



# Key Note

Vinod Kiran

<https://www.linkedin.com/in/vinodkiran>



# Corporate Overview



- Software & Services Firm
- **Financial Services & Insurance focused**
- Established in 2000 with HQ in NJ, USA
- 150+ dedicated R&D team
- Multi-Disciplinary Focus (8 distinct LoB's)
- Offshore centers are SSAE 16 SOC 2 certified. Clean Rooms for several clients offshore

**23%**

Compound Annual Growth Rate since 2000

**4**

Analysts covering ValueMomentum Software & Services

**>65**

Clients Served in North America

**1,850+**

Global employee strength

**Top 15**

IT Services Vendor for North American P&C Carriers by # of customers\*

**14**

>5 Year Customer Relationships  
Average ~8 years

**BUSINESS FOCUS**



- Banking & Lending
- Capital Markets



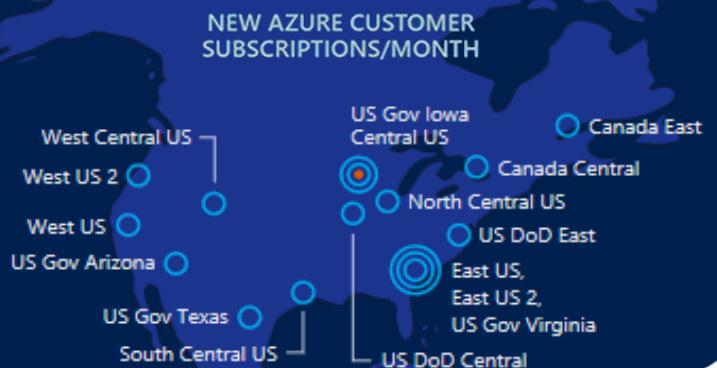
- Property & Casualty
- Healthcare
- Life & Annuities

**50** regions worldwide

**140** available in 140 countries

Azure has more global regions than any other cloud provider

**>120k**



**>1.4 Million**

SQL DATABASES IN AZURE

- Available region
- Announced region
- Availability Zones present

Brazil South

<https://azure.microsoft.com/en-us/global-infrastructure/regions/>

**2 Trillion**

MESSAGES PER WEEK PROCESSED BY AZURE IOT

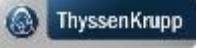


**>40%**

REVENUE FROM START-UPS AND ISVS

# 90%

Of the Fortune 500 use Microsoft Cloud

									
									
 CBC & Radio-Canada									

250+

Changes &  
New releases in  
the last 300 days

- 3 Apr Gold migration: Azure Service Bus
- 3 Apr Deployment Groups and build completion trigger – VSTS Sprint 132 Update
- 3 Apr Microsoft peering on ExpressRoute Standard SKU now available
- 2 Apr Power BI Embedded: API to track your free embed token
- 2 Apr Power BI Embedded Q&A added to Edit and Create modes for report authors
- 2 Apr Power BI Embedded supports additional mobile gestures
- 2 Apr Power BI Embedded: Get visual data
- 2 Apr Power BI Embedded Bookmarks API
- 2 Apr General availability: New regions for Red Hat Update Infrastructure
- 2 Apr General availability: Azure zone-redundant snapshots and images for managed disks
- 30 Mar General availability: Global VNet Peering
- 30 Mar General availability: Azure Network Watcher Connection Monitor in all public regions
- 30 Mar General availability: Application security groups in all Azure regions
- 30 Mar General availability: Zone-redundant storage
- 30 Mar General availability: Azure Availability Zones in select regions
- 29 Mar March update for Azure IoT Edge
- 28 Mar Public preview: Event Hubs for Go
- 28 Mar Azure SDK for Go v15 is available
- 27 Mar Public preview: Soft delete for Azure Storage blobs
- 26 Mar Public preview: Virtual machine serial console
- 23 Mar Azure Data Factory supports Azure AD authentication for Azure SQL Database and SQL Data Warehouse
- 23 Mar General availability: Azure Scheduled Events
- 22 Mar General availability: Standard Load Balancer
- 22 Mar General availability: Disable BGP route propagation for virtual network routes
- 22 Mar Public preview: Azure DNS Private Zones
- 22 Mar App Service BizTalk Hybrid Connections: end of life on May 31, 2018
- 21 Mar Name changes: Azure Database for PostgreSQL
- 21 Mar Name changes: Azure Database for MySQL
- 21 Mar Name changes: Microsoft IoT Central
- 19 Mar Deprecating Service Management API support for Azure App Service
- 19 Mar Simplified process for creating secure Service Fabric clusters
- 19 Mar Azure portal updates: March 2018
- 19 Mar ClearDB removal from the Azure Marketplace
- 19 Mar Public preview: Low-priority VMs on virtual machine scale sets
- 16 Mar Azure Backup is now available in France
- 16 Mar General availability: Support for large disk backup and improvements for backup/restore
- 15 Mar Power BI Embedded custom layout
- 15 Mar Power BI Embedded single-visual embedding
- 15 Mar OData and SharePoint Online data sources supported in Power BI Embedded
- 15 Mar Power BI Embedded Query Parameters API
- 15 Mar Power BI Embedded capacity APIs
- 15 Mar Power BI Embedded APIs for visual-level filters

# Azure



Productive + Hybrid + Intelligent + Trusted

# Azure



# Productive

# End-to-end management

Management Portal

CLI and Powershell experience

Monitoring + log analytics

Patching, Backup, Disaster Recovery



Home TestAzureAuto - Change tracking

TestAzureAuto - Change tracking

Automation Account

Search (Ctrl+ /)

Add Azure VM Add non-Azure machine Log Analytics Edit Settings Manage Activity Log Connection Refresh

Change Types Time Range

5 selected Last 24 hours

Learn more Provide feedback

Events 399

Daemons 0

Files 0

Registry 0

Software 2

WindowsServices 1

DSC nodes 0

DSC configurations 0

DSC configurations gallery 1

DSC node configurations 16

Changes Events

Search to filter items...

RESOURCE NAME	MACHINE	CHANGE TYPE	TIME GENERATED	CATEGORY
Definition Update for Windows Defender Antivirus - KB2267602 (Definitio...	ContosoVM1	Software	2/21/2018 9:50 AM	Added ...

# Background Intelligent Transfer Service

Change details

PROPERTY	VALUE BEFORE	VALUE AFTER
SvcStartupType	Manual	Auto
▼ Unchanged properties		
SourceComputerId	4f1e434c	No Change
SvcDisplayName	Background Intelligent Transfer Service	No Change
SvcName	BITS	No Change
SvcState	Running	No Change
SvcAccount	LocalSystem	No Change
SvcPath	C:\Windows\System32\svchost.exe -k netsvcs	No Change
SourceSystem	OpsManager	No Change
MG	00000000-0000-0000-0000-000000000001	No Change
ManagementGroupId	AOI-68993555	No Change
TenantId		No Change
VMUUID		No Change



