



Azure Stack HCI + Azure Cloud

Hybrid Is The Way

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Technical Service Manager

WFH 2020

About the speakers



Kenny Chew

Senior Pre Sales Consultant VSTECS.

Kenny comes with 10 years of presale and solution selling experience in the IT industry with strong foundations on Virtualization, HCI and Cloud Computing solutions.



Thai Diep

IT Service Manager SCC

Thai has over 16 years of proven experience in Microsoft Technologies mainly on Windows Server, Virtualization, System Center, HCI, and Azure Cloud. He has been a Microsoft Certified Trainer since 2008. He brings out the best in technical, operational and service management to build and support high profile teams, projects and IT services

Broadest Offerings (Intel, AMD, Workload Optimized)



ML350 GEN10

2* - 4 node Hybrid



DL360 GEN10

2* - 4 node Hybrid
2* - 4 node All Flash



DL380 GEN10

2* - 16 node All Flash
2* - 16 node Hybrid
2* - 16 node Hybrid w
Intel Optane DC PMEM



EDGE LINE EL8000

Converged Edge System
2* - 4 nodes All Flash



DL325 GEN10

2* - 4 node Hybrid
2* - 4 node All Flash



DL385 GEN10

2* - 16 node Hybrid
2* - 16 node All Flash



D3610/D3710 JBOD

Supported for use on
DL380/385/360
Apollo 4200 – SAS only



