



Azure IaaS



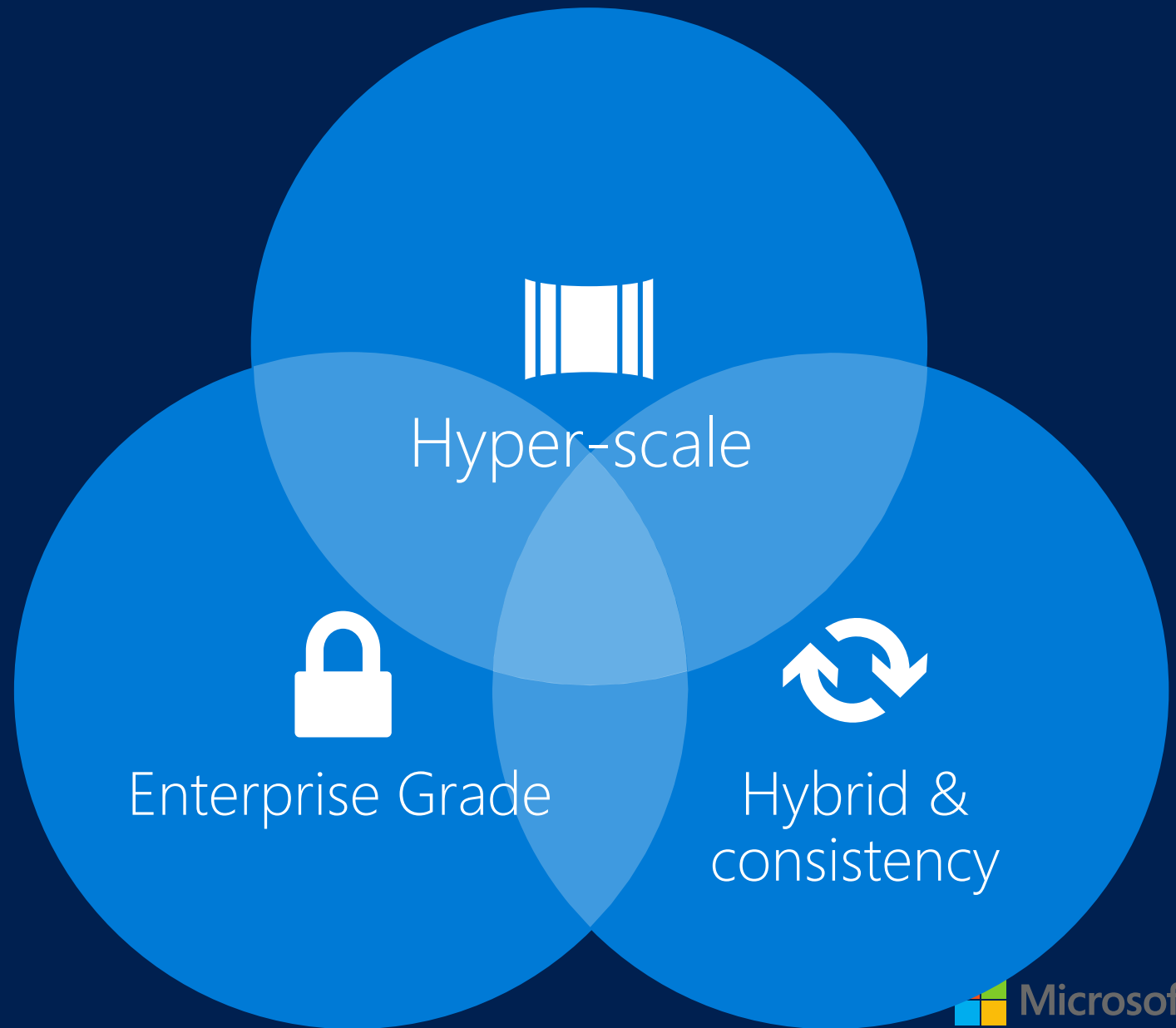
Patrick Heyde
Technical
Evangelist

Welche Möglichkeiten
bieten sich für
IT-Pros und Admins

Technical Summit 2014
Pure Technology.

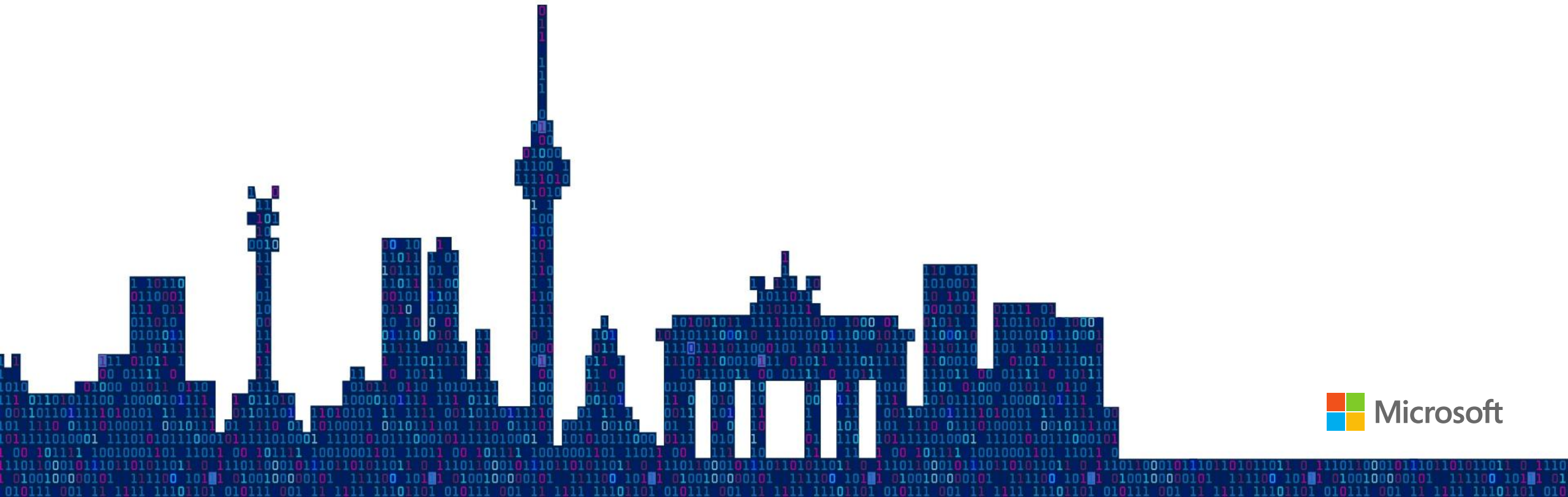
Die Microsoft Konferenz
für Entwickler und IT Pros vom
11.-13. November in Berlin

How we differentiate with Azure



Announcing:

New Azure Regions



19 Regions and Counting...

2 new regions in Australia

Azure VM support in North Central US and South Central US

2 new US regions for the Government Cloud

Datacenters in India coming soon



North Central US

China North

Central US

North Europe

China East

US Gov Iowa*

West Europe

West US

Japan East

East US

South Central US

East US 2

East Asia

Japan West

US Gov Virginia*

Southeast Asia

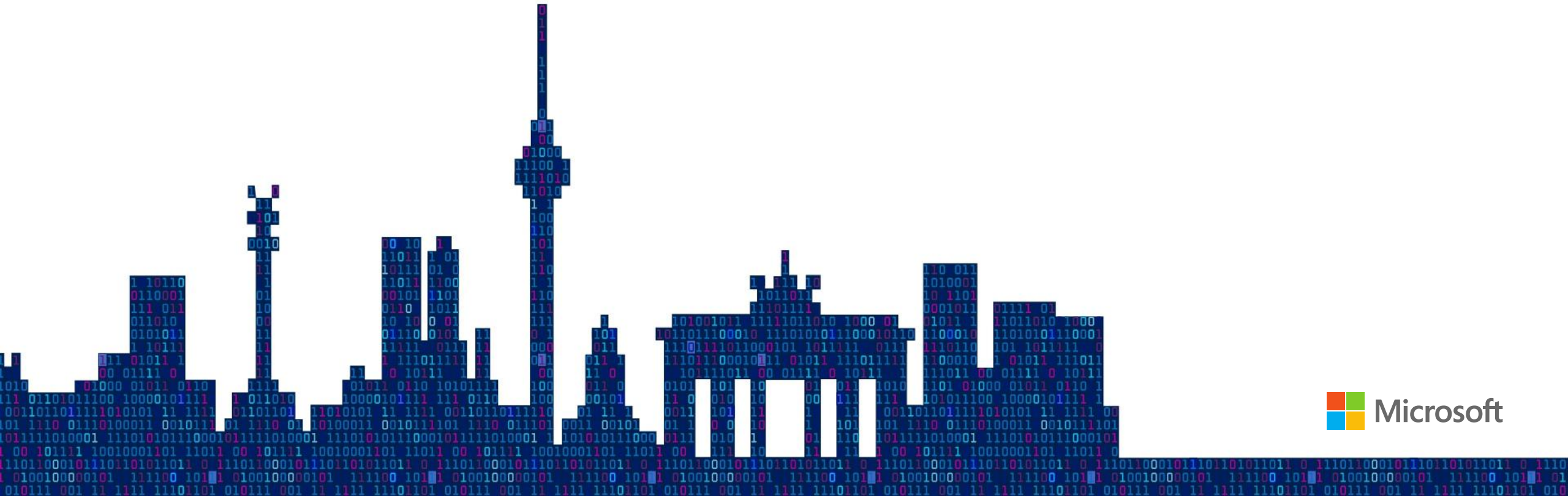
Australia East

Brazil South

Australia Southeast

Announcing:

New IaaS Sizes



New Tiers & Sizes

Additional Standard Tier Sizes

High speed Compute & Memory Sizes (A8 & A9)

D-Series Sizes (Local SSD)

Coming Soon ...

