

Microsoft Azure Stack: Azure für Ihr Datacenter



Carsten
Rachfahl

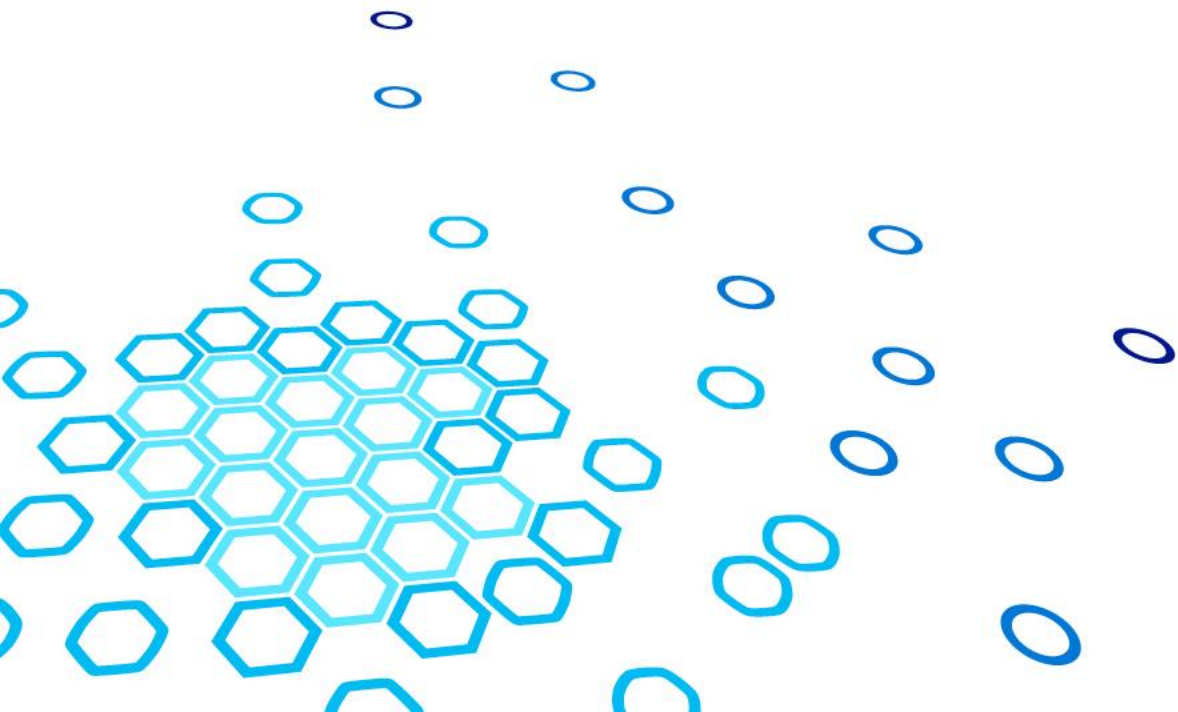
Microsoft Cloud & Datacenter
Management MVP und
Microsoft Regional Director

Technical Summit 2016

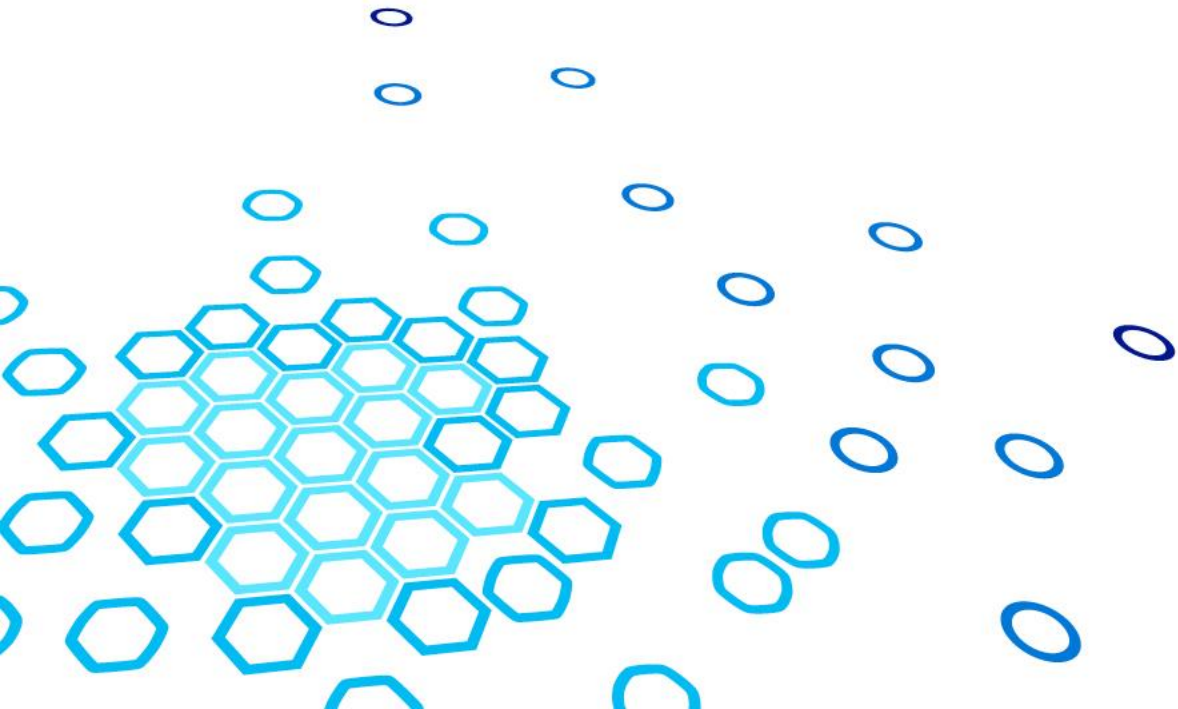
connecting.technologies.

#msts2016 

Was ist Microsoft Azure Stack?



Microsoft Azure



Ein Video sagt mehr als tausend Worte



Ein paar Azure Zahlen

- Millionen von Servern



34 Regionen mit über 100 Rechenzentren

34

34 Azure regions today

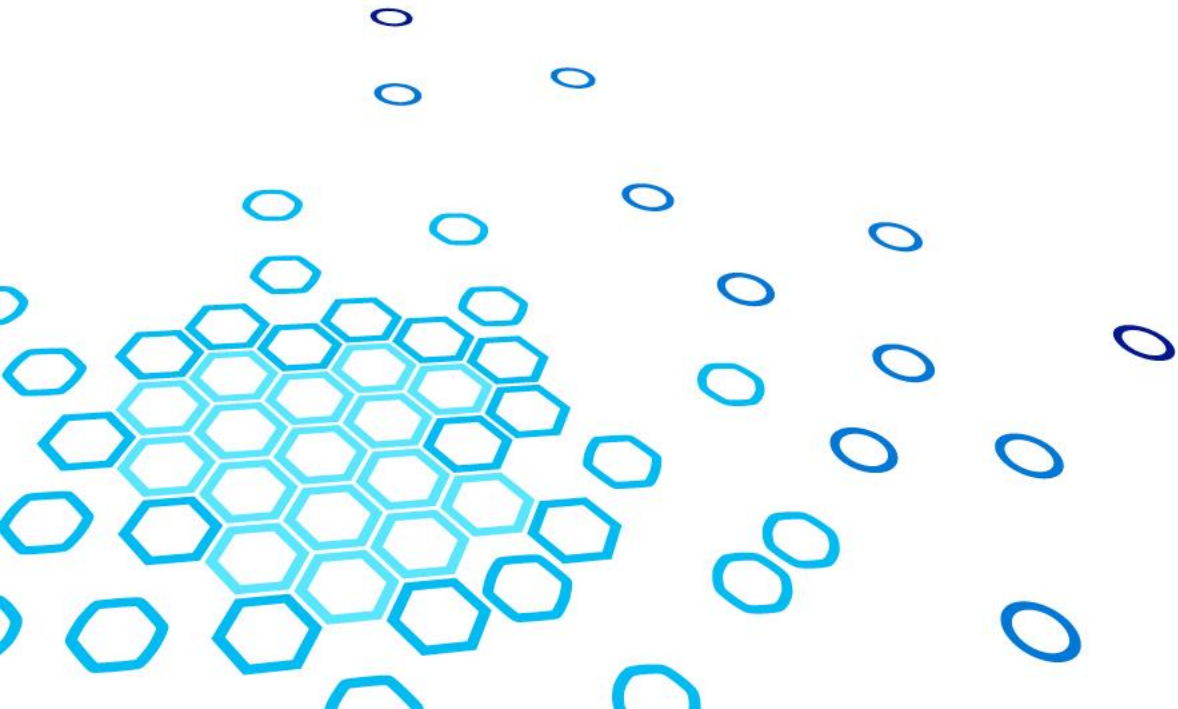
More than AWS & Google combined

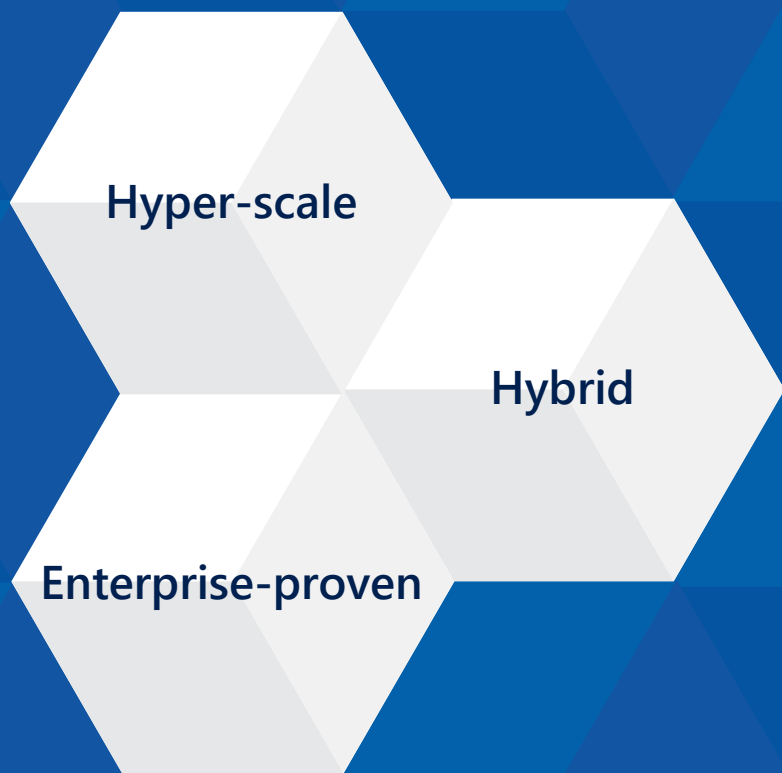
Ein paar Azure Zahlen

Microsoft's Investment in Datacenter bisher

\$15.000.000.000

One Consistent Cloud





Azure

Hyper-scale

Azure Stack

Enterprise-proven

Power of Azure in your datacenter

Microsoft Azure Stack is a new hybrid cloud platform product that enables organizations to deliver Azure services from their own datacenter thereby helping them achieve more.