APOLLO 4200 GEN10

2* - 16 node Hybrid
2* - 16 node All Flash



SYNERGY 480 GEN10

2* - 16 node Hybrid
2* - 16 node All Flash

Broadest Offerings

SWITCHLESS

More affordable, reduce failure points, faster



INTEL OPTANE PERSISTENT MEMORY

Fastest HCI



JBOD

14 CONFIGURATIONS



Most affordable storage



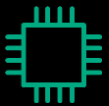
Hewlett Packard Enterprise



**World's most secure server based on
3rd-party penetration testing**



**Only server manufacturer with
"Cyber Catalyst" designation**



**Automatic recovery of essential
firmware when compromise detected**



**AI-driven server operations and
security through HPE InfoSight™**



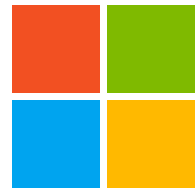
This session

What is Azure Stack HCI

How do you manage it

How an On-Premise Infrastructure can leverage to the cloud

Demo



Microsoft Azure

Productive + Hybrid + Intelligent + Trusted

Azure Stack Portfolio

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



Azure Stack Edge

Cloud-managed appliance



Azure Stack HCI

Hyperconverged solution

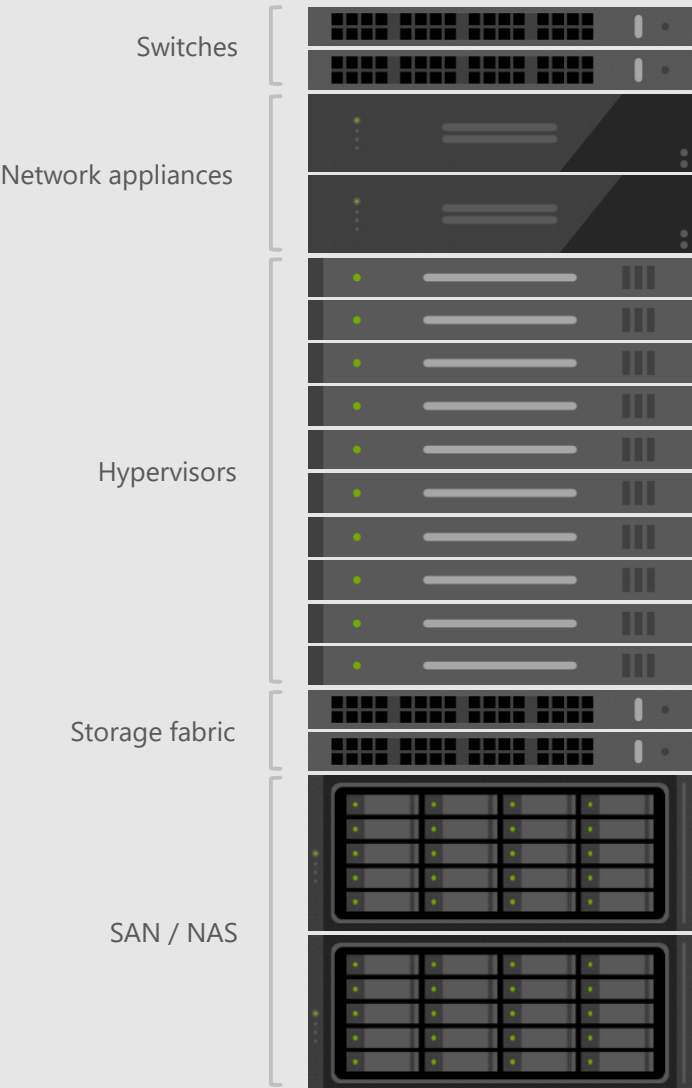


Azure Stack Hub

Cloud-native integrated system

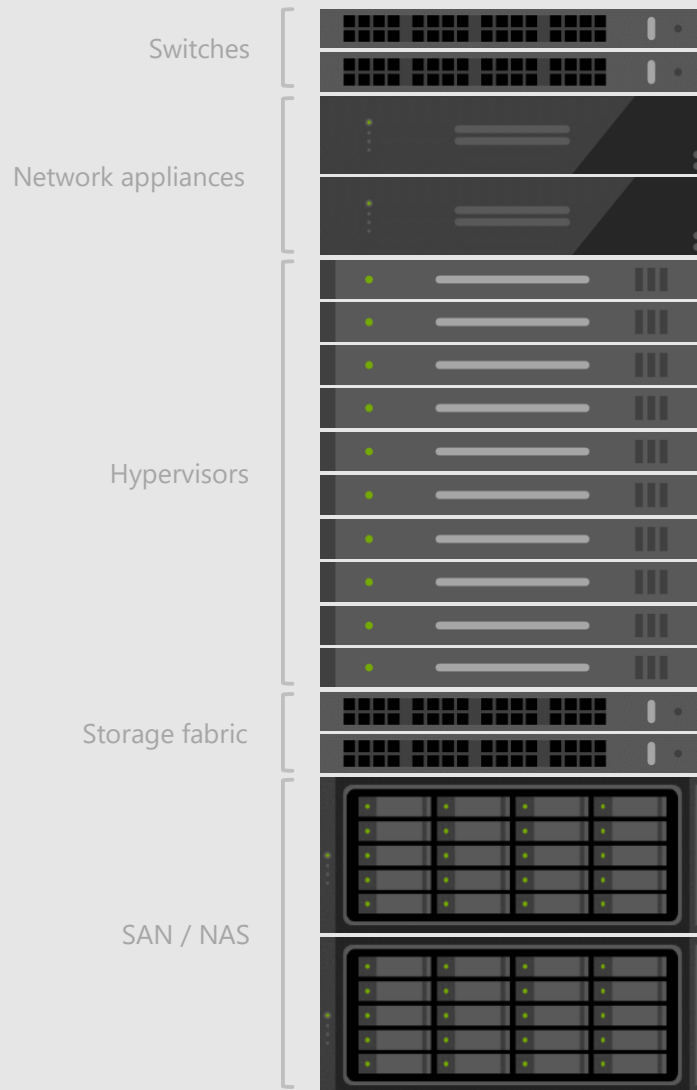
Microsoft Azure Stack HCI is
Hyper-Converged Infrastructure

Before...



