

# Azure Stack Hub

Aymen MAMI

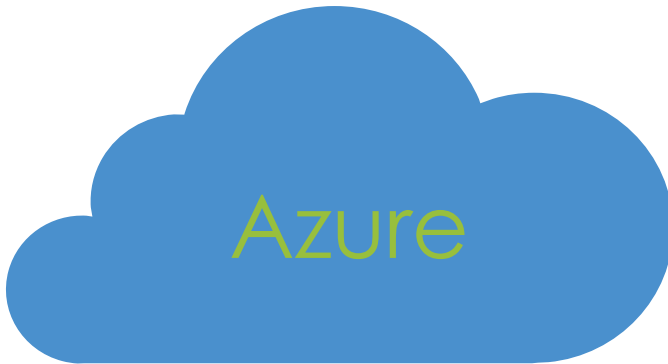
Technical Sales Manager, RFC

# Azure Hybrid

Innovate anywhere with Azure



With Azure Hybrid , the Private Cloud can now benefit from the agility of the Public Cloud Azure Hybrid brings a consistent framework , with the same Management model , Identity model , Programing model , DevOps model... across any infrastructure



Single control plane with Azure Arc



Bring Azure services to any infrastructure



Modernize datacenters with Azure Stack Hub and Azure Stack HCI



Extend to the Edge with Azure IOT and Azure Stack Edge

Management | Security + Identity | App + Data Services | Dev Tools + DevOps



Consistently build and run hybrid apps across on-premises, cloud, and edge



**Azure Stack Edge**  
Cloud-managed appliance

Machine learning at the edge  
Edge compute and IoT solutions  
Network data transfer to cloud



**Azure Stack HCI**  
Hyperconverged solution

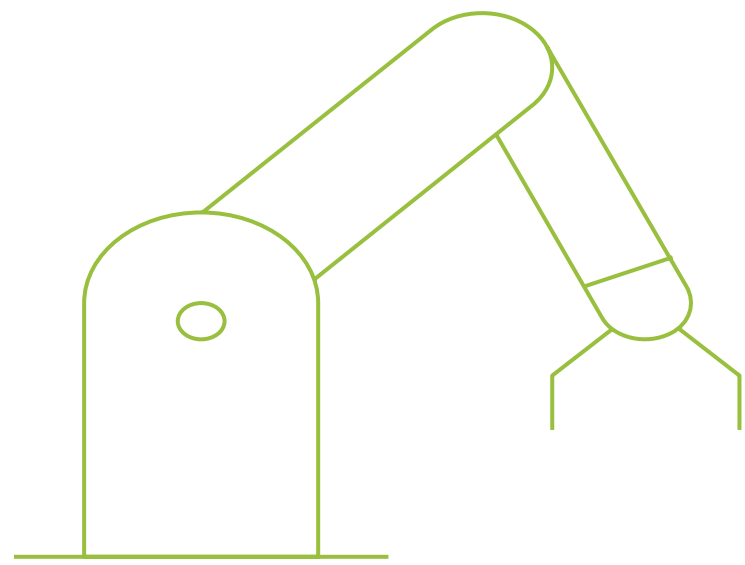
Scalable virtualization and storage  
Remote branch office  
High-performance workloads



**Azure Stack Hub**  
Cloud-native integrated system

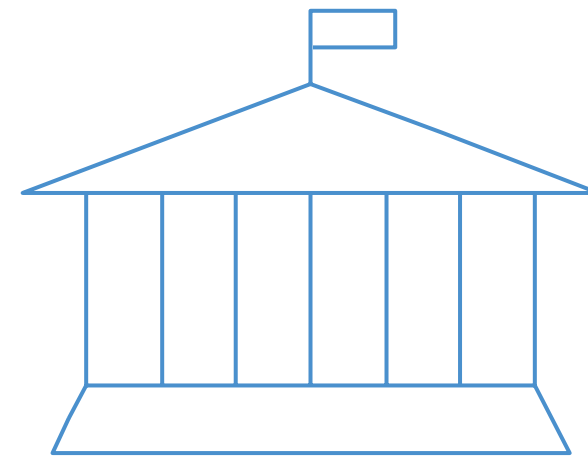
Disconnected scenarios  
Data sovereignty  
Application modernization

# When to use Azure Stack Hub



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At the edge  
and disconnected



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Meet every  
regulatory  
requirement



