



# Azure Saturday

## Azure stack

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Transform your data center to Azure



Microsoft Azure Deutschland

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**riverbed**®

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**if** **Blueprint AG**  
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Azure Advisor



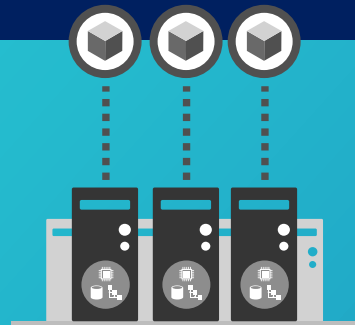
# Cloud is a new way to think about your datacenter

## Traditional model

- Dedicated infrastructure for each application
- Purpose-built hardware
- Distinct infrastructure and operations teams
- Customized processes and configurations

## Cloud model

- Loosely coupled apps and micro-services
- Industry-standard hardware
- Service-focused DevOps teams
- Standardized processes and configurations



**Servers**



**Services**

# Business and technical considerations

Regulations



Data  
sovereignty



Customization



Latency



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Hybrid solution

# Inadequate alternatives

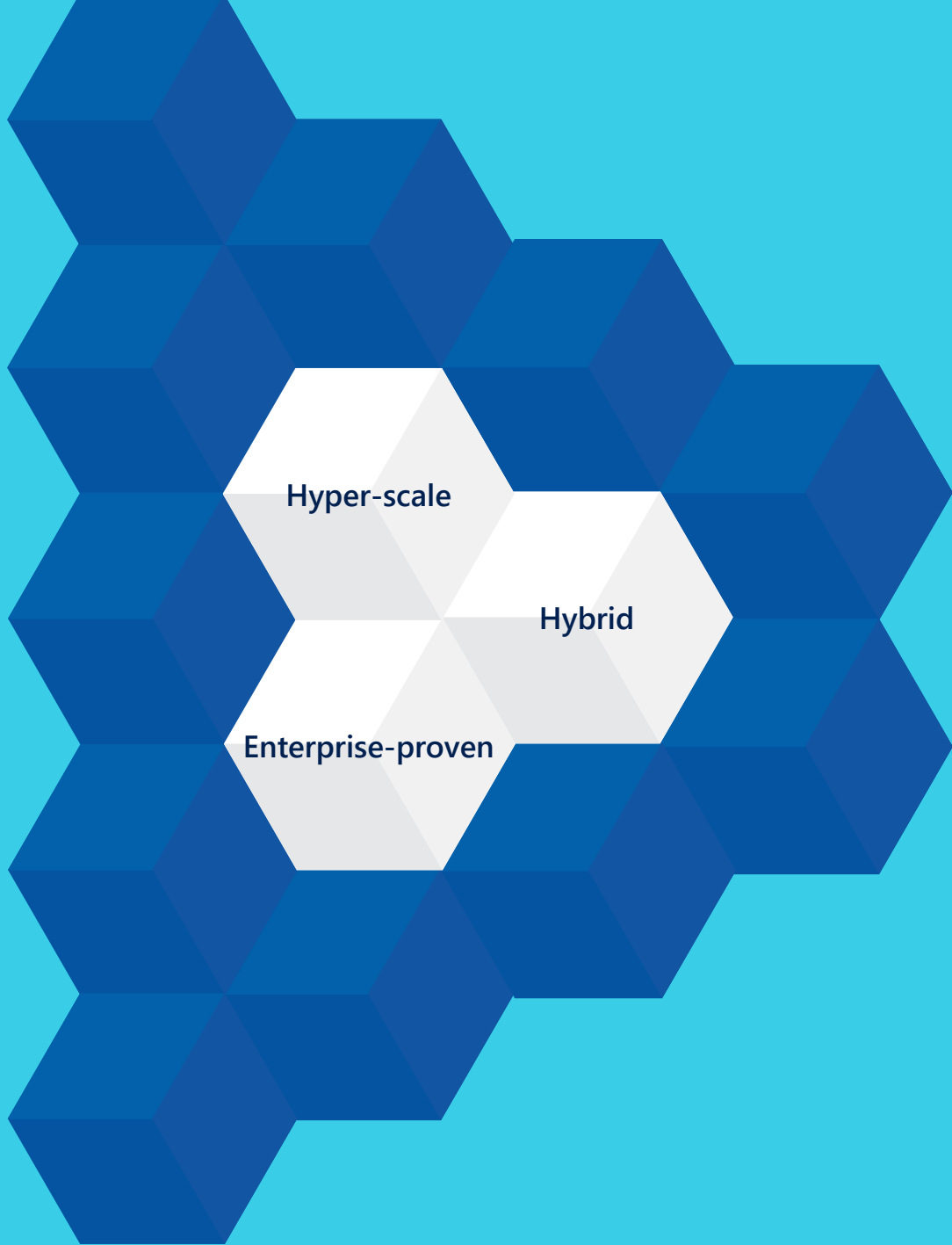
Public-cloud only doesn't  
address enterprise needs

