Microsoft

A first look at Microsoft Azure

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- Focus on Cloud Computing / Web Development
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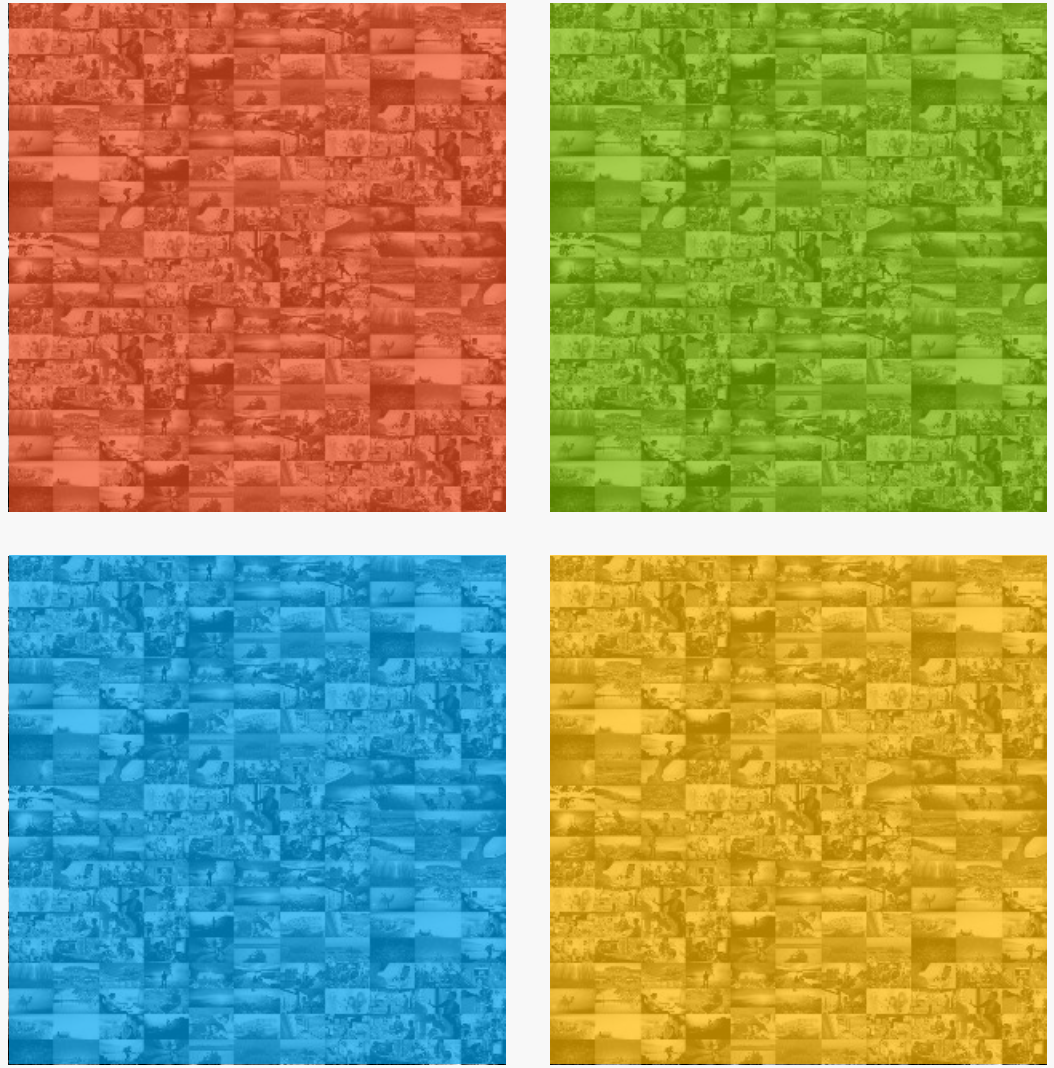
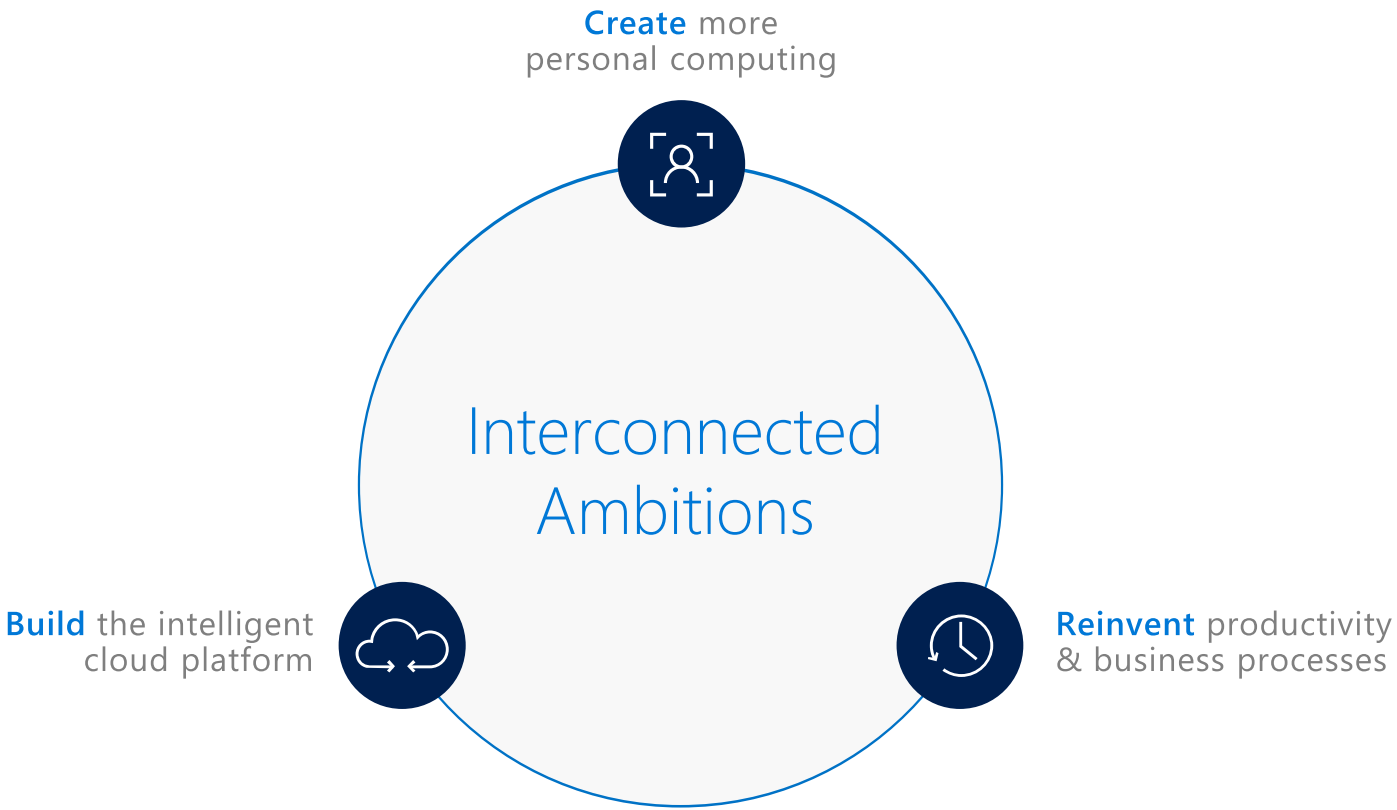
Microsoft since 2010