Azure Stack



**Azure in your
Datacenter**



Choose an
ecosystem, not
a cloud



34

Azure regions today
More than AWS & Google combined



100s of service
providers



1,000s of
enterprises

Durable Hybrid Scenarios



Performance



Latency



Data
sovereignty



Security

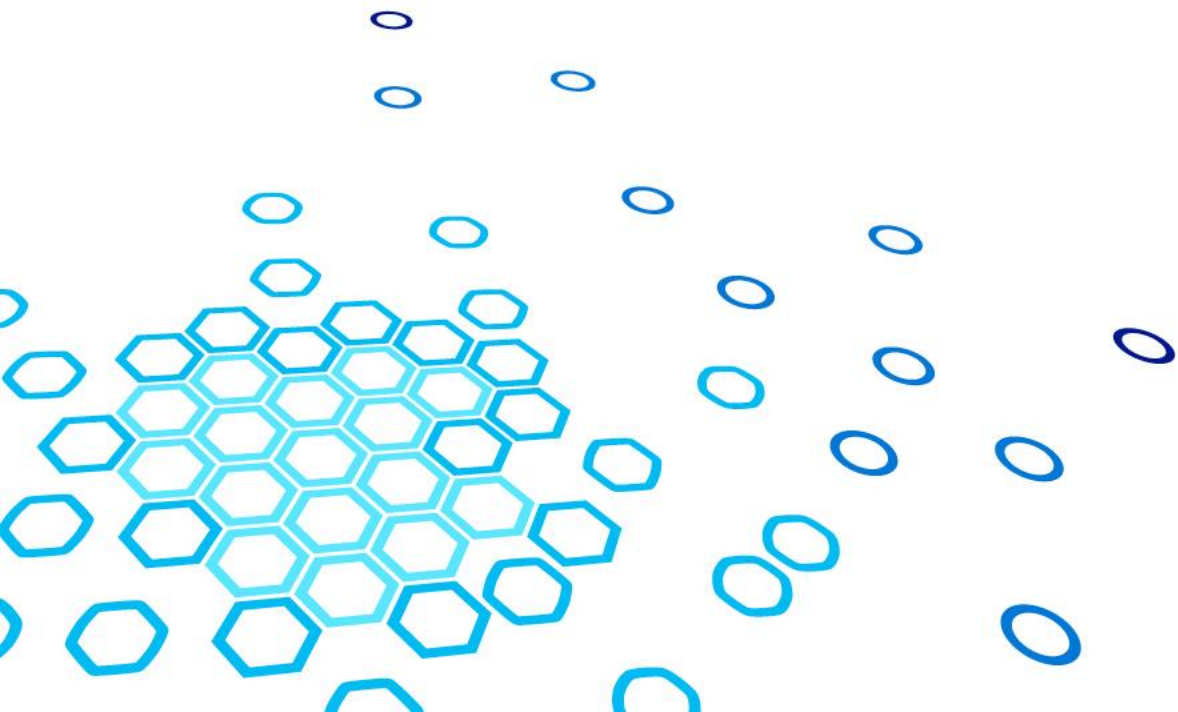
ISO<..>

Regulations



Disconnected

Wie passt da jetzt AzureStack rein?



Cloud Model

End user experiences

Cloud application model

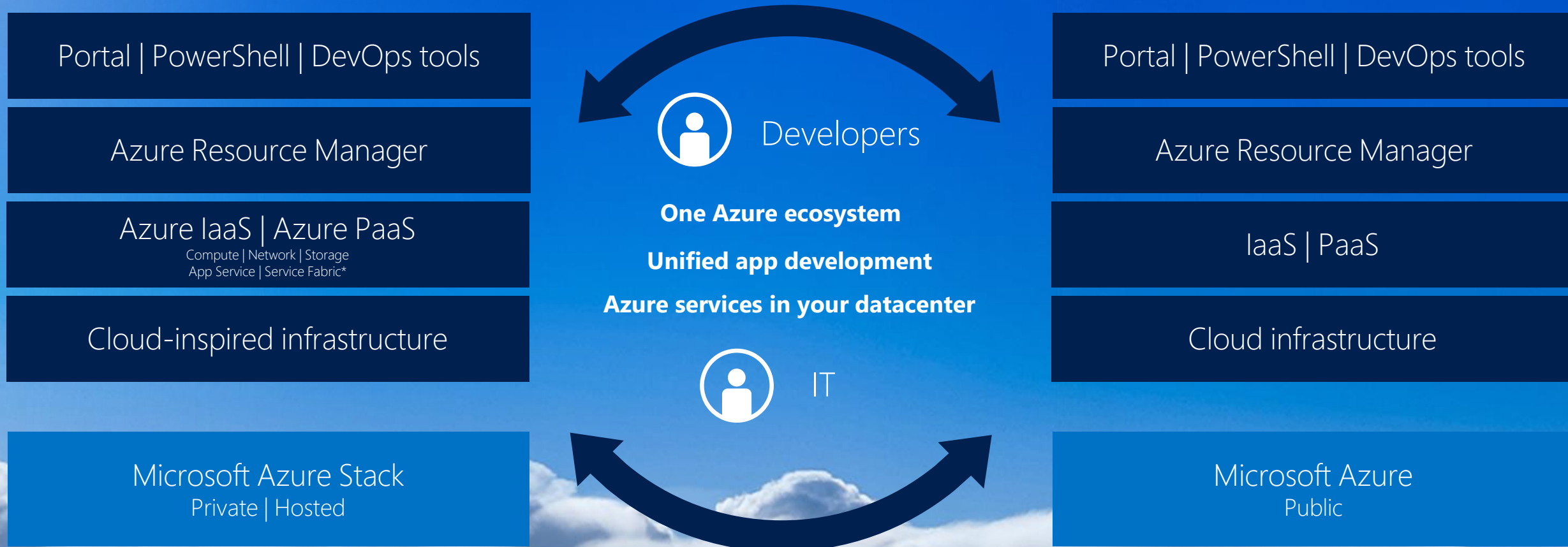
Infrastructure services
Platform services