Ease of integration and  
deployment is critical

Virtualization isn't cloud; it's  
not designed for modern apps

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## Consistency



# Azure





Hyper-scale

# Azure Stack

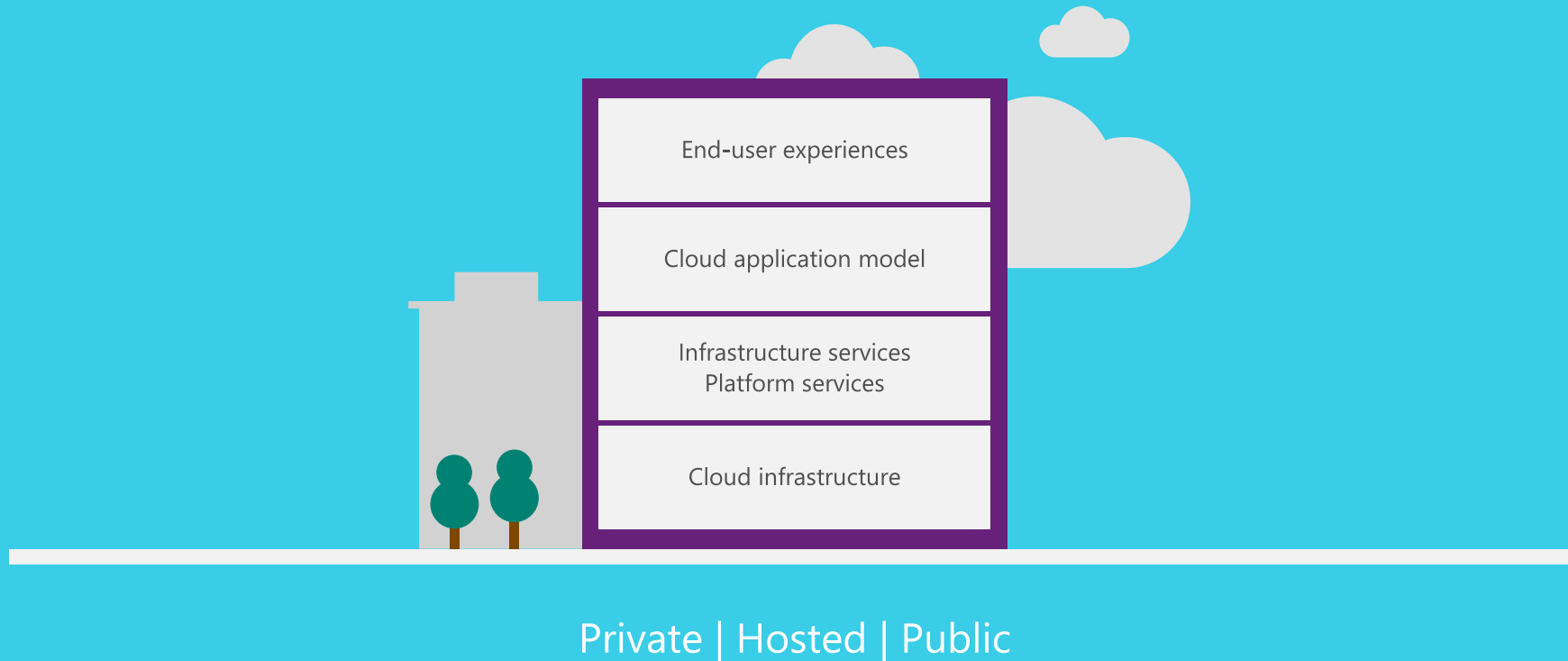
Enterprise-proven