DS-Series Sizes (Provisioned SSD backed disks)

G-series Sizes (Very Large VMs)

Compute Intensive Sizes

Size	CPU Cores	Memory	Disk Size	Max Data Disk
Standard_A8	Intel® Xeon® E5-2670 8 at 2.6 GHz	56 GB	OS = 127GB Temporary=382 GB	16
Standard_A9	Intel® Xeon® E5-2670 16 at 2.6 GHz	112 GB	OS = 127GB Temporary=382 GB	16

- High Speed Multi-core CPUs with large amounts of memory
- Access to second RDMA capable 40Gbit/s QDR InfiniBand backend network
- Designed for HPC applications

D-Series

Size	CPU Cores	Memory	Temp Disk (SSD)
Standard_D1	1	3.5 GB	50 GB
Standard_D2	2	7 GB	100 GB
Standard_D3	4	14 GB	200 GB
Standard_D4	8	28 GB	400 GB

Size	CPU Cores	Memory	Temp Disk (SSD)
Standard_D11	2	14 GB	100 GB
Standard_D12	4	28 GB	200 GB
Standard_D13	8	56 GB	400 GB
Standard_D14	16	112 GB	800 GB

- 60% faster CPUs than Standard A Series VMs
- Large SSD-backed temporary drive
- Better Core : RAM ratio - 1 : 3.5
- Best for workloads that can leverage this drive for caching or replication redundancy

Demo:

Deploying SQL 2014 D-Series VM
to enable SQL buffer pool
extension



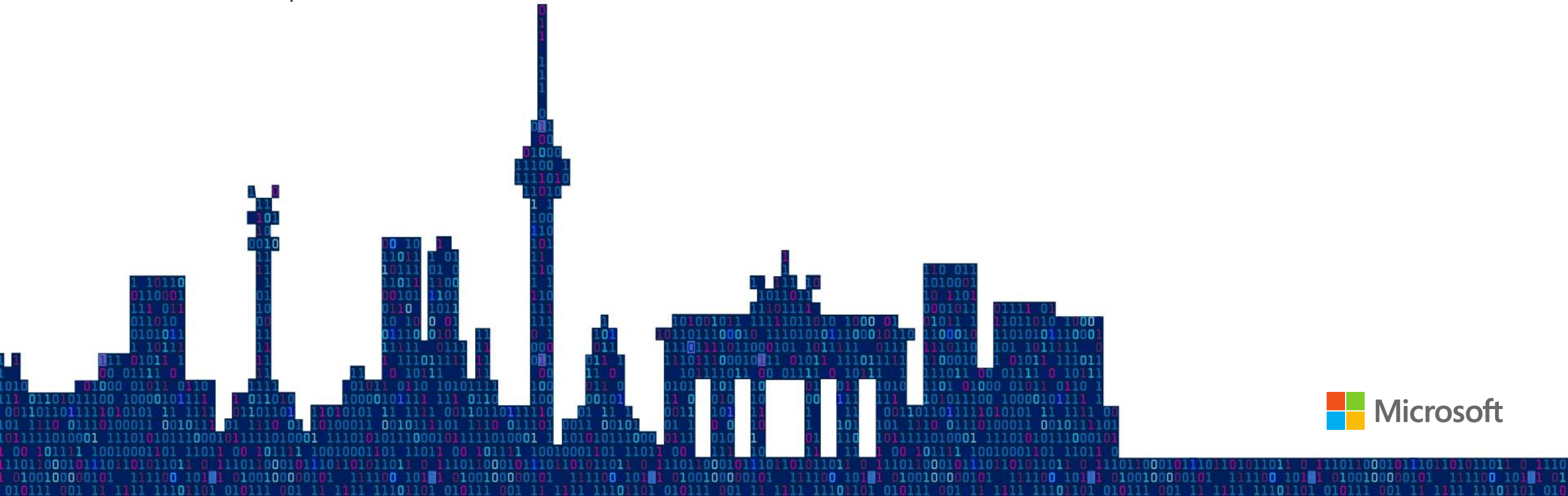
G-Series VMs (Coming Soon)

Size	CPU Cores	Memory	Temp Disk (SSD)
Standard_G1	2	28 GB	406 GB
Standard_G2	4	56 GB	812 GB
Standard_G3	8	112 GB	1,630 GB
Standard_G4	16	224 GB	3,250 GB
Standard_G5	32	448 GB	6,500 GB

- Extremely large VMs
- Extraordinary performance using Intel® Xeon® processor E5 v3 family

Announcing:

Azure Certified Partners and Images in VM Marketplace



Azure Certified Partners & Workloads

For you as a software provider:

Opportunity to promote and sell your application to Microsoft Azure customers and be integrated into the curated Azure VM Gallery

For you as a customer/consumer:

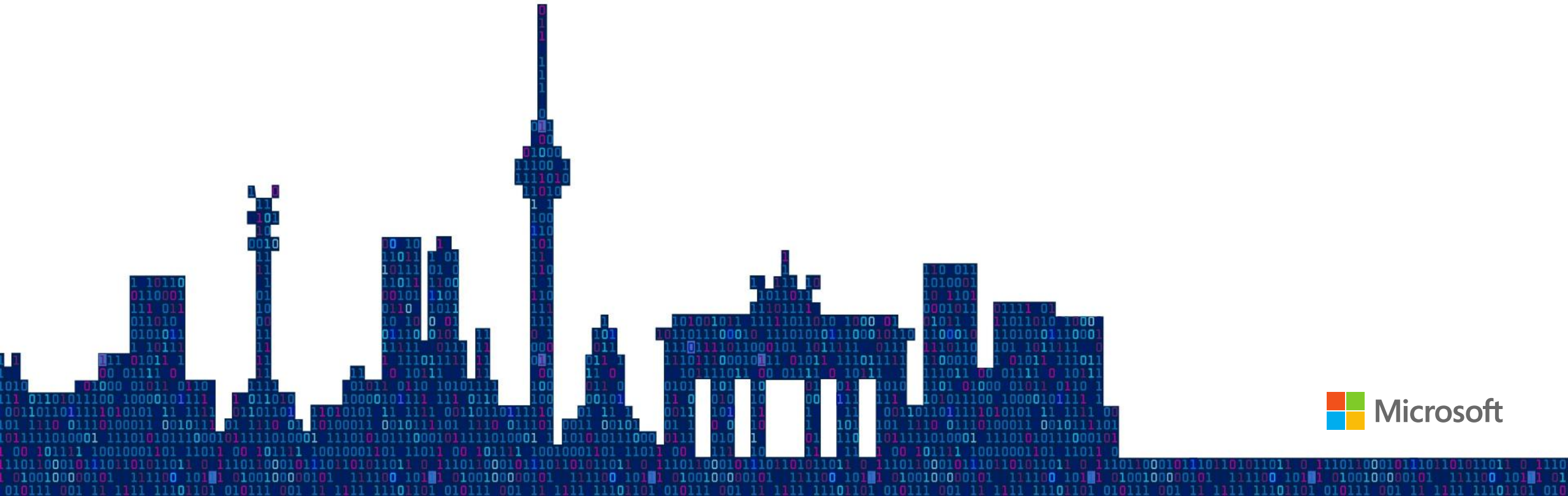
Enabling a large, quality-ensured ecosystem of applications that you can leverage to build your business on Azure





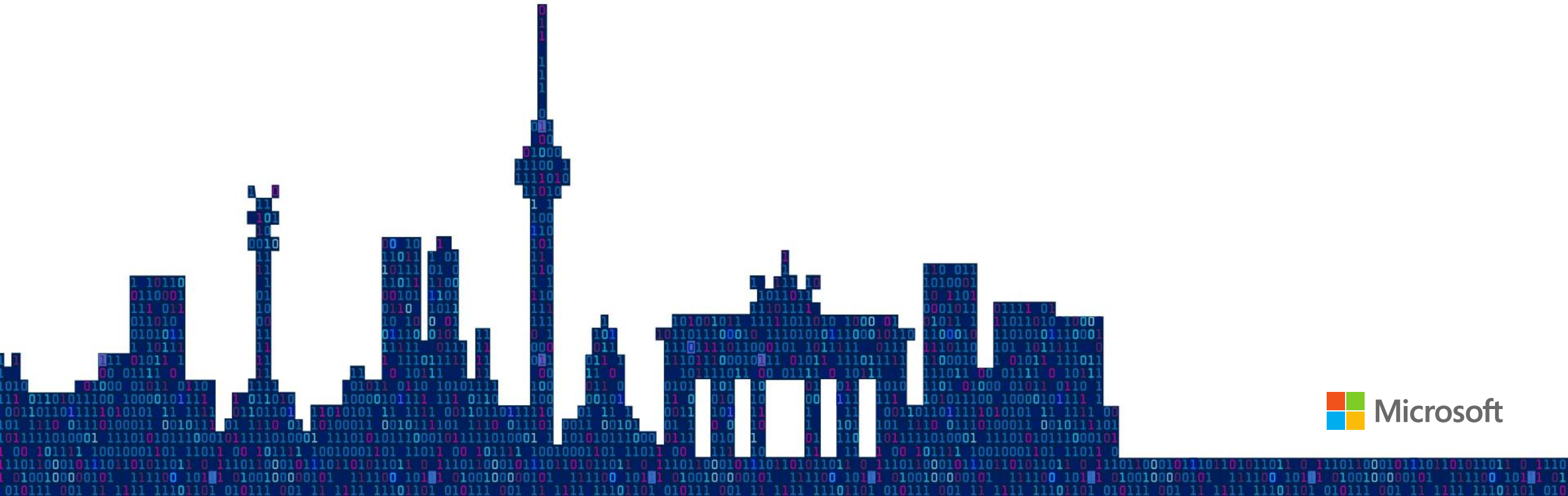
Demo:

Purchasing and deploying from VM Marketplace



Announcing:

Premium Storage Offering (Coming Soon...)