Cloud infrastructure

Private | Hosted | Public

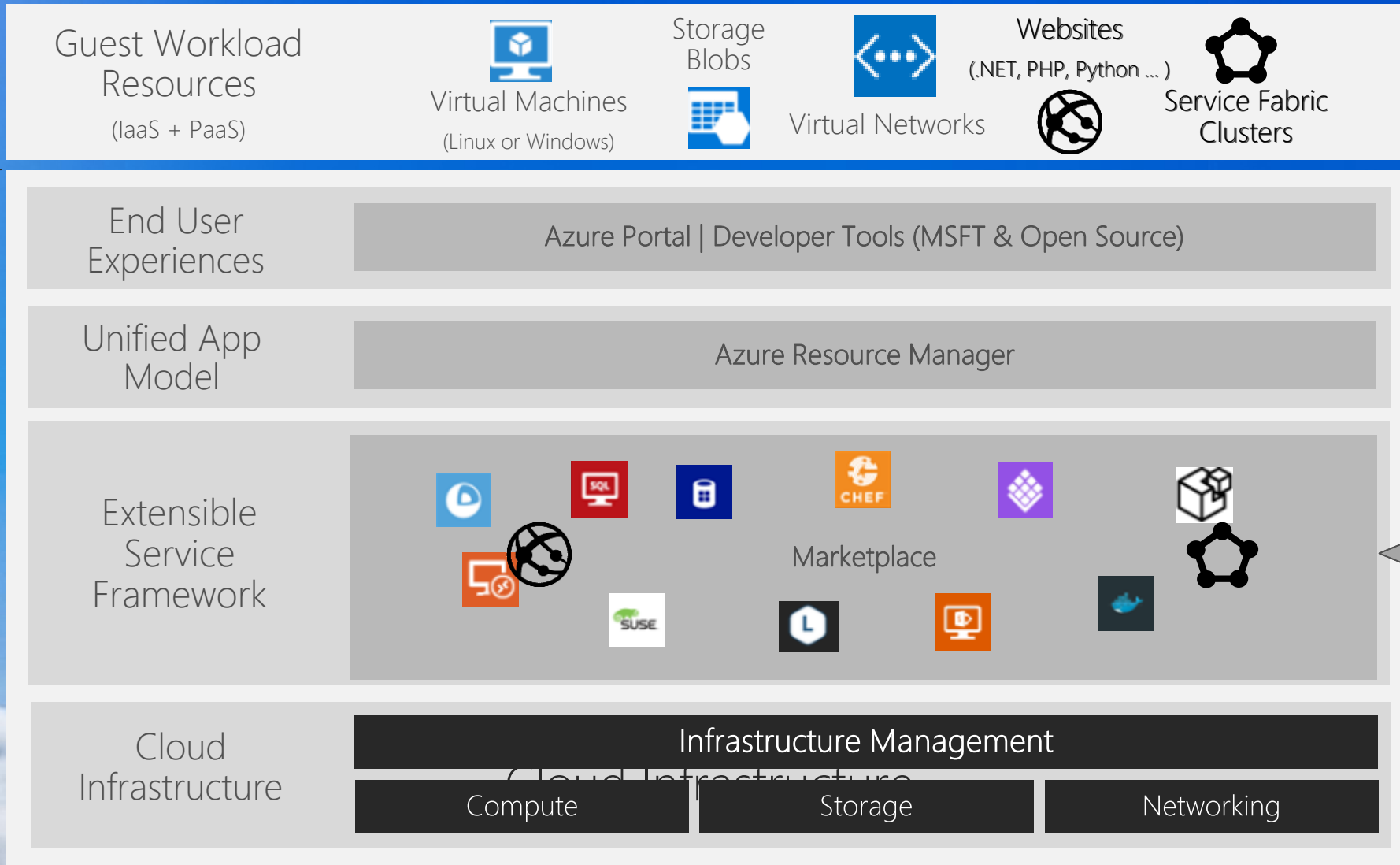
Microsoft's hybrid cloud platform

Power of Azure in your datacenter



Azure Stack Extensible Architecture

Azure Stack Software



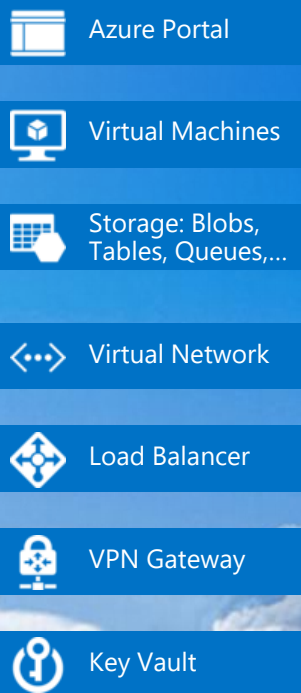
From Microsoft

From 3rd Parties
Microsoft

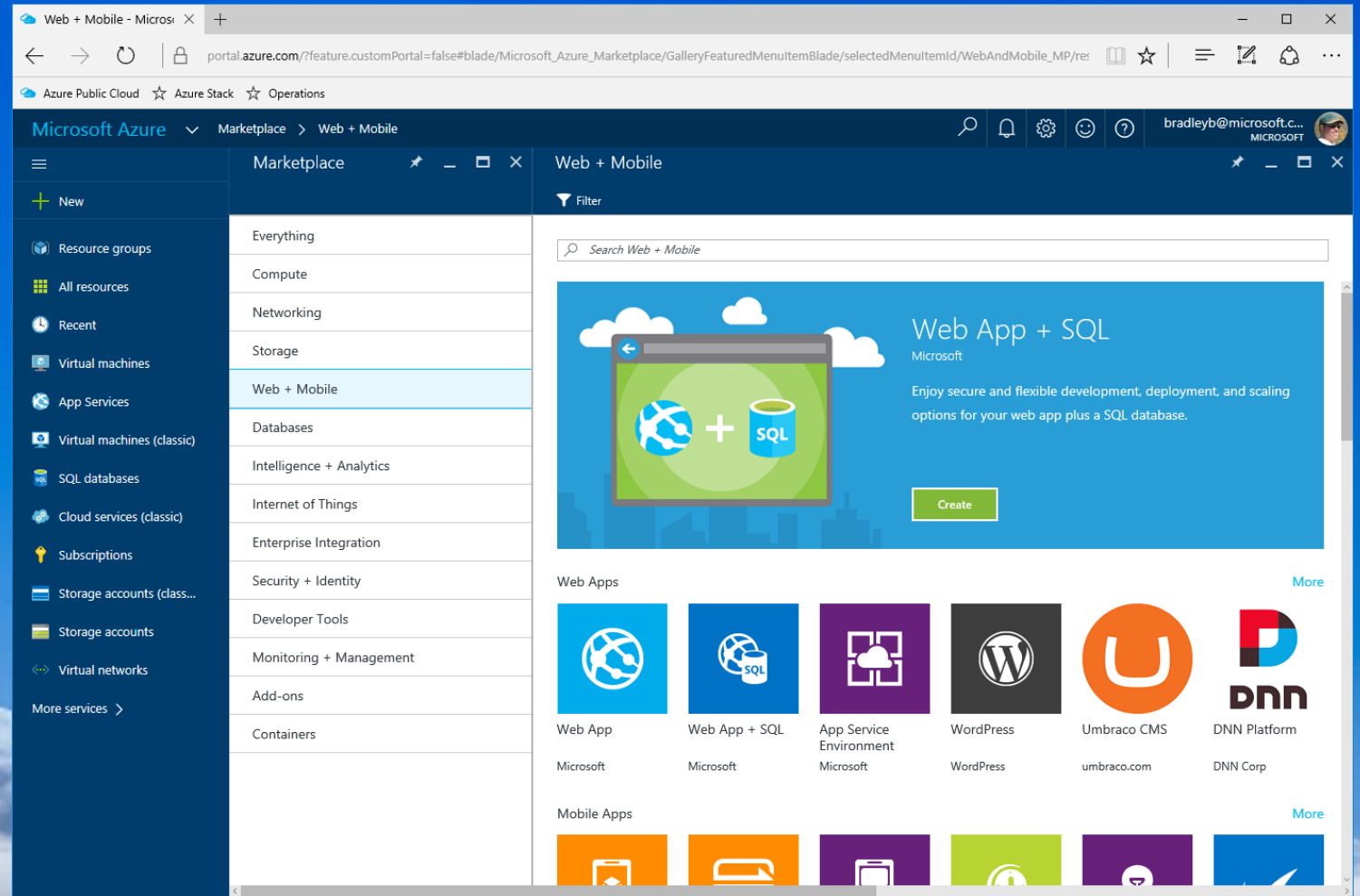
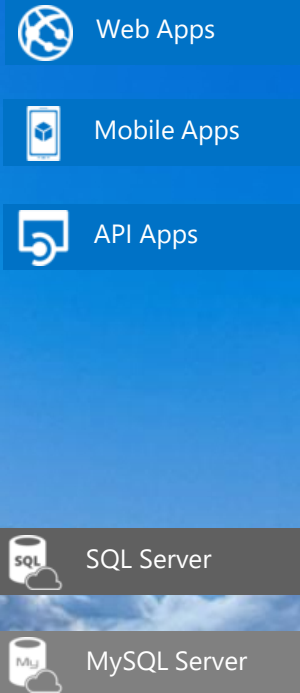
Platform Services enable Solutions

