



Optimize Your Azure Architecture



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Cloud Valley

Who is Cloud Valley?



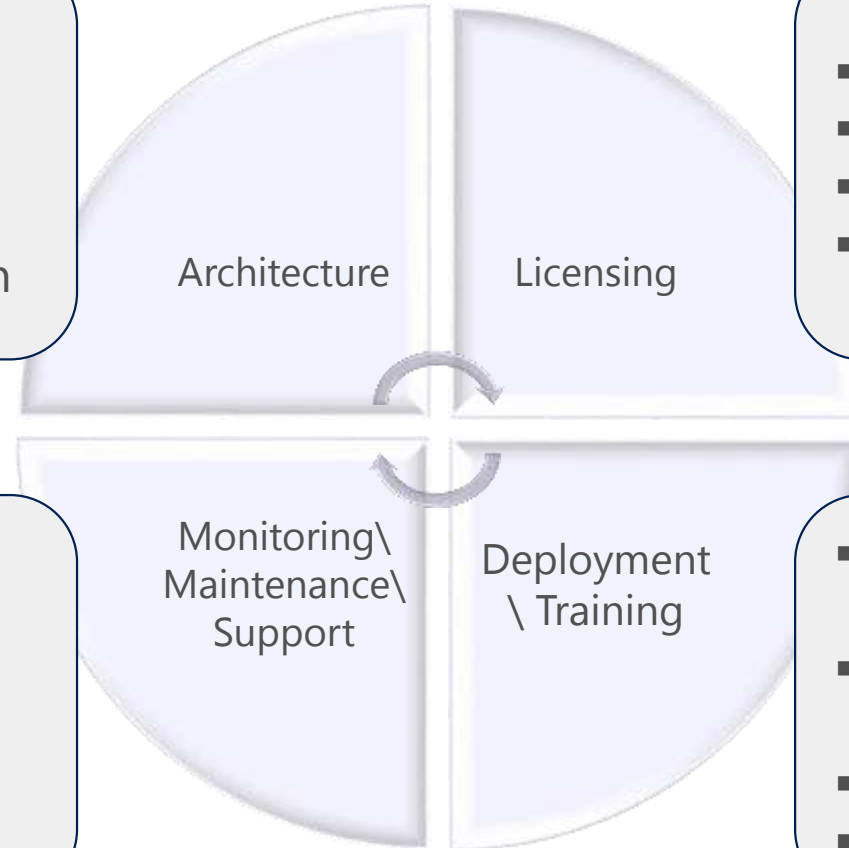
About Cloud Valley



C l o u d V a l l e y

- Low level design document
- Best practices for every workload
- Monthly updates
- Capacity Planning
- Architecture Review \ Redesign
- Flexible R&D Services