Premium Storage

SSD-based Blob Storage

Consistent, low enough latency to run I/O intensive workloads

Preview soon to be available in US and Europe

Premium Storage VMs & Disks

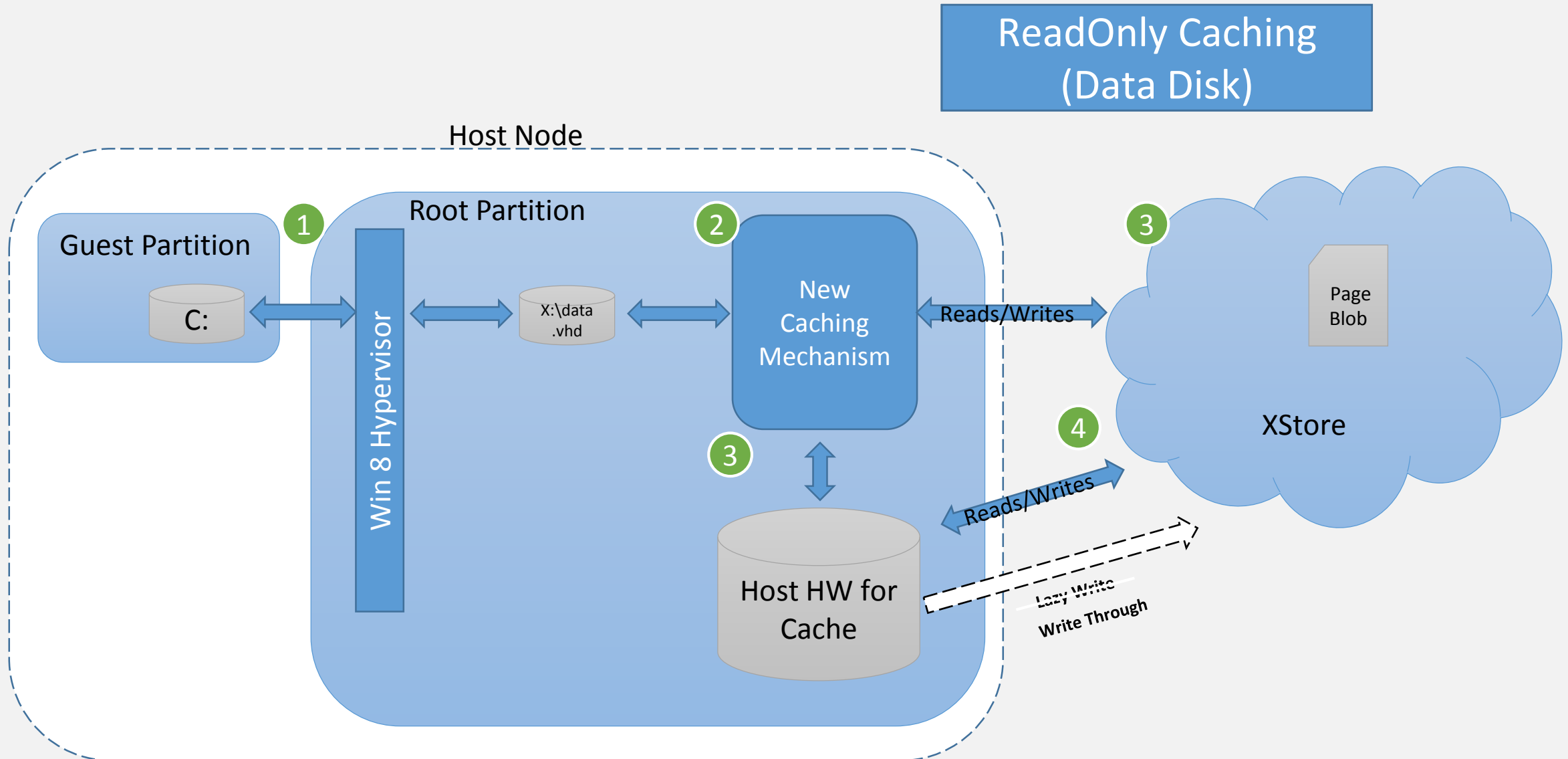
Set of Premium Storage VMs, similar to D-Series

Support using up to 32 disks backed by Premium Storage for larger sizes

Can achieve >50,000 IOPs per VM for larger sizes

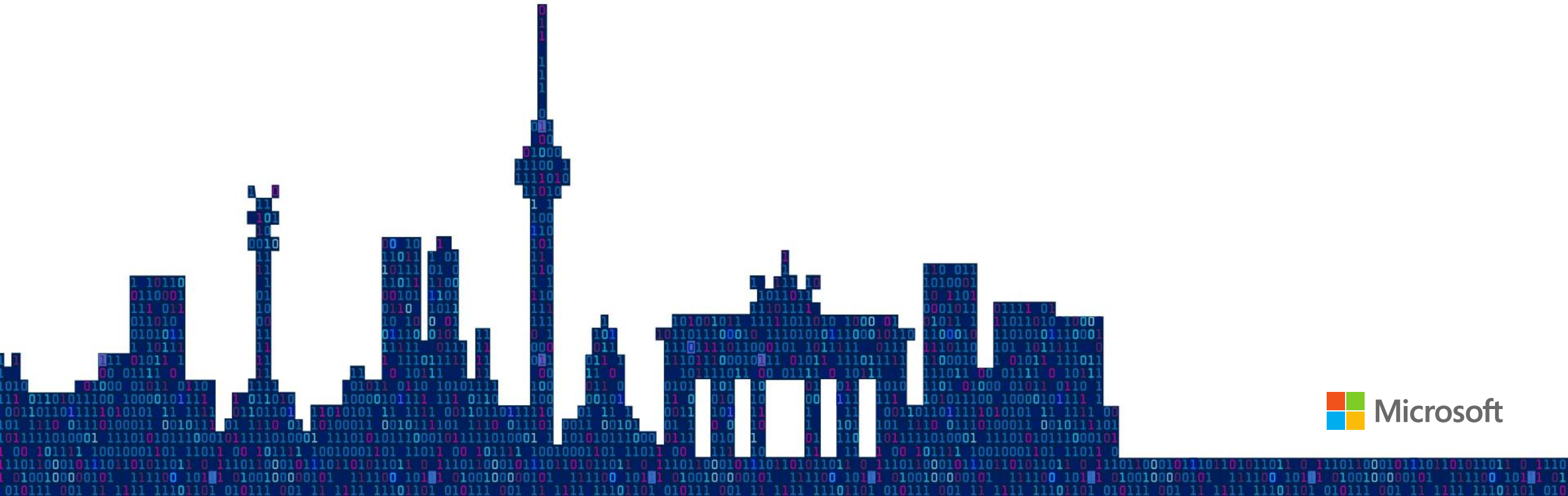
New local cache for faster reads (~1ms)

Azure Blob Cache ('ABC')



Announcing:

Azure Files Service (Preview)



Azure Files

Exposes file shares using SMB 2.1 protocol

Easily share files between VMs or access directly via REST

Same availability, durability, scalability, and geo redundancy as other storage services

