



Demystifying Microsoft Azure Stack

Jonas Feller



EXPERTS LIVE
CAFÉ



Jonas Feller

Senior Systems Engineer @itnetX

~15 year experience in IT

Windows Server, System Center,
Hyper-V, Azure Pack, PowerShell

 @JFE_CH

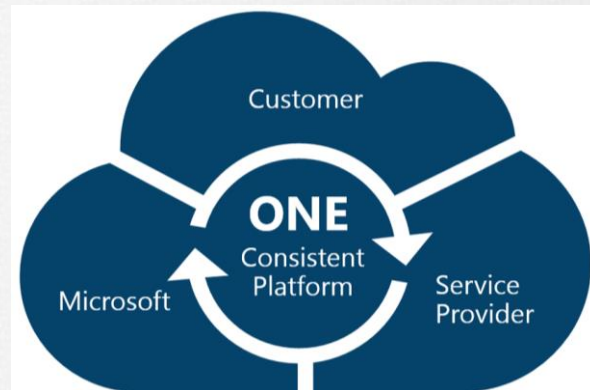
 www.jofe.ch





Remember “Cloud OS”?

- Fall 2013 - 2012 R2 Wave
- Cloud in your Datacenter
- Azure Pack & System Center
- Consistent with Azure
- Really? -> Not quite...





So, try it again... But different!

Azure Stack IS	Azure Stack is NOT
A true Hybrid Cloud Platform (new product category!)	Virtualization / Azure Pack / pure IaaS Replacement
Cloud Infra as Appliance (SAN equivalent) for Cloud Solutions (PaaS & IaaS)	DIY infrastructure where you define everything how you like it
Must go forward with Azure (Updates are not optional)	A system which you deploy and run for the next 4-5 years as it is
Part of your Azure / (public) Cloud strategy to run modern cloud ready applications	For you if you don't want to do any thing with public cloud at all (on-premises legacy apps)





Why MS builds Azure Stack

- To help customers to accelerate digital transformation
- To help to adopt the cloud model
- Provide a platform which helps the customers to focus on their core activities