- Technical Management
- 24/7 Support Center
- Automated Services



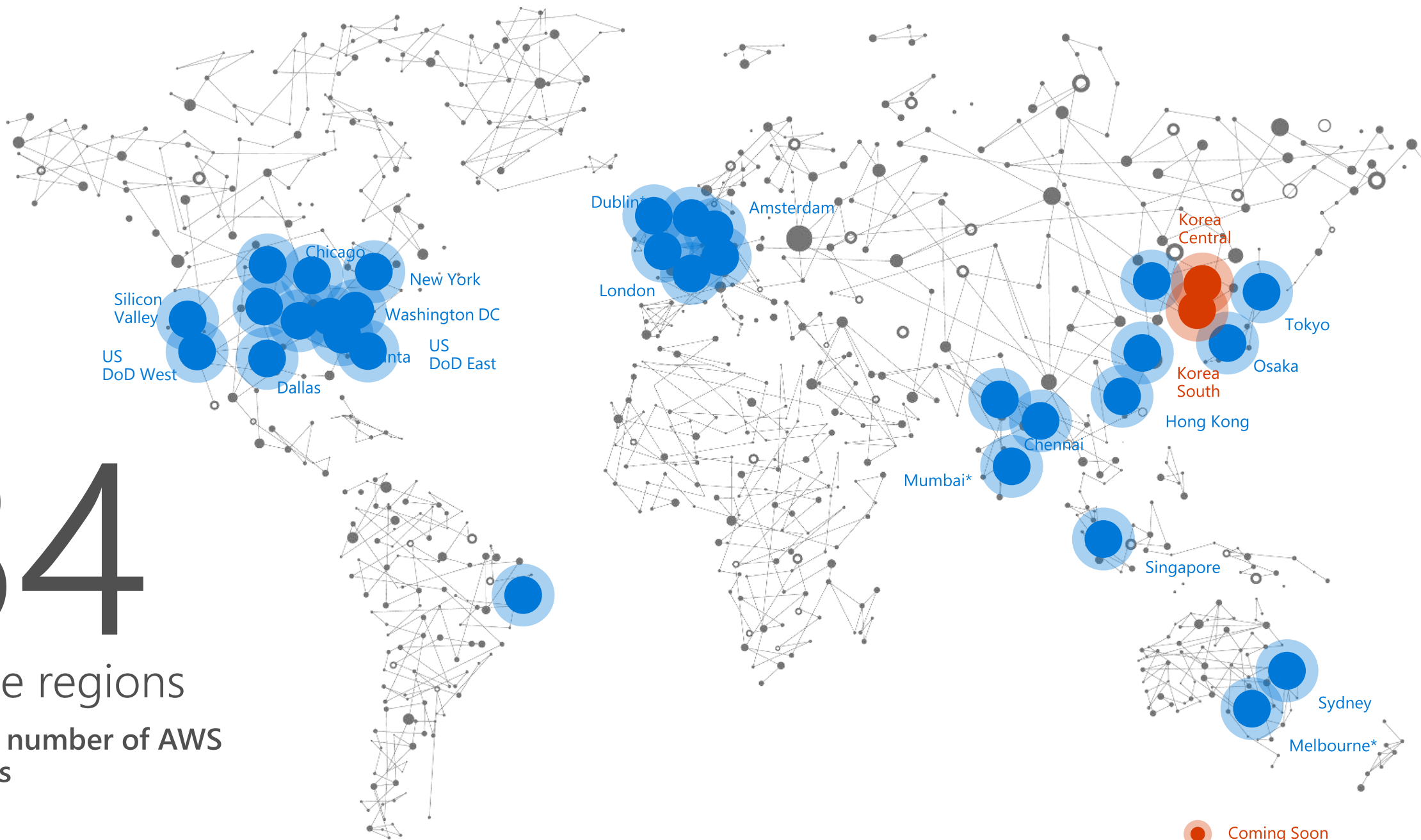
- Cost Estimations
- Monthly Cost Review
- Special Offerings
- Cost Optimization

- Hands-On Implementation and configuration
- Migration (On Premise, Cloud, Hosting)
- Workshops
- Labs