## 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.

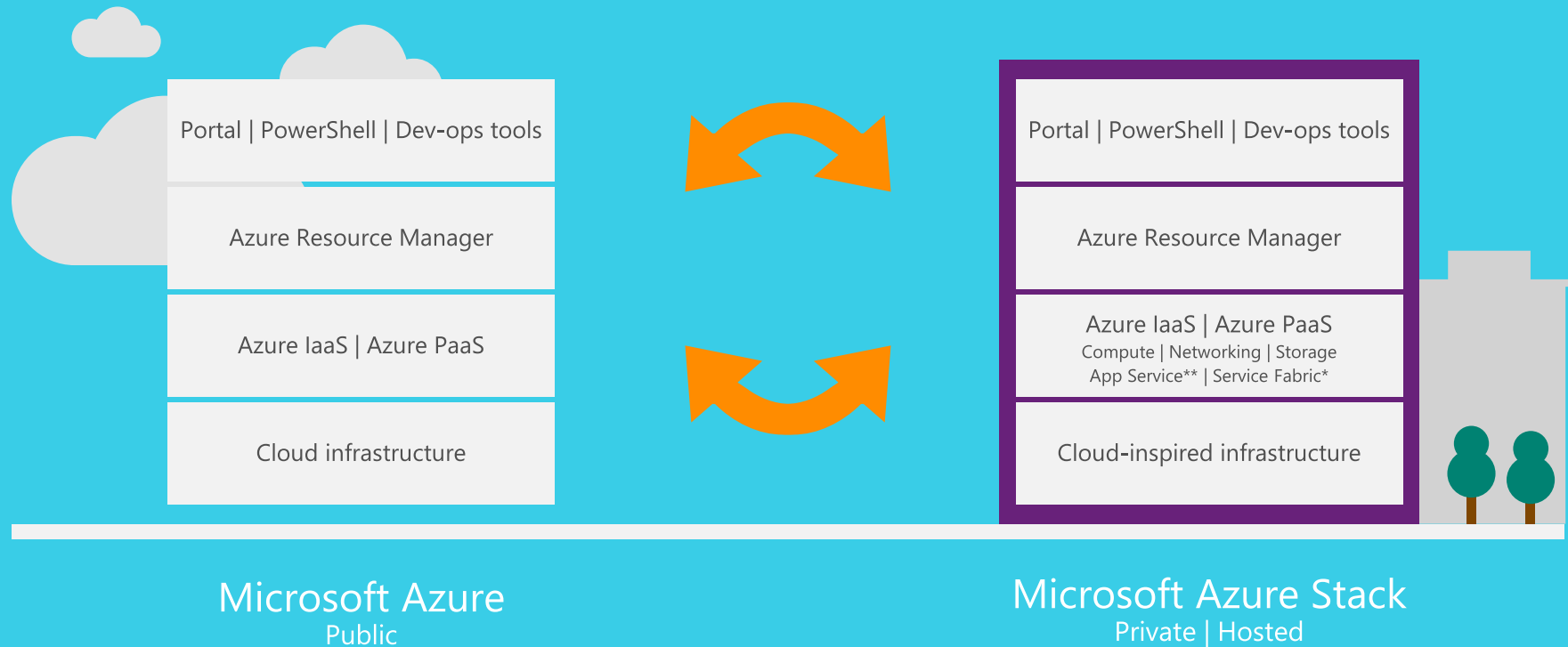


# What does a hybrid cloud platform look like?



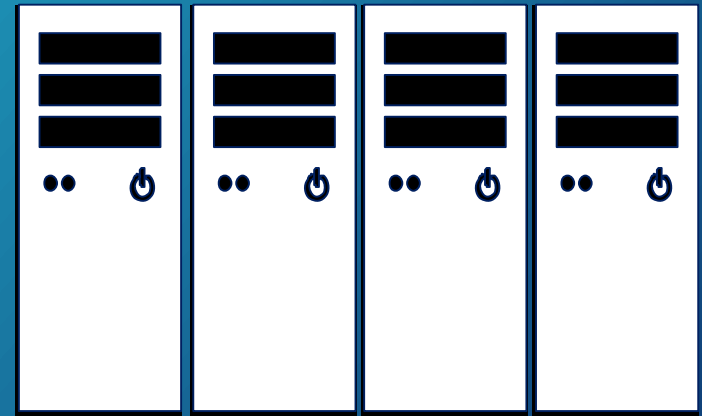
# Microsoft's hybrid cloud platform

## Power of Azure in your datacenter