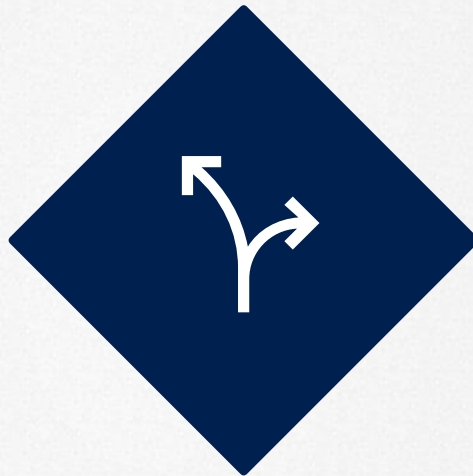


EXPERTS LIVE
CAFÉ

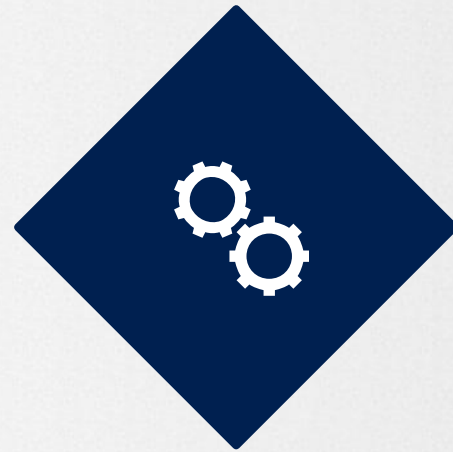
Azure Stack Promises



One Azure
ecosystem



Azure services
in your datacenters



Integrated
delivery experience

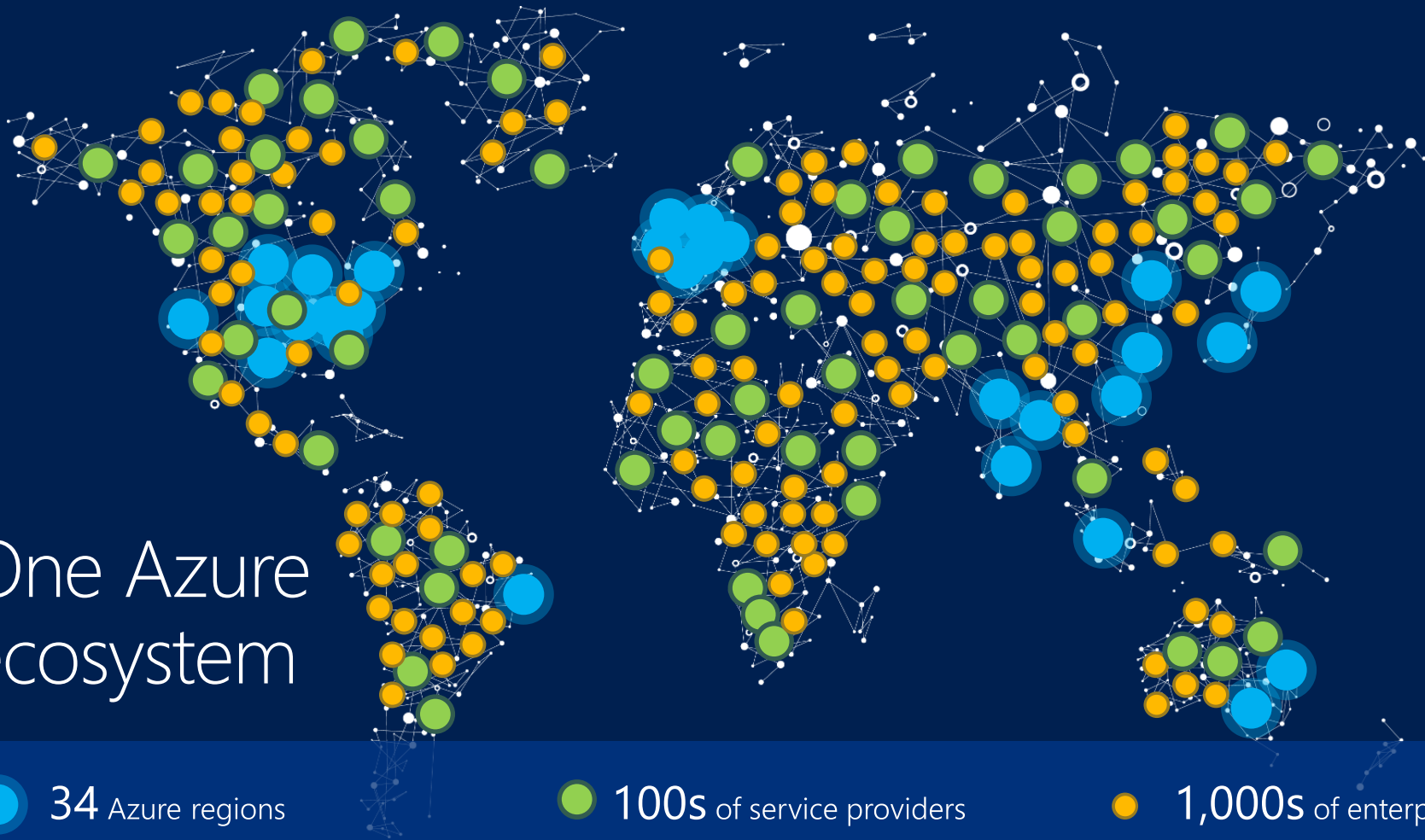


One Azure ecosystem

 34 Azure regions

 100s of service providers

 1,000s of enterprises





Integrated delivery experience



Appliance-like infrastructure with automated deployment (no DIY)



You focus on service and application development (not Infrastructure)