34

Azure regions

2X the number of AWS regions

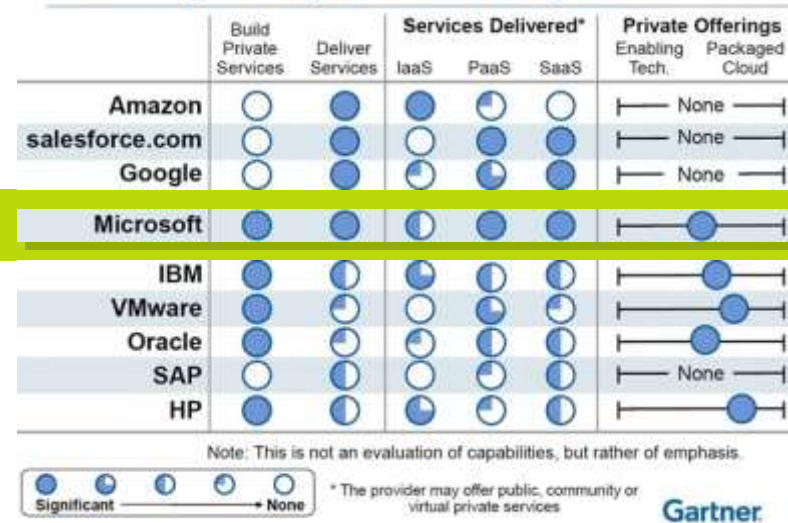


Azure regions in Europe



Industry validation

Summary of Major Vendor Emphasis

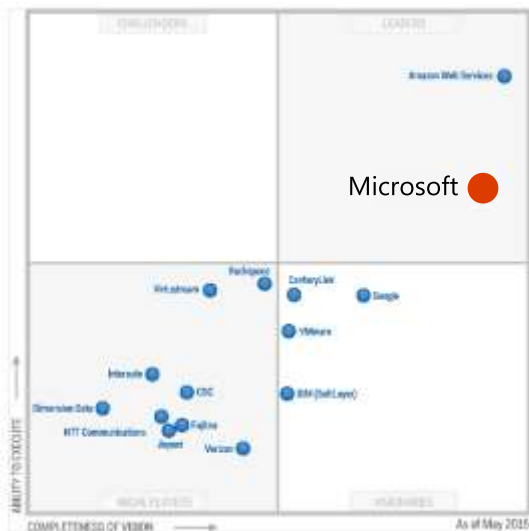


"Microsoft's comprehensive hybrid story, which spans applications and platforms as well as infrastructure, is highly attractive to many companies, drawing them towards the cloud in general."

LYDIA LEONG,
GARTNER

Microsoft a Leader in Gartner Magic Quadrants

Public Cloud IaaS (May 2015)



Cloud Storage (June 2015)



Enterprise Application PaaS (Jan 2014)



X86 Server Virtualization (July 2014)



Azure Compliance

Azure has the largest compliance portfolio in the industry

Industry



ISO 27001



SOC 1 Type 2



SOC 2 Type 2



PCI DSS Level 1



Cloud Controls
Matrix



ISO 27018



Content Delivery and
Security Association



Shared
Assessments

United States



FedRAMP
JAB P-ATO



HIPAA /
HITECH



FIPS 140-2



21 CFR
Part 11



FERPA



DISA Level 2



CJIS



IRS 1075



ITAR-ready



Section
508 VPAT

Regional



European Union
Model Clauses



CS Mark (Gold)



United
Kingdom
G-Cloud



China Multi
Layer Protection
Scheme



China
GB 18030



China
CCCPF



Singapore
MTCS Level 3



Australian
Signals
Directorate



New
Zealand
GCIO



Japan
Financial
Services



ENISA
IAF

Know your Azure Portal

היכרות עם שירותי Azure השונים והתמצאות בפורטל.



Cloud Valley

Selecting the right identity

Azure uses both Microsoft identity services

Two services:

- Azure Active Directory (AAD) system

- Microsoft Account (MSA) system

Two types of accounts:



- Work or school account (AAD)



- Microsoft account (MSA)

The impact:

Two different accounts can exist with the same username

- Different passwords

- Different access

Signup defaults to use MSA

It looks like admin@steelestavern.org is used with more than one account. Which account do you want to use?



Work or school account

Assigned by your work or school



Microsoft account

Personal account

Cancel

Subscription Management

AAD is used for organizational identity management

Directory admins can apply identity, authentication and authorization policies for apps

Azure is modeled as an app that belongs to the directory

The directory has different roles than the subscription

Applied to Azure subscriptions:

Every Azure subscription belongs to a directory (n:1)

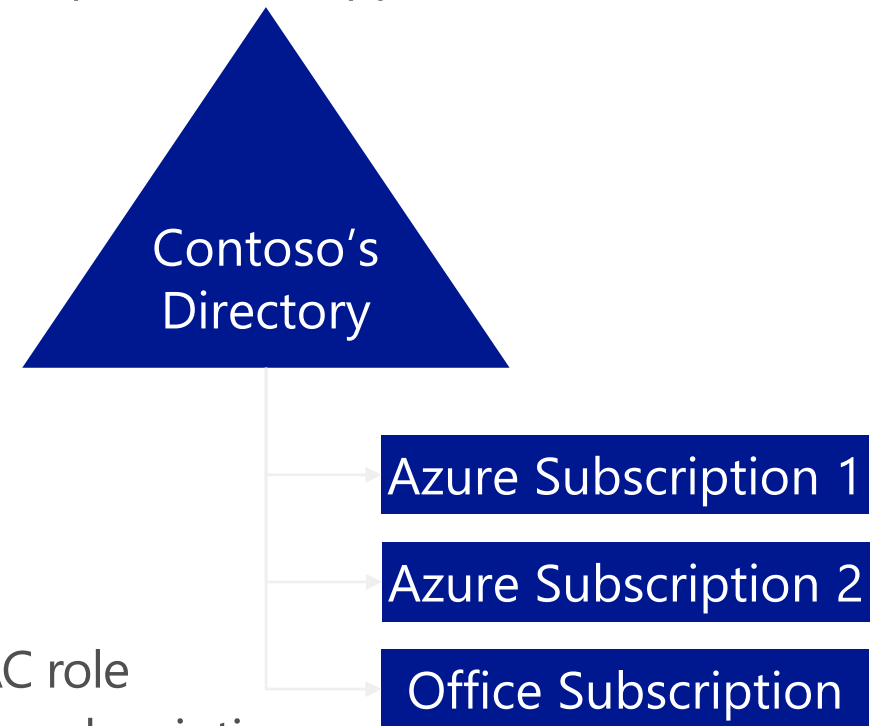
Even if you sign up with an MSA, you get a directory

