Azure – Hybrid Architecture
an OSC Technical Education Webinar

With Julian Zhu, OSC

June 28th, 2016

Azure – Hybrid Architecture

Presenters:

- Julian Zhu

    - Principal Consultant, OSC

- Garret Grajek, CISSP

    - CEO, OSC

- Special Thanks:

    - David Chou

    - Microsoft, Technical Director

Azure – Hybrid Architecture

Agenda:

- Clouds Defined

- Azure – IAAS, PAAS, SAAS

- Azure in Hybrid Environment

   1. Network & Security

   2. Services Integrated

   3. Big Data

- OSC - Overview

- Q&A

OSC Technologies

Azure – Hybrid Architecture

Garret Grajek, OSC
CEO – Identity/Security
Specialist

OSC Technologies

Trend – To the Cloud, And Azure

- Global cloud market expected...

    - to hit $204B in 2016

- 63% of survey'd CIOs plan 11%+ increase $ (21% over 30%)

    - in 2016   (http://bit.ly/1XYhf4S)

- Microsoft and Microsoft Azure chosen as (JPMorgan survey)

    - CIO's Most Critical Technology vendor (3x over #2: AWS)

- Microsoft Leads in "Investigate First" for new Projects

    - 32% of respondents (HyTrust Survey)

- Microsoft Azure deemed the best cloud..

    - For Hybrid Integration

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What are the Main "Pushes" to the Cloud

▶ Dev/Test

  ▶ Inexpensive development and test platform to "spin up" and shut down quicklyu

▶ Move Applications to Azure "Lift-and-Shift"

  ▶ "ForkLift" approach

  ▶ Lift the "VHD from local datacenter" and "Shift" (import) to Azure

▶ Extend the Datacenter

  ▶ User Azure and Azure VMs as an extension of on-premise datacenter

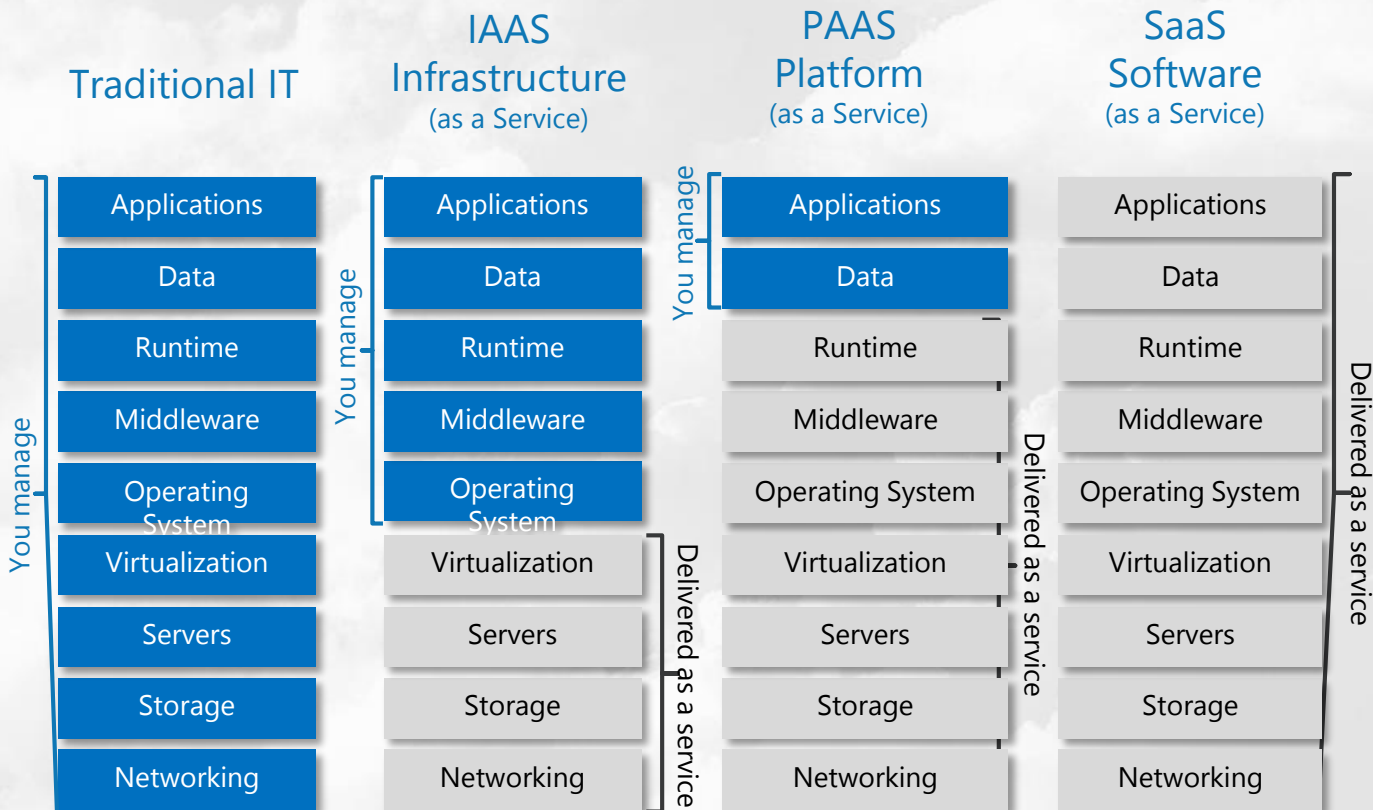 ▶ Use Azure Virtual Network and Azure Service Bus for connectivity