Platform Services

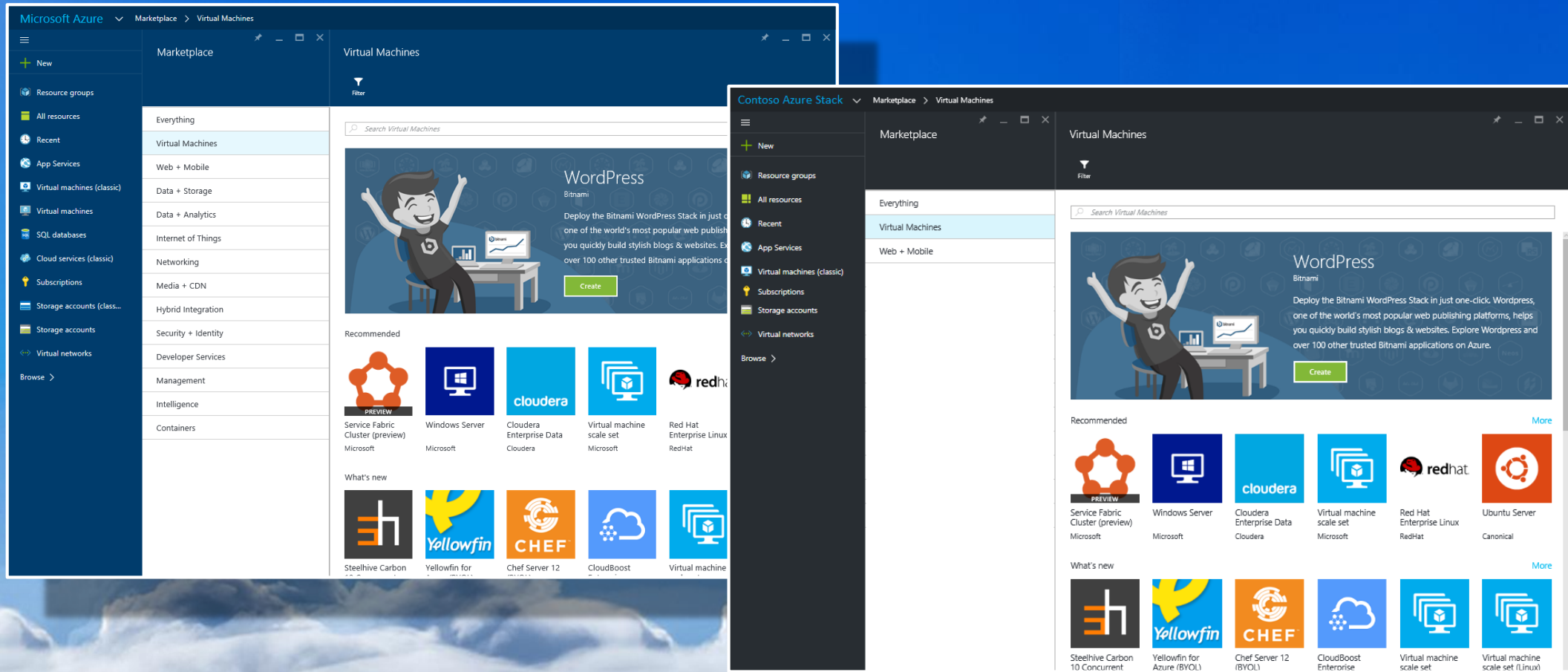
Foundation

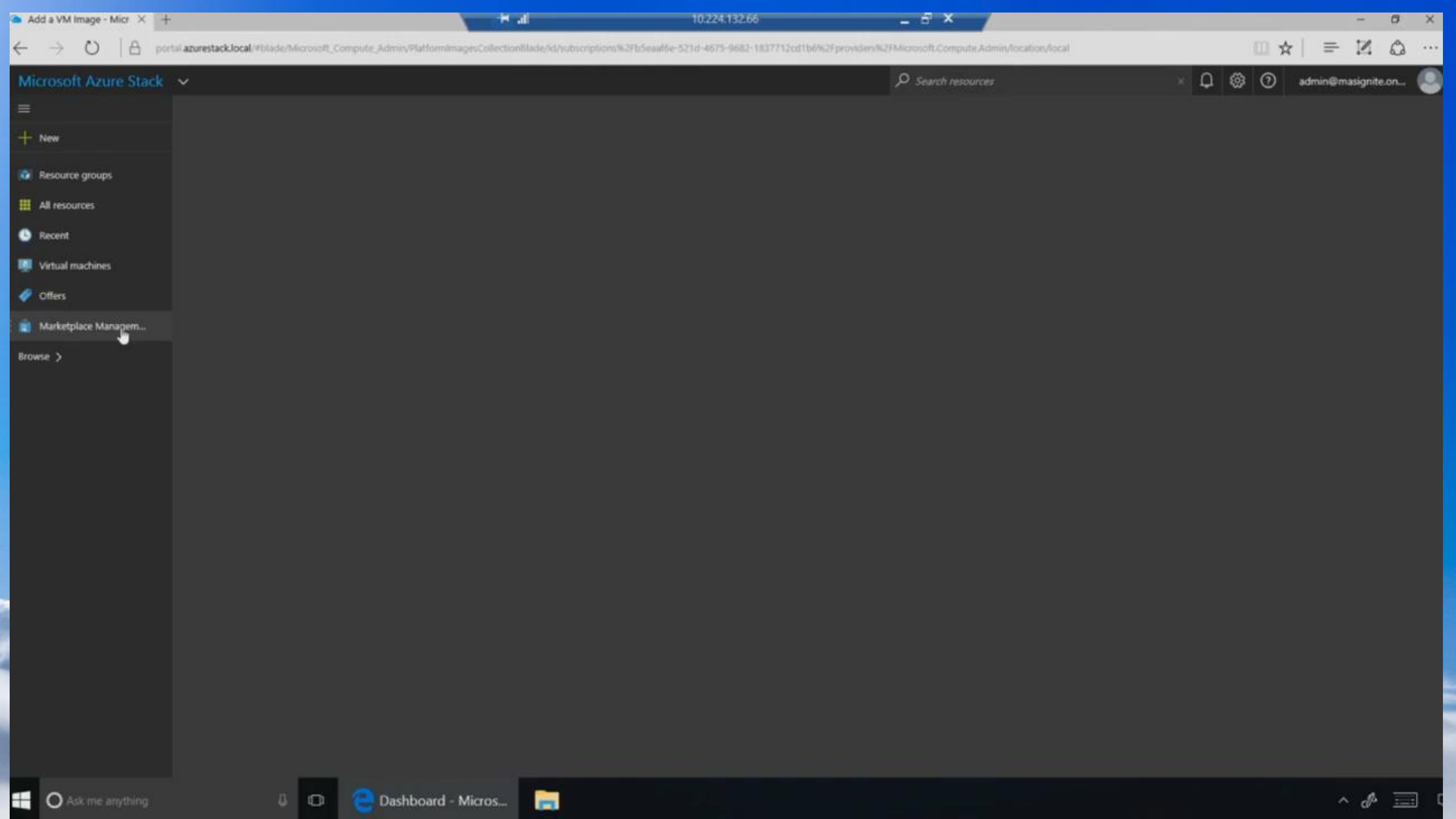


Additional



Marketplace: Microsoft and Provider's





Azure Resource Manager



Describe

WHERE

Resource Inventory

WHAT

Component Relationships

HOW

Tags + links + groups

Provision

WHERE

Across Regions

WHAT

Across Resources

HOW

In service and in guest

Control

WHO

Access control

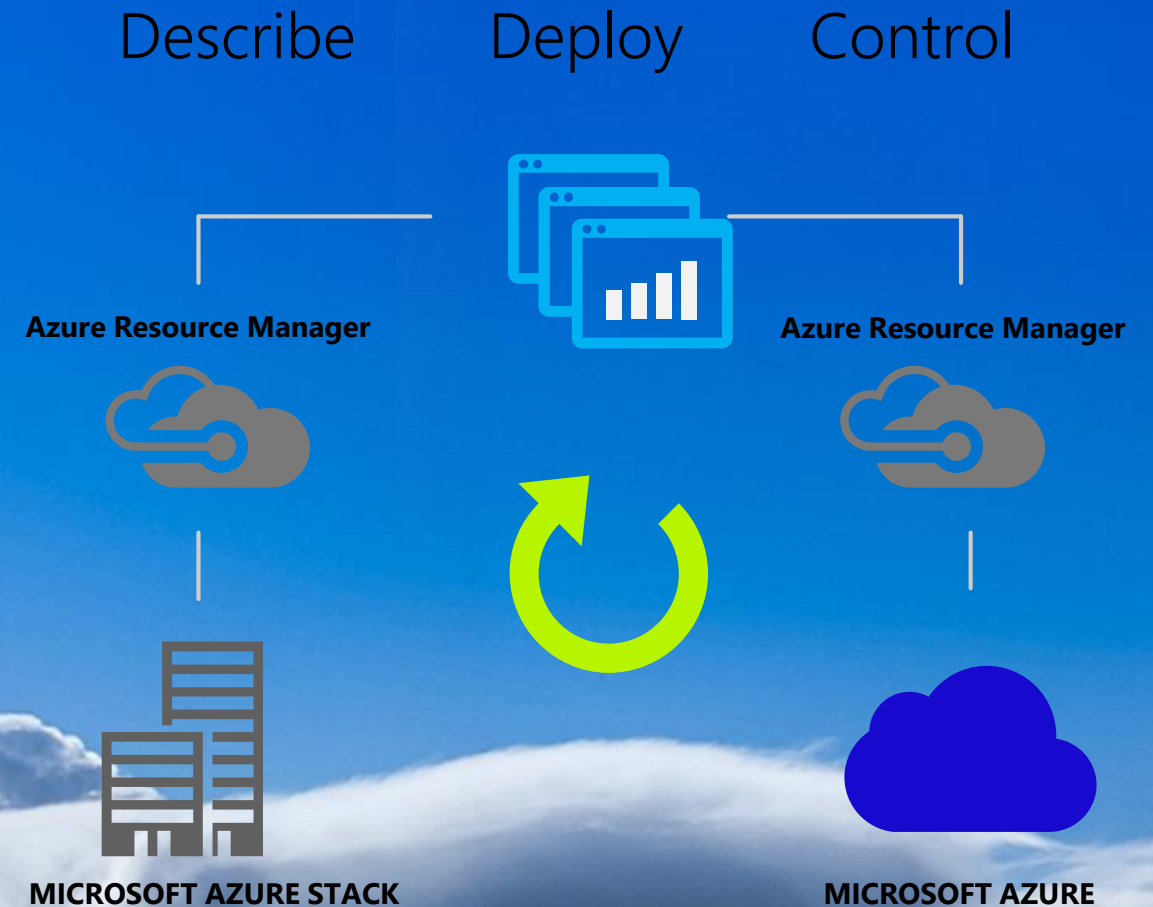
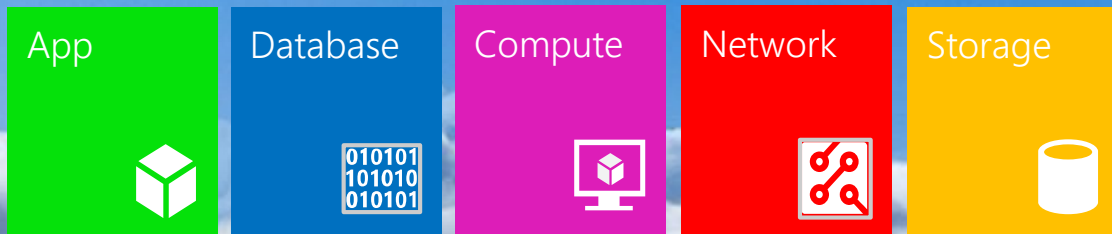
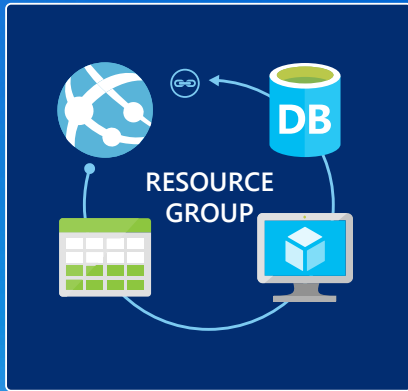
WHAT