# Visual Studio family

## Microsoft Azure

### Best-in-class tools for any developer



HockeyApp

Distribute • Crashes • Analytics



Xamarin Cloud



Xamarin Insights

Crashes • Analytics



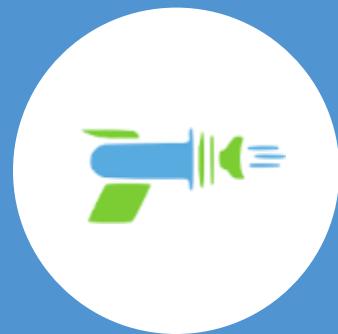
Notification Hubs

Push



Azure App Service

Tables • Auth • Push



CodePush

Distribution

# Visual Studio Mobile Center

# Visual Studio App Center

Automate entire app lifecycle

Flexible, open platform and modular SDKs

Support for Obj-C, Swift, Java, React Native, and Xamarin apps

The next generation of Xamarin Test Cloud, HockeyApp, and CodePush



A screenshot of the Visual Studio IDE. On the left, the code editor shows C# code for a 'LoginViewModel.cs' file. The code includes methods for adding validations and performing asynchronous sign-in operations. It handles exceptions related to service calls and authentication. On the right, a preview window displays a mobile application running on an iPhone 5s with iOS 9.3. The app's interface includes a header with 'Carrier' and '5:03 PM', a back button, and a title 'New Ride'. Below this are fields for 'From' and 'To' locations. A map view shows a coastal area with streets like 2nd Ave SW, 6th Ave SW, and Beach Dr SW. At the bottom of the screen are navigation icons for Home, My Rides, Upcoming, Report, and Profile.

```
private async void SignInAsync()
{
    IsBusy = true;
    IsValid = true;
    bool isValid = Validate();
    bool isAuthenticated = false;

    if (isValid)
    {
        try
        {
            isAuthenticated = await Authenticate();
        }
        catch (ServiceException ex)
        {
            await DialogCoordinator.Instance.ShowError(ex.Message);
        }
        catch (Exception ex)
        {
            Debug.WriteLine(ex);
            await DialogCoordinator.Instance.ShowError("An error occurred while signing in.");
        }
    }
    else
    {
        IsValid = false;
    }

    if (isAuthenticated)
    {
        await NavigateToRides();
    }

    IsBusy = false;
}
```

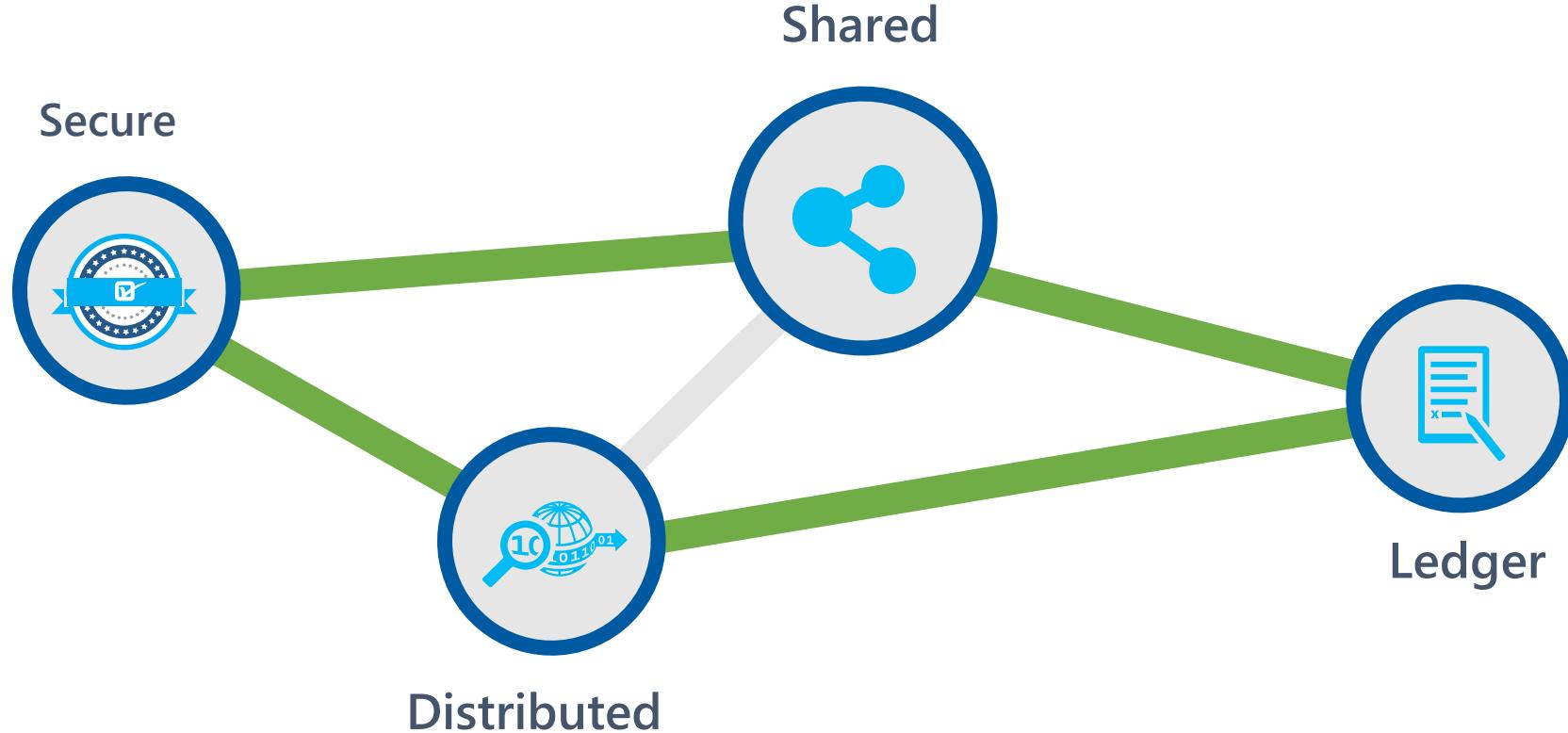
# Deep Dive & Demos

One stop shop - Visual Studio App Center –

Umair Akbar

2018  
Global Azure  
BOOTCAMP

# Blockchain or Distributed Ledger | 4 Pillars



# Layers in a typical application

Interface

Existing systems

Logic

Enterprise Smart Contracts &  
Cryptlets

Ledger

Ethereum, EE (Quorum), Fabric,  
Corda, Chain...

# Blockchain on Azure

Azure enterprise blockchain efforts began by simply making it easier to stand up labs...which at the time was really hard...

Today – All major platform are automated in multi-node and consortium deployments

Microsoft Azure

Why Azure Solutions Products Documentation Pricing Training Marketplace Partners Blog Resources Support

Azure Marketplace Browse Sell Learn Search Marketplace

Product Category

- Compute
- Networking
- Storage
- Web + Mobile
- Databases
- Intelligence + analy...
- Internet of Things
- Enterprise Integrati...
- Security + Identity
- Developer tools
- Monitoring + Mana...
- Add-ons
- Containers
- Blockchain >**
  - What's new
  - Single node ledger
  - Multi-node ledger
  - Tools
  - App accelerators
  - Azure Active Direct...
- Refine
- Trials
- Test Drive
- Operating System
  - Windows
  - Linux
- Publisher
  - Partners
  - Microsoft

What's new

See all

 R3 Single Network Bv R3 Deploy a pre-configured network of Corda nodes in minutes  Price varies  <a href="#">Get it now</a>	 Azure Blockchain Service Bv Microsoft Deploy and configure a blockchain network in minutes.  Price varies  <a href="#">Get it now</a>	 EEA Single Member Blockchain Bv Enterprise Ether... Deploy and configure a Quorum blockchain in minutes.  Price varies  <a href="#">Get it now</a>	 Waves Platform Bv Waves Platform Blockchain-powered custom tokens platform  Software plans start at Free  <a href="#">Get it now</a>
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Single node ledger

See all

 R3 Single Network Bv R3 Deploy a pre-configured network of Corda nodes in minutes  Price varies  <a href="#">Get it now</a>	 EEA Single Member Blockchain Bv Enterprise Ether... Deploy and configure a Quorum blockchain in minutes.  Price varies  <a href="#">Get it now</a>	 Syscoin Full Node Bv Blockchain Foun... Business blockchain platform powered by Syscoin  Software plans start at Free  <a href="#">Get it now</a>	 Waves Platform Bv Waves Platform Blockchain-powered custom tokens platform  Software plans start at Free  <a href="#">Get it now</a>
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Multi-node ledger