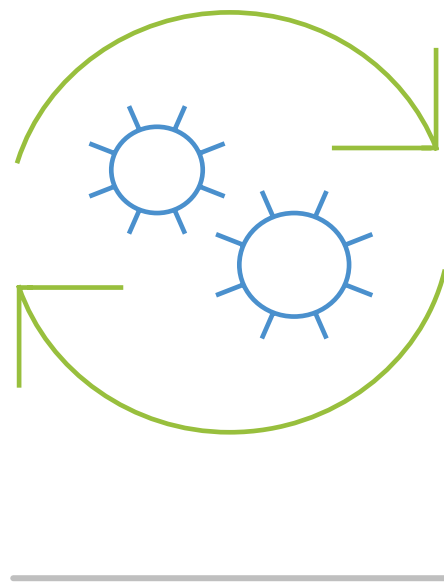
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Modernize  
legacy systems

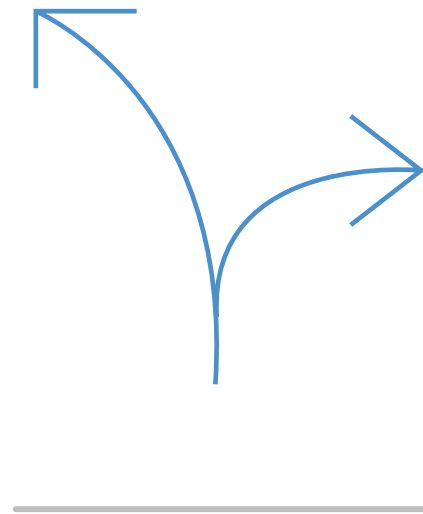
End of Support  
WS/SQL 2008/R2

# Azure Stack Hub:

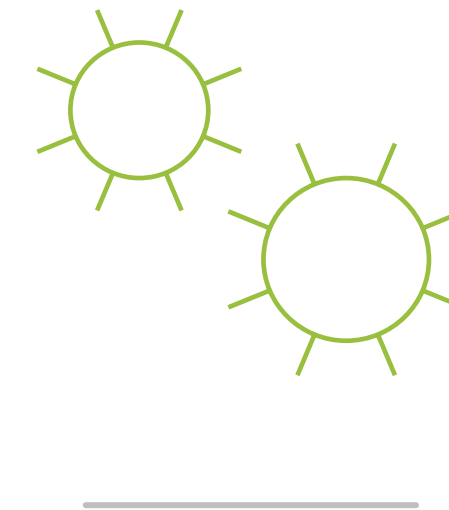
## An extension of Azure



Consistent  
application development  
and operations



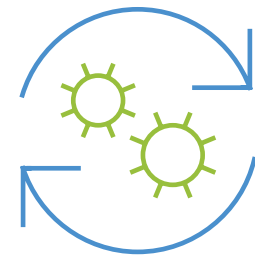
Azure Services  
available on-premises



Purpose-built  
integrated system

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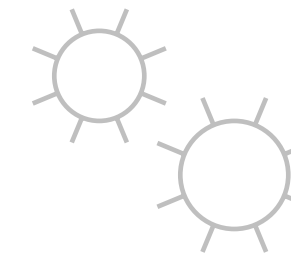
## An extension of Azure



Consistent  
application development



Azure Services  
available on-premises



Purpose-built  
integrated system



Tools



Experiences



Deployments



Application patterns



Automations



Operations

# Azure Stack Hub:

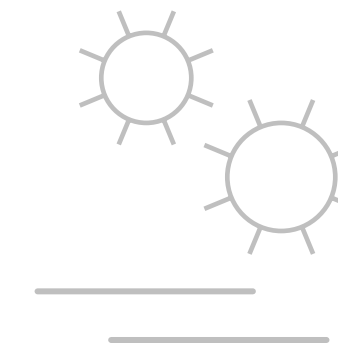
## An extension of Azure



Consistent application development



Azure Services available on-premises



Purpose-built integrated system

### Available now



Virtual Machines



Networking



Storage



Key Vault



Databases



Service Fabric



Azure App Service



Azure Functions



Kubernetes w/ AKS Engine



Azure Marketplace

### In development



Cognitive Services



Event Hubs



Azure Stream Analytics



IoT Hub



Windows Virtual Desktop



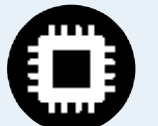
Azure API Management



Azure Data Services



Blockchain Template



GPU Support

\* container-based solution



# Use the open source tools you like



## DevOps



## Management



## Applications



## App frameworks & tools



## Databases & middleware



## Infrastructure

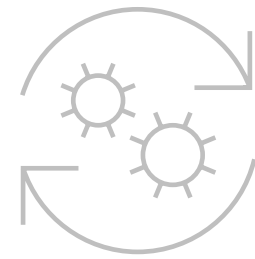


<https://docs.microsoft.com/en-us/azure-stack/operator/azure-stack-marketplace-azure-items?view=azs-1910>