Changes

HOW

RBAC, subscriptions, and locks

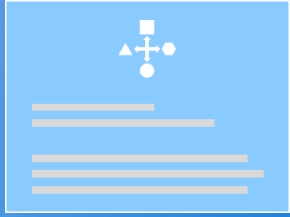
Azure Resource Manager



ARM Templates

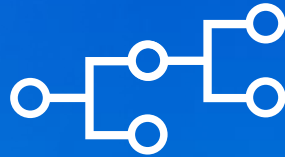
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{  
  "$schema": "https://schema.management.azure.com/schemas/2015-01-01/deploymentTemplate.json#",  
  "contentVersion": "1.0.0.0",  
  "parameters": { },  
  "variables": { },  
  "resources": [ ],  
  "outputs": { }  
}
```

Applications



- Windows | Linux
- Java, PHP, .NET, ...
- IaaS
- PaaS
- Containers

Operations



- Templates
- PowerShell, CLI
- Puppet, Chef, DSC
- Metrics
- Diagnostics

Tools



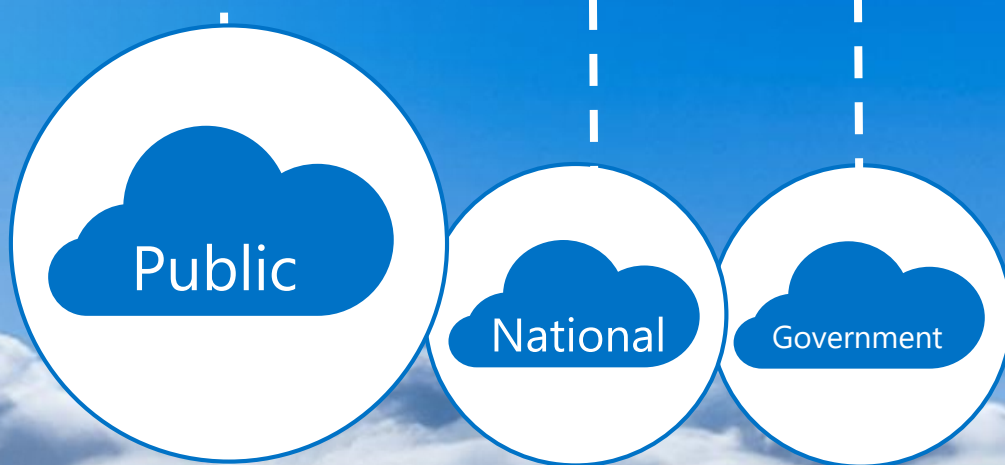
- Visual Studio
- Eclipse
- Others

Experiences



- Portal
- Gallery
- RBAC
- GitHub

Azure Ecosystem



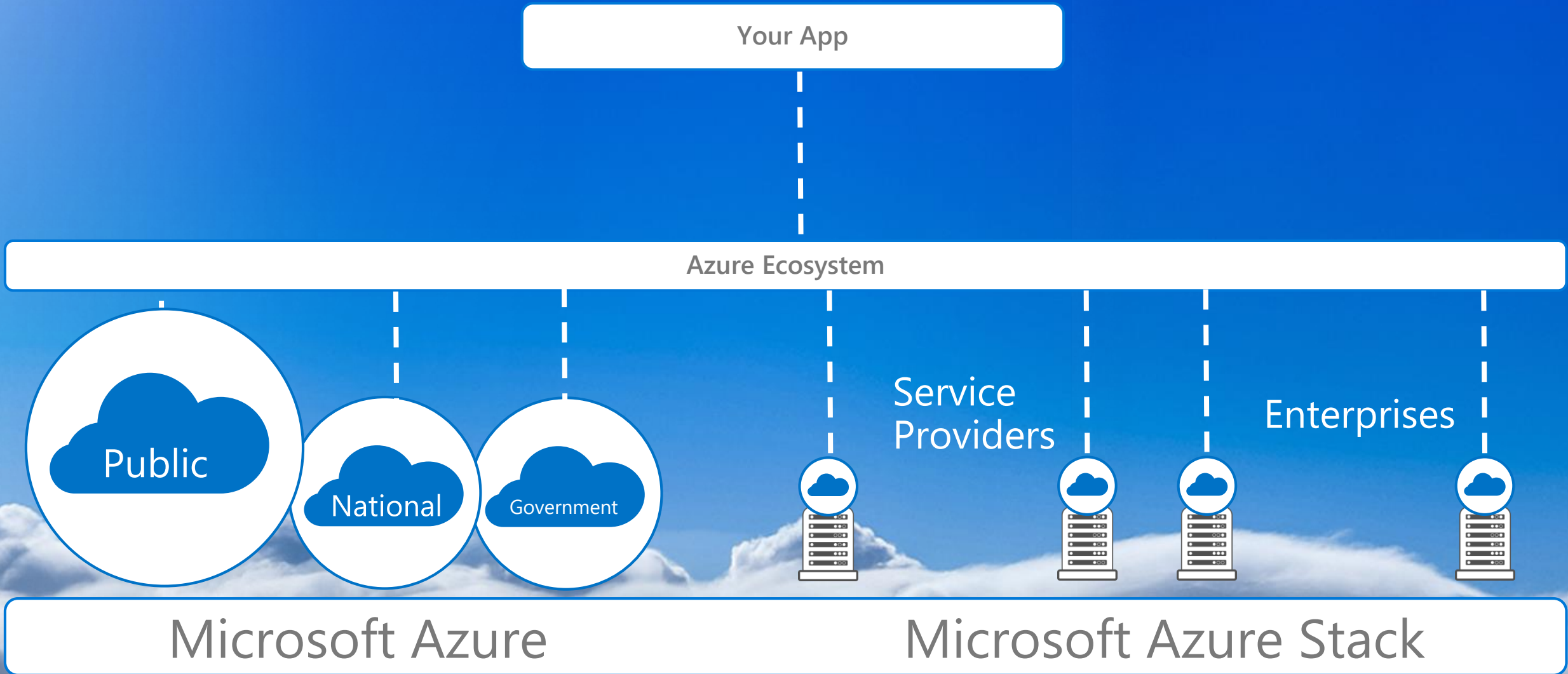
Service
Providers

Enterprises

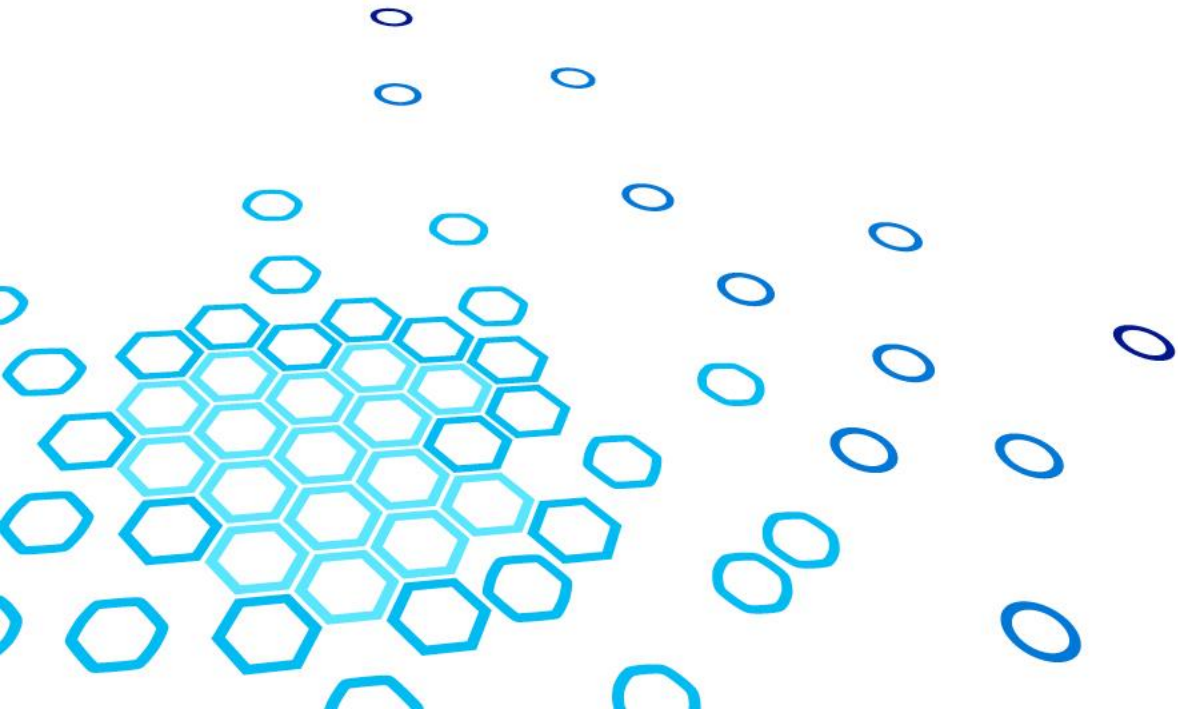


Microsoft Azure

Microsoft Azure Stack



Under the Hood



Timelines



Legend



Each Technical Preview (TP) will include "foundational" Azure services such as Compute, Networking, Storage. In between TPs, we will release incremental updates with new customer scenarios.