See all

 Azure Blockchain Service Bv Microsoft Deploy and configure a blockchain network in minutes.  Price varies  <a href="#">Get it now</a>	 Azure Multi-Member Blockchain Bv Microsoft Deploy and configure a multi-member consortium blockchain network.  Price varies  <a href="#">Get it now</a>	 R3 Single Network Bv R3 Deploy a pre-configured network of Corda nodes in minutes.  Price varies  <a href="#">Get it now</a>	 EEA Single Member Blockchain Bv Enterprise Ether... Deploy and configure a Quorum blockchain in minutes  Price varies  <a href="#">Get it now</a>
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Tools

See all

 Quorum	 R3 Single Network Bv R3 Deploy a pre-configured network of Corda nodes in minutes.  Price varies  <a href="#">Get it now</a>	 Azure Multi-Member Blockchain Bv Microsoft Deploy and configure a multi-member consortium blockchain network.  Price varies  <a href="#">Get it now</a>	 EEA Single Member Blockchain Bv Enterprise Ether... Deploy and configure a Quorum blockchain in minutes  Price varies  <a href="#">Get it now</a>
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# Deep Dive & Demos

Blockchain using HyperLedger –

Vamshi Ramadugu

2018  
Global Azure  
**BOOTCAMP**

# Azure Container Service (AKS)

Simplify the deployment, management, and operations of Kubernetes

- ❑ Container hosting solution optimized for Azure
- ❑ Azure-hosted control plane
- ❑ Only pay for resource consumption
- ❑ Automated upgrades, self-healing, easy scaling
- ❑ Ease Kubernetes management with open source upstream portability



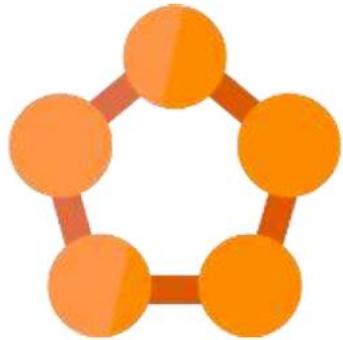
# Azure Container Service (AKS)

Simplify the deployment, management, and operations of Kubernetes

- Deploy alternative orchestrators (Docker, Mesos DC/OS)
- Fully managed Kubernetes control plane:
- No VMs to operate
- No patching required
- Provisioned in a few minutes
- SLA-available service (99.95%)
- Transparently scales with cluster size:  
1, 50, 100, 250, 500, etc.
- Upstream Kubernetes
- Free (no charge for control plane)