- Worked with Microsoft Azure in different roles at Microsoft
- Speaker and technical trainer since 2012

Microsoft mission

Empower every person and every organization on the planet to achieve more




Create more
personal computing
Interconnected
Ambitions
Build the intelligent
cloud platform
Reinvent productivity
& business processes

Microsoft

Microsoft
Getting started with Microsoft Azure – from Virtual Machines to Serverless Services

Microsoft Azure

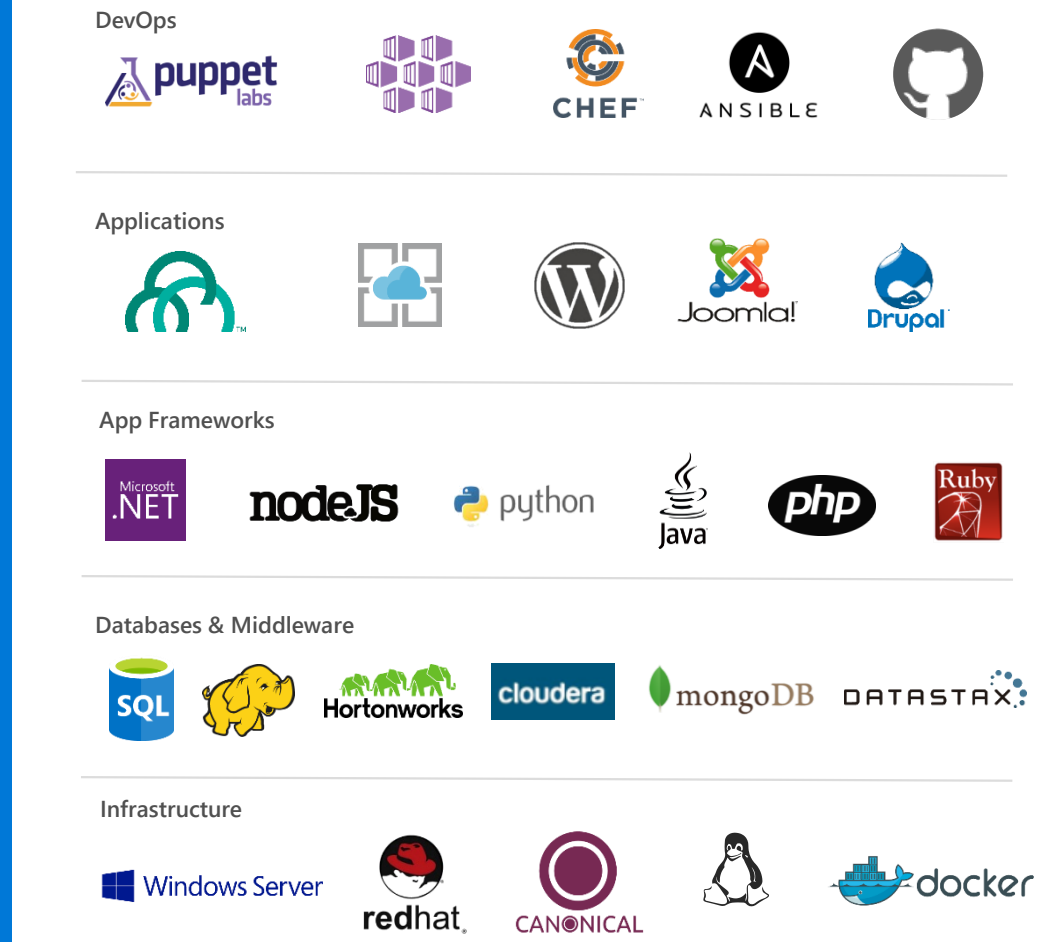
38
Azure regions around the world
AZURE REGIONS
enable worldwide presence

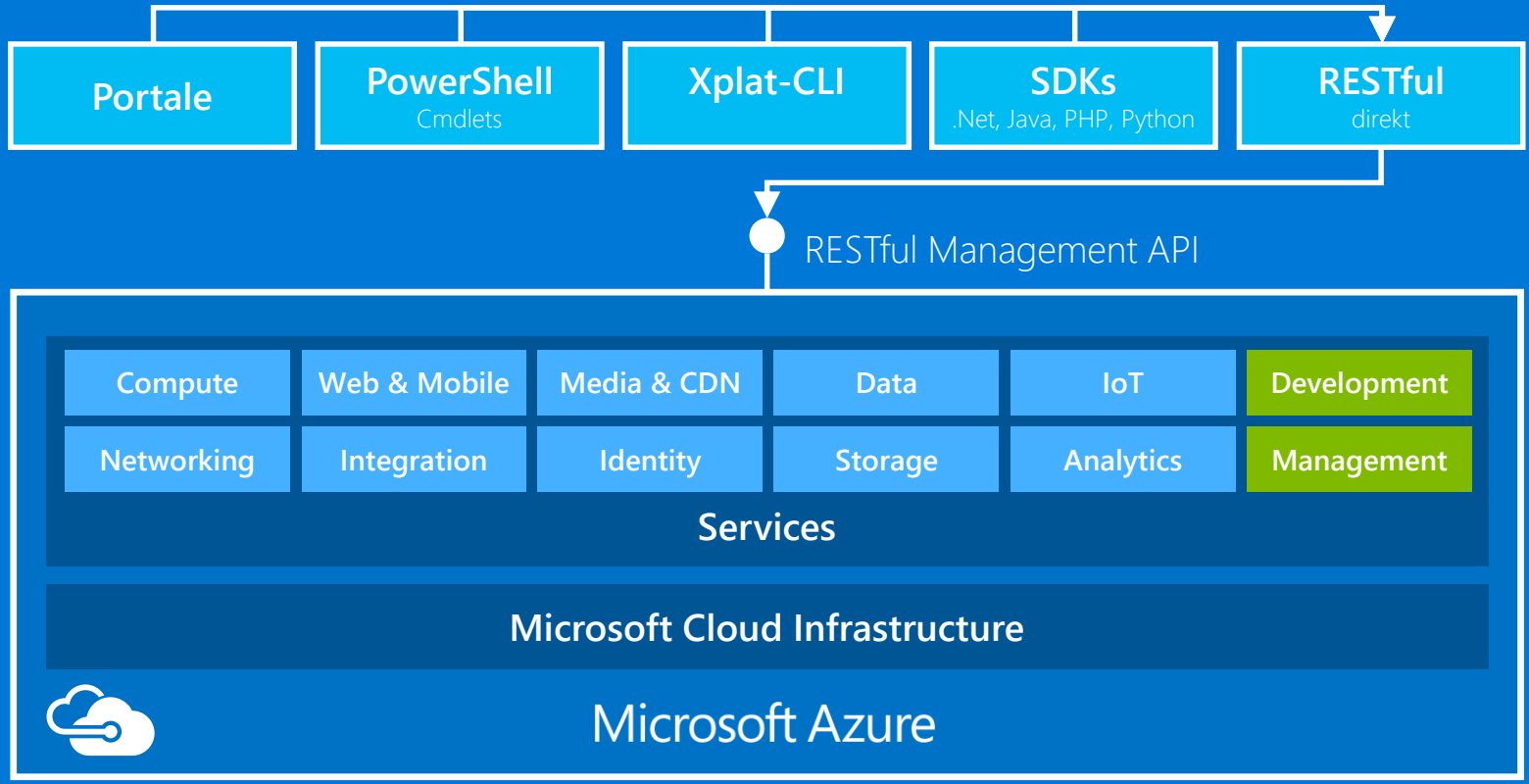
An Azure Datacenter from the outside.