One Node Deployment



Component	Minimum	Recommended
Disk drives: Operating System	1 OS disk with minimum of 200 GB available for system partition (SSD or HDD)	1 OS disk with minimum of 200 GB available for system partition (SSD or HDD)
Disk drives: General Azure Stack POC Data	4 disks. Each disk provides a minimum of 140 GB of capacity (SSD or HDD). All available disks will be used.	4 disks. Each disk provides a minimum of 250 GB of capacity (SSD or HDD). All available disks will be used.
Compute: CPU	Dual-Socket: 12 Physical Cores (total)	Dual-Socket: 16 Physical Cores (total)
Compute: Memory	96 GB RAM	128 GB RAM
Compute: BIOS	Hyper-V Enabled (with SLAT support)	Hyper-V Enabled (with SLAT support)
Network: NIC	Windows Server 2012 R2 Certification required for NIC; no specialized features required	Windows Server 2012 R2 Certification required for NIC; no specialized features required
HW logo certification	Certified for Windows Server 2012 R2	Certified for Windows Server 2012 R2

Azure Stack Integrated System



Software



Hardware

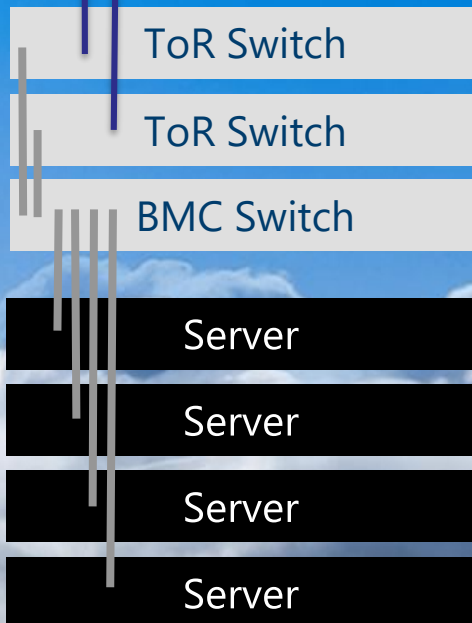


Support

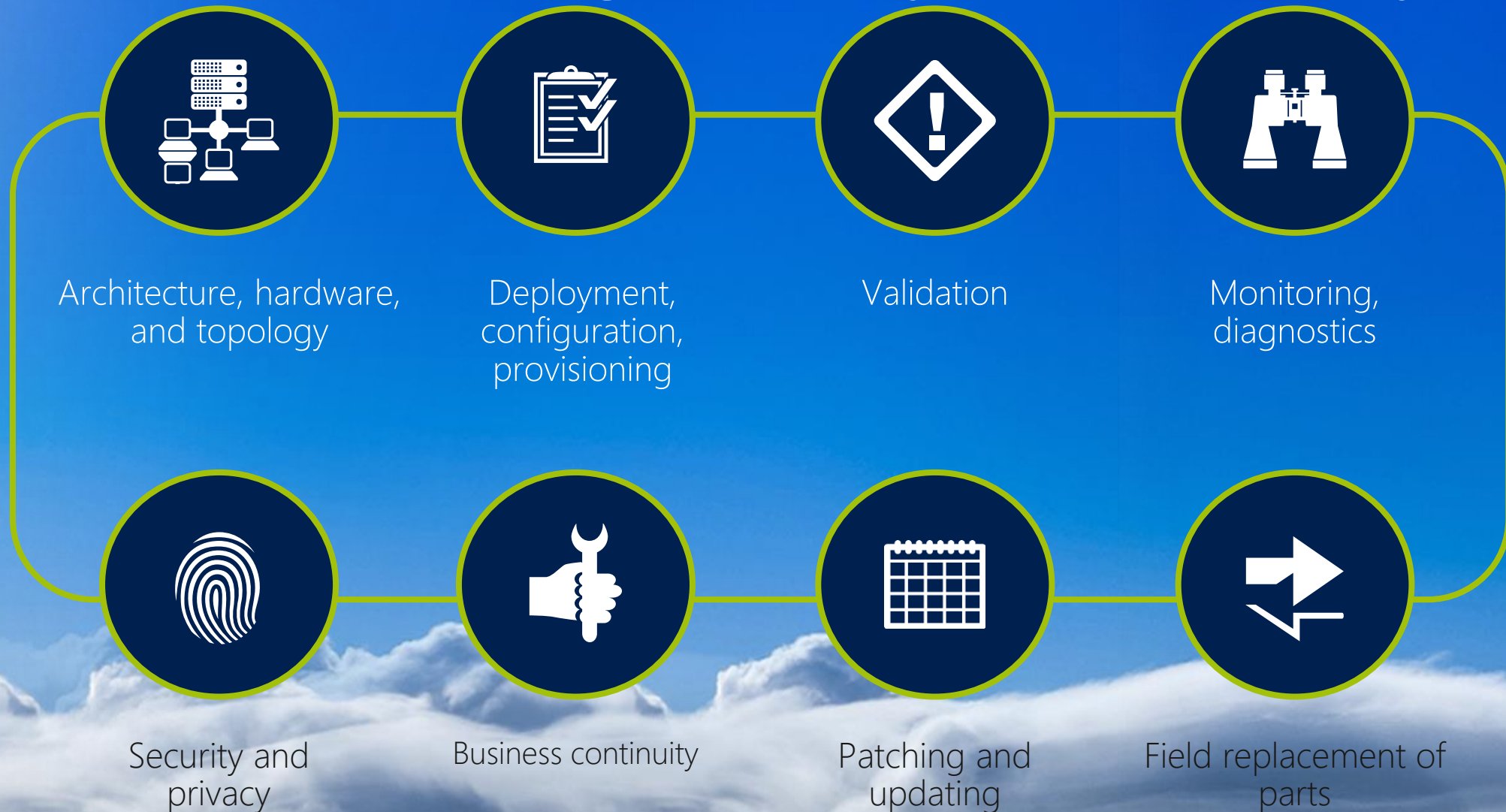