# Containers Orchestration in Azure



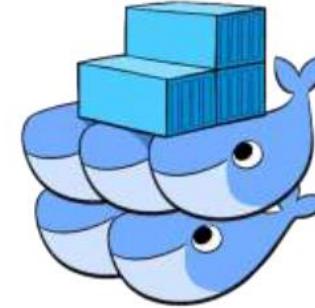
**Microsoft  
Service Fabric**



**Kubernetes  
(Open Shift)**



**Mesosphere DC/OS**



**Docker Swarm**



**Cloud Foundry  
(Pivotal & OSS)**

Azure Container Services



ONE CLOUD TO RUN THEM ALL

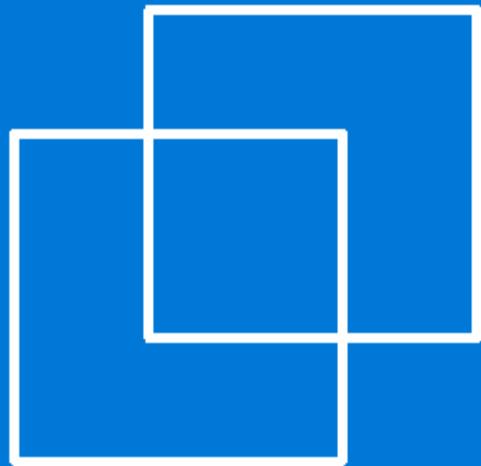


## Deep Dive & Demos

Using Azure Kubernetes Services to architect domain driven development –

Naren Sivakumar

# Azure



# Hybrid

# Your Hybrid Cloud world



Cloud



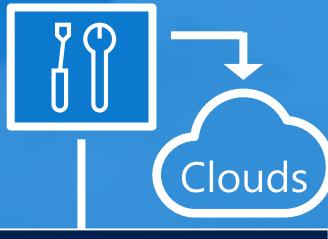
On-Premises

# Microsoft Azure: The only consistent Hybrid Cloud

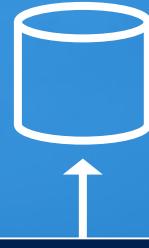
Azure Active  
Directory



Azure management  
and security



Azure  
data services



Azure services



Common  
Identity



Active  
Directory

Integrated  
Management  
and Security



On-premises  
infrastructure

Consistent  
Data Platform



SQL Server

Unified  
Development  
and DevOps



Azure Stack

# Migrating to Azure



ANNOUNCING

Optimize



Migrate



Discover



Azure Cost  
Management  
**Free for all Azure  
customers**



Azure Hybrid  
Benefit  
**Windows Server  
SQL Server**



Azure  
Migrate



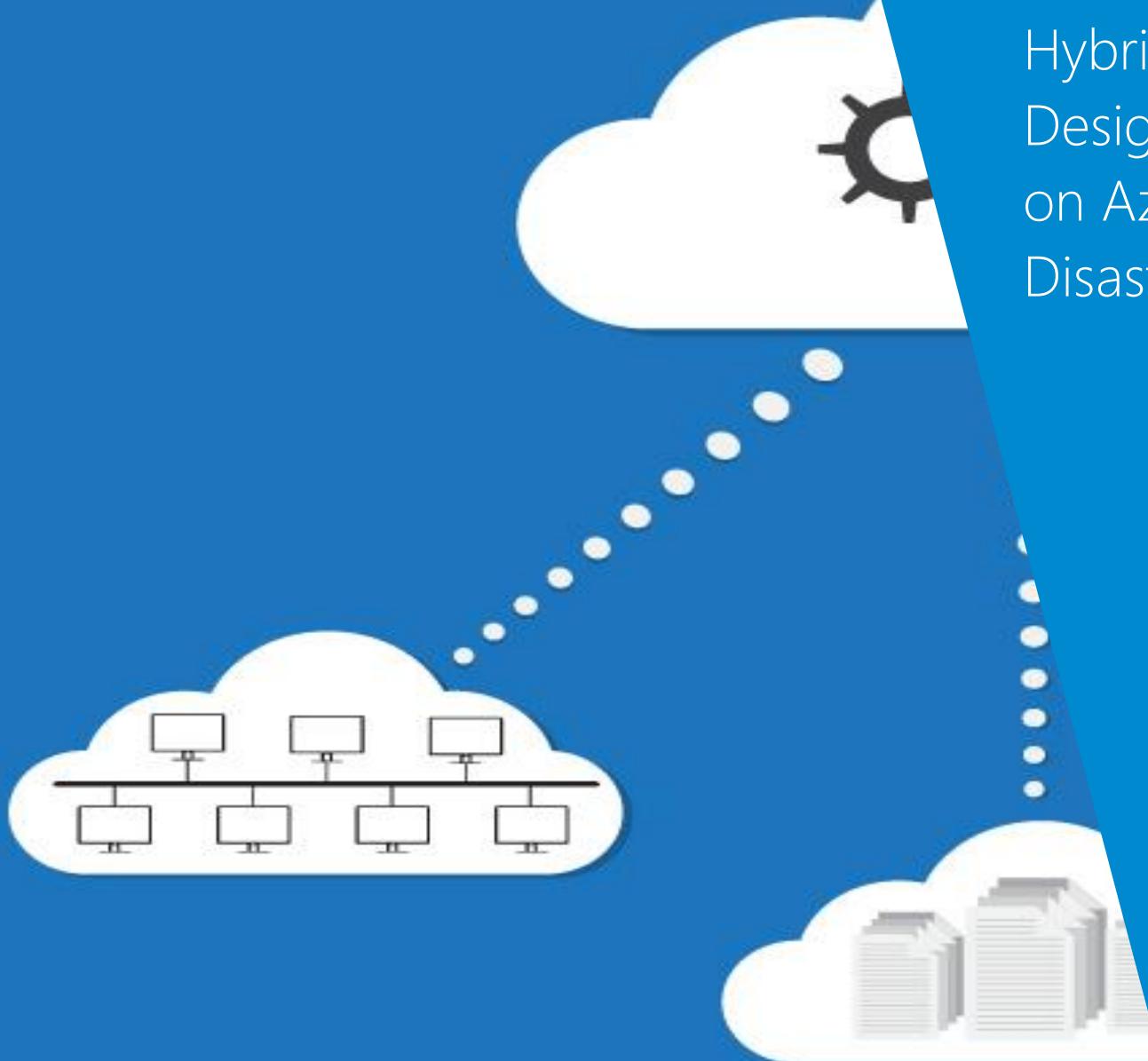
Azure Database  
Migration Service



Azure  
Data Box

# Deep Dive & Demos

Hybrid Cloud Best Practices - Ananda Vardhan  
Design scalable, High Availability Infrastructure  
on Azure I & II – Balu Kalepu  
Disaster Recovery - Balu Kalepu



