

Microsoft Azure Intelligent Edge Brief



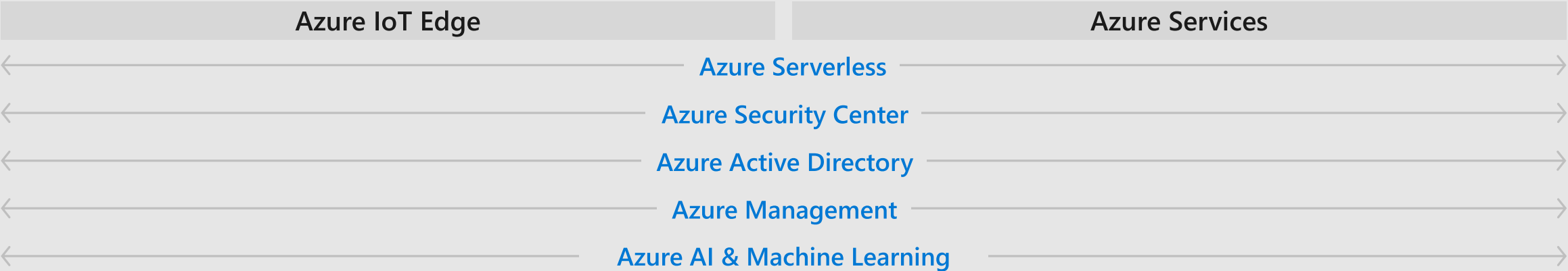
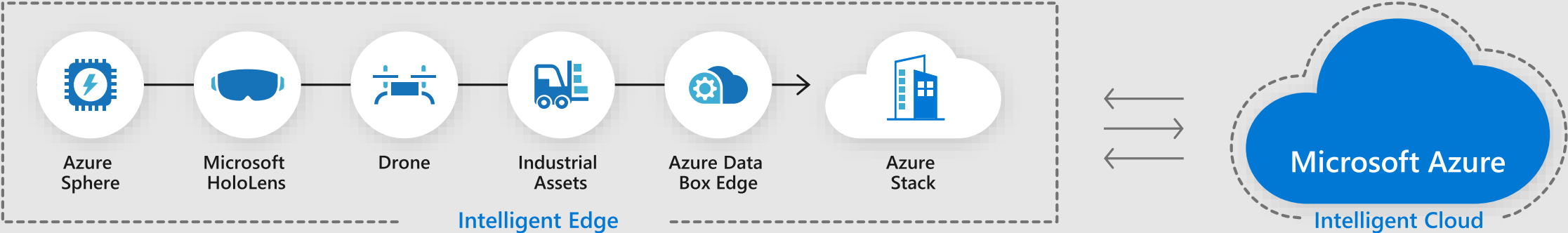
Agenda

- Azure Intelligent Edge Overview and News
- Today's Focus Area:
 - **Azure Stack: Windows Server/SQL EOS and Migration Resources (Tiberiu Radu/Azure Stack GBB Team)**
- Q&A

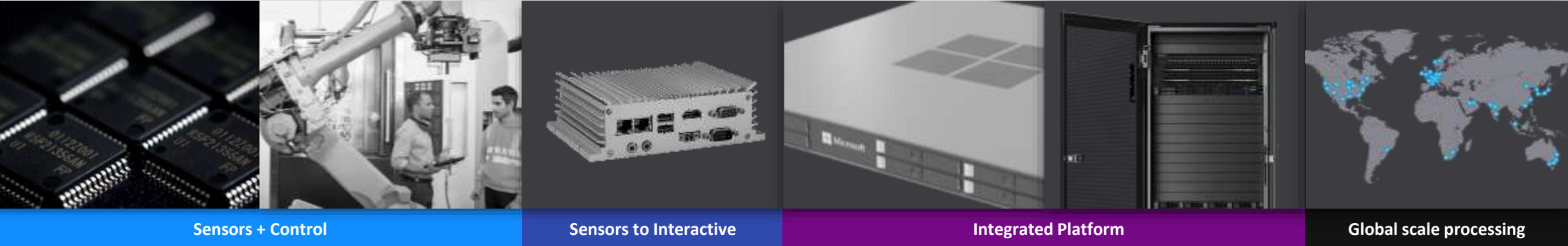
But First - What is the AIEB?