Public Cloud

▶ Implementation of cloud services on resources that are shared between many customers, managed off-premises

▶ Typically, cloud provider owns and controls the resources/assets, definition of services, costs and risks

  ▶ Variations exist – such as hosters and integrated cloud platforms

▶ Microsoft solutions

  ▶ Office 365 (SaaS)

  ▶ Dynamics CRM Online (SaaS)

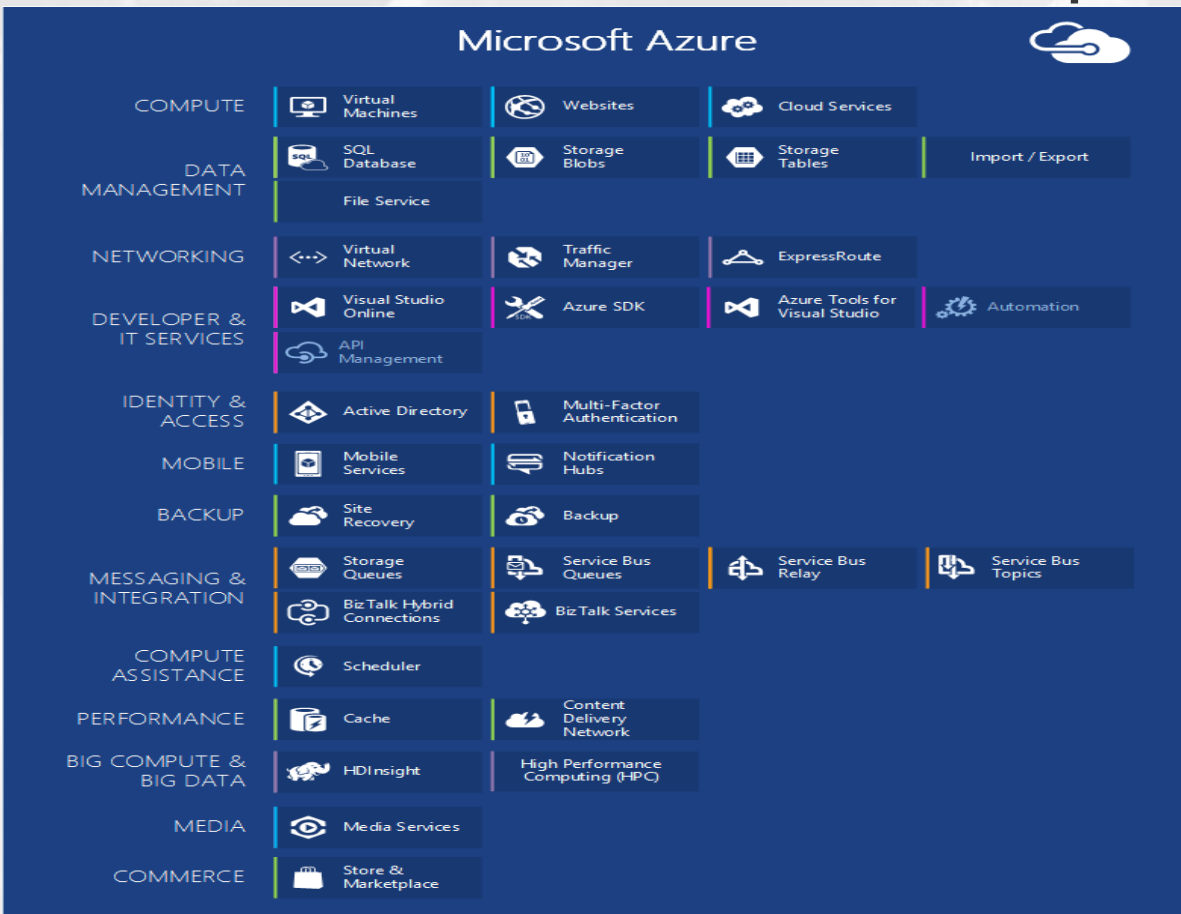 ▶ Windows Intune (SaaS)