An Azure Datacenter from the inside.

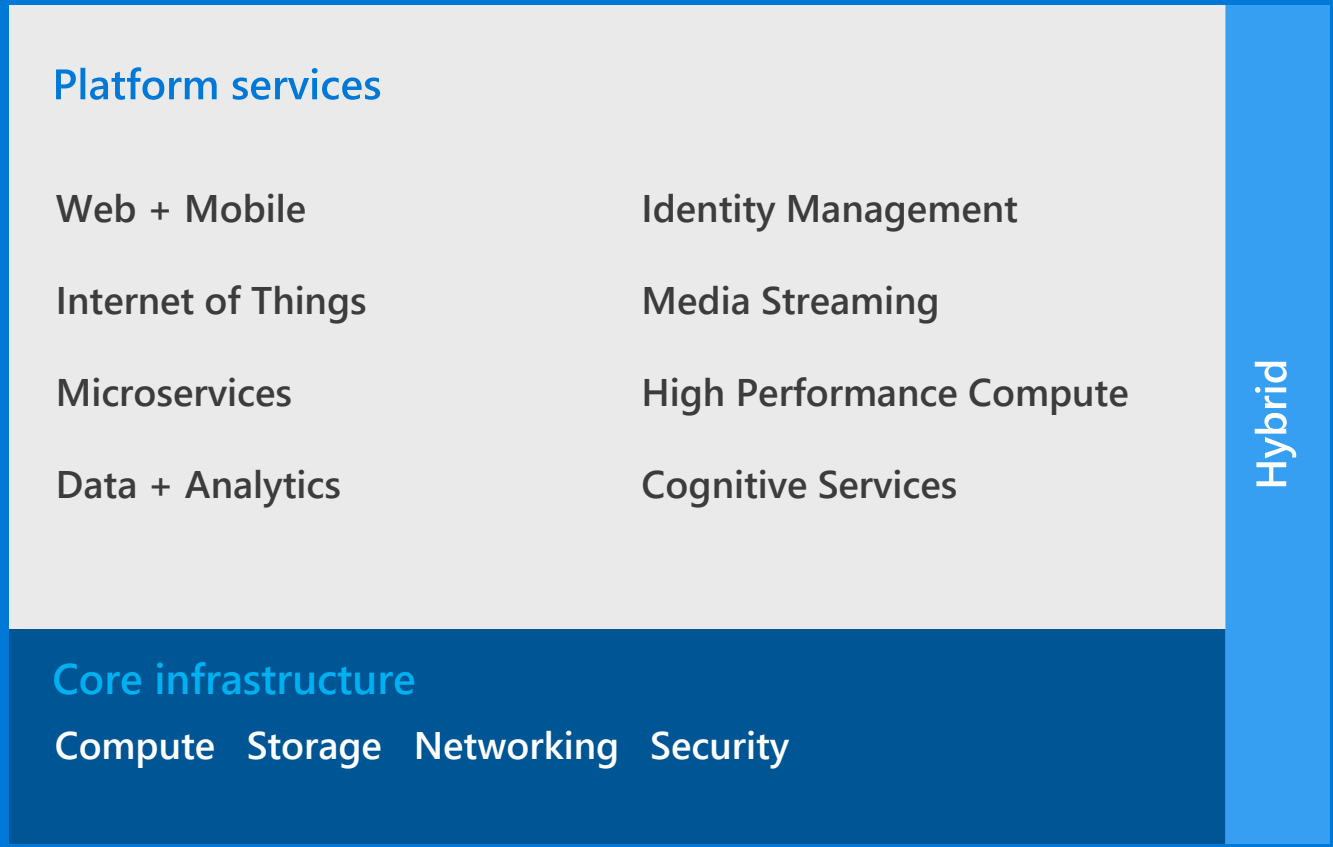
Azure Datacenter scale

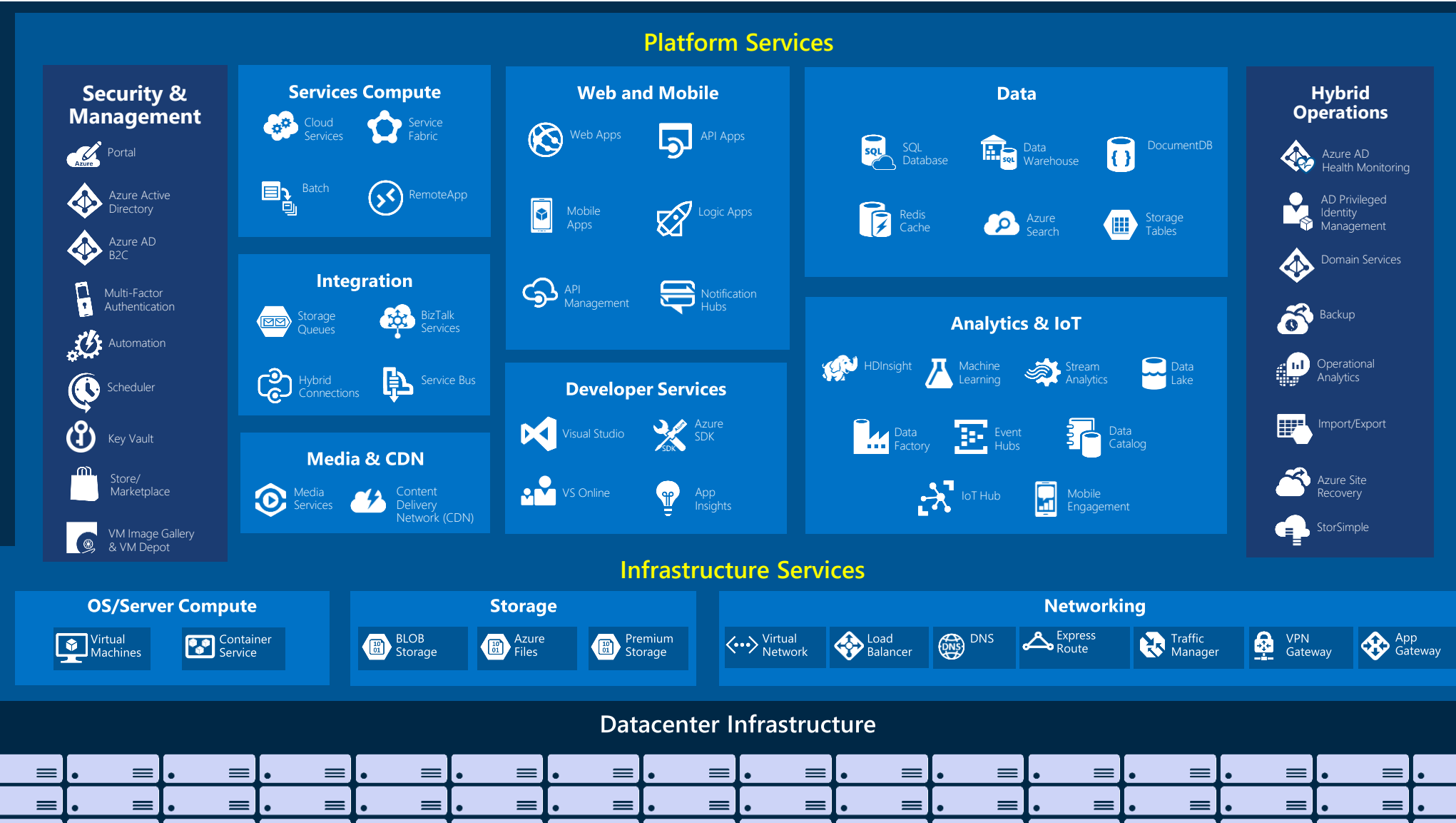
Choice + Flexibility




Portale
PowerShell
Cmdlets
Xplat-CLI
SDKs
.Net, Java, PHP, Python
RESTful
direkt
RESTful Management API
Compute
Web & Mobile
Media & CDN
Data
IoT
Development
Networking
Integration
Identity
Storage
Analytics
Management
Services
Microsoft Cloud Infrastructure
Microsoft Azure