Legacy "three tier" infrastructure

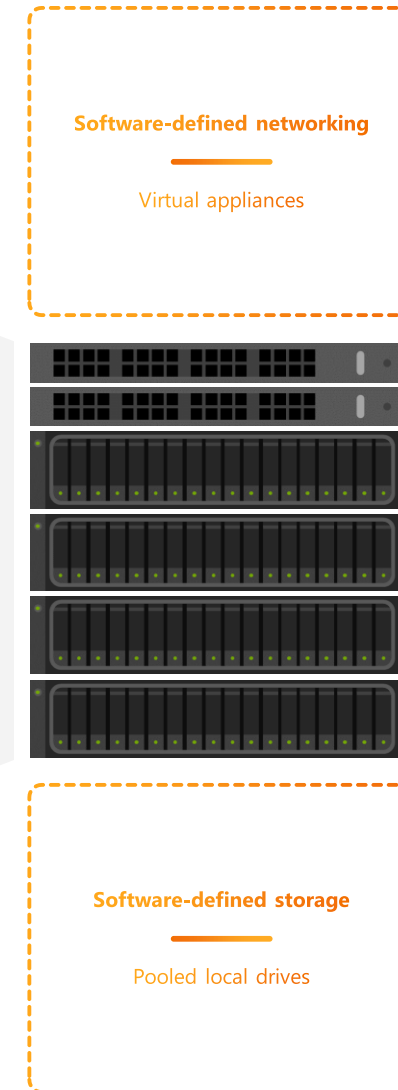
Before...



Legacy "three tier" infrastructure



...after



Hyperconverged infrastructure (HCI)

54%

of organizations expect deploying converged/**hyperconverged** infrastructure to be among their **most significant** datacenter modernization investments over the **next 12-18 months**

+57%

hyperconverged infrastructure investment **year-over-year growth**
from Q4 2017 to Q4 2018, to nearly **\$2B US per quarter**



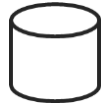
Connect to Azure hybrid services



Windows Admin Center



Hyper-V



SDS



SDN

Windows Server 2019



Validated partner hardware

1+ Gbps uplink



**10+ Gbps
back-to-back**

(no high-speed switch)

Start small...

Minimal footprint

Just 2 servers minimum

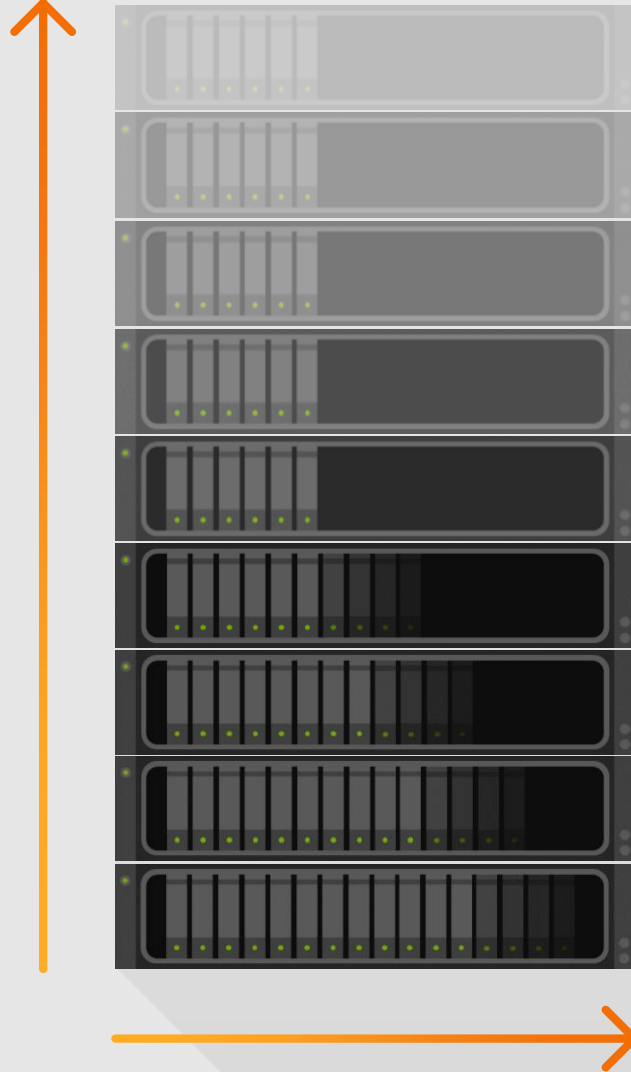
(4 × SSD) or **(2 SSD + 4 HDD)** per server