# Azure Stack Hub:

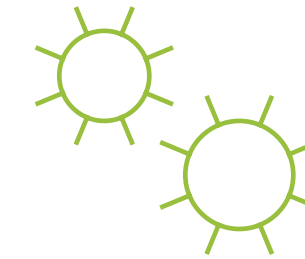
## An extension of Azure



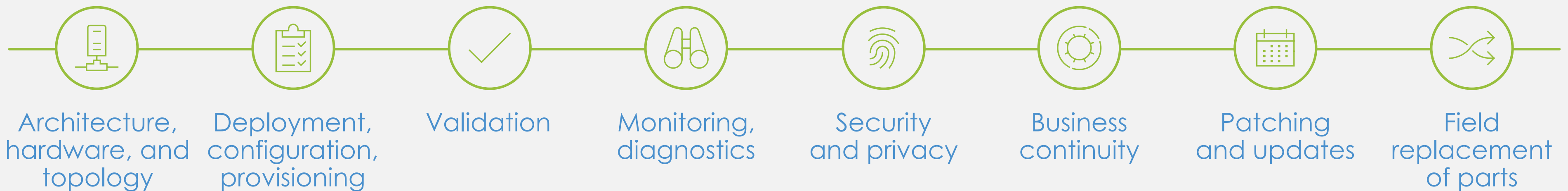
Consistent application development



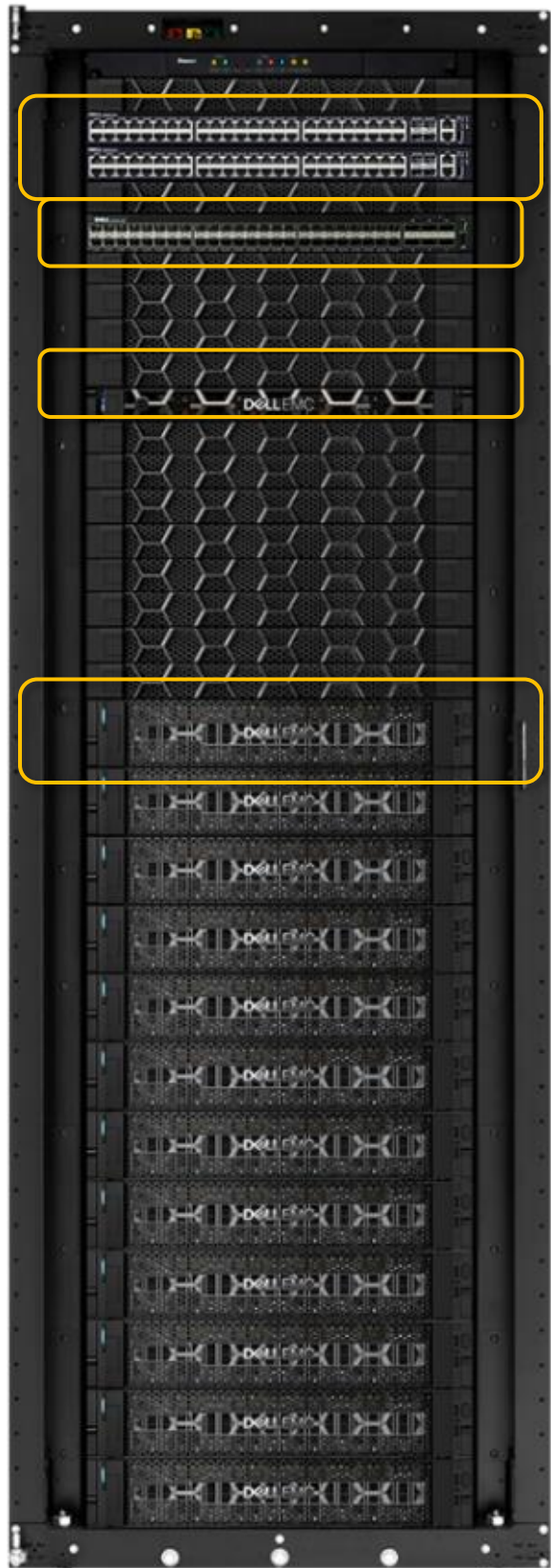
Azure Services available on-premises



Purpose-built integrated system



# Microsoft Azure Stack Hub typical physical components



- 2x10gbe or 25gbe ToR switches
- 1gbe BMC switch
- 1 server hardware lifecycle host
- server compute nodes (4 to 16 nodes configurations)
- All compute nodes have to be identical in a scale unit
- CPU type from 2x 12 cores to 2x 28 cores per node
- RAM from 384 GB to 1.5TB per node
- Storage Hybrid (SSD+HDD) or Full Flash (NVMe+SSD)
  - Hybrid from 40TB to 120 TB per node
  - Full Flash from 19 TB to 40TB
  - Between 10% to 20% of cache
- Internal Network with RDMA NICs (usually 2x 25gbe)
- Each EOM vendors have their specificities...

# Integrated delivery experience



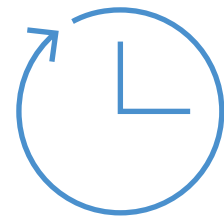
Integrated systems

DELL EMC

Hewlett Packard Enterprise

Lenovo

CISCO



Fast to deploy and update

Get up and running quickly

Validated patch and update



Pay-as-you-use

Extension of Azure model

Receive one bill



Integrated support, broadly available

Consistent support experience, no matter who you call

Available in 105 geos initially

# Pay-as-you-use model

Fee only for consumption;  
no upfront licensing fees

Same Azure invoice, monetary  
commitment, subscriptions

Prices typically lower than Azure

EA and CSP

<b>Virtual Machines</b>	
Base virtual machine	\$0.008/vCPU/hour (\$6 vCPU/month)
Windows Server virtual machine**	\$0.046/vCPU/hour (\$34 vCPU/month)
<b>Storage Accounts***</b>	