A subscription's directory:

Limits the work accounts that may be added as a co-admin or RBAC role

Contains policies that impact authentication & authorization for the subscription

Directory global admins of the directory have the ability to access subscription



Know Your Azure Portal - Demo

- Subscriptions
- Resource Group
- ASM vs ASR
- RBAC

Basic Billing & Subscription Management

הבנת החשבון החודשי והכלים שיש לנו על מנת לעקוב אחרי ההוצאות שלנו דרך הפורטל.



Cloud Valley

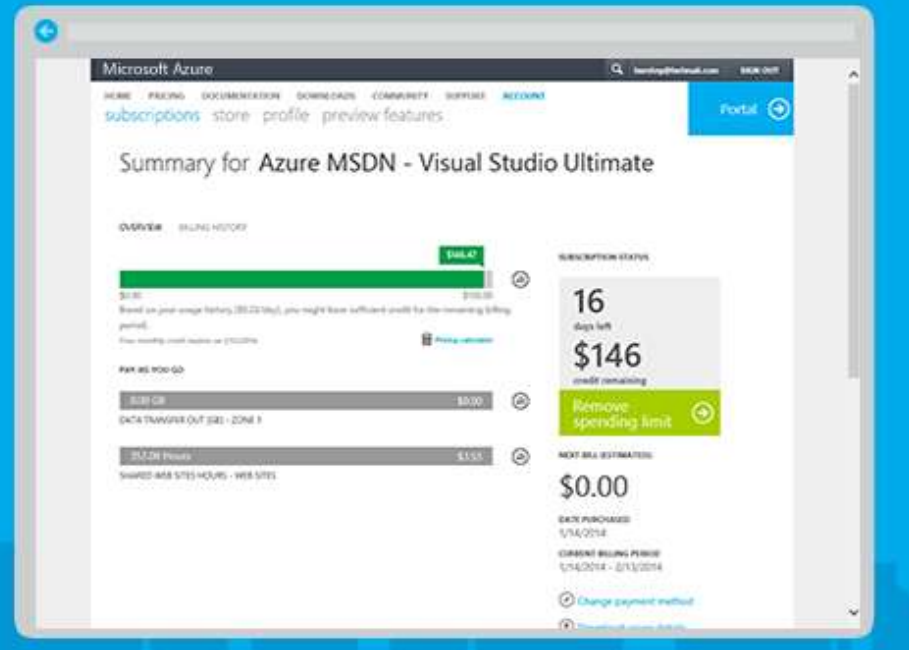
Where to go?

For all usage and billing activities, use the accounts portal:

For resource management, use the management portal or preview portal:

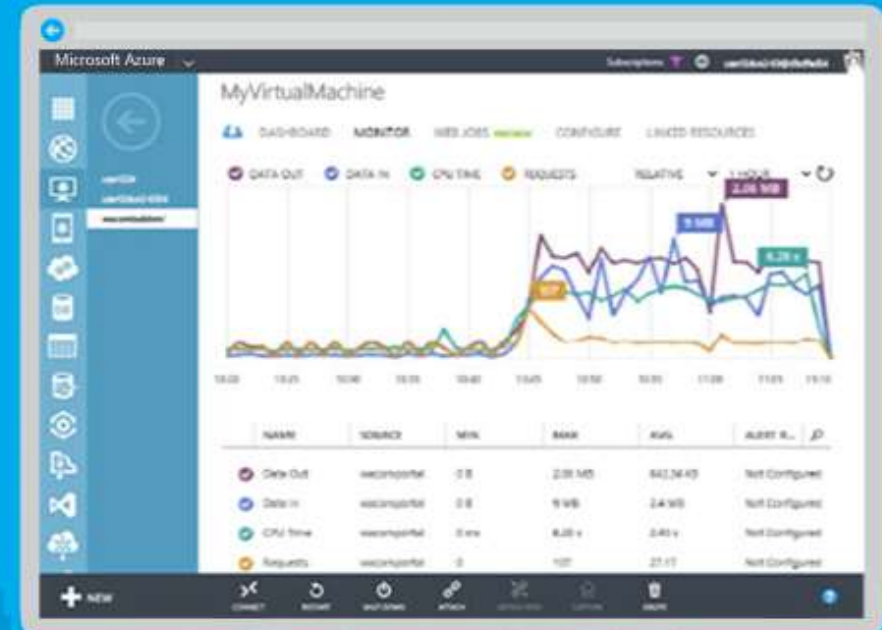
Usage and billing

Track your Azure usage and view your bill



Management portal

Configure and use Azure services




Billing Invoice



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Overview of the Azure Invoice

 Windows Azure

Customer PO No.

Invoice No.

Billing Cycle8/8/2014 to 9/8/2014

Invoice Date9/22/2014

Payment MethodInvoice

Bill to

United States

Attn:

Pay-As-You-Go

Account Owner Email

Subscription

| | |
|---|---------|
| Previous balance | 773.39 |
| Payments | 0.00 |
| Outstanding balance (from previous billing cycle) | -102.49 |

| | |
|------------------------------|---------|
| Current Charges | |
| Usage charges | 148.80 |
| Discounts | -55.20 |
| Adjustments | -875.88 |
| Total Pre-Tax Charges | 93.60 |
| Taxes | 8.89 |

Total Amount

0.00USD

*Payment instructions on page 2

Understanding the detailed usage CSV file



Cloud Valley

From Servers to Services

משרתים לשירותים – איך מעבר מ- IaaS ל- PaaS מגדיל את היעילות התפעולית.



Cloud Valley

Platform Services

Security & Management

- Portal
- Security Center
- Active Directory
- Multi-Factor Authentication
- Automation
- Key Vault
- Store / Marketplace
- VM Image Gallery & VM Depot

Compute

- Cloud Services
- Service Fabric
- Batch
- Remote App

Web and Mobile

- Web Apps
- API Apps
- API Management
- Mobile Apps
- Logic Apps
- Notification Hubs

Developer Services

- Visual Studio
- Azure SDK
- Team Project
- Application Insights

Hybrid Operations

- Azure AD Connect Health
- AD Privileged Identity Management
- Backup
- Operational Insights
- Import/Export
- Site Recovery
- StorSimple

Integration

- Storage Queues
- Biztalk Services
- Hybrid Connections
- Service Bus

Analytics & IoT

- HDInsight
- Machine Learning
- Data Factory
- Event Hubs
- Stream Analytics
- Mobile Engagement

Data

- SQL Database
- SQL Data Warehouse
- Redis Cache
- Search
- DocumentDB
- Tables

Media & CDN

- Media Services
- Content Delivery Network (CDN)