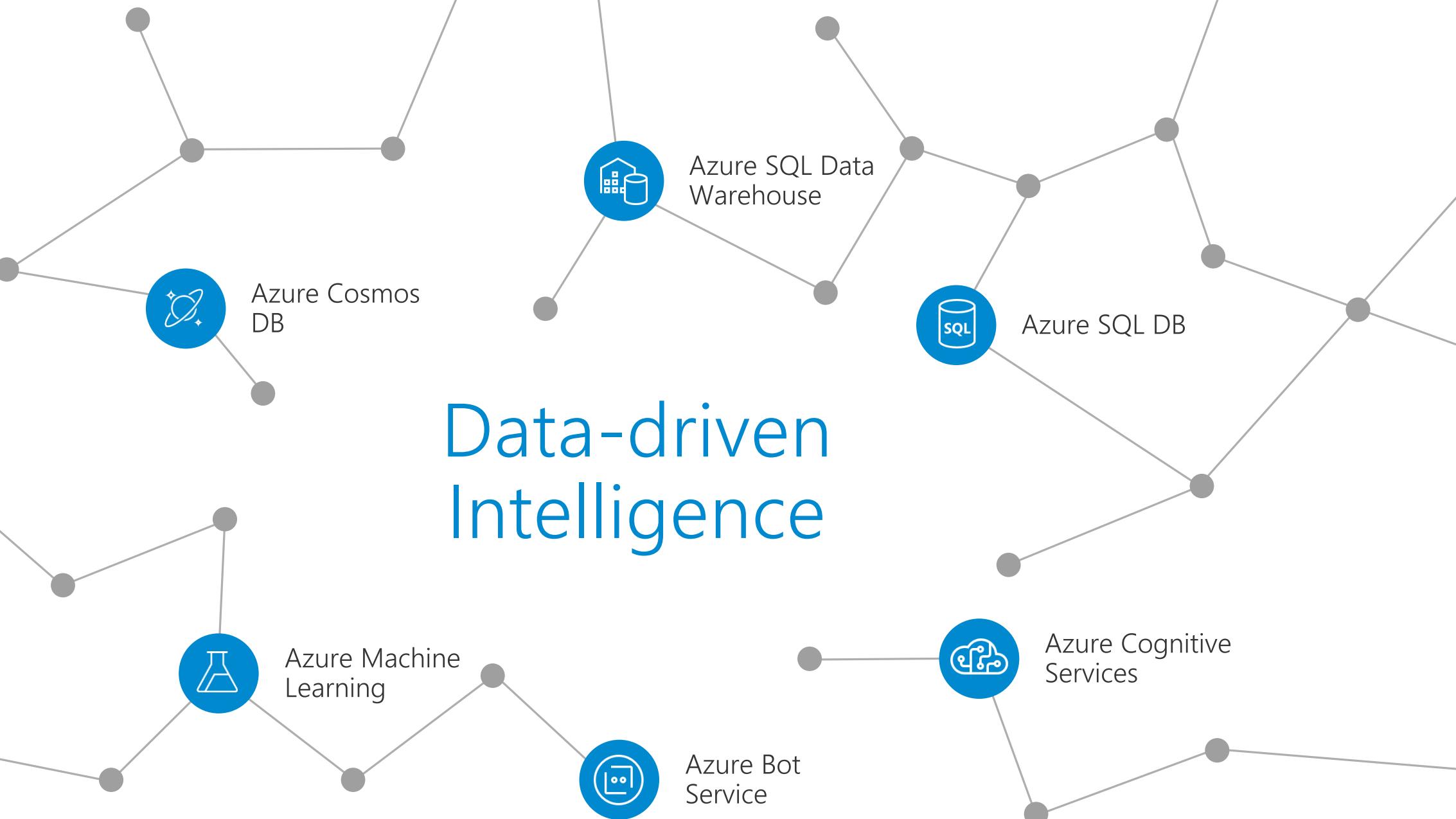
2018  
Global Azure  
**BOOTCAMP**

# Azure



# Intelligent

# Data-driven Intelligence



2018

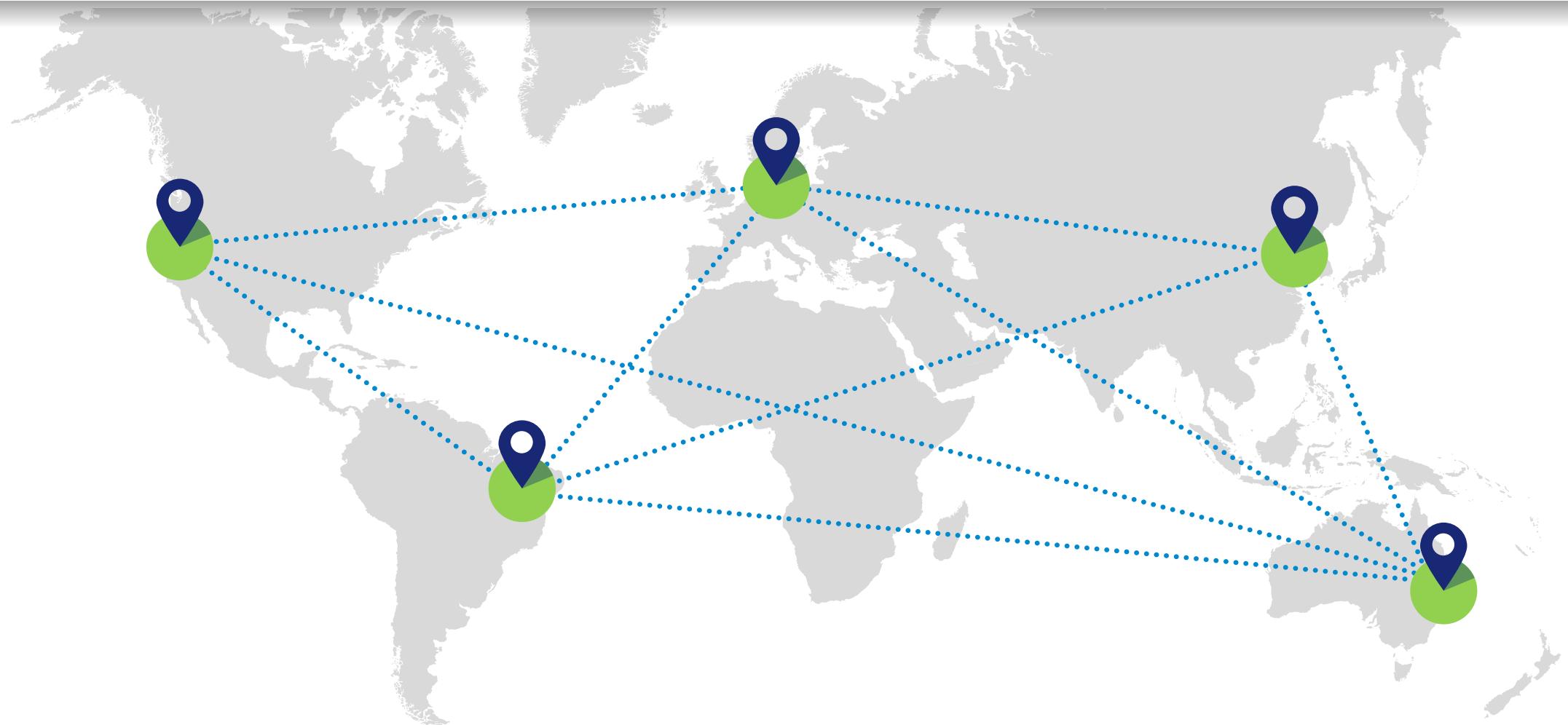
Global Azure  
BOOTCAMP

# Azure Cosmos DB

## Data at planet scale

# Azure Cosmos DB

## Globally distributed database service

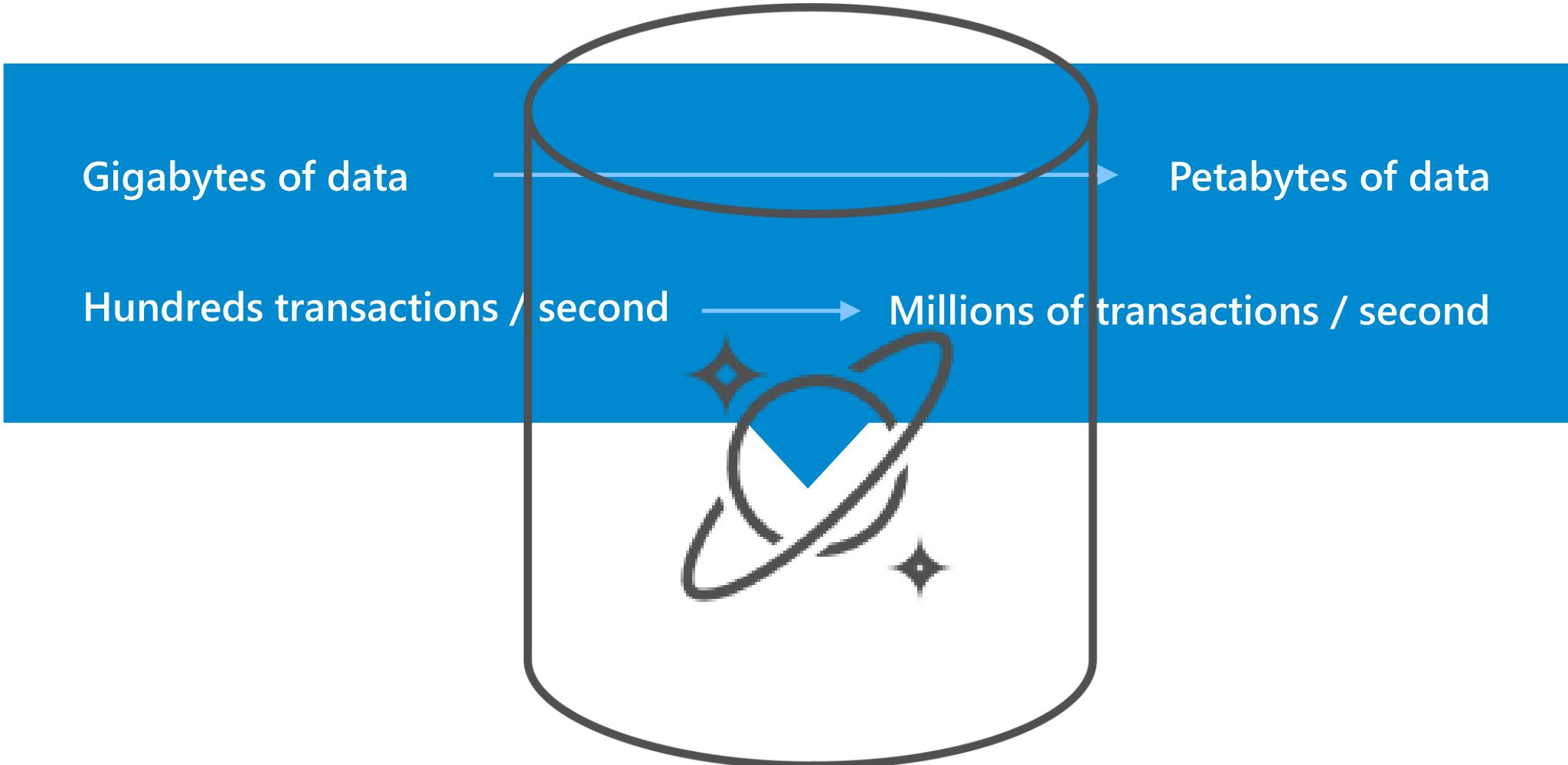


2018

Global Azure  
BOOTCAMP

# Azure Cosmos DB

## Scale to any need





# Deep Dive & Demos

# Azure Cosmos DB

Sriram Gudimella

2018  
Global Azure  
**BOOTCAMP**

# Azure Machine Learning

## Transform Data into Intelligence

# Azure Machine Learning

## Transform Data into Intelligence



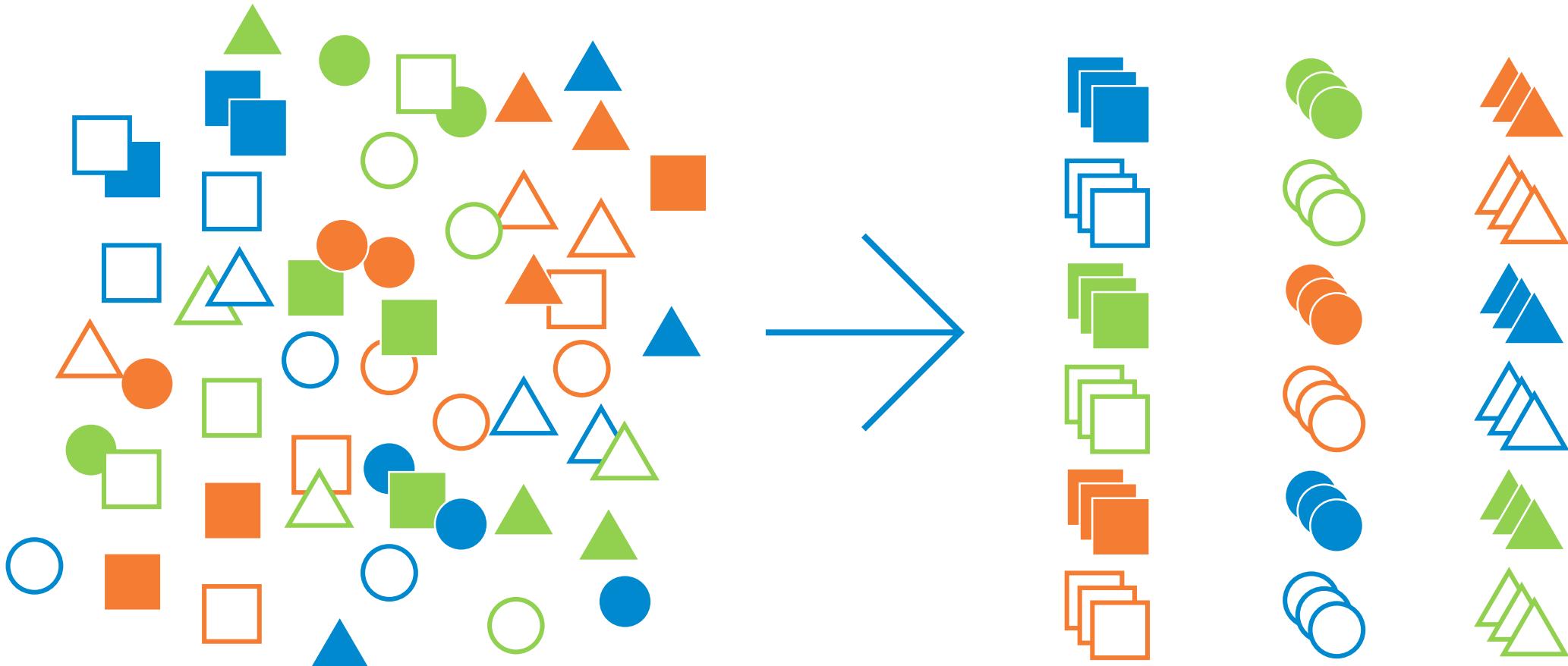
Azure Machine Learning workbench



Azure Machine Learning

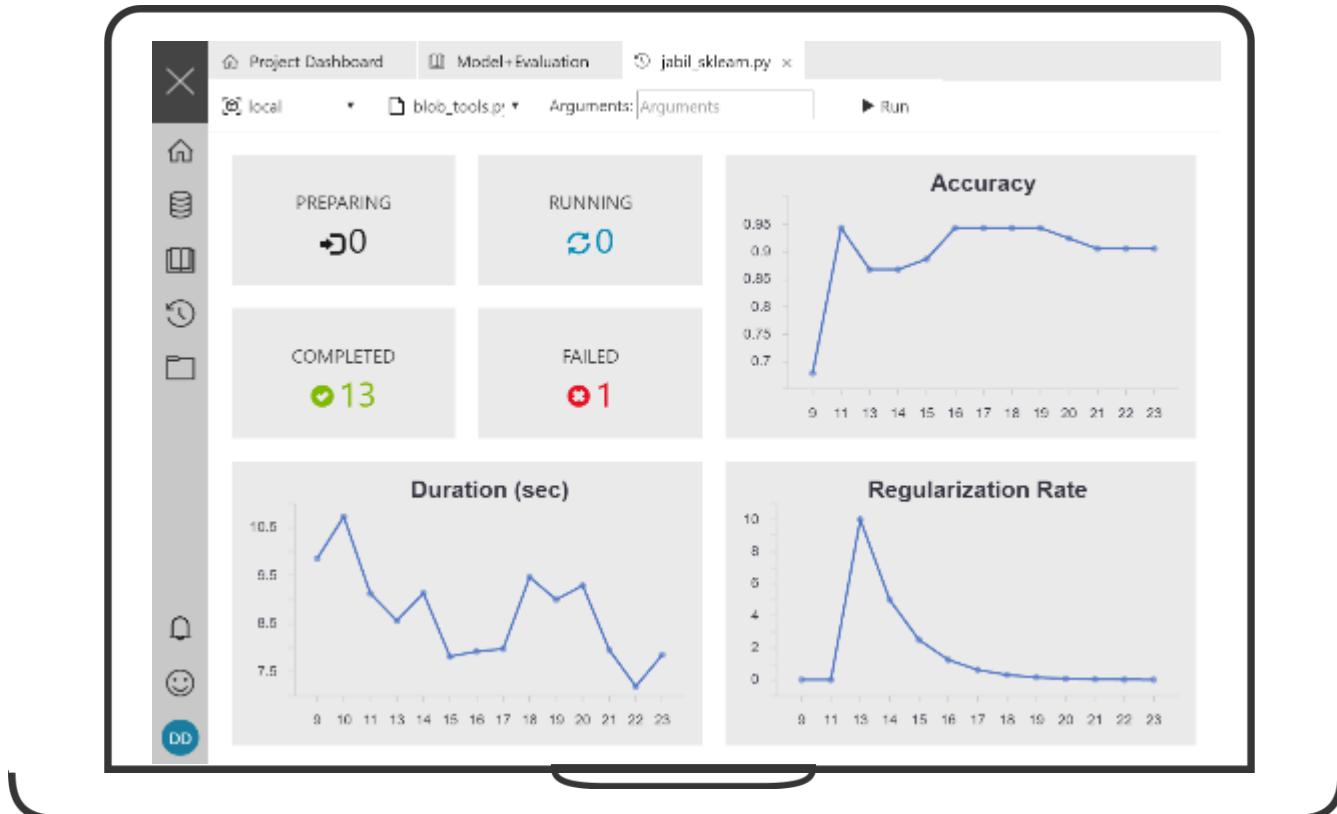