Blob Storage	\$0.006/GB/month
Table and Queue storage	\$0.018/GB/month
Standard Unmanaged Disks	\$0.011/GB/month
<b>Managed Disks</b>	
M4 (32 GB)	\$0.385/disk/month
M6 (64 GB)	\$0.753/disk/month
M10 (128 GB)	\$1.473/disk/month
M15 (256 GB)	\$2.833/disk/month
M20 (512 GB)	\$5.44/disk/month
M30 (1 TB)	\$10.24/disk/month
<b>App Service</b>	
Web Apps, API Apps, Functions	\$0.056/vCPU/hour (\$41 vCPU/month)

## Why?

Disconnected

Predictable cost

No telemetry

- Fixed fee, annual subscription
- Sold as Plan SKU: separate transaction from Azure
- EA only

Service	Yearly Price
App Service Package	Around 340€/core
IaaS Package	Around 125€/core

\* Does not include Windows Server and SQL Server ( which are BYOL)



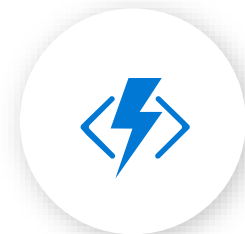
# Azure Stack Hub

## A complete autonomous cloud



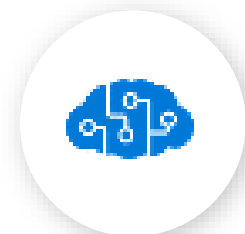
### Complete autonomous cloud

Only consistent hybrid cloud that can run at the connected or disconnected



### Cloud application model

Common application model, tools and APIs with Azure simplifying DevOps



### Azure Services & Marketplace

Azure web services, containers, Azure Functions, & Azure Marketplace



### Integrated System

Cloud inspired infrastructure via integrated systems from major H/W partners



### Edge & Disconnected



### Regulatory & Data Sovereignty



### Application Modernization

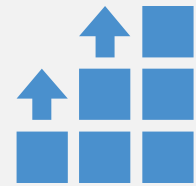
WS 2008/R2 SQL 2008/R2

# Based on Microsoft technologies

Single enterprise level relationship and support



Complete integration between IaaS, PaaS and SaaS



Leader in hybrid cloud, offering max flexibility

(e.g. Search, SQL, Media)