Infrastructure Services

Compute

- Virtual Machines
- Containers

Storage

- BLOB Storage
- Azure Files
- Premium Storage

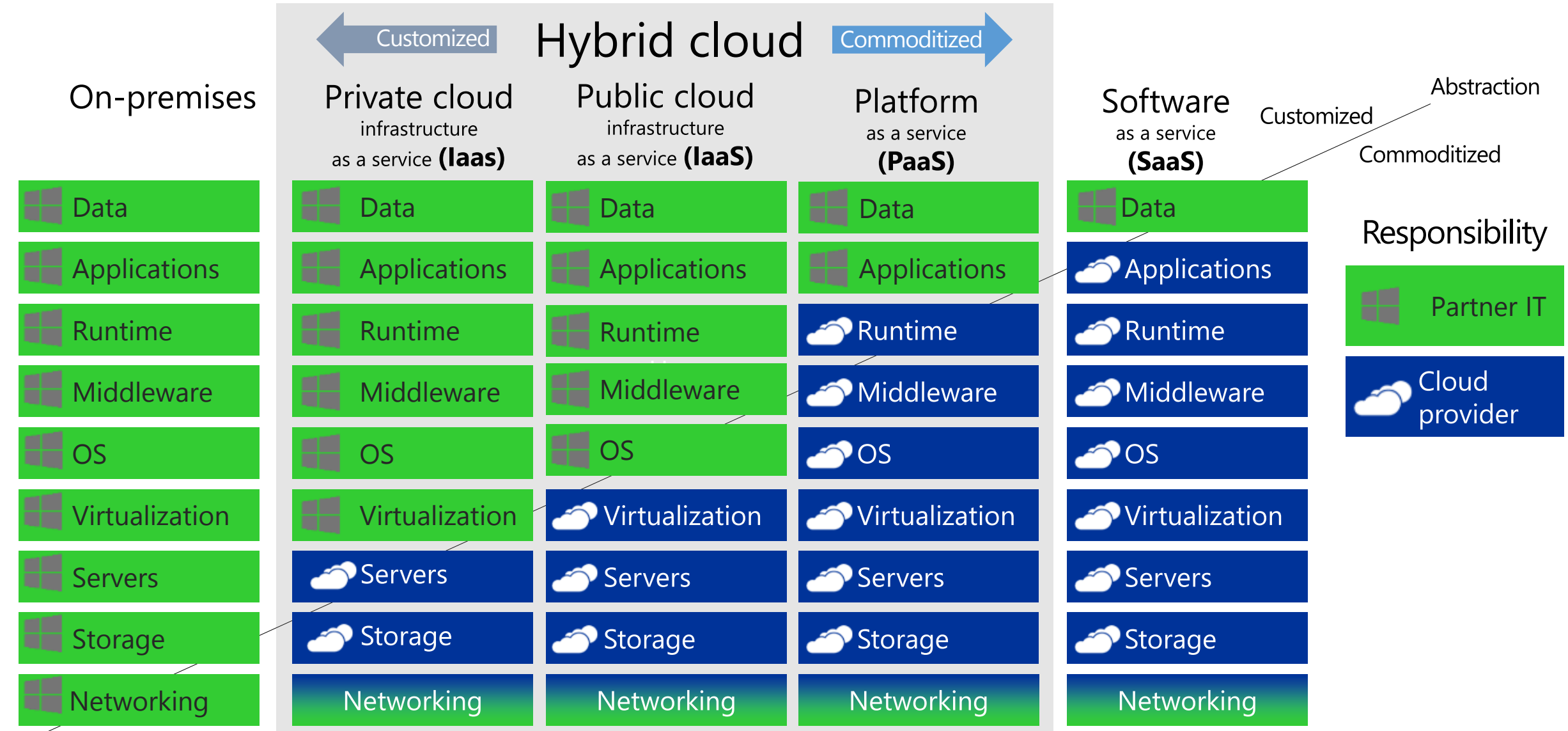
Networking

- Virtual Network
- Load Balancer
- DNS
- Express Route
- Traffic Manager
- VPN Gateway
- Application Gateway