# Azure Stack: Smaller Scale

Same Azure experience!



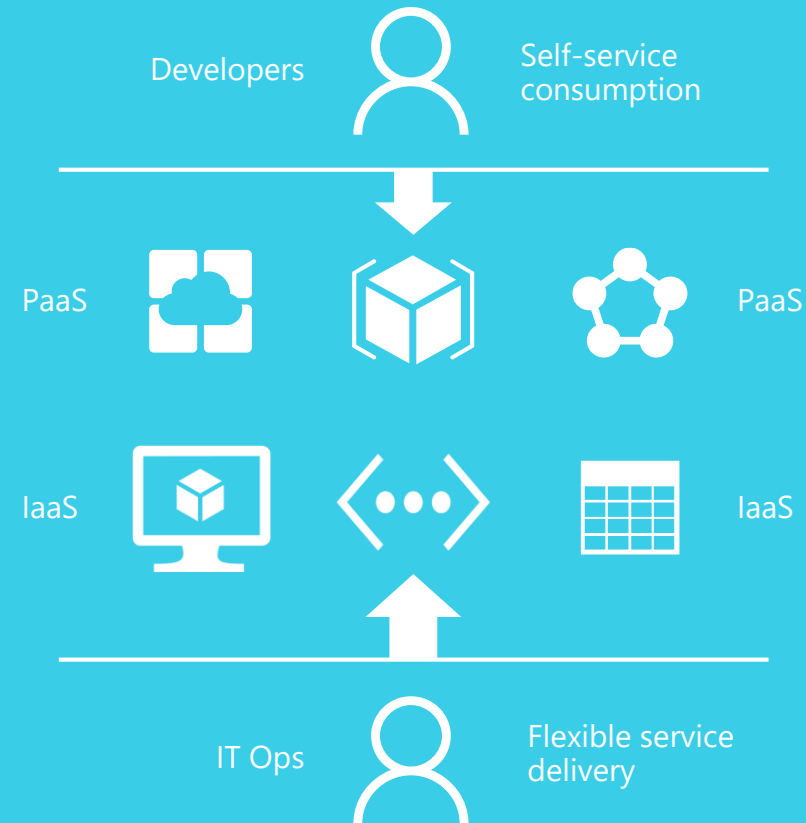
# Azure services in your datacenter

## Transform datacenter resources into cloud services

Self-service IaaS—Virtual Machines, Virtual Network, Storage, Docker-enabled containers