No minimum processor and memory

1 × 10 Gbps network adapter

SATA, DOM, M.2

Add servers
to the cluster



Add drives
into existing servers

Scale with your needs

Scale up, scale out

Up to 16 servers per cluster

Up to 4,000 TB storage capacity per cluster

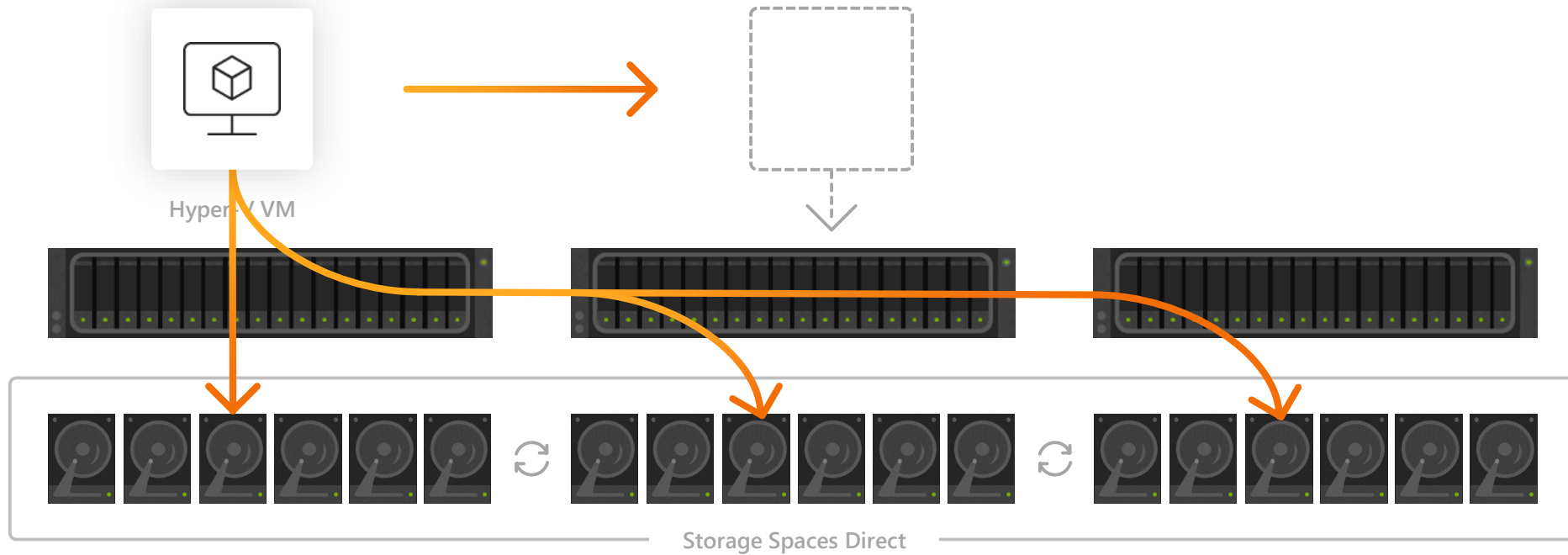
Beyond 1,000 servers with cluster sets

With no downtime

Automatic VM load balancing

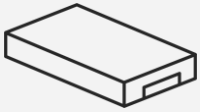
Automatic storage rebalancing

Infrastructure high availability and resiliency



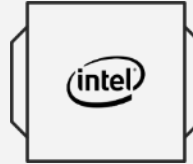
Distributed storage resiliency • VM live migration • Automatic failover • Access storage from any server