Azure Files Continued

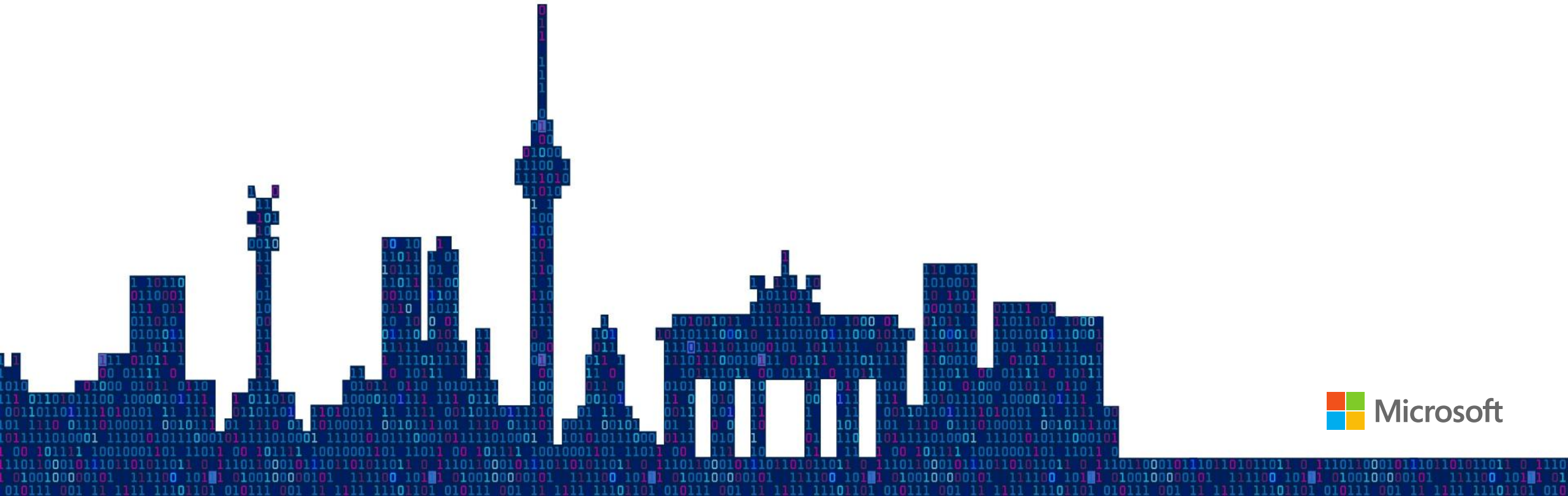
Up to 5 TB per share (up to 1 TB file within share)

Up to 1000 IOPS per share

60 MBps per share

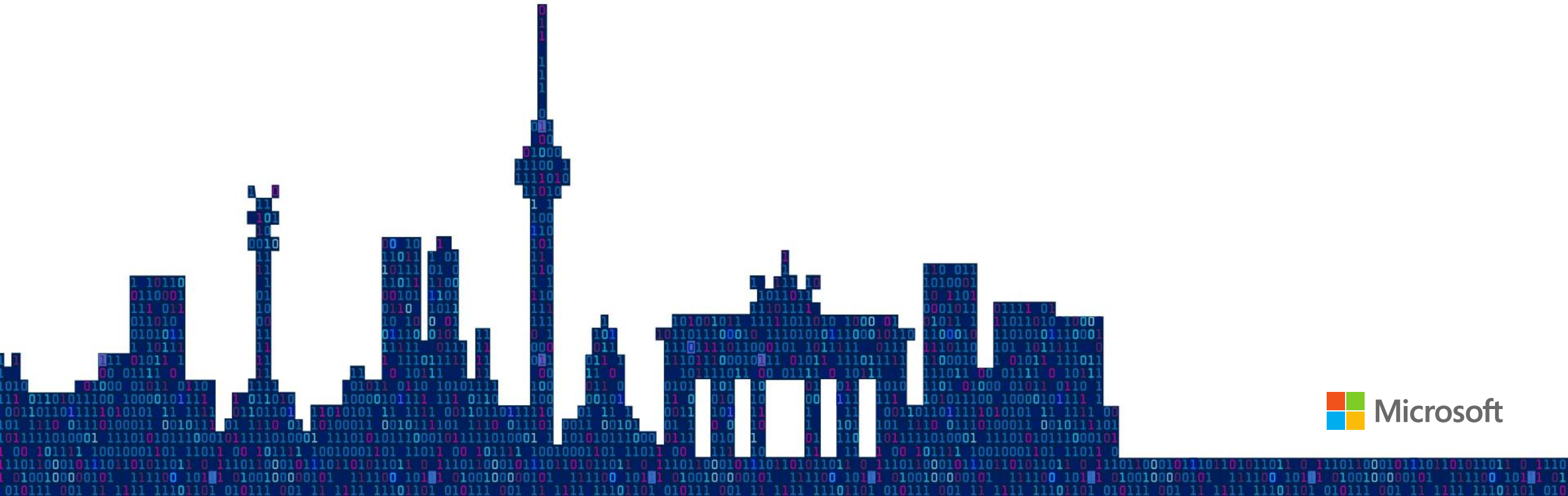
Demo:

Creation of Azure File Shares



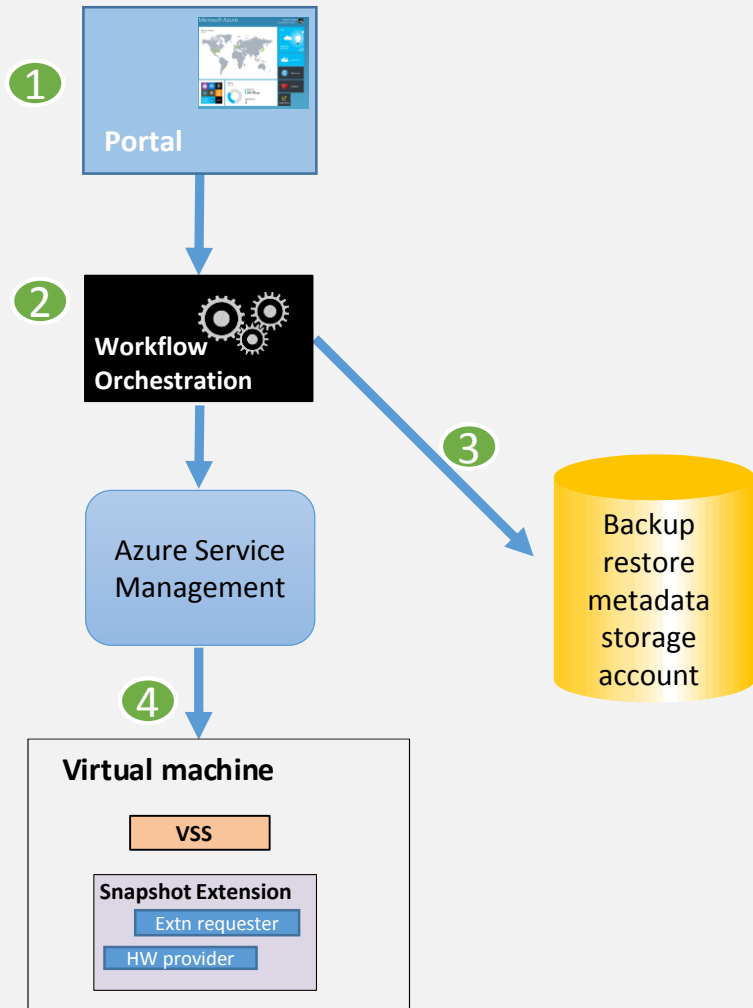
Announcing:

Azure Backup & Migration Solutions

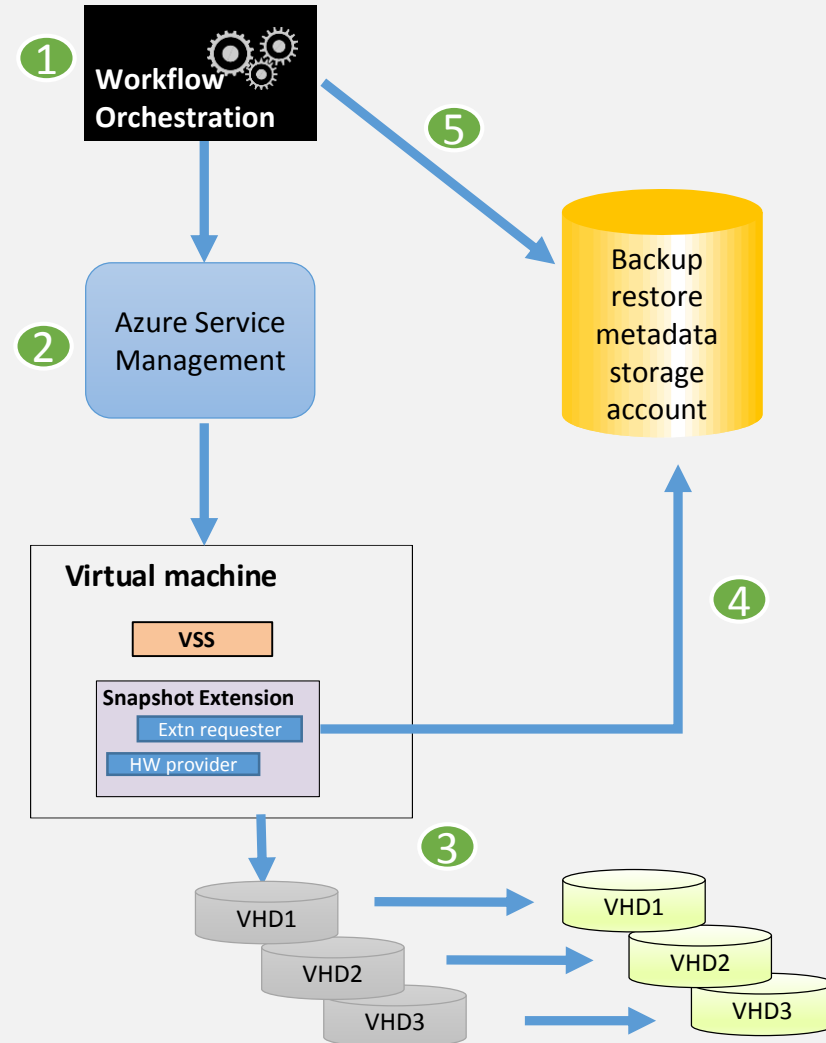


Azure VMs with Azure Backup

Initialize Backup Bootstrap

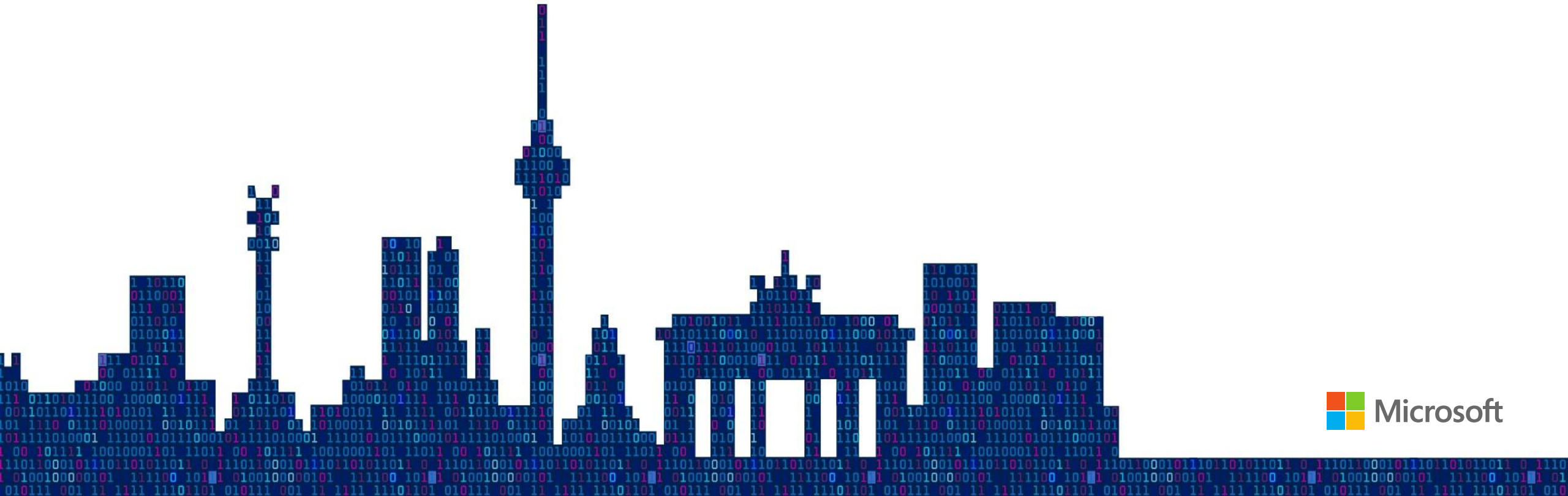


On-Demand Backup

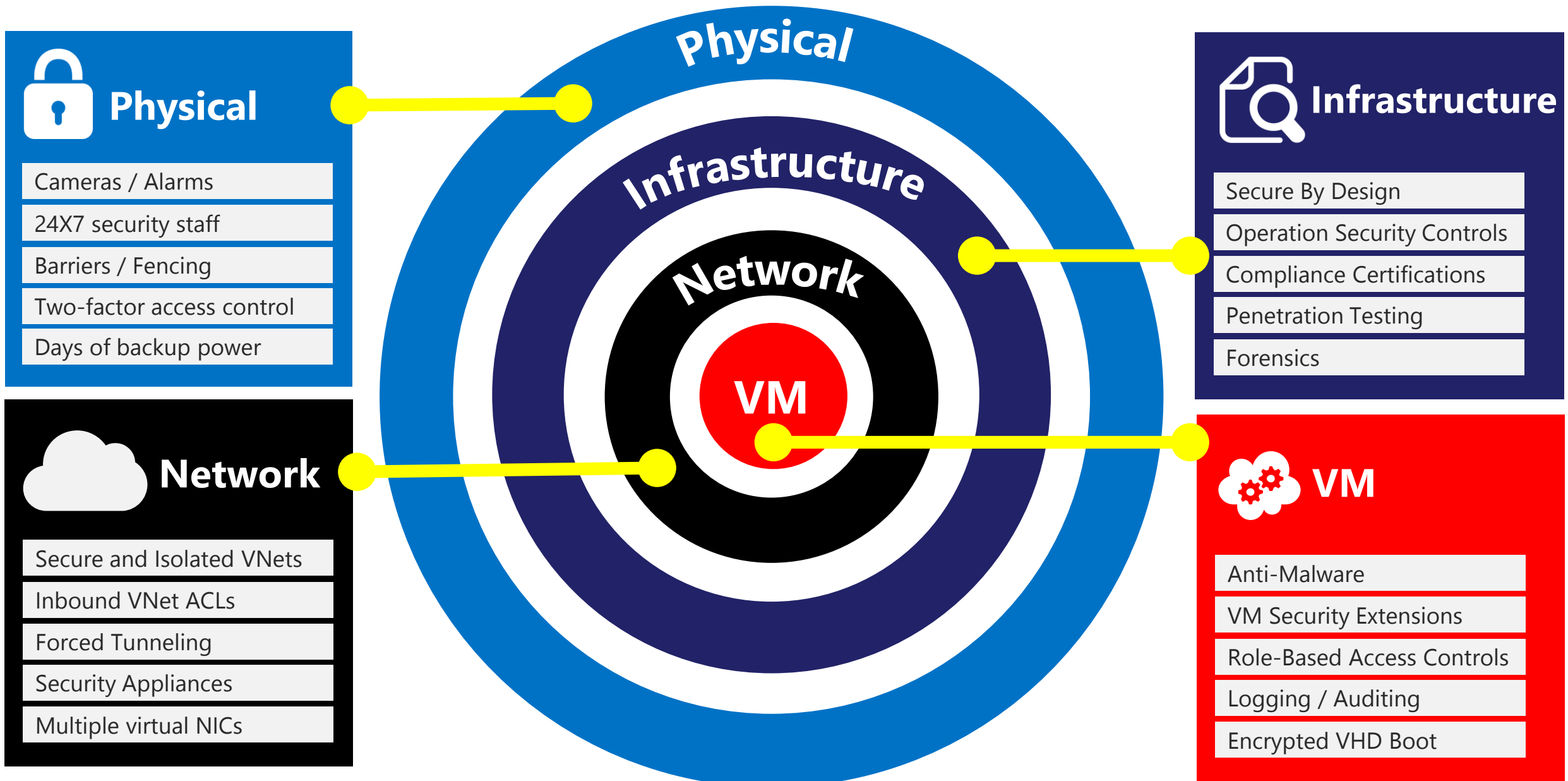


Announcing:

Security on your terms

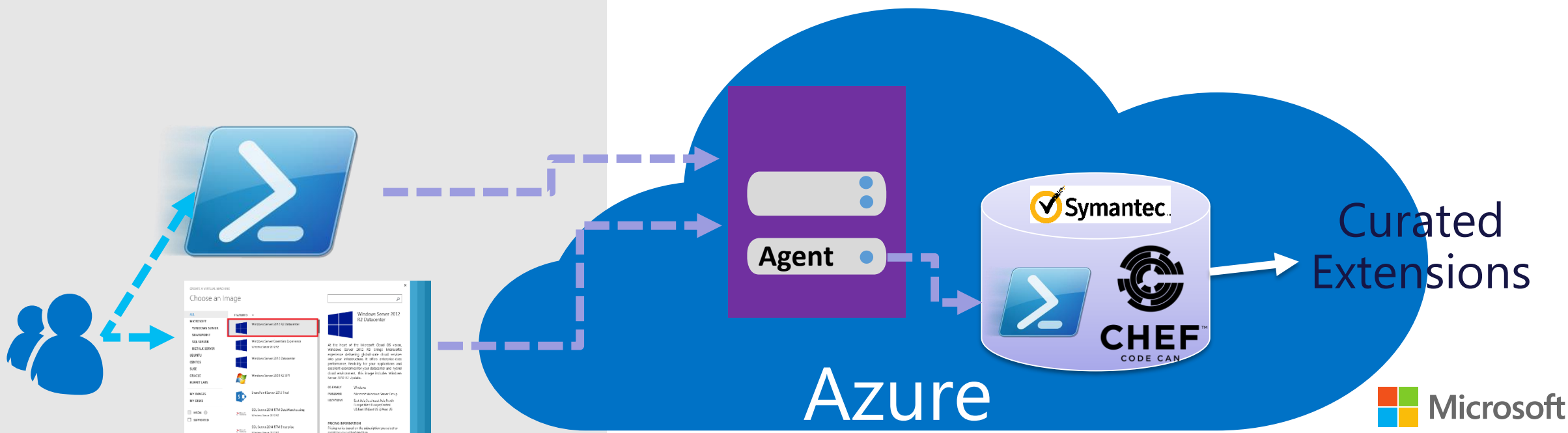


Trust and Control



IaaS extended

Extend the power of your VM
Secure VM customization
Partner ecosystem
Full control still with you!