# Azure Machine Learning

## Productive data preparation tools



# Azure Machine Learning

## Agile AI model development + rapid experimentation



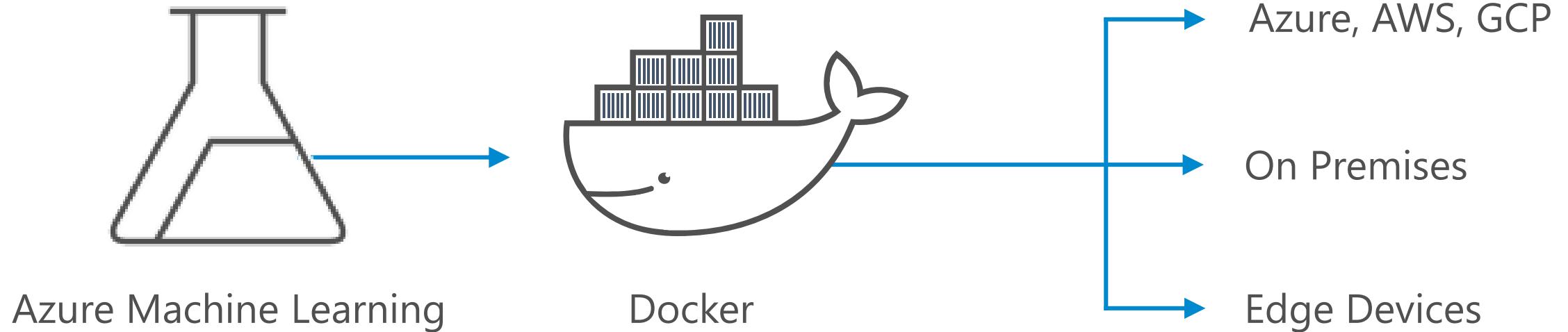
Jupyter notebook integration

Broad ecosystem support

- Spark
- TensorFlow
- Cognitive Toolkit
- Caffe2
- Keras
- Theano

# Azure Machine Learning

## Flexible AI model deployment



Deep Dive & Demos

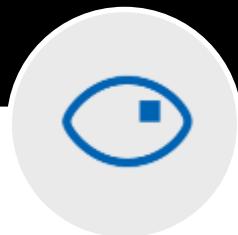
# Azure Machine Learning

Harshal Wavre



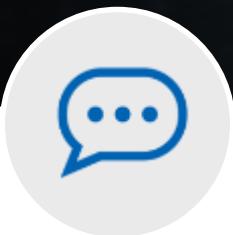
# Microsoft Cognitive Services

## Give your apps a human side



### Vision

From faces to feelings, allow your apps to understand images and video



### Speech

Hear and speak to your users by filtering noise, identifying speakers, and understanding intent