Self-service PaaS— App Service\*\*, Service Fabric\*

Flexible service delivery with Azure-based management and automation tools



# Unified app development

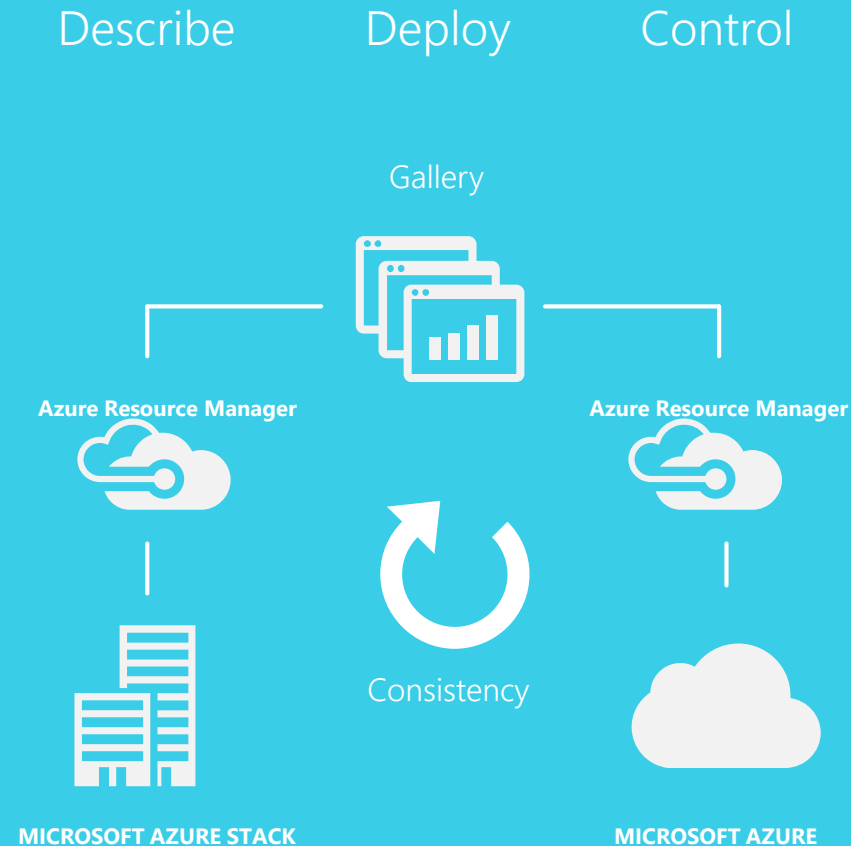
## Write once, deploy to Azure or Azure Stack

Identical application model with same APIs

Role-based Access Control (RBAC)