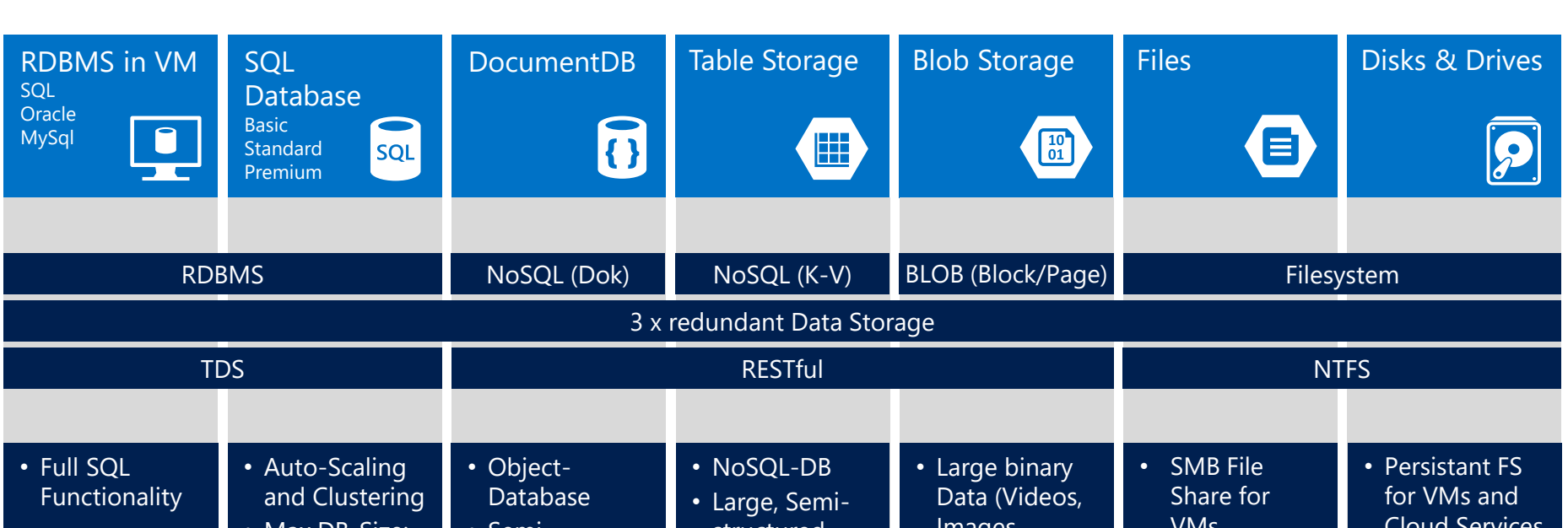
Microsoft Azure




Platform Services
Security & Management
Portal
Azure Active Directory
Azure AD B2C
Multi-Factor Authentication
Automation
Scheduler
Key Vault
Store/ Marketplace
VM Image Gallery & VM Depot
Services Compute
Cloud Services
Service Fabric
Batch
RemoteApp
Integration
Storage Queues
BizTalk Services
Hybrid Connections
Service Bus
Media & CDN
Media Services
Content Delivery Network (CDN)
Web and Mobile
Web Apps
API Apps
Mobile Apps
Logic Apps
API Management
Notification Hubs
Developer Services
Visual Studio
Azure SDK
VS Online
App Insights
Data
SQL Database
Data Warehouse
DocumentDB
Redis Cache
Azure Search
Storage Tables
Analytics & IoT
HDInsight
Machine Learning
Stream Analytics
Data Lake
Data Factory
Event Hubs
Data Catalog
IoT Hub
Mobile Engagement
Hybrid Operations
Azure AD Health Monitoring
AD Privileged Identity Management
Domain Services
Backup
Operational Analytics
Import/Export
Azure Site Recovery
StorSimple
Infrastructure Services
OS/Server Compute
Virtual Machines
Container Service
Storage
BLOB Storage
Azure Files
Premium Storage
Networking
Virtual Network
Load Balancer
DNS
Express Route
Traffic Manager
VPN Gateway
App Gateway
Datacenter Infrastructure