- 30-minute briefing open to everyone to discuss a specific area within our 'Intelligent Edge' offerings
- Repeat – call is open to everyone – so no NDA information!
- Using 'regular' Teams for now for easier collaboration (Q&A, discussion, etc.)
- Calls will be recorded and posted here: <https://aka.ms/aieb-channel>

Microsoft Azure approach



Azure Intelligent Edge + Cloud Taxonomy



Microcontroller

Azure Sphere

- Highly-secured, connected MCU
- Azure Sphere Linux OS for modern MCUs
- Public Preview as of September 2018
- Included Azure IoT Device SDK

IoT Devices

Azure IoT Device SDK

- 1000+ devices
- 250+ partners
- All certified to work great with Azure IoT Hub

Edge Devices

Azure IoT Edge

- Deploy and manage Azure Services in containers on any IoT device
- AI, AzureML, Azure Stream Analytics and more
- Generally available

Edge Appliances

Azure Data Box Edge

- Data Box Edge: AI-Enabled, Storage and compute Azure Edge appliance
- Data Box: Offline, ruggedized data transport, 100 TB – 1 PB
- Includes Azure IoT Edge

Edge Cloud

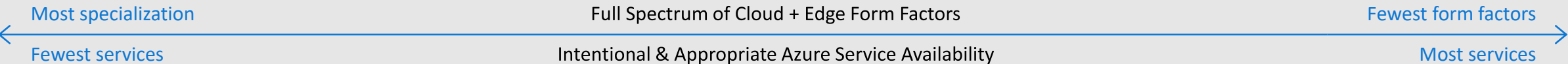
Azure Stack

- Cloud Consistent Edge
- Edge and Disconnected Scenarios
- Regulatory Requirements
- Cloud app model on-premises

Hyperscale Cloud

Azure Regions

- Full Range Hyperscale Cloud Services
- Tiered Service availability: Heroes > Hubs > Satellites
- Open Source Based Services & Tools



Some quick news...

- Azure Stack Update 1.1905.40 released
 - <https://docs.microsoft.com/en-us/azure-stack/operator/azure-stack-release-notes-1905>
 - Update engine can now incorporate firmware updates (check with your OEM)
 - Windows Server 2019 supported and syndicated in the Azure Stack Marketplace
- Part 10 of the 'Azure Stack IaaS' blog series published:
<https://azure.microsoft.com/en-us/blog/azure-stack-iaas-part-ten/>
- Azure Data Box Edge/GW move to General Availability (March):
<https://docs.microsoft.com/en-us/azure/databox-online/data-box-gateway-release-notes>



Azure Stack: Windows Server/SQL EOS and Migration Resources

Tiberiu Radu

Senior Program Manager – Azure Stack

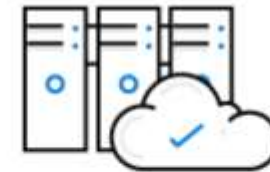
We've got you covered with new options

New options are now available to help you upgrade and adopt the innovative technologies you need to carry your organization into the future. If you need additional time to manage the transition, get three years of Extended Security Updates to keep your workloads protected beyond the deadline.



Support ends for SQL Server 2008/2008 R2 on July 9, 2019

[Visit the SQL Server end of support resource center >](#)



Support ends for Windows Server 2008/2008 R2 on January 14, 2020

[Visit the Windows Server end of support resource center >](#)

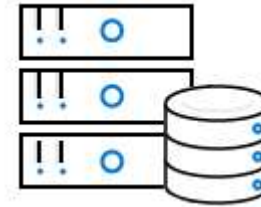
<https://aka.ms/sqlEOSfaq>

SQL Server 2008



Migrate to Azure or Azure Stack with free security updates

- Rehost your SQL Server 2008 and 2008 R2 with few or no application code changes in Azure SQL Database Managed Instance for a “version-free” platform
- Or, move to Azure Stack Virtual Machines to get three years of Extended Security Updates at no additional charge and upgrade to a newer version when ready
- Use existing licenses and save up to 55 percent with Azure Hybrid Benefit on Azure