Extension of Azure = Pay-as-you-use



One Support contact





EXPERTS LIVE
CAFÉ

Choose your OEM

DELL EMC



Hewlett Packard
Enterprise



Lenovo™



Cisco and Huawei will follow after GA



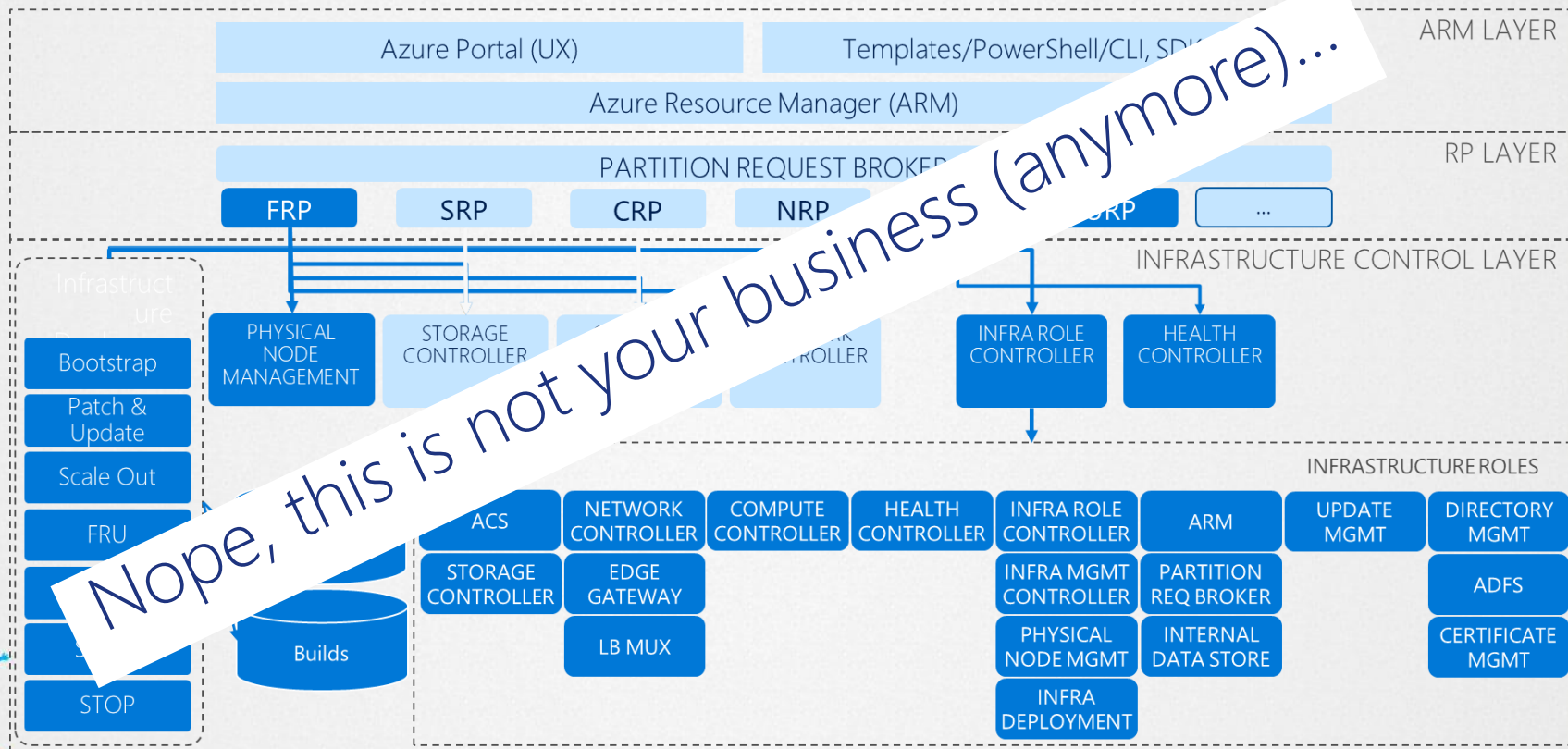


Integrated System Live Cycle





Operating Azure Stack





EXPERTS LIVE
CAFÉ

This is your business...

Microsoft Azure Stack

Dashboard

Marketplace

Get a Subscription

Microsoft Azure Stack - Administration

Azure Stack Admin Portal

Region Management

REGION	CRITICAL	WARNING
local	1	0

Updates

CURRENT VERSION	LAST CHECKED	STATE
1.0.170331.1	5:53:00 PM	UpToDate

Tenant storage capacity

33% USED SPACE 436 GB FREE SPACE 900 GB

Alerts

NAME	STATUS	ALERTS
Capacity	✓	0
Key Vault	ⓘ	Unknown
Updates	ⓘ	Unknown
Storage	✗	1
Compute	ⓘ	Unknown
Network	ⓘ	Unknown