Storage in Microsoft Azure

Storage in the Cloud

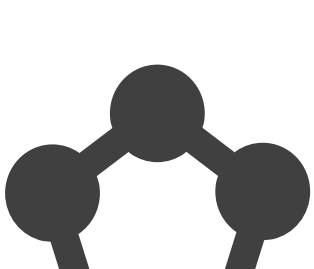


Compute in the Cloud

Azure Services for your applications

IaaS PaaS

Virtual Machines



Service Fabric

App Services

Functions

Virtual Machines

Windows, Linux, …

Azure Container Service

Run you container infrastructure

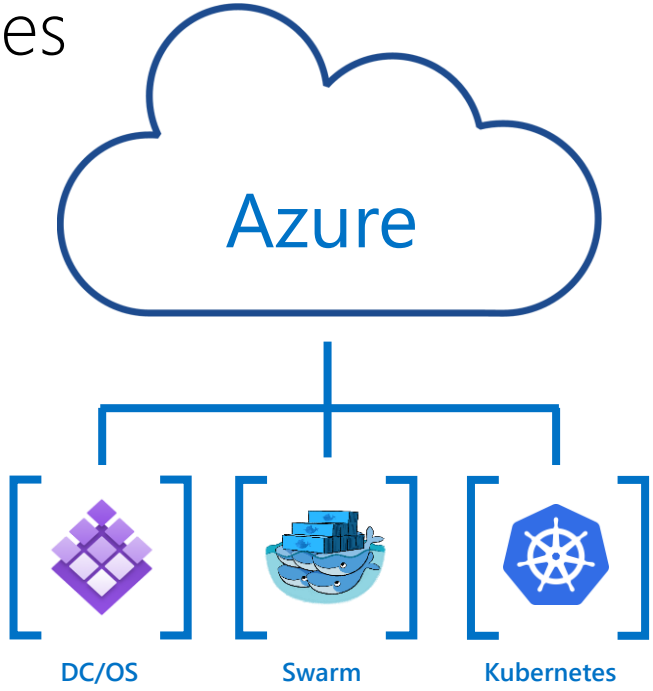
Azure Container Services

Standard Docker tooling and API support

Apache Mesos, Docker Swarm, Kubernetes

Linux and Windows Server containers

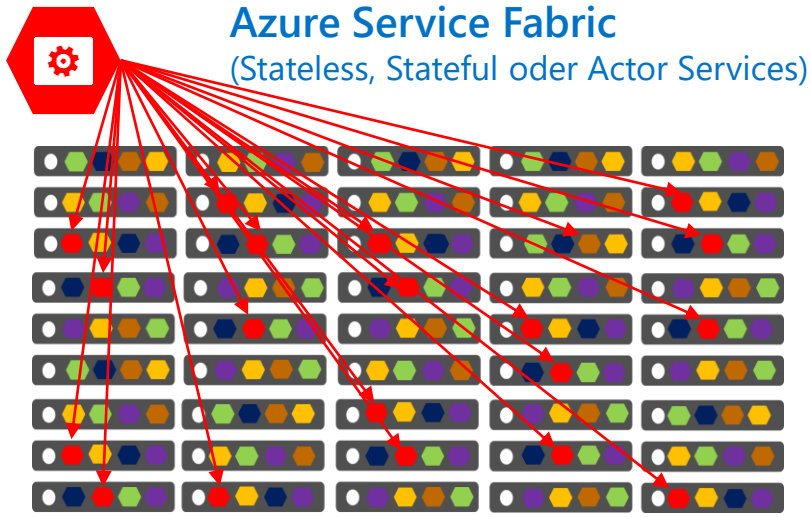
Azure and Azure Stack



Service Fabric

A scalable Microservice Platform

Azure Service Fabric

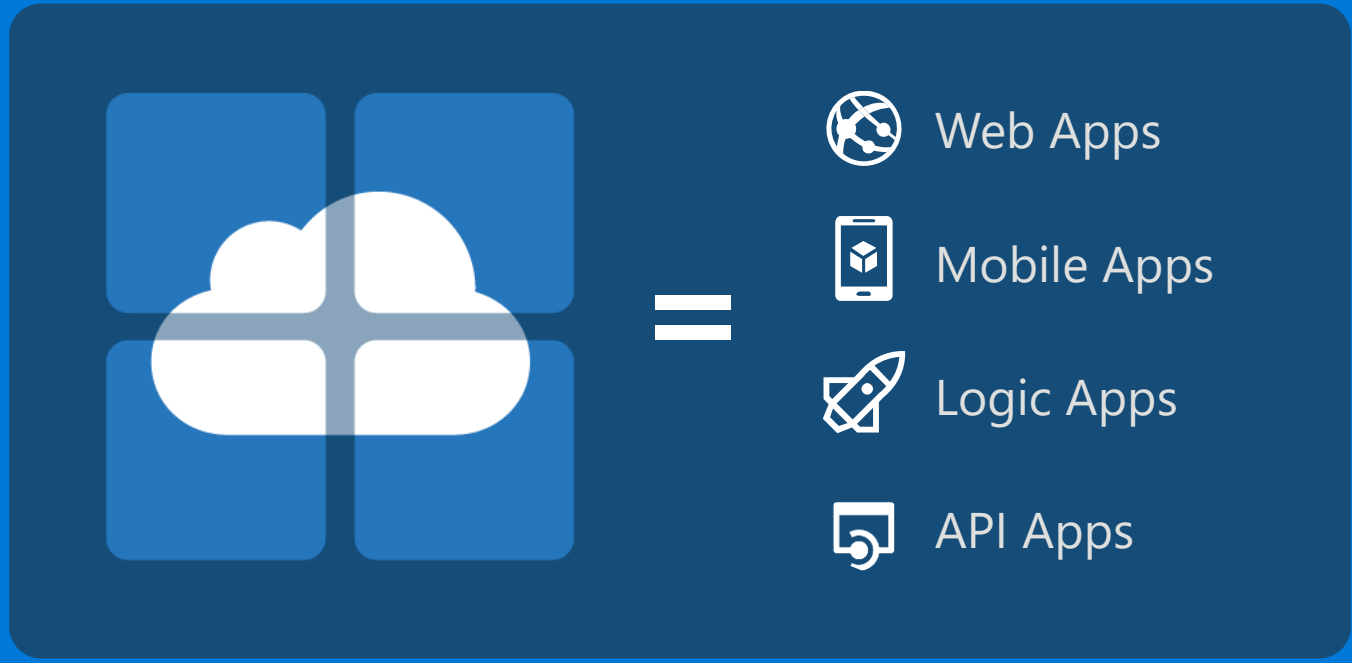


- Many micro services per VM
- High density
- Fast deployment of updates
- Scale micro services fast

Azure App Services

Azure App Service

Build and scale great cloud apps



Benefits of App Services

Automatic OS patching

High availability

- Automated scale out/in
- Built-in load balancing

Supports many languages and platforms

- .NET, Node.js, Python, Ruby and many more

Easy continuous deployment

- Continuous delivery from third-party source control providers
- Built-in Git repo

Auto-load balance, Autoscale, Geo DR

Virtual networking and hybrid connections

Site slots for staged deployments

Web Apps

Web apps run as they are - no changes required

Azure Functions