Azure Stack HCI is on the leading edge



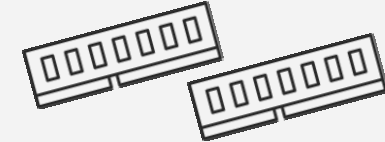
NVMe SSD

M.2, U.2, or Add-In-Card (AIC)



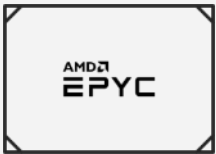
Intel® Xeon® Scalable

Supported since launch day



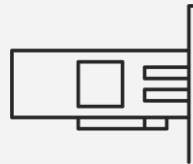
Persistent memory

Including Intel® Optane™ DC



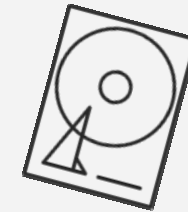
AMD EPYC™

Supported since launch day



RDMA

Remote direct memory access



Large drives

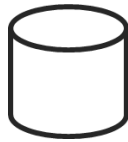
4K native, QLC NAND

of x86 hardware innovation

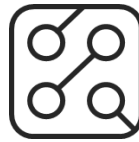
Everything in one familiar product and license



Hypervisor



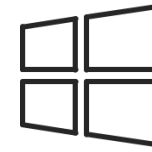
Software-defined
storage



Software-defined
networking



Management



Guest licenses

Windows Server 2019 Datacenter

Run any Windows or Linux virtual machine that works on Hyper-V

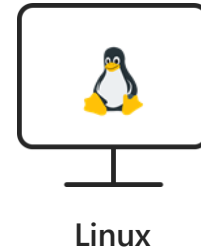


Windows 10

Windows Server 2012

Windows Server

Windows Server 2008



redhat

ubuntu

ORACLE
LINUX

SUSE

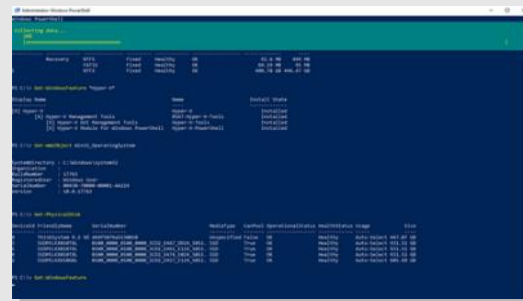
debian

CentOS

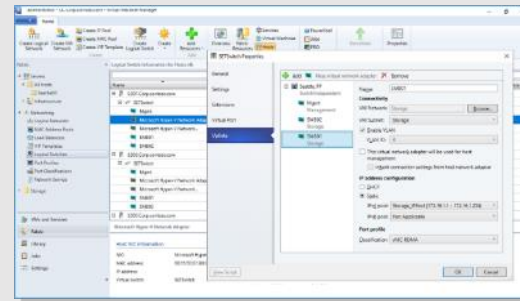
Use any capable tool, you're the Administrator



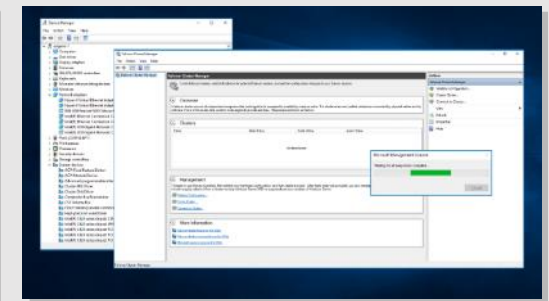
Windows Admin Center **NEW**



Windows PowerShell



System Center VMM



Hyper-V Manager, etc.