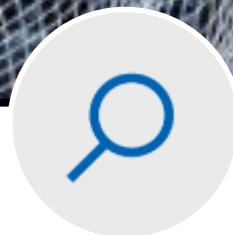
### Language

Process text and learn how to recognize what users want



### Knowledge

Tap into rich knowledge amassed from the web, academia, or your own data

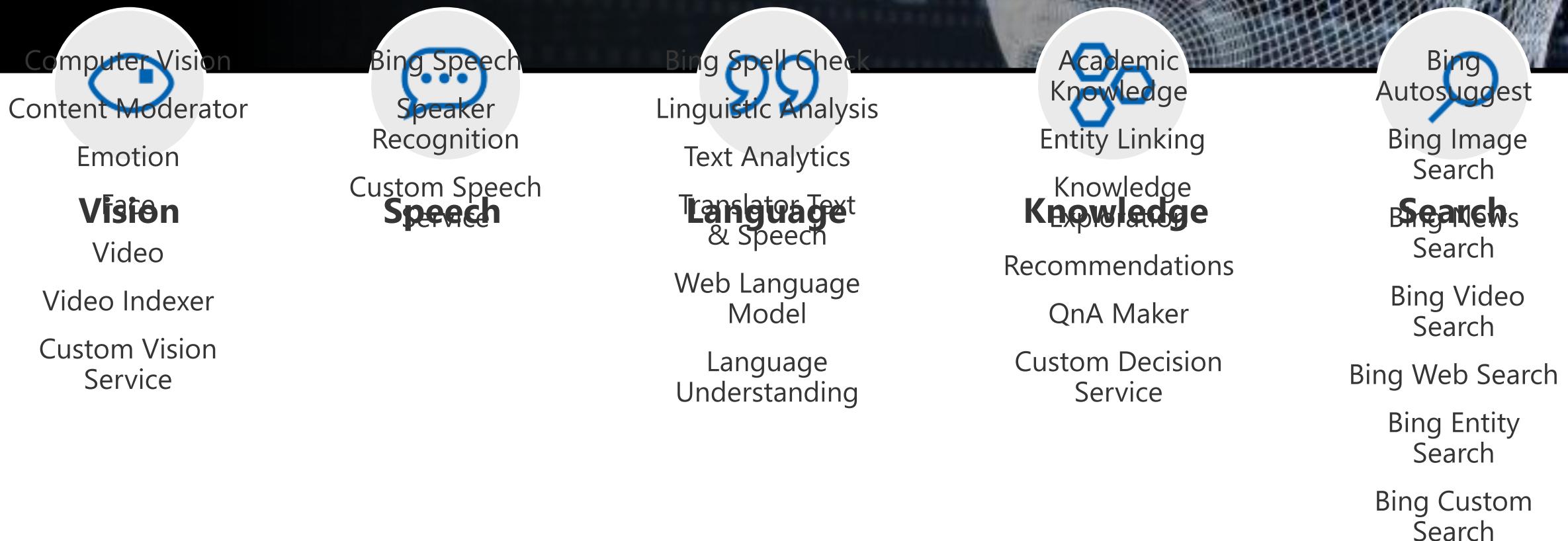


### Search

Access billions of web pages, images, videos, and news with the power of Bing APIs

# Microsoft Cognitive Services

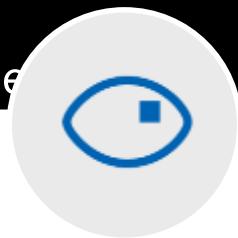
## Give your apps a human side



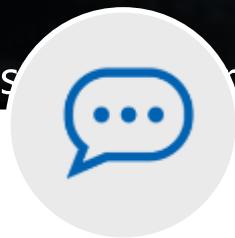
# Microsoft Cognitive Services

## Customization

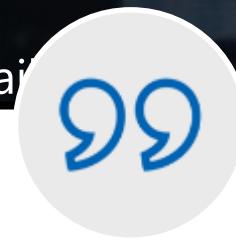
The Microsoft Cognitive Services API set of customization services available to existing customers allows them to reuse their own



**Vision**



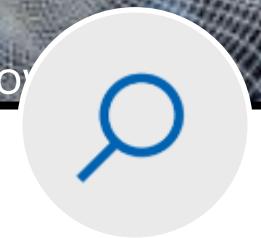
**Speech**



**Language**



**Knowledge**



**Search**

Custom Vision  
Service

Custom Speech  
Service

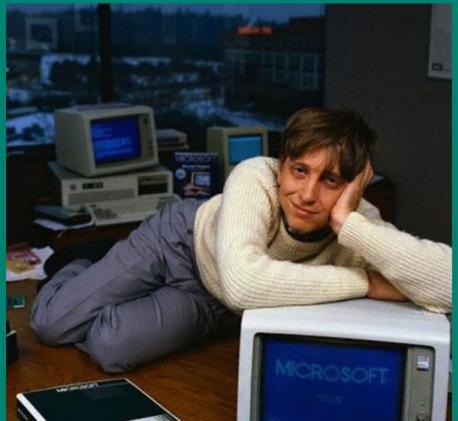
Language  
Understanding

Custom Decision  
Service

Bing Custom  
Search

# Apps Powered by MS Cognitive Services

I think it's a person sitting in front of a computer and he seems 😊. I am 99% sure that's **Bill Gates**



CaptionBot.ai



ProjectMurphy.net



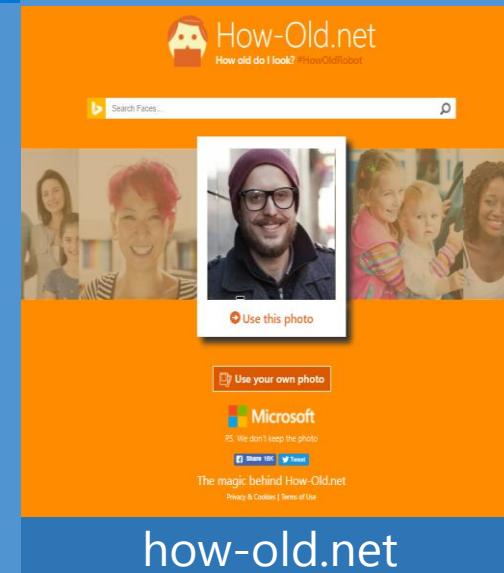
CelebsLike.Me  
Which Oscar nominee do you look like?

Your Oscar nominee match is...

49% MATCH

Anthony Hopkins

Celebslike.me



How-Old.net  
How old do I look? - HowOldRobot

Search Faces...

49% MATCH

Use this photo

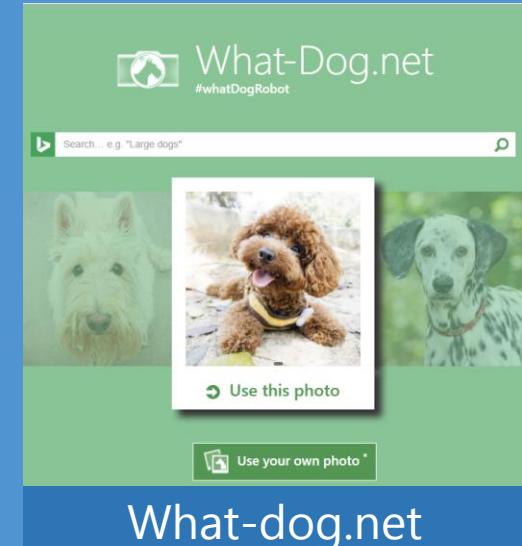
Use your own photo

Microsoft

The magic behind How-Old.net

Privacy & Cookies | Terms of Use

how-old.net



What-Dog.net  
#whatDogRobot

Search... e.g. "Large dogs"

Use this photo

Use your own photo\*

What-dog.net



# Microsoft Cognitive Services Labs

An early look at emerging Cognitive Services technologies:

<https://labs.cognitive.microsoft.com/>



## Project Prague

Gesture based controls



## Project Cuzco

Event associated with Wikipedia



## Project Johannesburg

Route logistics



## Project Nanjing

Isochrones calculations



## Project Abu Dhabi

Distance matrices



## Project Wollongong

Score location attractiveness

# How Microsoft Cognitive Services



Easy

Roll your own with REST APIs

Simple to add: just a few lines  
of code required

Flex

Make the same API call  
from iOS, Android, and Web

Integrate into the language  
and platform of your choice

## Deep Dive & Demos

Make Smart Bots Using Cognitive Services –  
Swarnalata Tamanam

Create Skills For Cortana – Swarnalata  
Tamanam

Custom Vision Service - Venkat Borra

Image Recognition and bots – Mayank Kumar



# Azure



Trusted

# Azure: The Trusted Cloud

More certifications than any other cloud provider

GLOBAL



ISO 27001



ISO 27018



ISO 27017



ISO 22301



SOC 1 Type 2



SOC 2 Type 2



SOC 3



CSA STAR  
Self-Assessment



CSA STAR  
Certification



CSA STAR  
Attestation

US GOV



Moderate  
JAB P-ATO



High  
JAB P-ATO



DoD DISA  
SRG Level 2



DoD DISA  
SRG Level 4



DoD DISA  
SRG Level 5



SP 800-171



FIPS 140-2



Section 508  
VPAT



ITAR



CJIS



IRS 1075

INDUSTRY



PCI DSS  
Level 1



CDSA



MPAA



FACT UK



Shared  
Assessments



FISC Japan



HIPAA /  
HITECH Act



HITRUST



GxP  
21 CFR Part 11



MARS-E



IG Toolkit UK



FERPA



GLBA



FFIEC

REGIONAL



Argentina  
PDPA



EU  
Model Clauses



UK  
G-Cloud



China  
DJCP



China  
GB 18030



China  
TRUCS



Singapore  
MTCS



Australia  
IRAP/CCSL



New Zealand  
GCIO



Japan My  
Number Act



ENISA  
IAF



Japan CS  
Mark Gold



Spain  
ENS



Spain  
DPA



India  
MeitY



Canada  
Privacy Laws



Privacy  
Shield



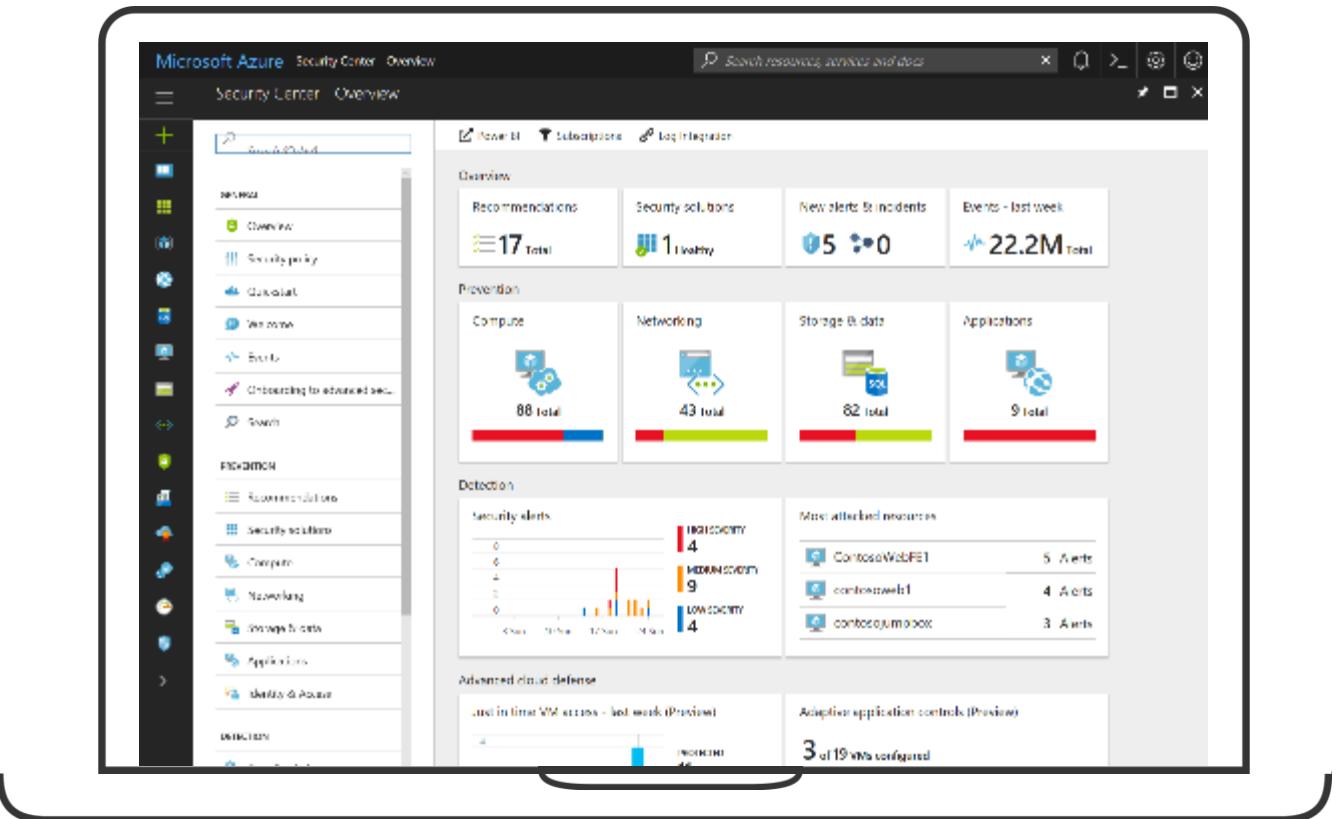
Germany IT  
Grundschutz  
workbook

# Azure Security Center

Protection through best practices

Detect threats and attacks

Remediate issues



# Confidential Computing

**Microsoft Azure is the first cloud to offer new data security capabilities with a collection of features and services called Azure confidential computing**

**Based on Trusted Execution Enclaves (TEEs)**

Windows Server Virtual Secure Mode

Intel SGX

**Secures all data while in use**

Customer workloads are invisible to host fabric

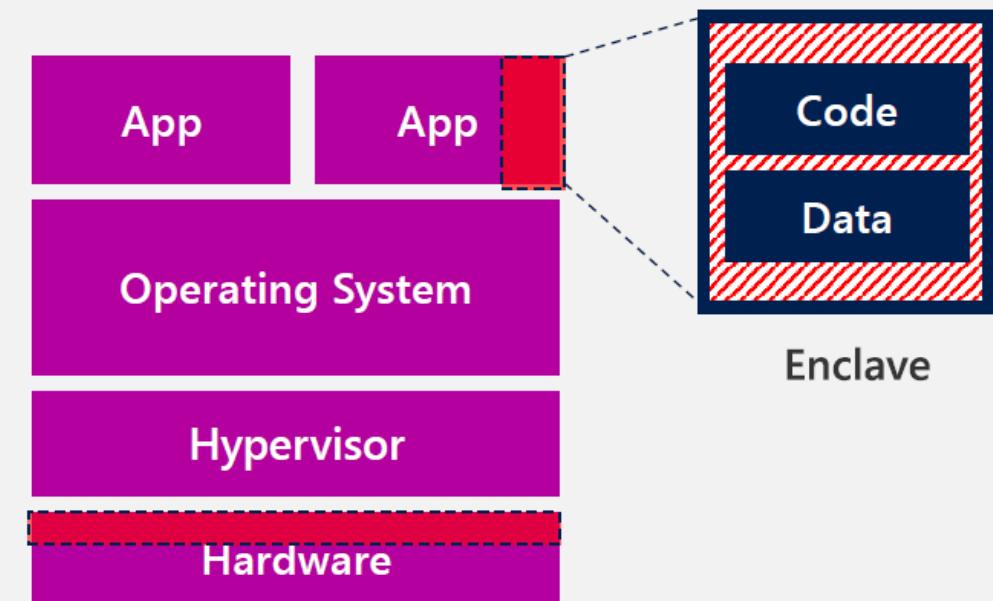
Customer data is always encrypted – during compute and storage

**Protects against multiple threats**

Malicious insiders

Hackers and malware

Third-party access without consent





# Deep Dive & Demos

Azure Compliance and Security – Balu Kalepu

2018  
Global Azure  
**BOOTCAMP**

# Azure

Productive + Hybrid + Intelligent + Trusted