  ▶ Windows Azure platform (PaaS)

Private Cloud

▶ Implementation of cloud services on resources that are dedicated to your organization, whether they exist on-premises or off-premises

▶ Typically, your organization owns and controls the resources/assets, definition of services, costs and risks

  ▶ Variations exist – such as hosted and virtual private clouds

▶ Microsoft solutions

  ▶ Windows Server 2008 R2 Hyper-V, System Center (IaaS)

  ▶ Windows Azure Appliance (PaaS)

Azure: IAAS and SaaS Component

Microsoft Azure

COMPUTE	Virtual Machines	Websites	Cloud Services	
DATA MANAGEMENT	SQL Database	Storage Blobs	Storage Tables	Import / Export
	File Service			
NETWORKING	Virtual Network	Traffic Manager	ExpressRoute	
DEVELOPER & IT SERVICES	Visual Studio Online	Azure SDK	Azure Tools for Visual Studio	Automation
	API Management			
IDENTITY & ACCESS	Active Directory	Multi-Factor Authentication		
MOBILE	Mobile Services	Notification Hubs		
BACKUP	Site Recovery	Backup		
MESSAGING & INTEGRATION	Storage Queues	Service Bus Queues	Service Bus Relay	Service Bus Topics
	BizTalk Hybrid Connections	BizTalk Services		
COMPUTE ASSISTANCE	Scheduler			
PERFORMANCE	Cache	Content Delivery Network		
BIG COMPUTE & BIG DATA	HDInsight	High Performance Computing (HPC)		
MEDIA	Media Services			
COMMERCE	Store & Marketplace			

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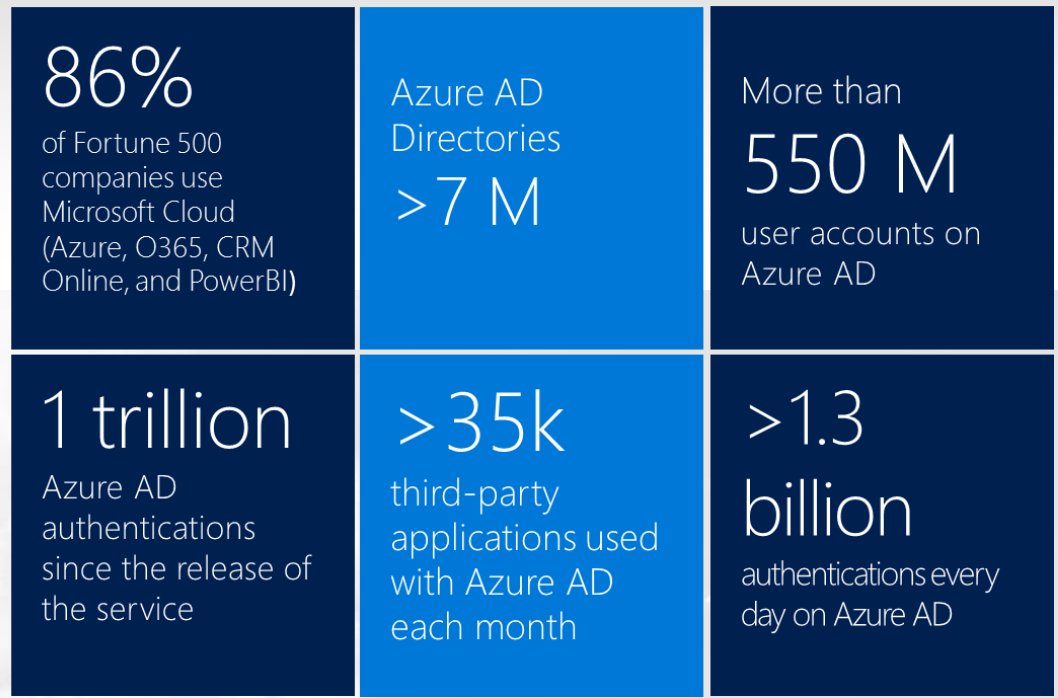
Azure Active Directory

Microsoft's "Identity Management as a Service (IDaaS)" for organizations.