McAfee Endpoint Protection

- Antimalware
- Browser protection – McAfee Site Advisor
- Firewall
- Relay server support – Update VMs in subnet
- For more info: <http://www.mcafeeasap.com/>

Entitlement Key ⓘ

Install Virus and Spyware Protection ⓘ

☒

Install Browser Protection ⓘ

☒

Install Firewall Protection ⓘ

☒













Relay Server ⓘ

☐

Create

Microsoft Antimalware GA

- Free Windows Anti-virus
- All Azure compute roles
- Realtime & Scheduled
- Portal/PS Configuration
- Integrated monitoring

New resource	Microsoft Antimalware	Add Extension
<div><div>Microsoft Antimalware</div><div>Microsoft Corp.</div></div>	<div><div>Microsoft Antimalware</div><div>Microsoft Corp.</div></div>	<div><div>Microsoft Antimalware</div><div>Microsoft Corp.</div></div>
<div><div>BgInfo</div><div>By Microsoft Corp.</div></div>	<div><div>Chef Client</div><div>By Chef Software, Inc.</div></div>	<div><div>Custom Script</div><div>By Microsoft Corp.</div></div>
<div><div>Microsoft Antimalware</div><div>By Microsoft Corp.</div></div>	<div><div>PowerShell Desired State Config...</div><div>By Microsoft Corp.</div></div>	<div><div>Puppet Enterprise Agent</div><div>By Puppet Labs</div></div>
<div><div>Symantec Endpoint Protection</div><div>By Symantec.</div></div>	<div><div>TrendMicro DSA</div><div>By TrendMicro DeepSecurity</div></div>	<div><div>TrendMicro DSA</div><div>By TrendMicro DeepSecurity</div></div>
	<div><div><div>Microsoft Antimalware for Azure Virtual Machines is a real-time protection capability that helps identify and remove viruses, spyware, and other malicious software, with configurable alerts when known malicious or unwanted software attempts to install itself or run on your system. The solution can be enabled and configured from the Azure Portal, Service Management REST API, and Microsoft Azure PowerShell SDK cmdlets.</div><div>To enable antimalware with the default configuration, click Create on the Add Extension blade without inputting any configuration setting values.</div><div>To enable antimalware with a custom configuration, input the supported values for the configuration settings provided on the Add Extension blade and click Create. Please refer to the tooltips provided with each configuration setting on the Add Extension blade to see the supported configuration values.</div><div>To enable antimalware event collection for a virtual machine, click any part of the Monitoring lens in the virtual machine blade, click Diagnostics command on Metric blade, select Status ON and check Windows Event system logs. The antimalware events are collected from the Windows Event system logs to your storage account. You can configure the storage account for your virtual machine to collect the antimalware events by selecting the appropriate storage account.</div></div><div><div>PUBLISHER</div><div>Microsoft Corp.</div></div><div><div>USEFUL LINKS</div><div>Documentation</div><div>PowerShell Cmdlets</div></div></div>	<div><div>EXCLUDED FILES AND LOCATIONS ⓘ</div><div></div></div> <div><div>EXCLUDED FILE EXTENSIONS ⓘ</div><div></div></div> <div><div>EXCLUDED PROCESSES ⓘ</div><div></div></div> <div><div>REAL-TIME PROTECTION ⓘ</div><div><input checked="" type="checkbox"/></div></div> <div><div>RUN A SCHEDULED SCAN ⓘ</div><div><input type="checkbox"/></div></div> <div><div>SCAN TYPE ⓘ</div><div>Quick</div></div> <div><div>SCAN DAY ⓘ</div><div>Saturday</div></div> <div><div>SCAN TIME ⓘ</div><div>120</div></div>
	<div>Create</div>	<div>Create</div>

OS Patching For Linux

- Automate Linux VM OS updates


- `node bin/azure vm extension set "MyVMName"`
- `OSPatchingForLinux Microsoft.OSTCExtensions 1.0 -i '{}'`
- `-t '{"disabled:" False",`
- `"stop":"False",`
- `"rebootAfterPatch":"Auto",`
- `"intervalOfWeeks":"1",`
- `"dayOfWeek":"Sunday|Wednesday",`
- `"startTime":"03:00",`
- `"category":"ImportantAndRecommended",`
- `"installDuration":"00:30"}'`


[http](#)


CloudLink SecureVM Agent


- Encrypts boot and data volumes
- Pre-boot authorization
- Image integrity validation
- Centralized management approach
- IT departments have full control over VM security
- For more info:
www.cloudlinktech.com/azure


Azure Certified


 CloudLink SecureVM for 25 VMs
CloudLink


 Check Point Virtual Appliance (R...
By Check Point


 Check Point Virtual Appliance (R...
By Check Point


 CloudLink SecureVM for 25 VMs
By CloudLink


 CloudLink SecureVM for 5 VMs
By CloudLink

 CohesiveFT VNS3 (Firewall/VPN)...
By CohesiveFT

 CohesiveFT VNS3 (Firewall/VPN)...
By CohesiveFT

 Couchbase Server 3.0 Enterprise...
By Couchbase

 Couchbase Server 3.0 Enterprise...
By Couchbase

 Derdack Enterprise Alert® 2015
By Derdack

Control, monitor and encrypt VM's with ease and confidence.

CloudLink® SecureVM provides VM volume encryption and pre-boot authorization with VM image integrity validation, allowing you to control when and where your VMs boot.

SecureVM unlocks native Windows Bitlocker and Linux OS encryption features by emulating TPM (Trusted Platform Module) functionality in software. This provides the necessary pre-boot authorization to enable boot volume and data volume encryption in virtual and cloud environments. SecureVM enables you to define the security policy that must be adhered to for a VM to start, including the ability to verify the integrity of the VM, offering protection against unauthorized modifications. SecureVM ensures that only trusted and verified VMs have the ability to run and access sensitive data residing in the cloud.

Benefits:

- **Uses native OS encryption tools** to reduce cost and complexity
- **Protects the entire VM** including boot and data volumes without re-architecting how your applications store data
- **Supports new, existing and modified VMs** - existing volumes can be encrypted and additional volumes can be encrypted as they are added
- **Encryption key management remains under your control**, including the ability for the encryption key store to reside within the enterprise data center
- **Flexible key storage options** including integration with key managers and Active Directory
- **Allows you to manage and monitor security** across the hybrid cloud

The CloudLink SecureVM for 25 VMs SKU includes the CloudLink Center management appliance and the ability to secure up to 25 VMs. CloudLink Center allows you to define security policy and control keys used to encrypt your VMs.

Create

Platform

Azure

Azure

Azure

Azure

Microsoft

Network Security Groups (NSG)

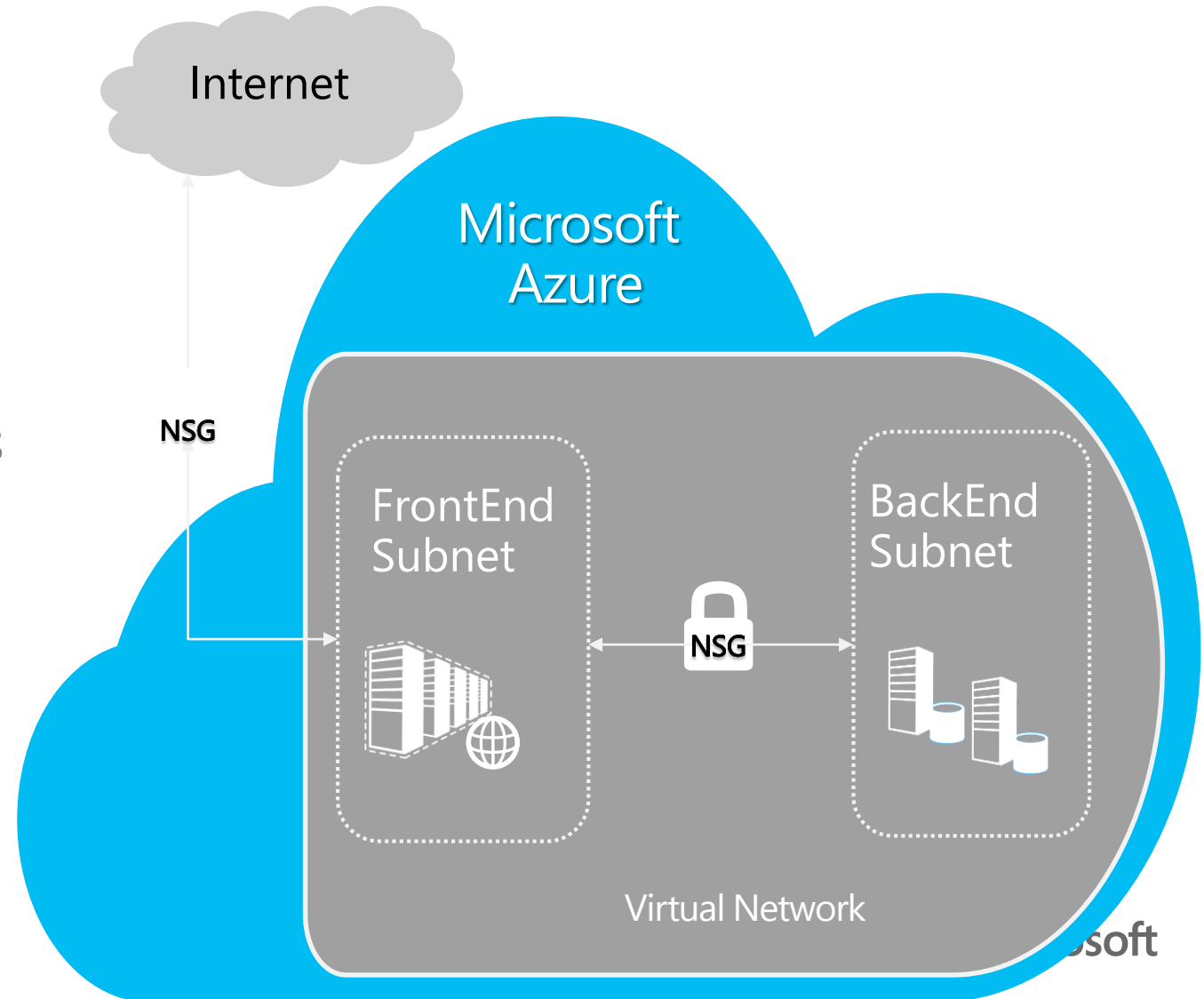
Grouping of Network traffic rules as security group