Upgrade on-premises and stay protected

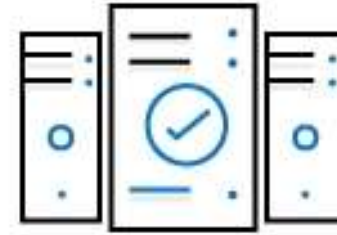
- Upgrade to SQL Server 2017 for greater security, performance, availability and innovation with cloud analytics
- For continued protection beyond the deadline, buy up to three years of Extended Security Updates—cover only the workloads you need while you upgrade

Windows 2008



Migrate to Azure or Azure Stack with free security updates

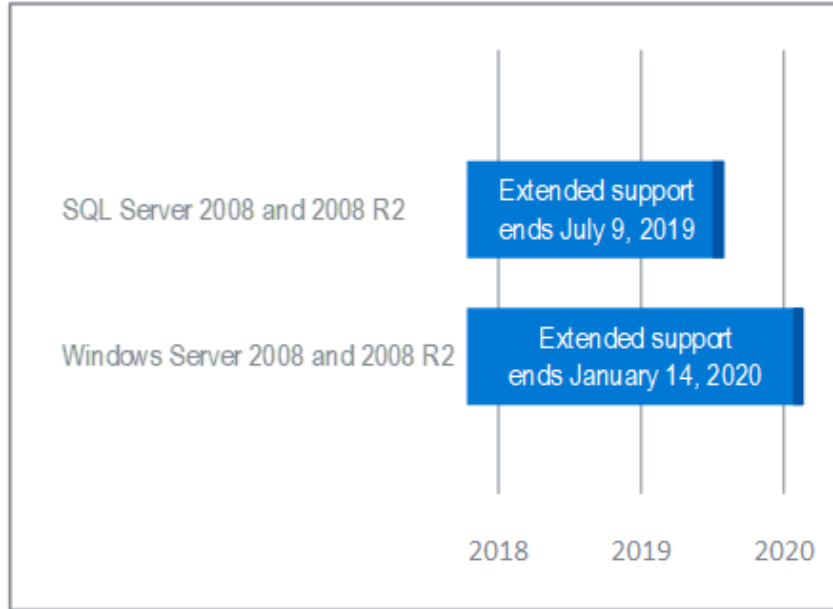
- Rehost Windows Server 2008 and 2008 R2 workloads to Azure or Azure Stack
- Get three years of Extended Security Updates at no additional charge, and upgrade to a current version when ready
- Use existing licenses and save up to 80 percent on Azure Virtual Machines with Azure Hybrid Benefit and Reserved Instances



Upgrade on-premises and stay protected

- Upgrade to Windows Server 2016 for greater innovation, built-in security, and container support
- For continued protection beyond the deadline, buy up to three years of Extended Security Updates—cover only the servers you need while you upgrade

Extended Security Update are free in Azure Cloud and Azure Stack



Migrate to Azure

Rehost applications

Move your SQL Server and Windows Server 2008 and 2008 R2 workloads to Azure Virtual Machines with no application code changes- and get 3 more years of security updates free. Upgrade when ready.

Rehost and protect Data

Move data to Azure SQL Database Managed Instance (version free, fully managed, no patching needed). Never face end of support again.

Stay on-premises
with Azure Stack
or current
hardware
investment



Move your SQL Server and Windows Server 2008 and 2008 R2 workloads to Azure Stack Virtual Machines with no application code changes- and get 3 more years of security updates free. Upgrade when ready.

OR










Upgrade to current Windows Server and SQL Server versions

OR

Buy 3 more years of Extended Security Updates to protect servers while you work on migration.