Public IP Address Usage

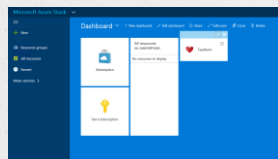
5% Used USED 14 AVAIL 241





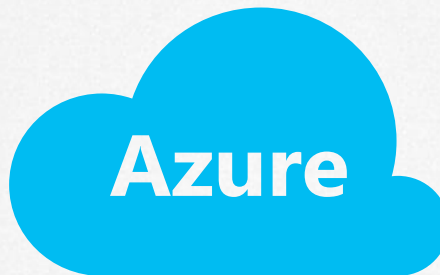
EXPERTS LIVE
CAFÉ

Cloud Operating Roles



use

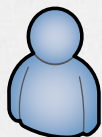
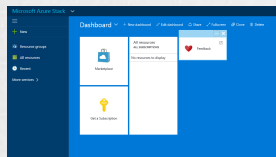
Azure
Customers



operate

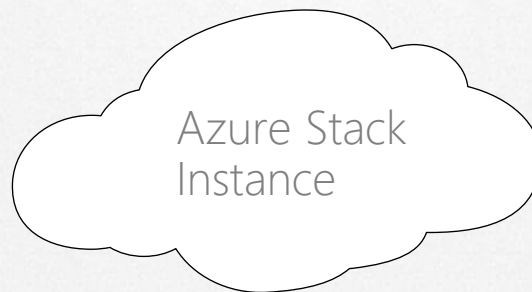


Microsoft Engineers



use

Your
Customers /
Business





operate



Your Engineers / IT
Cloud Architect – Design
Cloud Administrator –
Operates Azure Stack

UPDATES - Seattle
 **Update available**
3 updates are available
Checked today at 9:38am

Alerts		
23		
	Critical	8
	Warning	15





What does that mean for Admins

- Don't think about design and installing infrastructure
- Focus on integration in your Datacenter
 - **Networking, Monitoring, Identity**
- Focus on what you can build on top
- Get familiar with Azure & ARM
- Focus on DevOps processes and culture





Azure (Stack) PaaS



Azure App
Service

Web, Mobile,
and API apps



Azure Functions

Serverless
Computing



Azure Service
Fabric *

Always-on,
scalable
distributed
applications



Azure Container
Service *

Robust container
management



Cloud Foundry*

Open source
platform





* available shortly after GA





Azure (Stack) IaaS

More than just virtualization

			
Virtual Machines (VM) VM Scale Sets	Containers with Docker	Networking	Storage
Rapid deployment with automated scaling	Linux and Windows Server containers *	Virtual network, load balancer, VPN gateway	Blobs, tables, queues

* available shortly after GA





Use Cases – Microsoft's way



Edge and discounted scenarios

Low latency needed, no or bad connection, local data collections with big data analytics in Azure



Cloud Applications that meet every regulation

Governments, Health Care, Financial Industry, ...



Modern applications across cloud and on-premises

Move to Azure without code changes, Serverless computing, Microservices, Container





The true Idea behind?