Security groups associated with Virtual machines or virtual subnets

Controlled access between machines in subnets

Controlled access to and from Internet

Network traffic rules updated independent of Virtual machines



Multiple NICs

Multiple NICs for a VM in Virtual Network

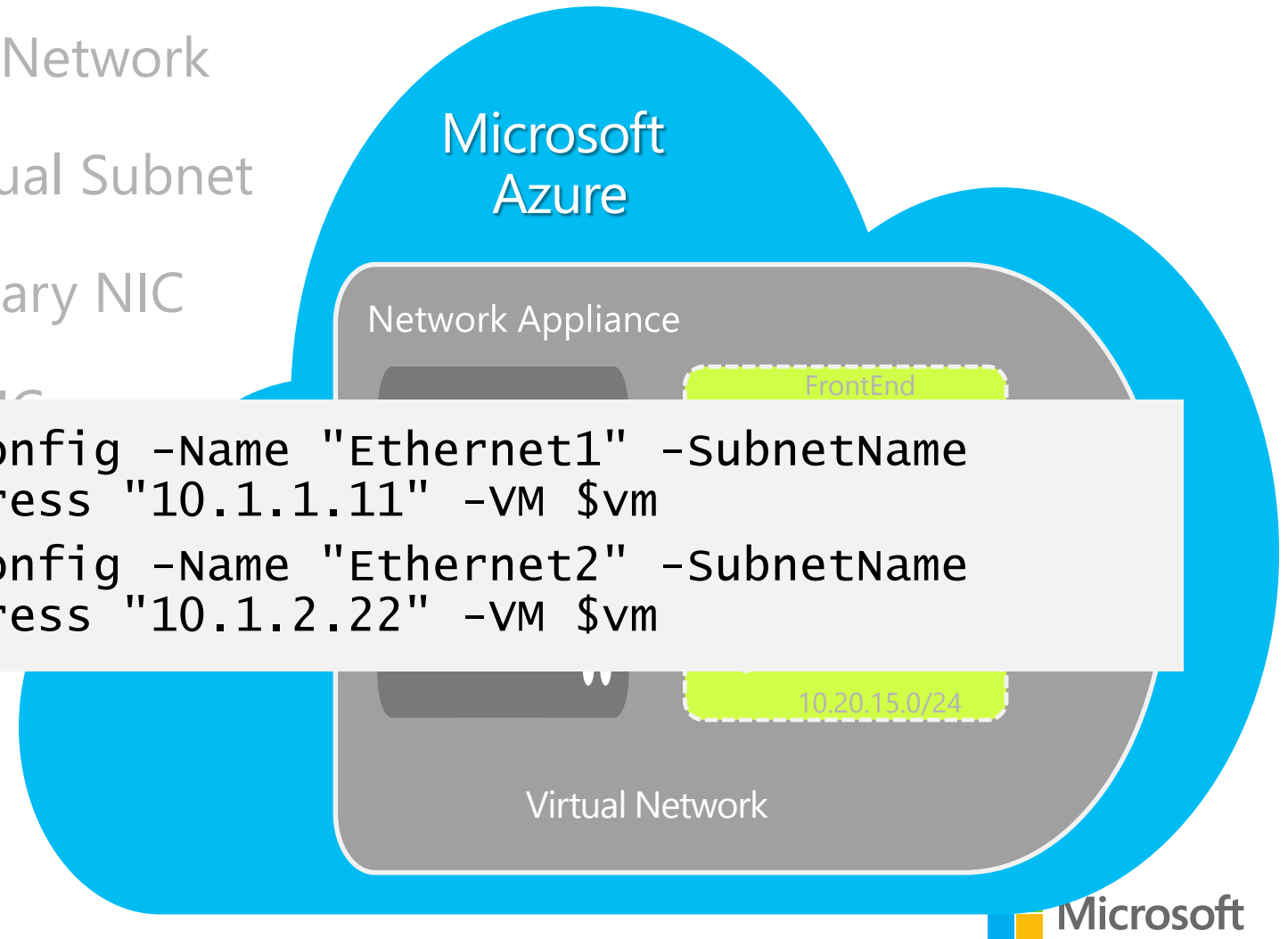
Each NIC can be on different Virtual Subnet

Internet traffic associated to primary NIC

Static IP Address for each NIC

Network

```
Add-AzureNetworkInterfaceConfig -Name "Ethernet1" -SubnetName  
"Midtier" -StaticVNetIPAddress "10.1.1.11" -VM $vm  
Add-AzureNetworkInterfaceConfig -Name "Ethernet2" -SubnetName  
"Backend" -StaticVNetIPAddress "10.1.2.22" -VM $vm
```