Best and most innovative enterprise cloud productivity solution



Industry leading with security, privacy and compliance

(e.g. EU Model Clauses, HIPAA, RMS)



Integrated but separated enterprise and consumer cloud offerings



Broadest partner ecosystem



Strong development platform and huge developer base

(e.g. VS, ALM, .NET)



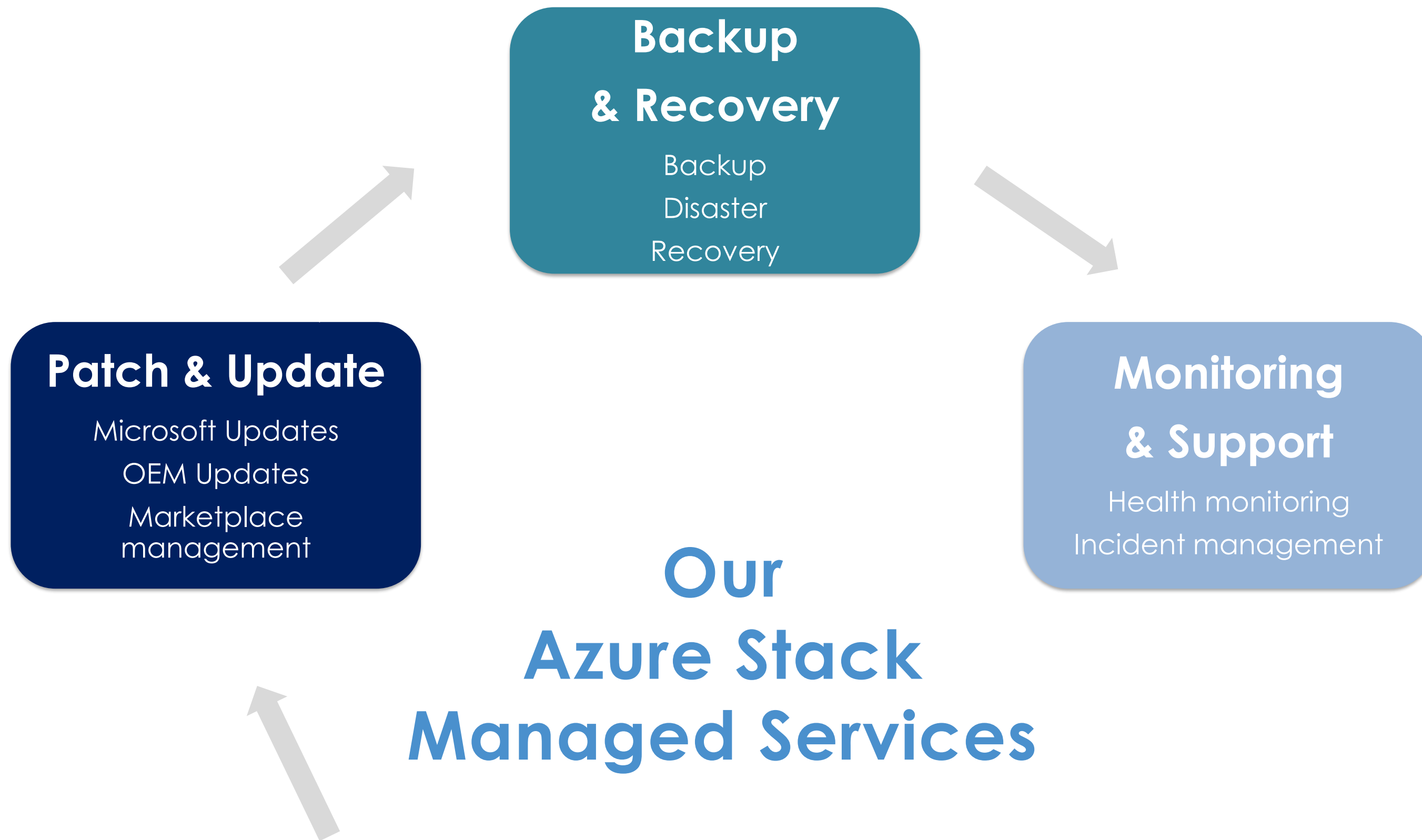
Common enterprise social layer among all services



Native SSO among services and integration with on-premises AD







- Patch & Update**
- Backup & Recovery**
- Monitoring & Support**
- Design & Deployment**
- Assessment & Migration**





Thank  
You