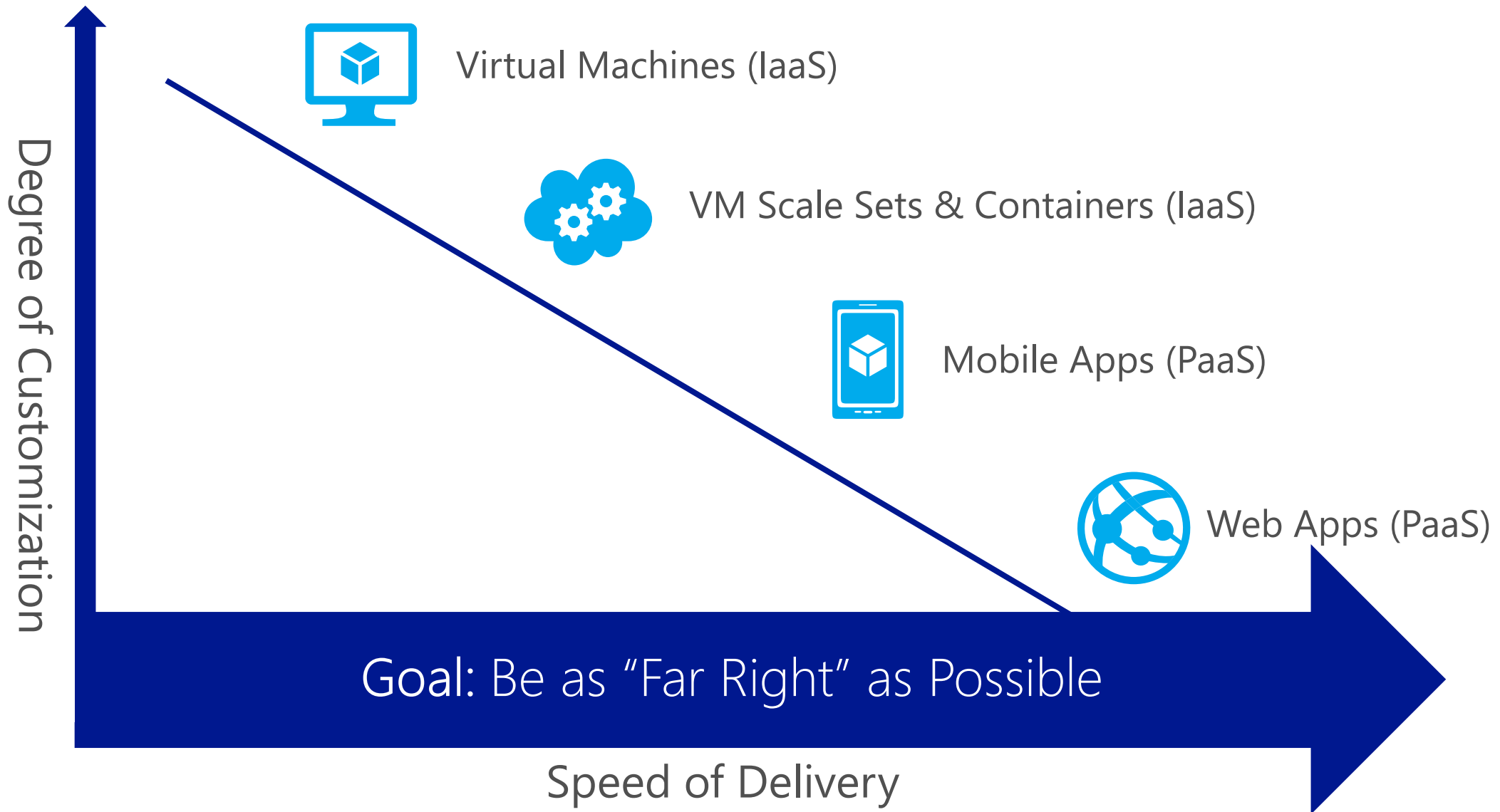
Datacenter Infrastructure (24 Regions, 19 Online)



Moving up the stack



Azure Compute Choices



IAAS

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What we learn from more than 150 azure deployments

מה למדנו מיותר מ-150 הטמעות של Azure בארגונים גדולים וסטארטאפים.



Cloud Valley

Cloud Valley – what we've learned

- ARM is the default
- Azure CPP - Compute Pre-Purchase plan
- Manage your azure spending – Power BI
- Semi annually architecture verification
- Azure families – F as an example
- Don't throw away your local investments
- It's never too late for optimization
- How we work with our customers

High Availability from the Cost perspective Azure SQL Example

כולם מדברים על זמינות, אף אחד לא מדבר על כסף.