Services

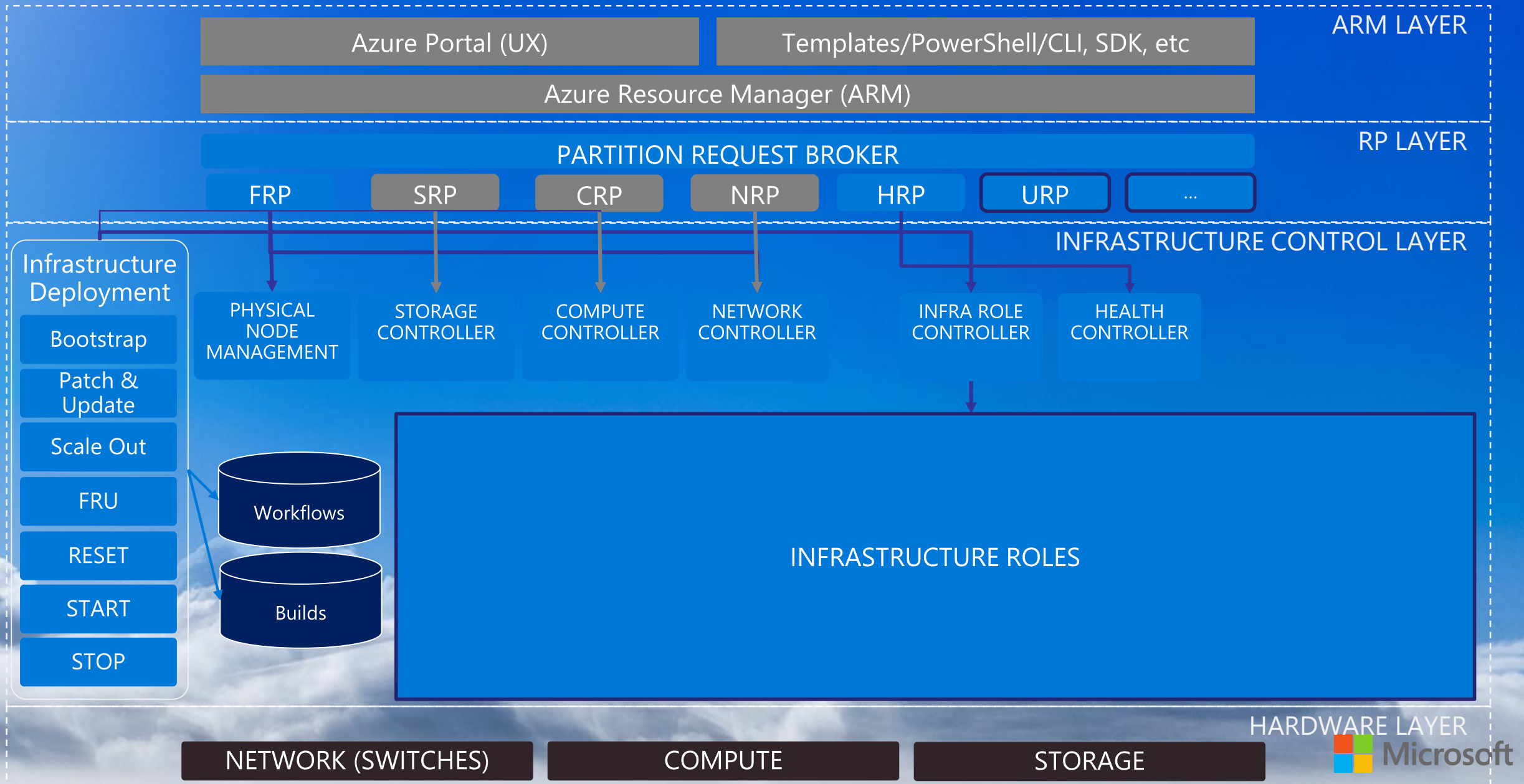
Azure Stack
Integrated System



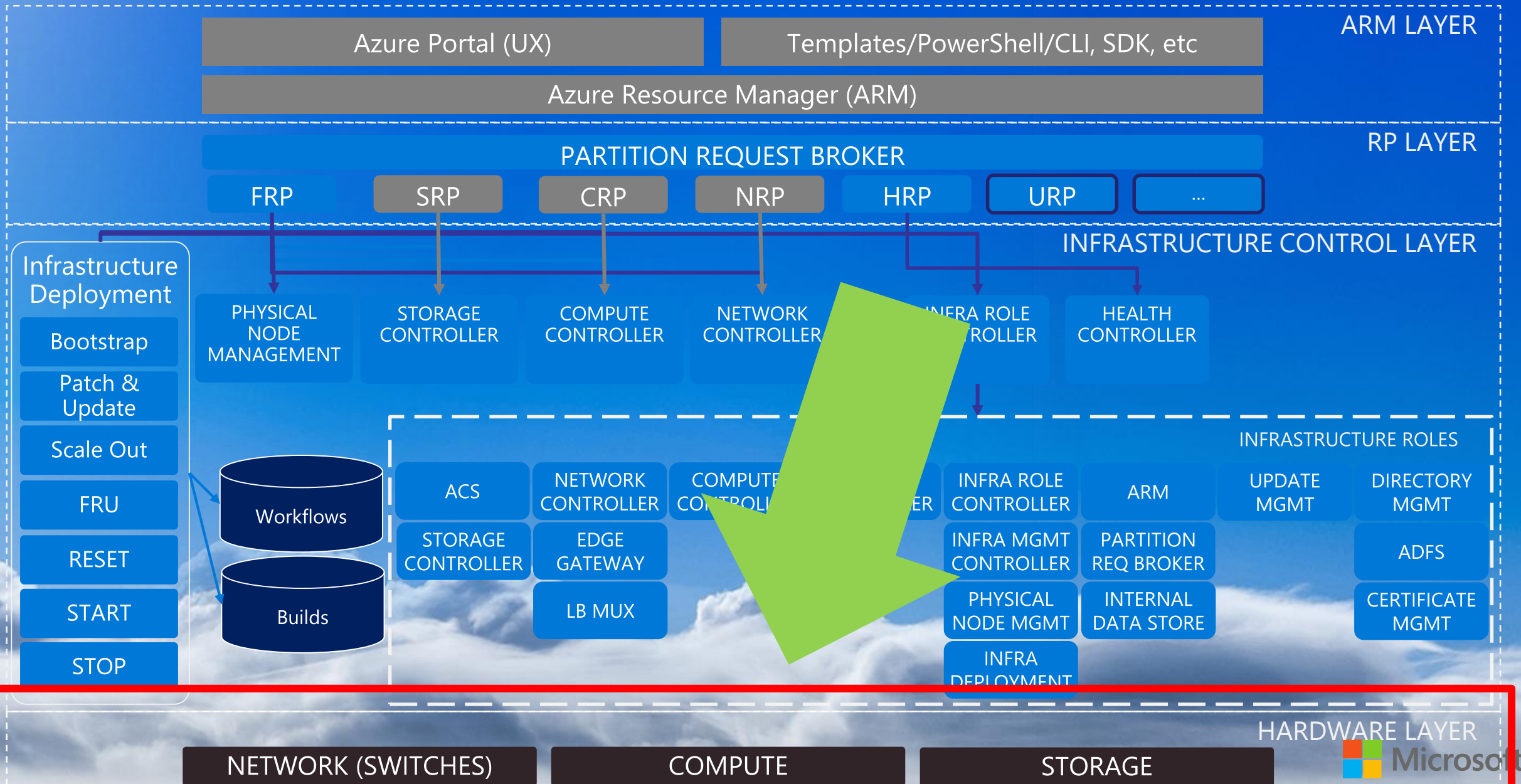
Azure Stack Integrated System (Life Cycle)



Azure Stack Architecture Overview

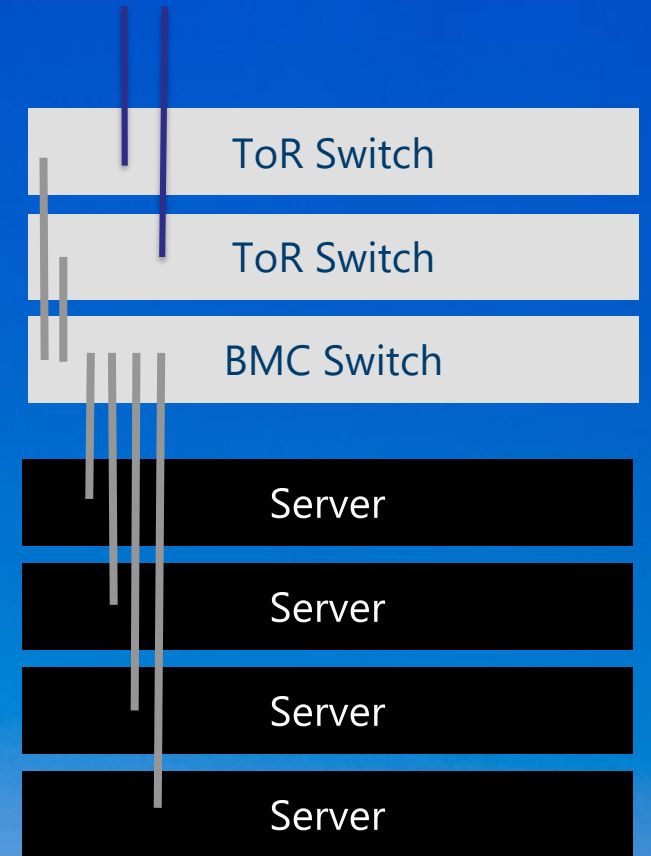


Azure Stack Architecture Overview

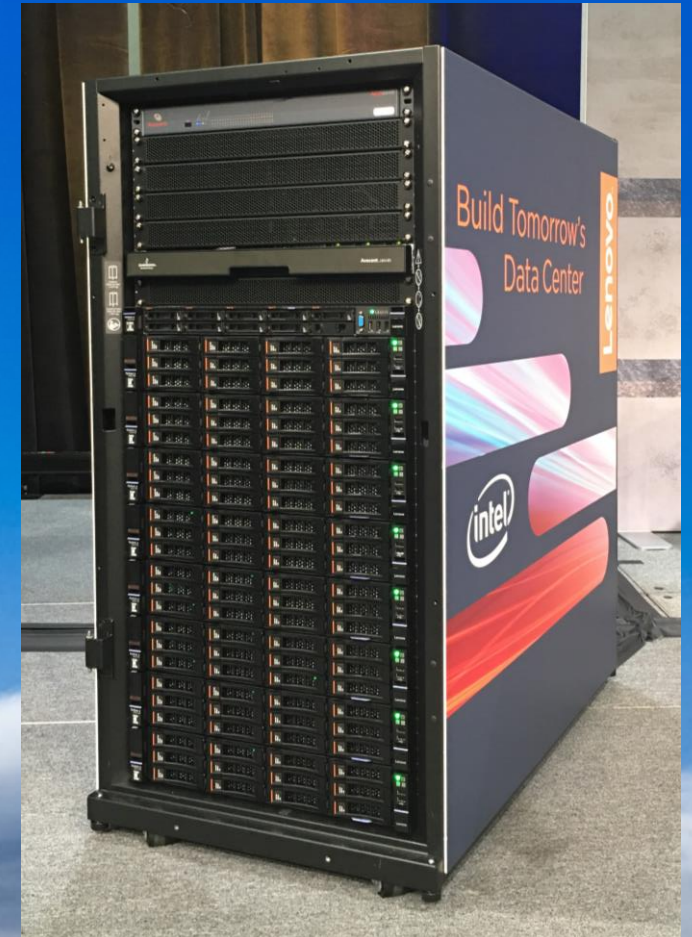


Peek into a Scale Unit

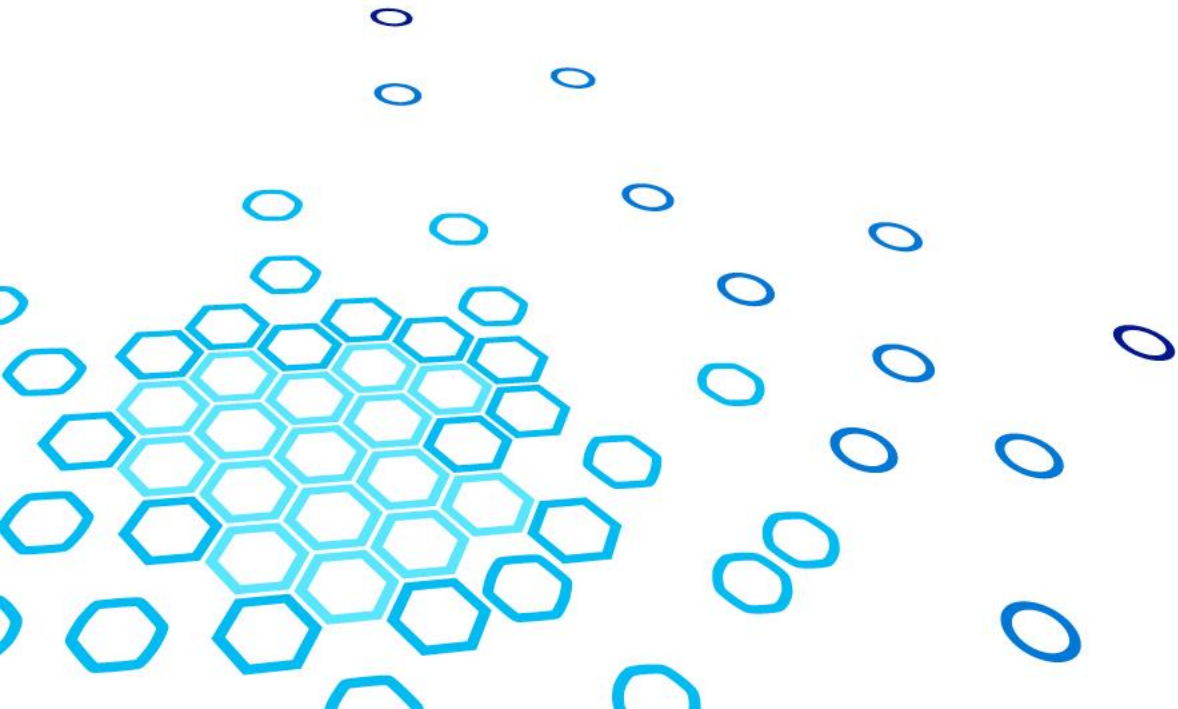
- 4 x servers + network switches
- Min spec for server
 - 2 x 10 Gb ports with RDMA
 - 256 GB Memory
 - 1 x boot media, 2 x SSD (cache) + 4 x HDD
 - 8 x cores per CPU, min 2 x CPU's
- Each server runs Windows Server 2016
- Failover cluster with hyper-converged storage spaces direct
- Resilient deployment of Azure Stack software in VM's
- Appropriate resiliency for each layer

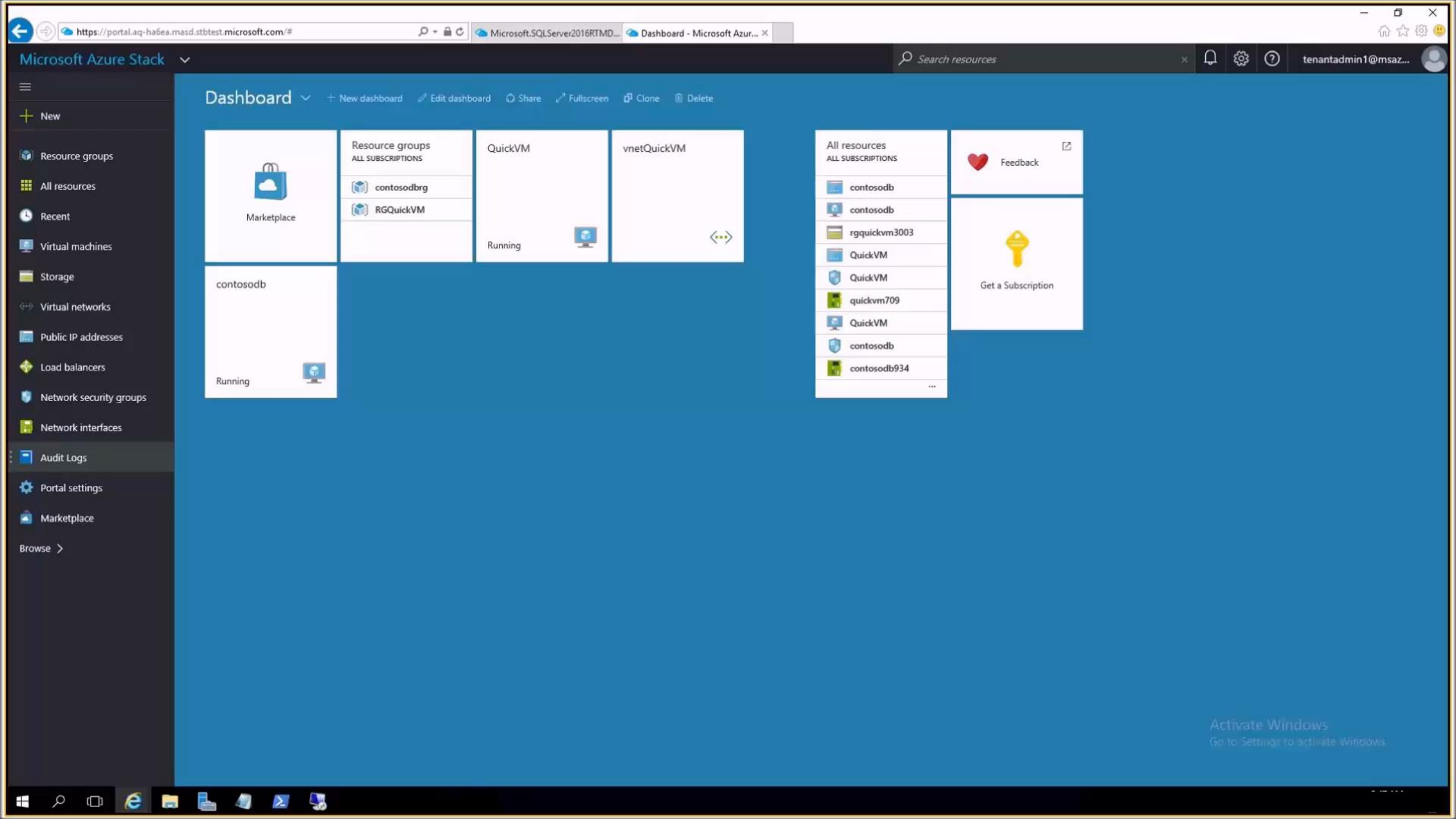


Azure Stack Integrated Systems Partners @GA

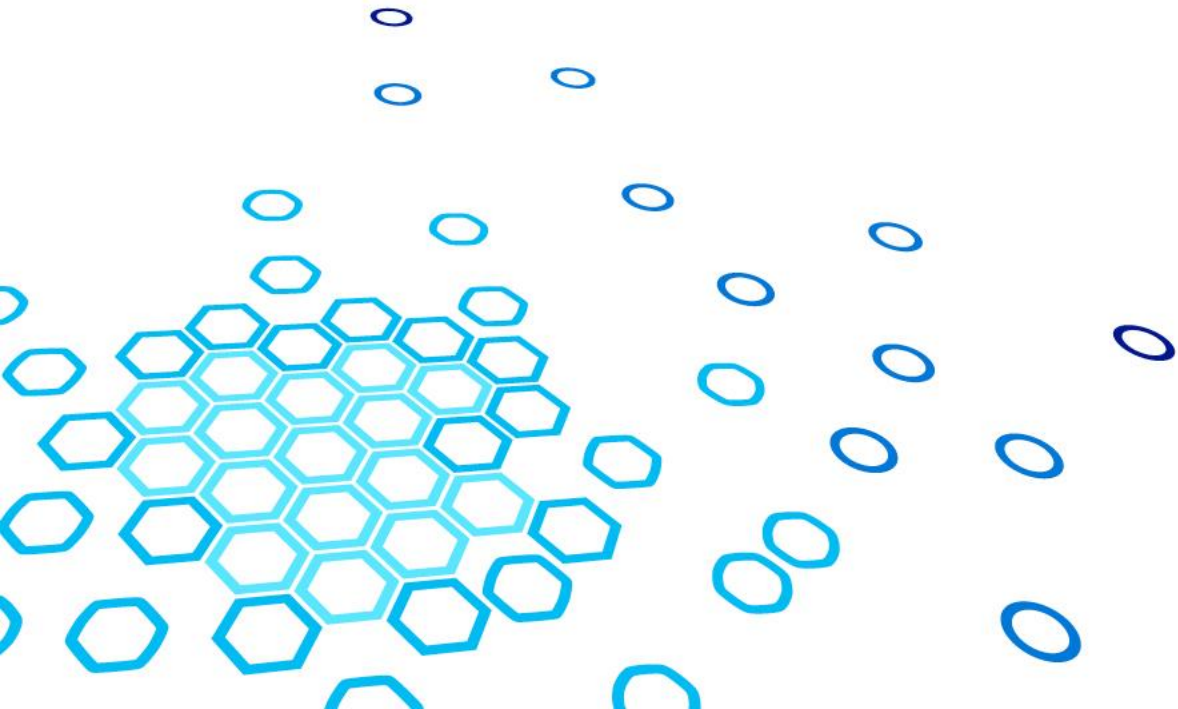


Deployment in AzureStack





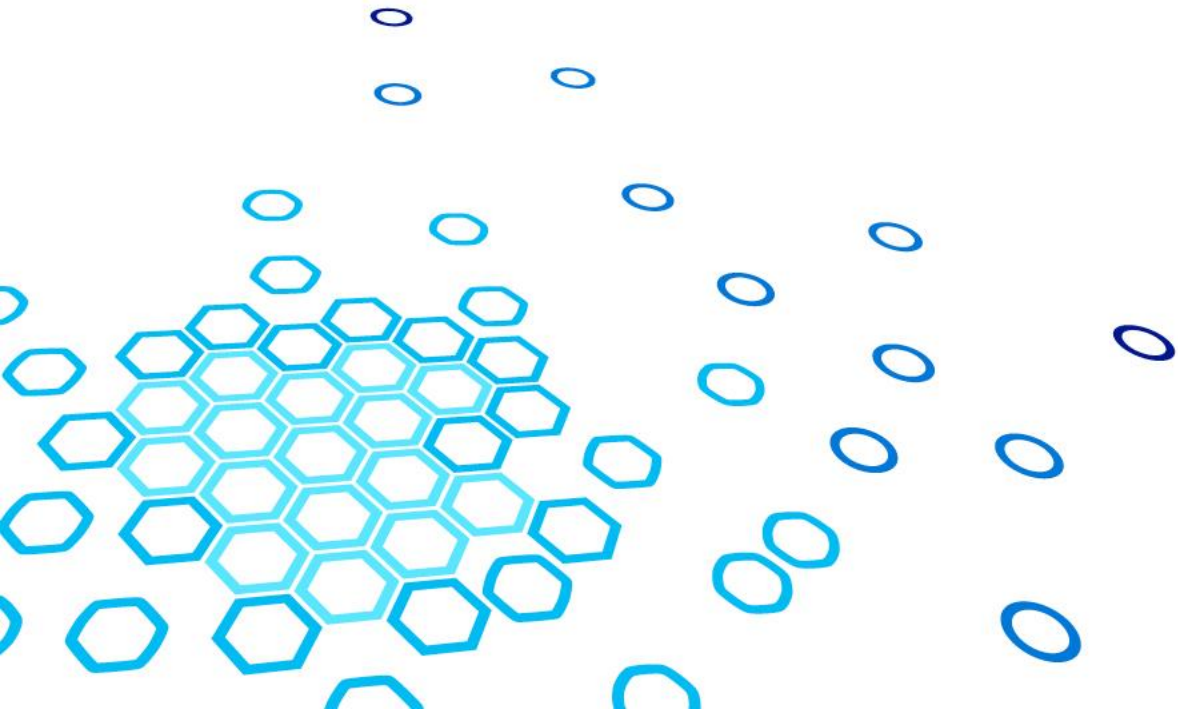
Ressourcen



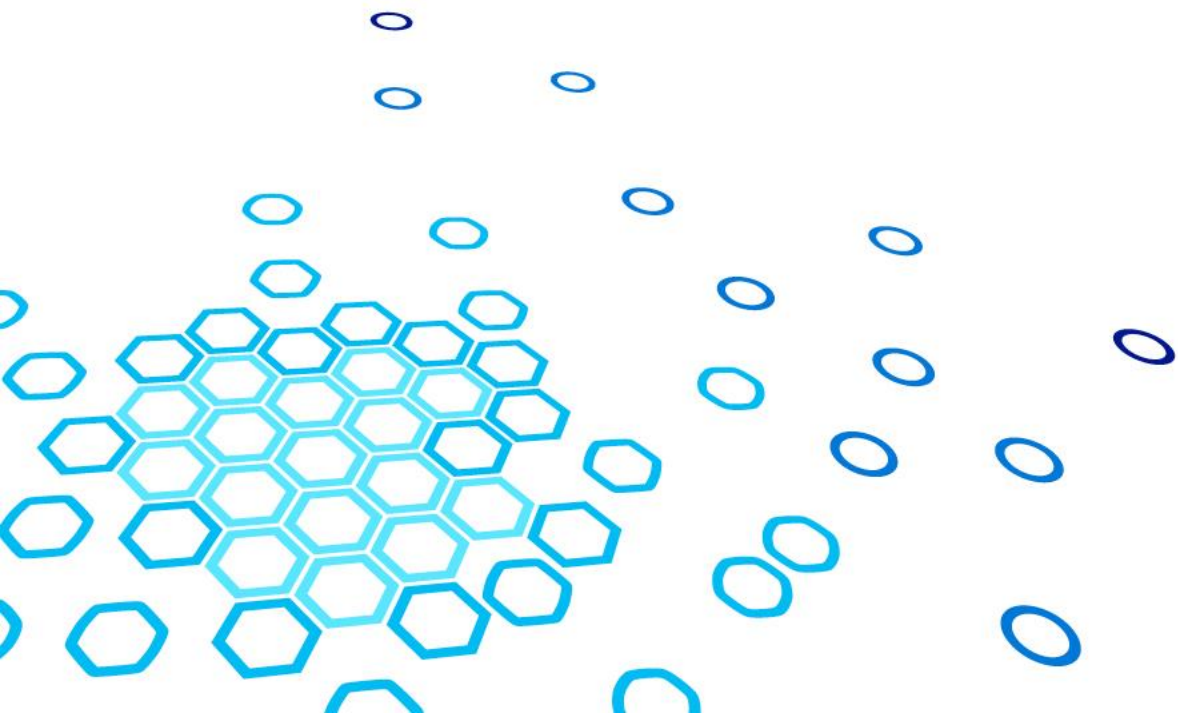
Wer mehr Wissen möchte die Ignite Sessions

Session Code	Title	When