Millions of independent identity systems controlled by enterprise and government "tenants."

Information is owned and used by the controlling organization—not by Microsoft.

Born-as-a-cloud directory for Office 365. Extended to manage across many clouds.

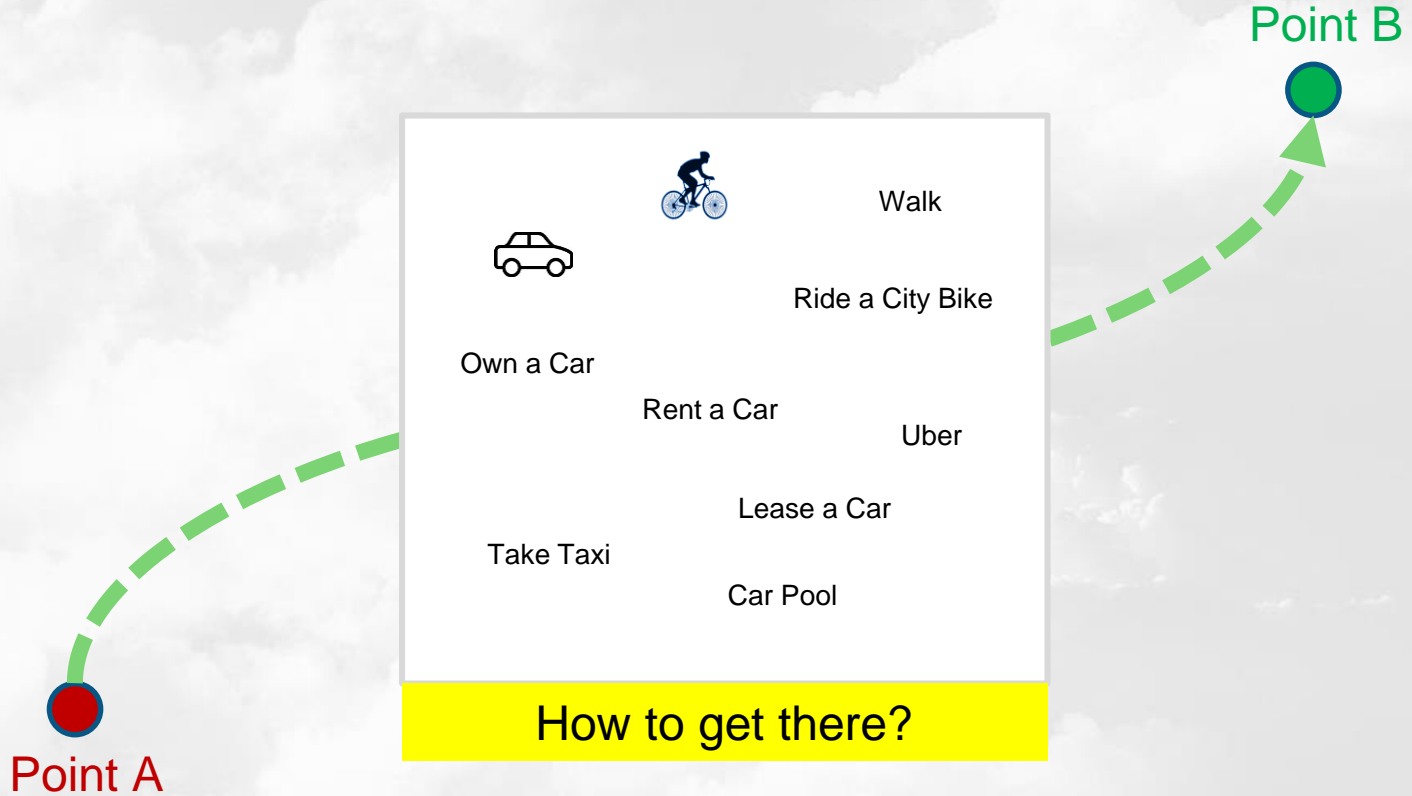Evolved to manage an organization's relationships with its customers/citizens and partners (B2C and B2B).