Same deployment experience—PowerShell, Azure portal, or Visual Studio

Choice of open source application platforms, languages, and frameworks



# One Azure ecosystem

Jump-start your Azure Stack efforts with the rich Azure ecosystem

Azure Resource Manager templates

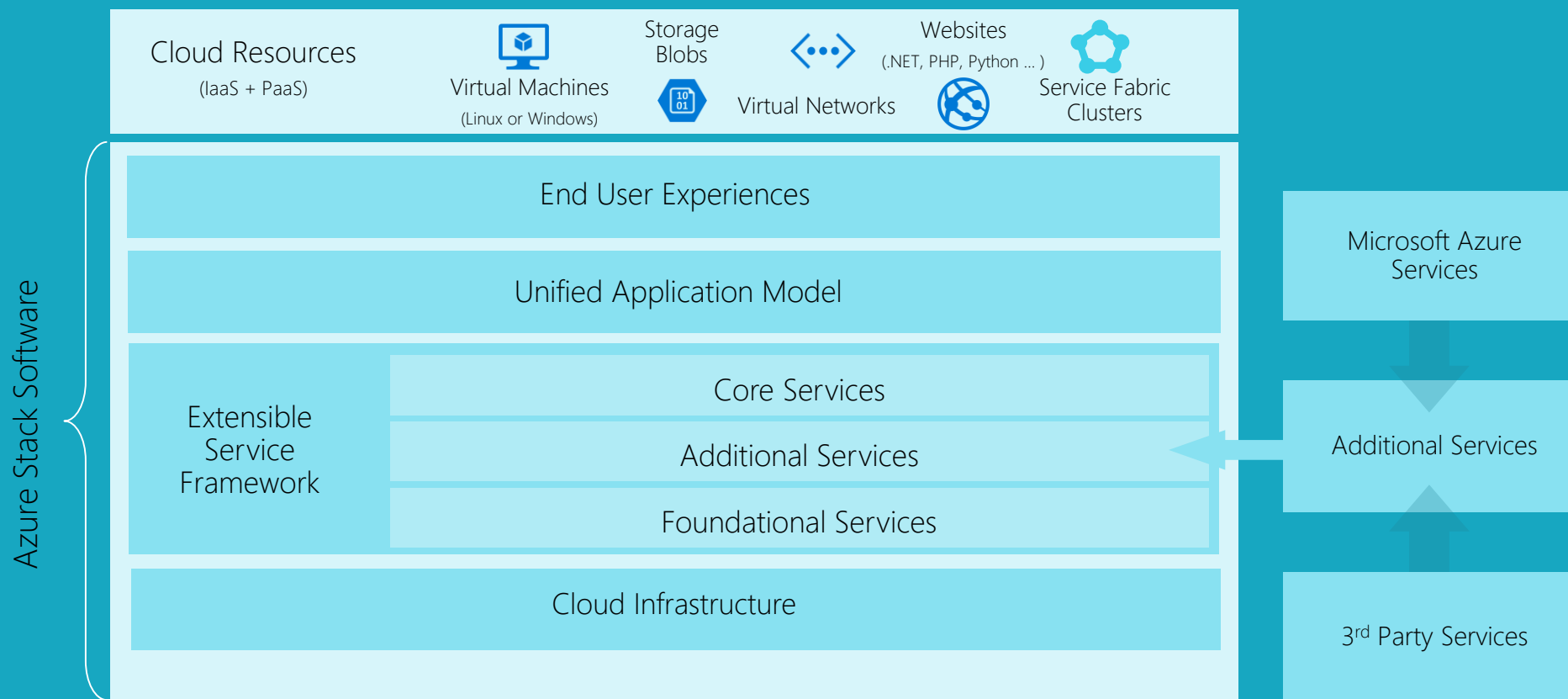
Windows Server and Linux VM images

Third-party services and extensions

GitHub to store and share above application components



# Azure Stack architecture summary





## Platform Services

### Security and Management

- Portal
- Active Directory
- Multi-factor Authentication
- Automation
- Key Vault
- Store/Marketplace
- VM Image Gallery and 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 and IoT

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

### Data

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

### Media and CDN

- Media Services
- Content Delivery Network (CDN)

## Infrastructure Services

### Compute

- Virtual Machine
- Containers

### Storage

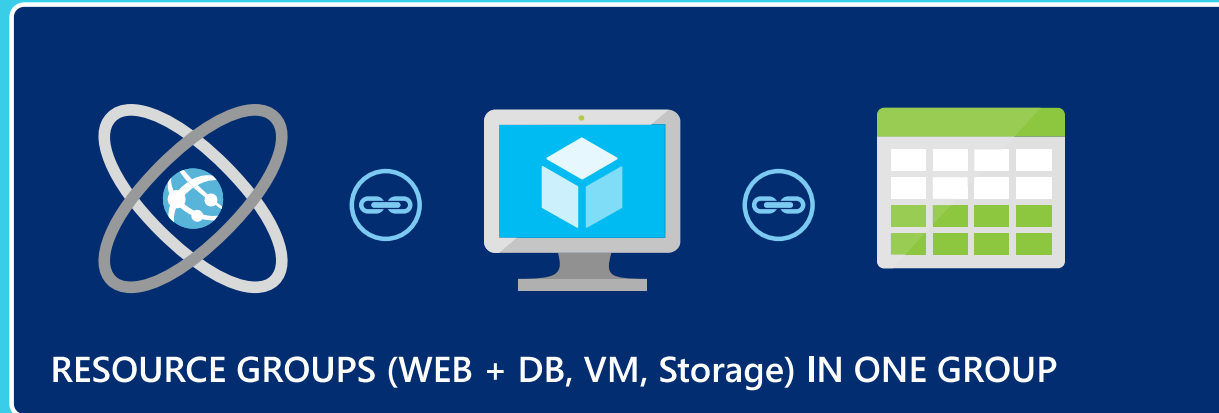
- BLOB Storage
- Azure Files
- Premium Storage