Going serverless

What is Azure Functions?

Code Azure Functions Events + data

Supported Languages

1st class support

- Node / JavaScript
- C#

New languages in preview

- F#
- Python
- PHP
- Batch
- Bash
- PowerShell

Supported bindings (5/2016)

Type	Service	Trigger	Input	Output
Schedule	Azure Functions	✓		
HTTP (REST or WebHook)	Azure Functions	✓		✓
Blob Storage	Azure Storage	✓	✓	✓
Queues	Azure Storage	✓		✓
Tables	Azure Storage		✓	✓
Tables	Azure Mobile Apps Easy Tables		✓	✓
No-SQL DB	Azure DocumentDB		✓	✓
Streams	Azure Event Hubs	✓		✓
Push Notifications	Azure Notification Hubs			✓

Demo: Function Apps

Servers when you want them…

Servers when you want them…

serverless when you don’t

There is more…

Azure Cognitive Services

Add the power of machine learning to any app

Process images, video, speech, language and more

Simple REST APIs

Language

Speech

Vision

Search

Knowledge

Azure Bot Service

Conversation as a Platform

Skype, Slack, Facebook Messenger, Microsoft Teams, …

Automatically scale with a serverless architecture

Azure Meetups

www.aka.ms/azure-meetups

Next Steps

Test

Test Microsoft Azure for free
http://azure.microsoft.com/de-de/pricing/free-trial/

First Look

Test App Services without an Azure Account
https://tryappservice.azure.com/

Microsoft Developers

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