BRK2204	Drive business transformation with Windows Server 2016 and System Center 2016	Monday 14:15
BRK2154	Explore Microsoft Azure Stack "State of the Union"	Tuesday 09:00
BRK2030	Learn about Azure Stack Agile Service Delivery	Tuesday 12:30
BRK2187	Review Microsoft Azure Stack with Jeffrey Snover and Mark Russinovich	Tuesday 14:15
BRK2188	Learn about Azure Stack Infrastructure Operations and Management <small>Sandra_Pokojowczyk@del.com</small>	Wednesday 09:00
BRK2260	Explore Microsoft Cloud Platform System - delivering Azure experiences in an integrated system	Wednesday 12:30
BRK4019	Dive into Microsoft Azure Stack Architecture	Wednesday 14:15
BRK3327	Dive deep in the Microsoft Azure Stack IaaS	Thursday 14:15
BRK3115	Become a Microsoft Azure Stack infrastructure rockstar	Thursday 16:00
BRK3112	Learn about the community of templates for Azure Stack	Friday 09:00
BRK3141	Discuss Microsoft DevOps on Azure Stack	Friday 10:45
BRK3148	Learn about hybrid applications with Azure and Azure Stack	Friday 12:45

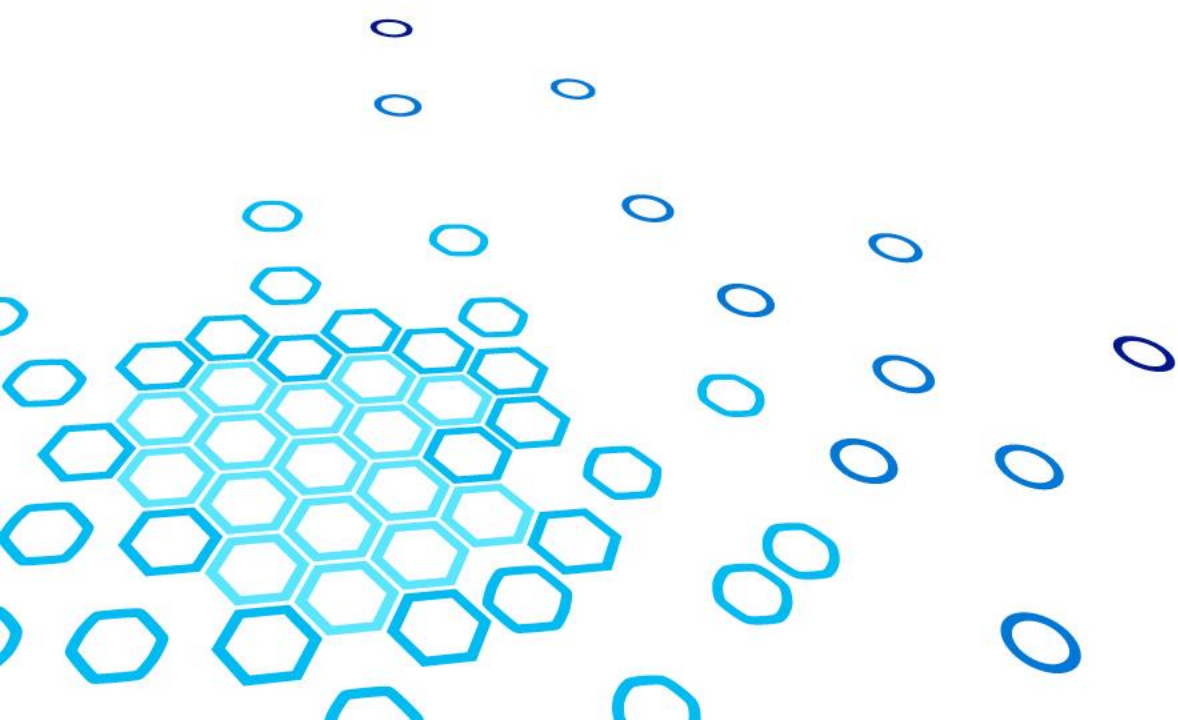
One last Thing



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Vielen Dank



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