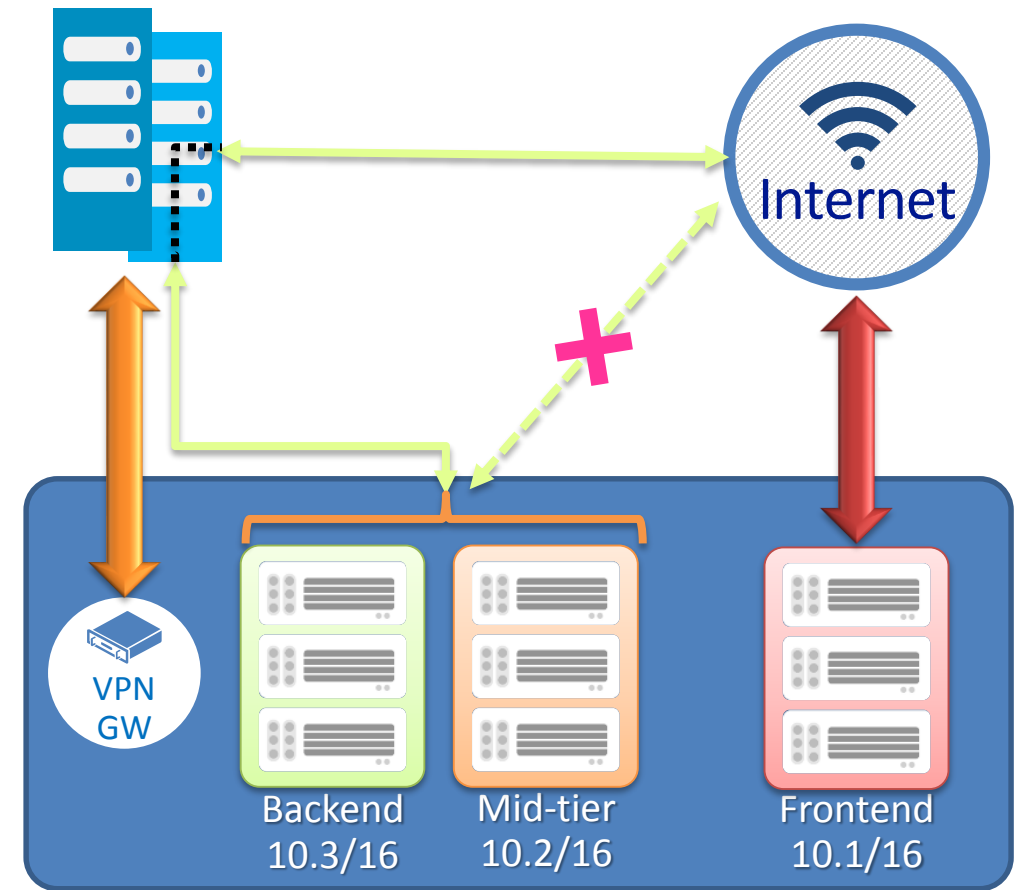


Forced Tunneling

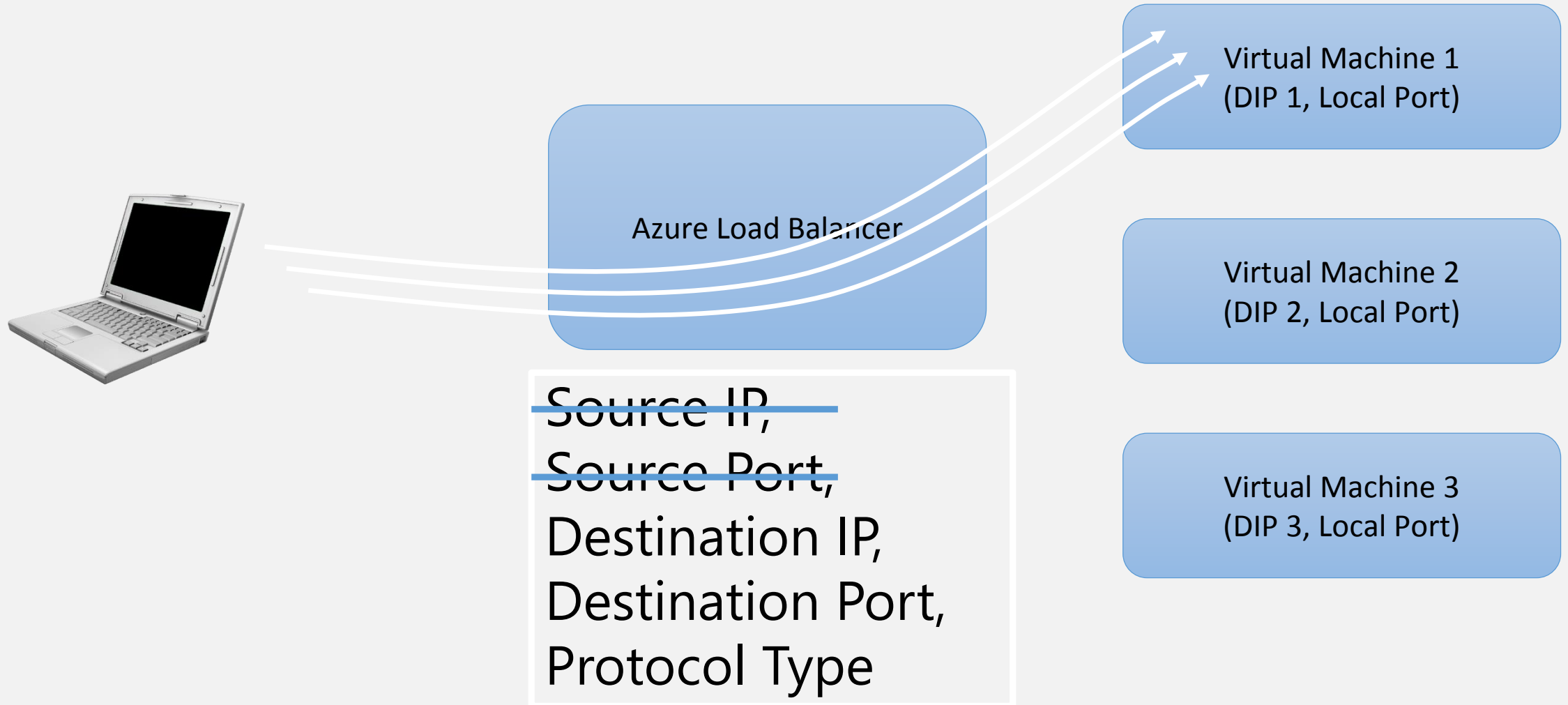
“Force” or redirect customer Internet-bound traffic to an on premises site

Auditing & inspecting outbound traffic from Azure

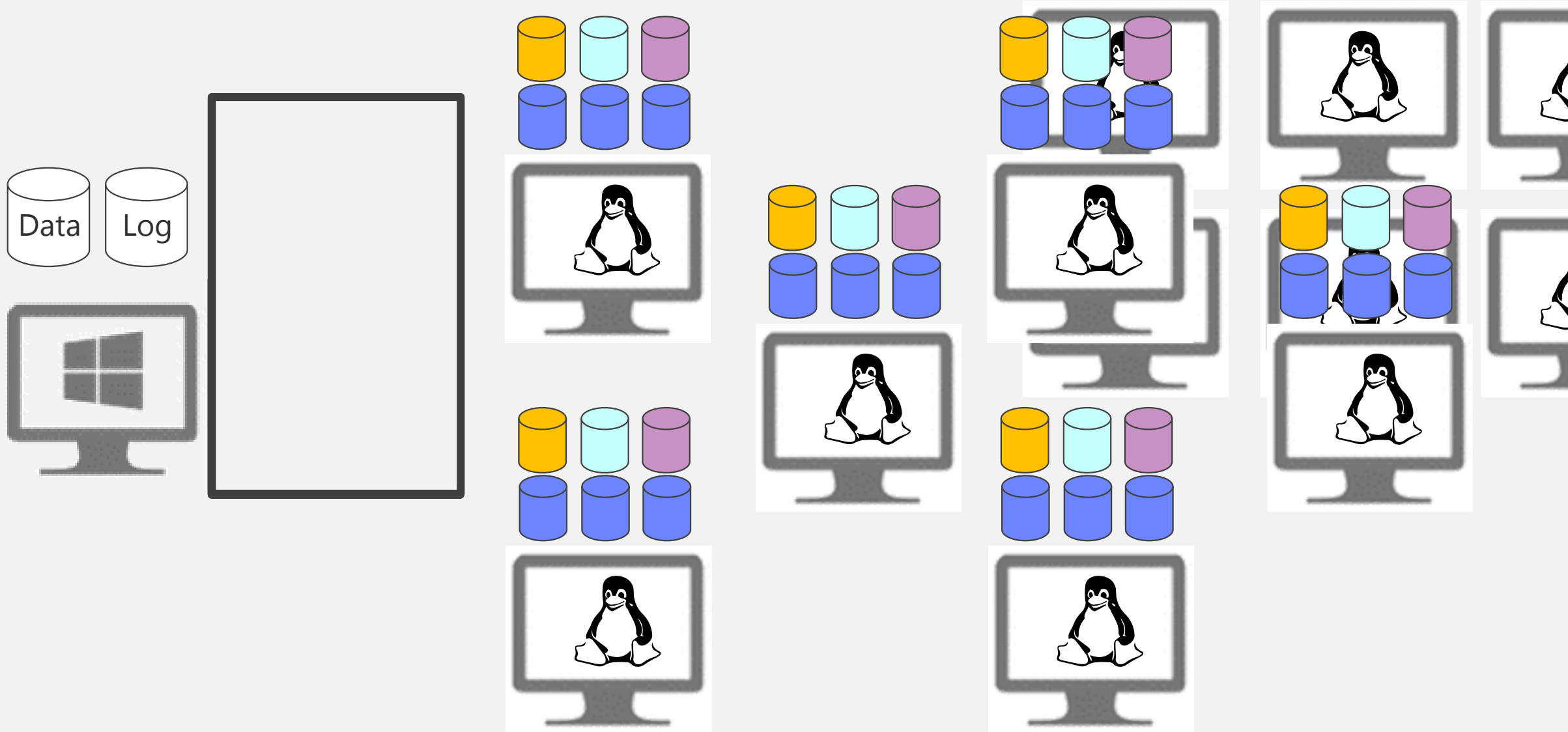
Critical security and IT policy requirements for enterprises



Client Based IP Affinity



VM Image



Demo:

Capture a Virtual Machine as a
user VM Image

Azure Announcements at TechEd

Generally Available

- New Azure Regions
- Compute intensive sizes
- D-Series sizes
- Azure Marketplace
- New partner VMs/extensions
- Docker support
- McAfee Antivirus extension
- Microsoft Antimalware extension
- CloudLink Encryption
- Alert Logic Log Manager
- Network Security Groups
- Multiple NICs
- Forced tunneling
- Client based IP affinity
- VM image support
- Visual Studio Release Manager
- Octopus Deploy Tentacle Agent
- DSC Extension
- OS Patching for Linux

Preview

- Azure Files
- Microsoft Migration Accelerator
- Batch service

Coming Soon

- G-Series sizes
- Premium storage
- Docker integration
- Azure Backup
- Cloud in a Box - CPS



** interesting for me in Germany, based on my Cloud Projects*

Azure Exams

Exams



EXAM
532

Developing Microsoft
Azure Solutions

EXAM
533

Implementing
Microsoft Azure
Infrastructure Solutions

EXAM
534

(Coming soon)
Architecting Microsoft
Azure Solutions

[http://bit.ly/
Azure-Cert](http://bit.ly/Azure-Cert)

Classroom training



MOC 2
10979

(Coming soon)
Microsoft Azure
Fundamentals

MOC 5
20532

Developing Microsoft
Azure Solutions

MOC 5
20533

Implementing
Microsoft Azure
Infrastructure Solutions

[http://bit.ly/
Azure-Train](http://bit.ly/Azure-Train)

Online training



MVA

(Coming soon)
Microsoft Azure
Fundamentals

MVA

(Coming soon)
Architecting Microsoft
Azure Solutions

[http://bit.ly/
Azure-MVA](http://bit.ly/Azure-MVA)

Get certified for 1/2 the price at TechEd Europe 2014!



Vielen Dank