#	FileName	Purpose
1	EOS for SQL and Windows 2008 on Azure Stack	A brief deck sketching the different migration scenarios
2	Migration Practice and Patterns - 05292019	In this article we focus on the migration of existing applications that live on either physical servers or existing virtualization platforms and how moving these workloads to Azure Stack IaaS will enable the benefits around operations , self-service , and Azure consistency , as well as enable scenarios for modernization of these applications in the journey to the cloud.
3	EOS on Azure Stack Model - 05292019	A simple calculator to help determine the cost savings by migrating workloads to Azure Stack
4	SQL 2008 and SQL 2008 R2 Migration to Azure Stack - 05292019	With SQL Server 2008 and SQL Server 2008 R2 End-of-Support, Azure Stack can help our customers modernize their existing on-premise workloads in a phased approach. This document contains the tools and guidance to lift and modernize
5	SQL 2008 R2 Single Instance Testing on Azure Stack_Rough_Draft_05292019	This document outlines some examples of performance results for various SQL 2008R2 instances running on Azure Stack.
6	SQL Migration to Virtual Machine	PDF on "overall" migration to Azure. There are tips and best practices included that also apply to Azure Stack as the target.
7	Veeam Azure Stack Migration - 05292019	<p>This guide will help you to understand:</p> <ul style="list-style-type: none"> • The core functionality in Veeam Backup and Replication which enables migration or restoration of workloads to Azure Stack • How to deploy the core Veeam components required to restore to Azure Stack • How to easily lift and shift workloads into Azure Stack from VMware, Hyper-V, or physical servers using Veeam B&R • How network address space can be recreated in Azure Stack, removing the need to re-IP servers <p>Thank you to Dell EMC for sharing.</p>
8	CommVaultSolution - Migration - 05292019	<p>Live Demo Workflow - SQL2K8 Server from vCenter to Azure Stack as Lift-Shift Migration.</p> <p>The purpose of this document is to list procedures to run a live demo of SQL2008-Server (with sample database running) from a vCenter-based Windows-2008-Server virtual machine to a virtual machine in Azure Stack subscription. The migration tool used is CommVault CommServe with a feature set to backup & restore virtual machine between vCenter and Azure Stack.</p> <p>Thank you to HPE - Azure Stack Innovation Center for sharing.</p>

- Azure Stack IaaS blog series
 - [Azure Stack at its core is an IaaS platform](#)
 - [Start with what you already have](#)
 - [Fundamentals of IaaS](#)
 - [Protect your stuff](#)
 - [Do it yourself](#)
 - [Pay for what you use](#)
 - [It takes a team](#)
 - [If you do it often, automate it](#)
 - [Build on the success of others](#)
 - [Journey to PaaS](#)

 <div>Teamwork and organization:<ul style="list-style-type: none">• Resource groups• Role-based access• Change Auditing• Locks• Tags• Multi-tenancy</div>	 <div>VM Scale and Availability:<ul style="list-style-type: none">• Pay Per Use• VM Scale Sets• Availability Sets• Resize VM• Add Disk• Resize Disk• Add Network Adapter</div>	 <div>Self Service Virtual Networks:<ul style="list-style-type: none">• NSG / Firewall Rules• Load Balancing• Probes• VPN• Routes• DNS• Marketplace of 3rd party appliances</div>
 <div>Self-Service Support:<ul style="list-style-type: none">• Boot Diagnostics• Screen Shot• Serial Logs• Metrics• Change Password• Redeploy</div>	 <div>Guest Management:<ul style="list-style-type: none">• Run Custom Code• VM Extensions• Software Inventory• Change Tracking• Desired State Configuration</div>	 <div>Security:<ul style="list-style-type: none">• Default Firewall Restrictions• VM Update/Patch Mgmt• Malware Status</div>
 <div>DevOps:<ul style="list-style-type: none">• Infrastructure as Code• Portal/PowerShell/CLI• Integration with Azure DevOps and Jenkins• App Insights</div>	 <div>Storage:<ul style="list-style-type: none">• Upload/Download VM Images• Capture/Deploy VM Images• Managed Disks</div>	 <div>Business Continuity:<ul style="list-style-type: none">• VM Backup• Disaster Recovery</div>



Questions?

**Next AIEB Call will be 7/19 @ 11AM US
Central Standard Time (NO CALL on 7/05 in
observance of the July 4th Holiday)**

Appendix