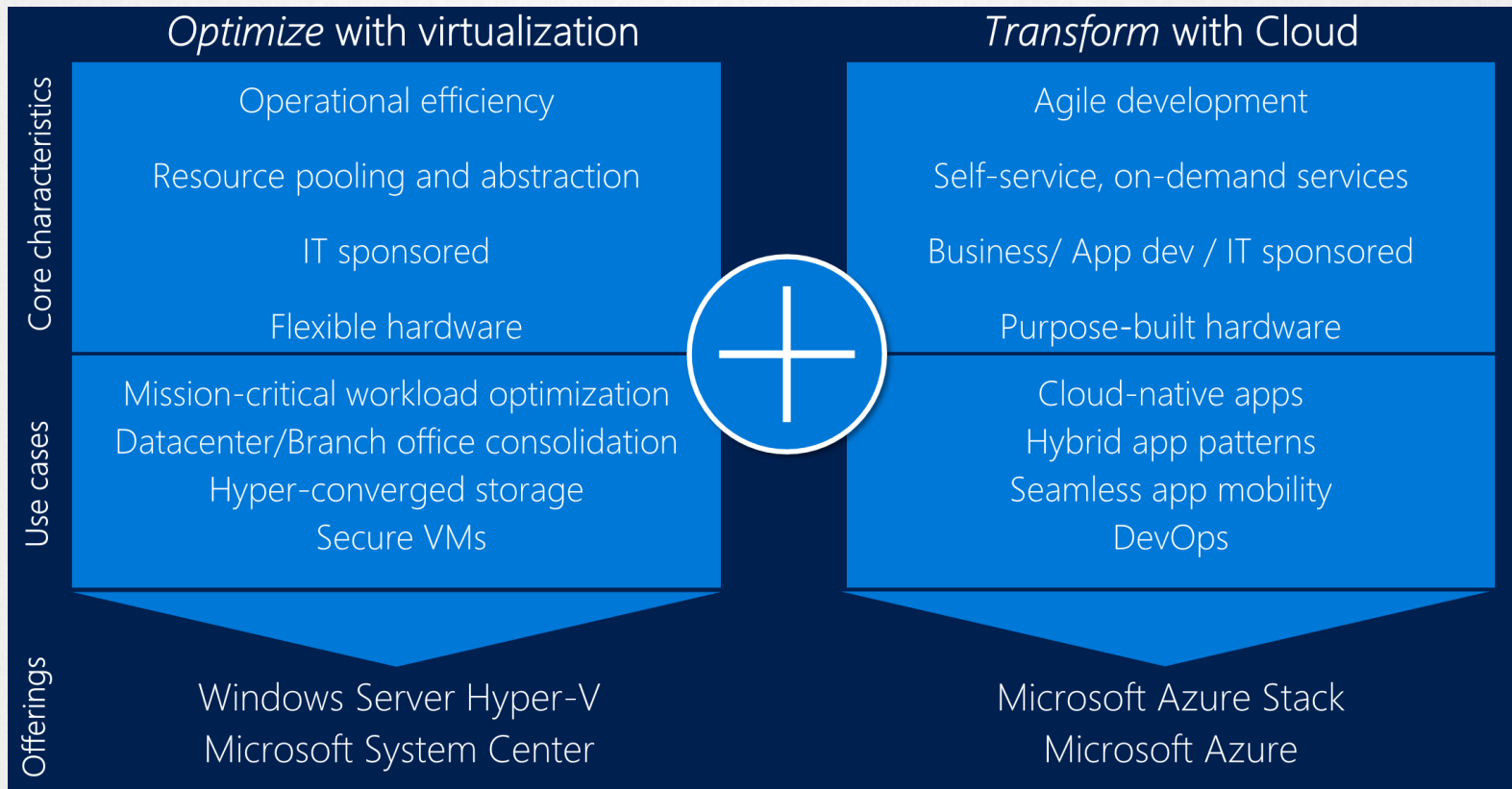
- Azure Stack is just an intermediate step in the transition to Azure (and not an Azure alternative)
- Makes it a bit easier and less scary
(data still local, you can see where everything is running)
- But push customers gently to migrate their applications slowly to a modern cloud design
- When everything is running on Azure Stack (and compatible to Azure), customers may ask himself why not move to Azure?
no local infrastructure, no extra hardware, no power costs...



But, maybe just my estimation... 😊



No one fits all





Azure Stack makes sense

- You want to adopt the Cloud / Azure and embrace DevOps culture
- You want to focus on delivering services but not building and operating infrastructures
- You are running or developing modern cloud-native applications
- But you want to stay on-premises with your data





Azure Stack makes no sense



- You are looking for traditional virtualization solution to run a bunch of VMs
- You are running a lot of legacy apps or old Windows versions (~~2003~~, 2008...)
- You have highly specialized system maybe with specialized hardware (Broadcast Production Systems, Factory Control Systems)
- **Remember:** Azure Pack & System Center is and will be still available, updated and supported





Roadmap

1. Azure version refresh

Keep up to date with Azure

2. New Azure services

New scenarios (not only features)

3. Fundamentals

New HW, expansion and scaling, increase scope of monitoring / self-healing, BC & DR, ...



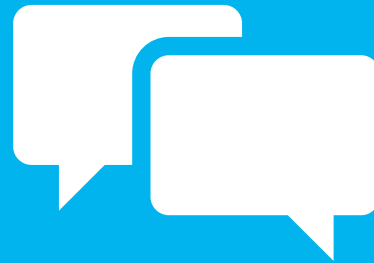


Key Takeaways



- Azure Stack follows still the cloud consistency idea of the “Cloud OS” vision
- But it is not the successor or a replacement of Azure Pack and System Center
- Azure Stack is a new product category. Like a SAN which provides a cloud platform (instead of storage)
- It is not intended run your “legacy” virtualization workload (VMs) but modern cloud-native apps
- Azure Stack is part of your Azure strategy. It is not a alternative or an option if you don’t want use public cloud or Azure at all





An abstract graphic on the left side of the slide. It features a white silhouette of a person in a dynamic pose, as if climbing or reaching up. The person is surrounded by several thick, curved lines in various shades of blue and green, which create a sense of movement and depth. The background is a solid bright blue.

Next session 17:15 Uhr>

Office 365 Identity und Authentication

MVP Samuel Zürcher, ExpertsInside