Windows Admin Center

Reimagined “in-box” platform and tools

Included with Windows Server license – **no additional cost**

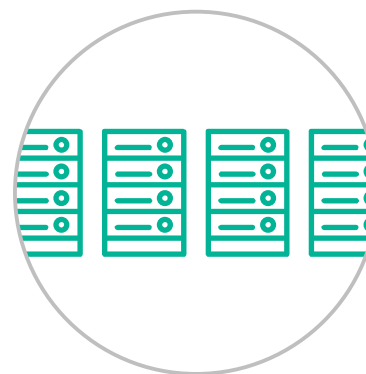
Lightweight, browser-based remote management

Depth for troubleshooting, configuration

Manages new platform features of Windows Server like S2D

Extend platform capabilities like Storage Migration Service

<http://aka.ms/WindowsAdminCenter>



System Center

Datacenter management and monitoring

Comprehensive suite of tools, incl. SCVMM, SCOM, SCCM, etc

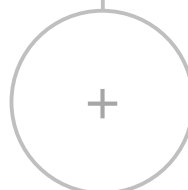
Manage systems including S2D **at datacenter scale**

Heterogenous incl. Hyper-V, VMware, and Linux

Deploy **from bare metal**

Monitor with **alerts and notifications**

<http://aka.ms/SystemCenter>



Better Together with complementary capabilities

Windows Admin Center 1910 GA



Core management tools

1. Performance monitoring
2. Packet monitoring
3. Server Core management with Edge
4. Add Connections – Unified cluster connection, Add Azure VM
5. Improvements based on your feedback
 - BMC IP address, Azure VM portal link
 - Files – Editable paths, File share support
 - Connectivity setting
 - Pending reboot banner
 - WinRM over HTTPS
 - Updates – Individual updates
 - Power profile settings



Server role management

1. Hyper-V VM management
 - VM live migration
 - Import/export VM
 - VM tagging
2. Cluster management
 - Cluster deployment
 - Unified cluster connection
3. Azure Stack HCI management
 - S2D and cluster settings
 - HCI diagnostics tool
 - SDN – FlowLog Audit, Load balancer, Public IP tools
4. IIS, DNS, DHCP management
5. AD Users and Groups management



Built for hybrid

1. Azure Security Center integration
2. Azure Monitor – Alerting for servers and clusters
3. Azure Extended Networking
4. Storage Migration Service – Migrate file servers to Azure VMs
5. Azure File Sync – Sync a folder
6. Storage Replica – Create and use Azure VMs as secondary SR site
7. Azure Arc for Servers – Centralized governance via Azure Policy
8. Cloud witness – Use Azure as your quorum witness for 2-node clusters



Demo:

Managing Azure Stack HCI with Windows Admin Center

In this demo

Windows Admin Center Overview

Azure Hybrid Services

Manage Azure Stack HCI Cluster

Integrated with HPE Azure Stack HCI

This session

What is Azure Stack HCI

How do you manage it

How an On-Premise Infrastructure can leverage to the cloud

Demo

Windows Admin Center: Your bridge to the cloud

Discover Azure services that bring
value to your environment

Automatically set up in a few clicks

Seamlessly transition to the Azure
portal





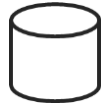
Connect to Azure hybrid services



Windows Admin Center



Hyper-V



SDS



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Windows Server 2019



Validated partner hardware

Get started leveraging on the cloud with these easy to use Azure Cloud Services via WAC



Azure Backup



Azure File Sync



Azure Monitor



Azure Update Management

Demo

Get started leveraging on the cloud with these easy to use Azure Cloud Services via WAC



Azure Backup



Azure File Sync

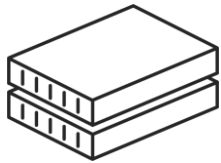


Azure Monitor



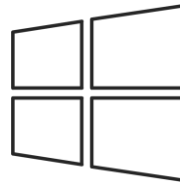
Azure Update Management

Get started with Azure Stack HCI



Find solutions from your preferred vendor

Microsoft.com/HCI



Install Windows Server 2019 if not pre-installed

aka.ms/WindowsServer



Deploy and manage with Windows Admin Center

aka.ms/WindowsAdminCenter



Connect to Azure Arc and hybrid services

Azure.com/Hybrid



Thank You