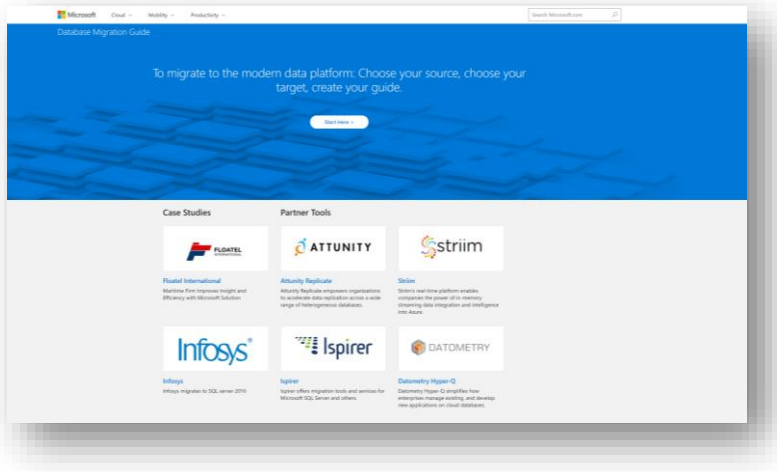
START YOUR MODERN DATA ESTATE JOURNEY TODAY

1 **Discover**
Request a private preview.



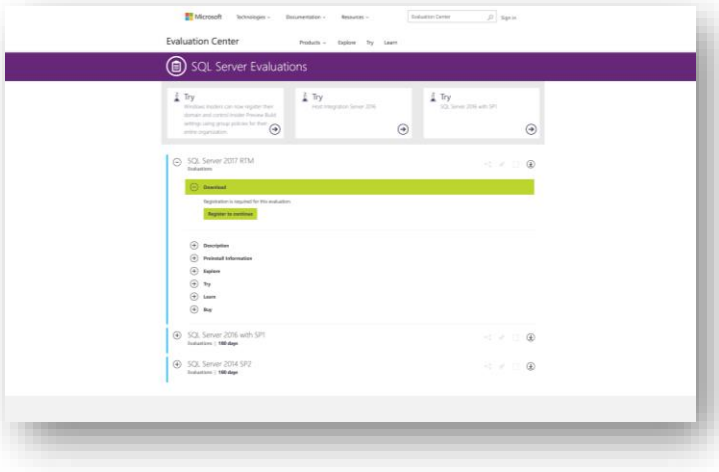
Experience the benefits of Azure DMS. Learn more here.

2 **Migrate**
Identify apps and workloads for migration.



Use the Database Migration Guide for Technical and Business guidance.

3 **Optimize**
Use trial software for planning.



Evaluate SQL Server 2017 and Azure Data Services.

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