86% of Fortune 500 companies use Microsoft Cloud (Azure, O365, CRM Online, and PowerBI)

Azure AD Directories **>7 M**

More than **550 M** user accounts on Azure AD

1 trillion Azure AD authentications since the release of the service

>35k third-party applications used with Azure AD each month

>1.3 billion authentications every day on Azure AD

Every Office 365 and Microsoft Azure customer uses Azure Active Directory
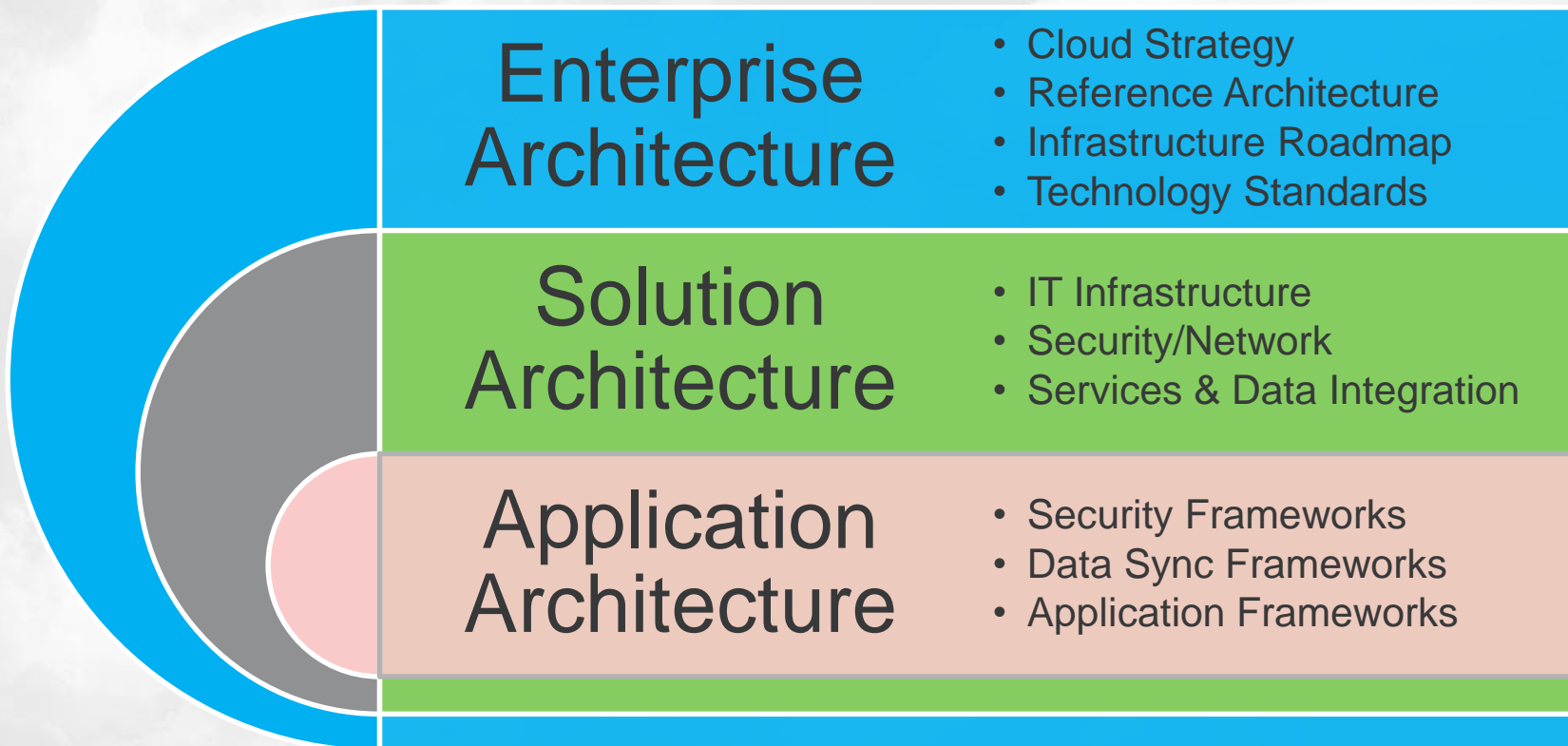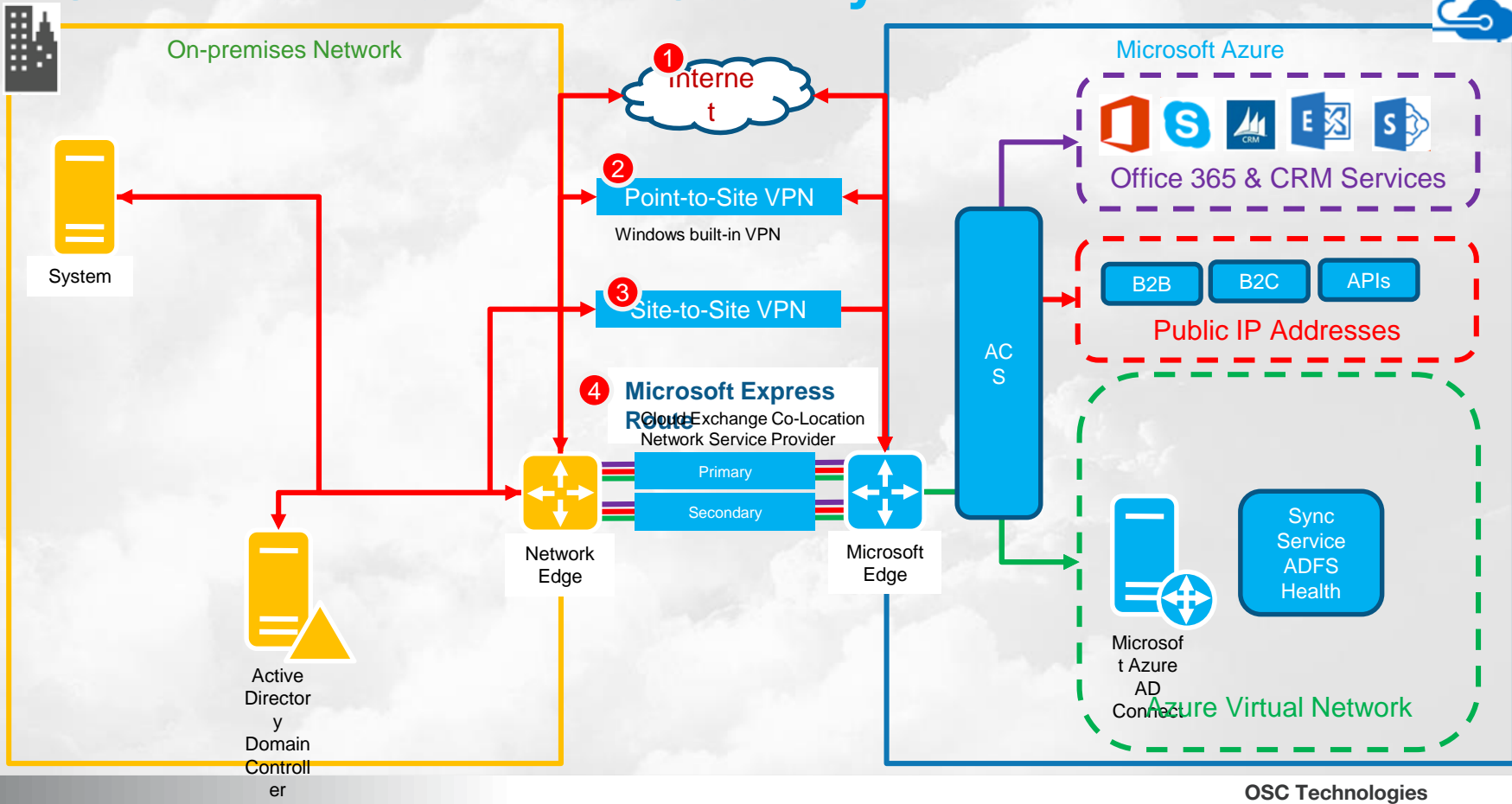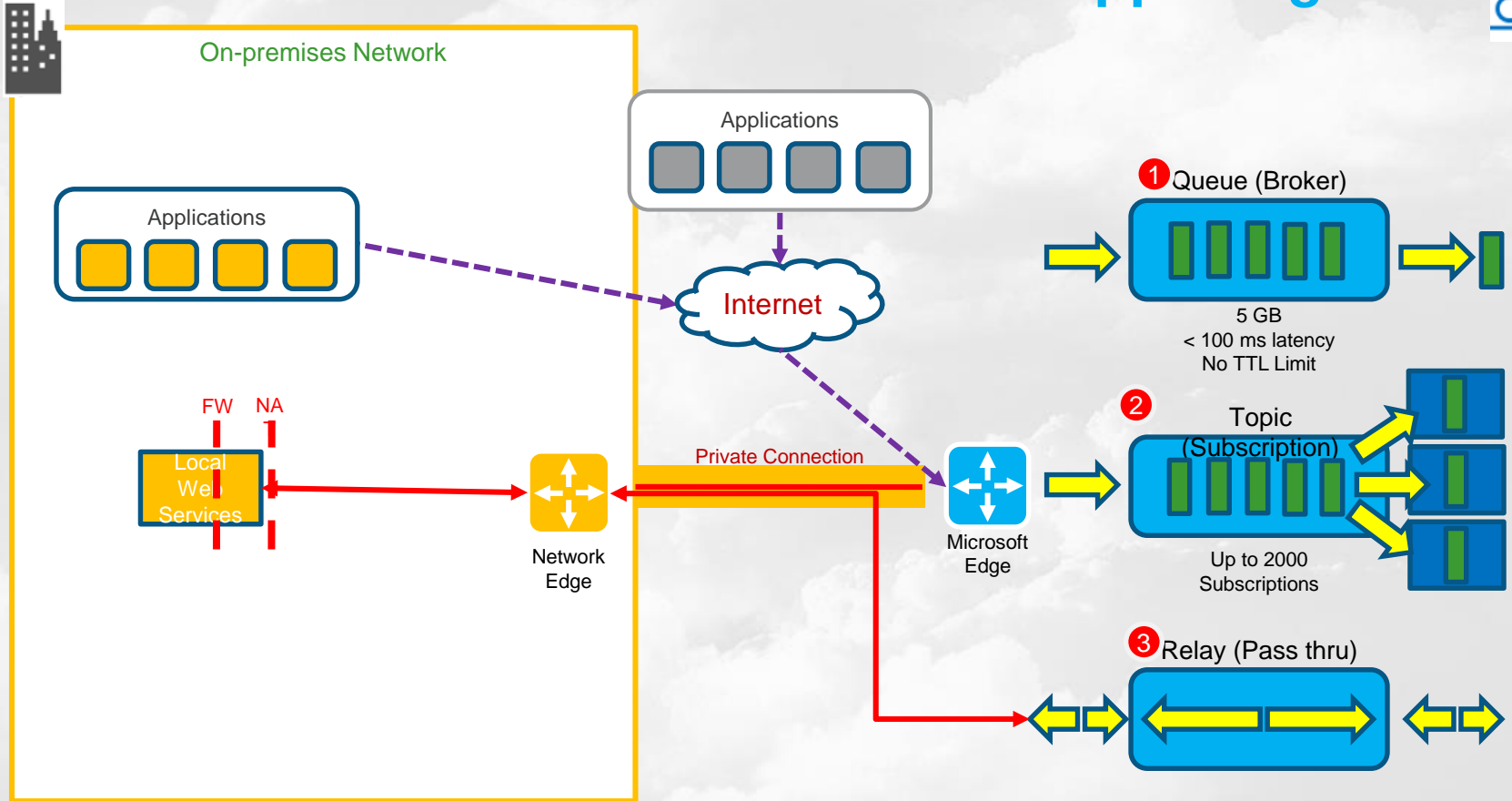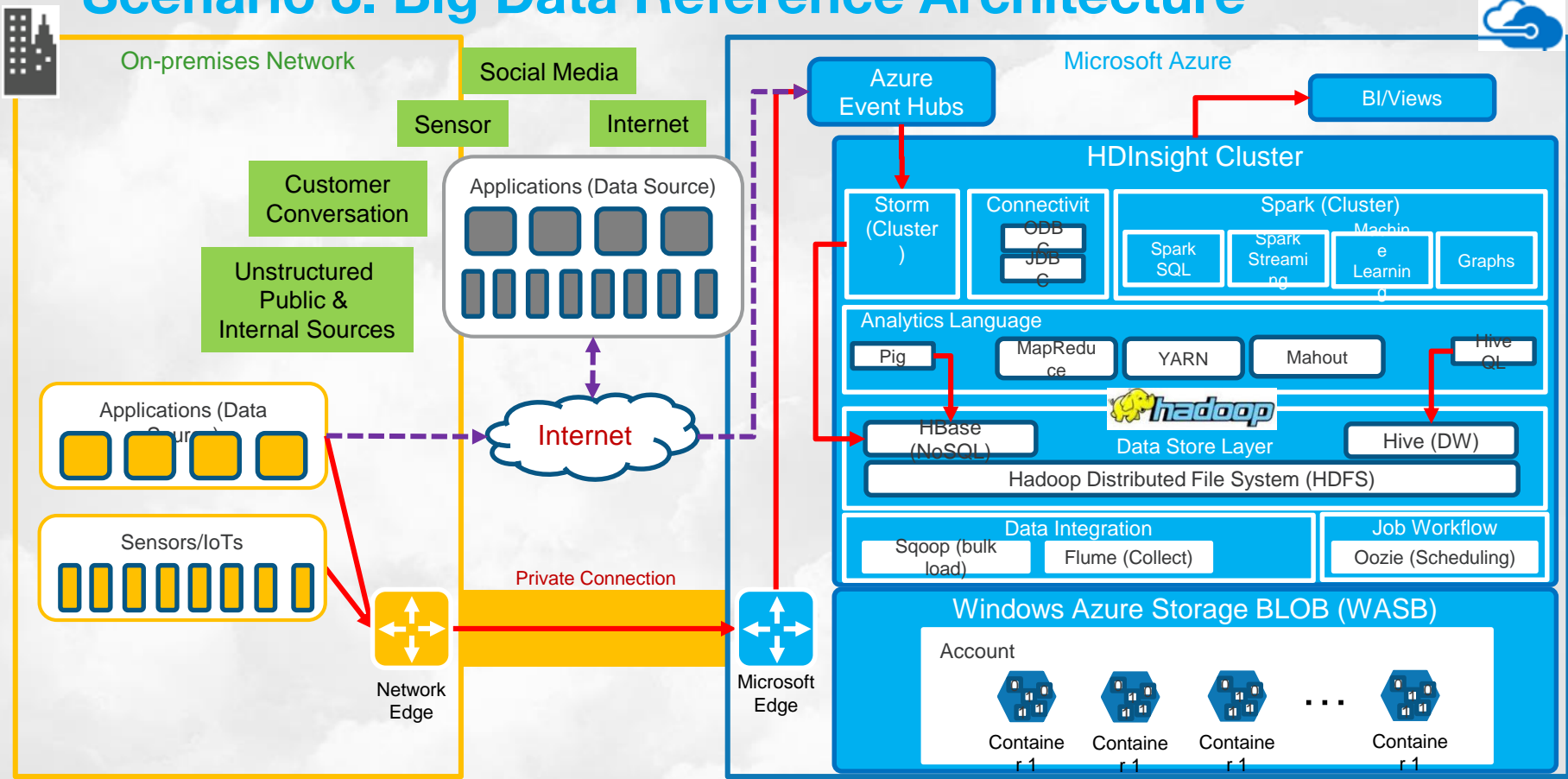
OSC Technologies Overview

Garret Grajek, CISSP
CEO

OSC Technologies

OSC Technologies, LLC:

- Full service advanced IT consulting firm:
  - Project Design, Project Scoping, Architecture
  - Development, Deployment, Testing

Staff:

- Over 15 Microsoft certifications
- 10 patents, 3 PhDs, multiple Masters
- 100s of years in cumulative project experience
- On-Shore and
- Off-shore engineers

OSC – Full Cloud/Application Consultants

Full Service Team:

- Architects, Project Management, Coders, Implementers, Maintenance Programmers
- .NET and Java
- Front End Specialist
- Both:
  - Existing Projects
  - Prototypes
- Webservices/APIs:
  - REST APIs
  - SAML, WS-*, SCEP, etc.

Azure – Hybrid Architecture

1 Additional Information
  https://msdn.microsoft.com/en-us/library/hh871440.aspx
  Building Hybrid Applications in the Cloud on Microsoft Azure

2 Connect with OSC
  Schedule a personalized project scoping w/ OSC
  http://www.oscgc.com/contact-us/

3 Have OSC Deploy a App utilizing Azure AD
  Mobile, Web, Cloud

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