### Networking

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



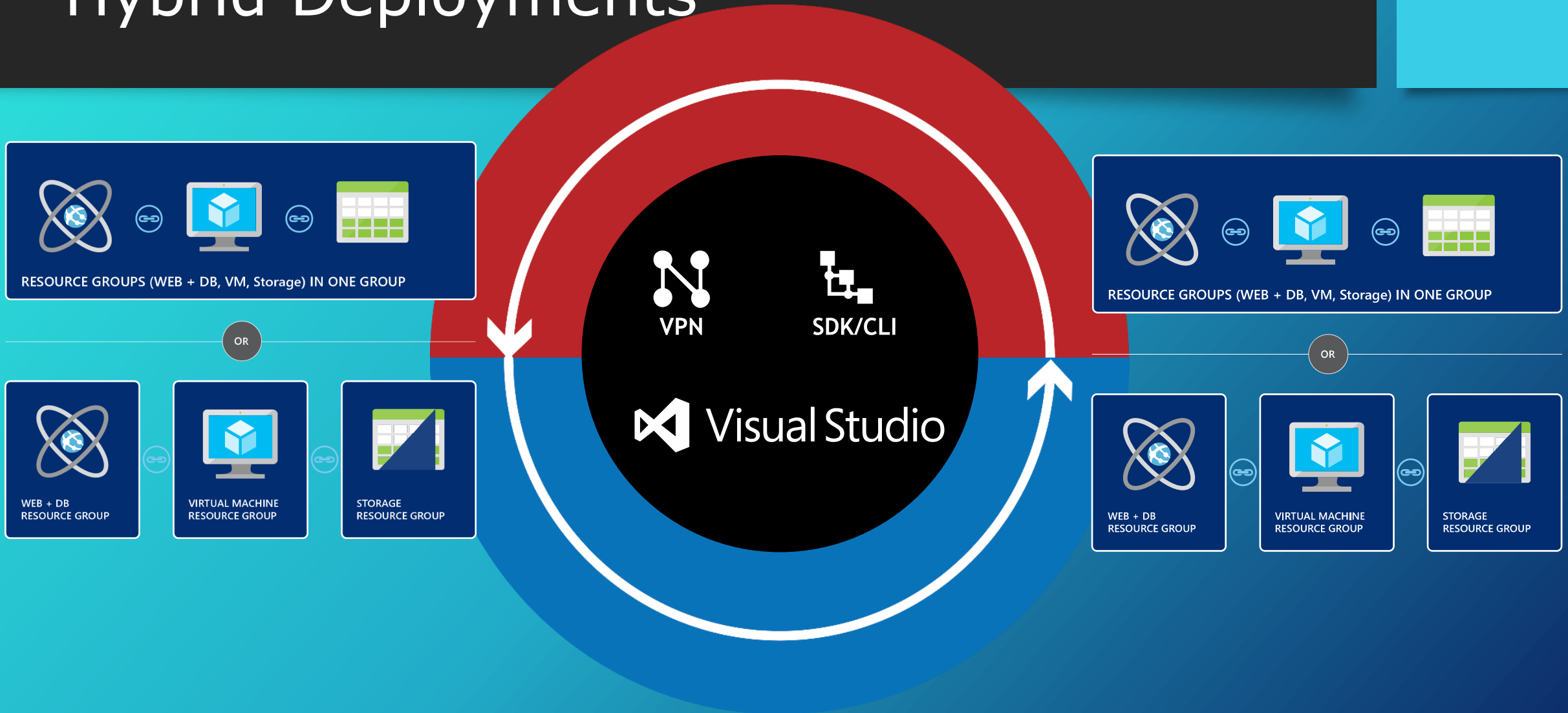
# Complex Deployments



OR



# Hybrid Deployments



# Endpoints



## Azure US Government Cloud

<https://gallery.usgovcloudapi.net/>  
<https://management.usgovcloudapi.net/>  
<https://login.microsoftonline.com/>



## Azure Public Cloud

<https://gallery.azure.com/>  
<https://management.azure.com/>  
<https://login.microsoftonline.com/>



## Azure China Cloud

<https://gallery.chinacloudapi.cn/>  
<https://management.chinacloudapi.cn/>  
<https://login.chinacloudapi.cn/>



## Azure Stack Cloud

<https://gallery.azurestack.local/>  
<https://management.azurestack.local/>  
<https://login.windows.net/<AAD org ID>/>