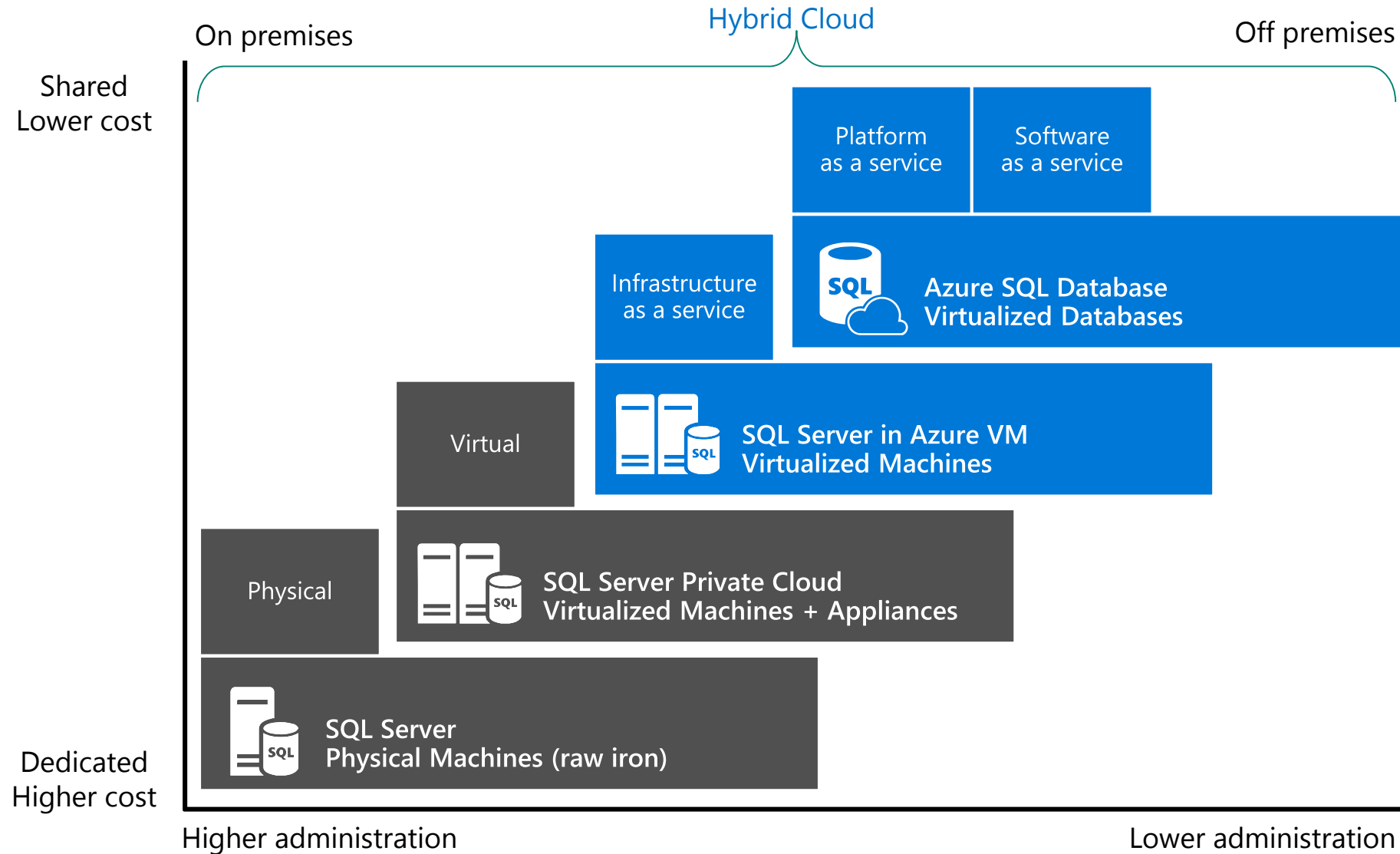


Cloud Valley

Azure SQL Database vs SQL Server on VMs

| | SQL Server in a VM | Azure SQL Database |
|--------------|---|--|
| BEST FOR... | Existing applications that requires full box product functionality. | Applications that need elastic scale and/or reduced overhead. |
| RESOURCES | Customer has ecosystem of IT resources for support and maintenance. | Customer does not want to add additional IT resources for support and maintenance. |
| TCO BENEFITS | Removing CAPEX. | Avoiding CAPEX and OPEX. |
| SCALABILITY | Scale up to 20,000 IOPS. | Scale out to thousands of DBs, process TBs of OLTP data. |

Data platform continuum



What shell we use

- IaaS Cost for HA:
 - 2 x VM
 - Premium Storage for high IOPS.
 - 2 x SQL Server Enterprise Licence
- PaaS Cost
 - Per DB from \$5 (5 DTU) to \$16K (4000 DTU)
 - Per Elastic Set of DB
- Flexible scenario that combine the two
- Select the right solution for this time – let the price decide
 - Start with single DB
 - See if you can move to elastic to get better solution
 - In some point consider going back to IaaS Solution to save money
 - Don't forget that in IaaS we are responsible for HA, Backup and SLA

Evolution of SQL Database over the past year

| | |
|-------------|---|
| SLA | Increased from 99.9% to 99.99% uptime SLA |
| Performance | Service design enables scale up and out of resources, delivering predictable throughput and performance regardless of demands |
| Protection | Point-in-time-restore, geo-restore, and standard and active geo-replication protect against human and environmental-initiated events |
| Compliance | Azure certifications: ISO, HIPAA BAA, EU Model Clause Auditing on SQL Database |
| Flexibility | Hourly billing and broad set of price points |



Thank You!



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