# 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

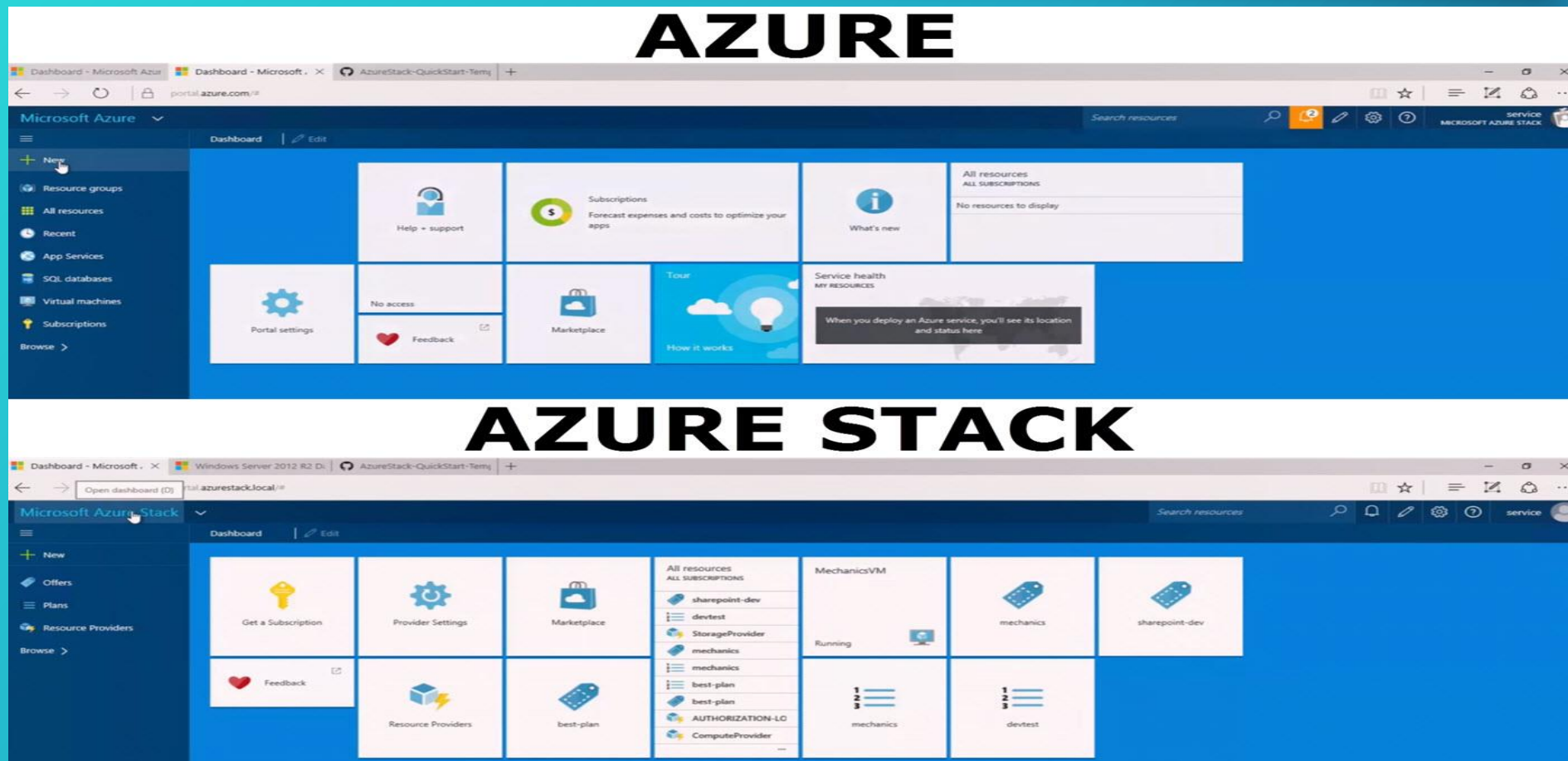
RBAC, subscriptions,  
and locks

# 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

Let's start deployment

# And at the end...





From TP1 to GA

What has changed?

**DELL** EMC

**Hewlett Packard  
Enterprise**

**Lenovo**™



# Feedback

<https://form.responster.com/C9EOb8>

Thank you!