



Microsoft

# Who am I?

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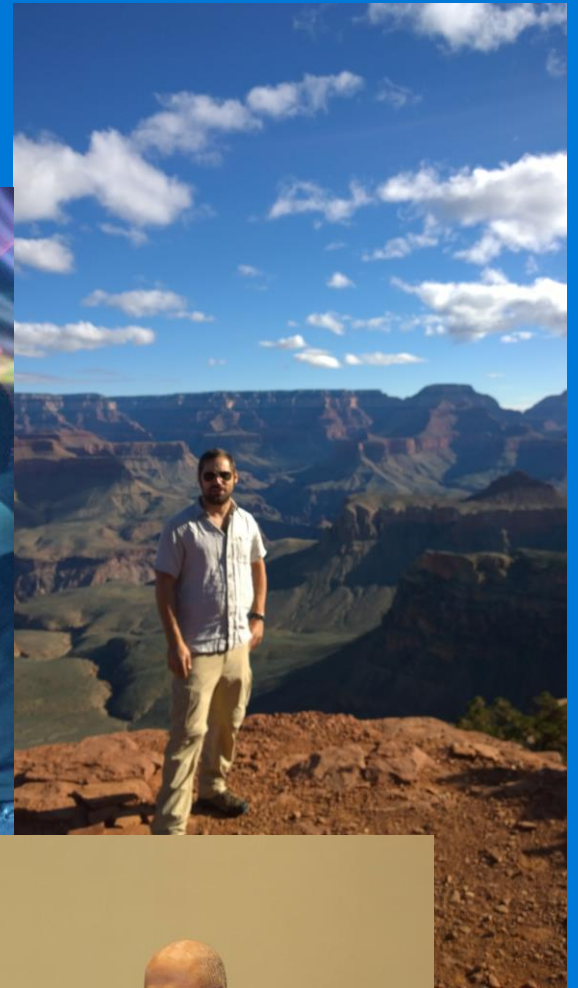
## Fun Stuff

Current Hometown of Houston, TX

Sing in a Tool tribute Band

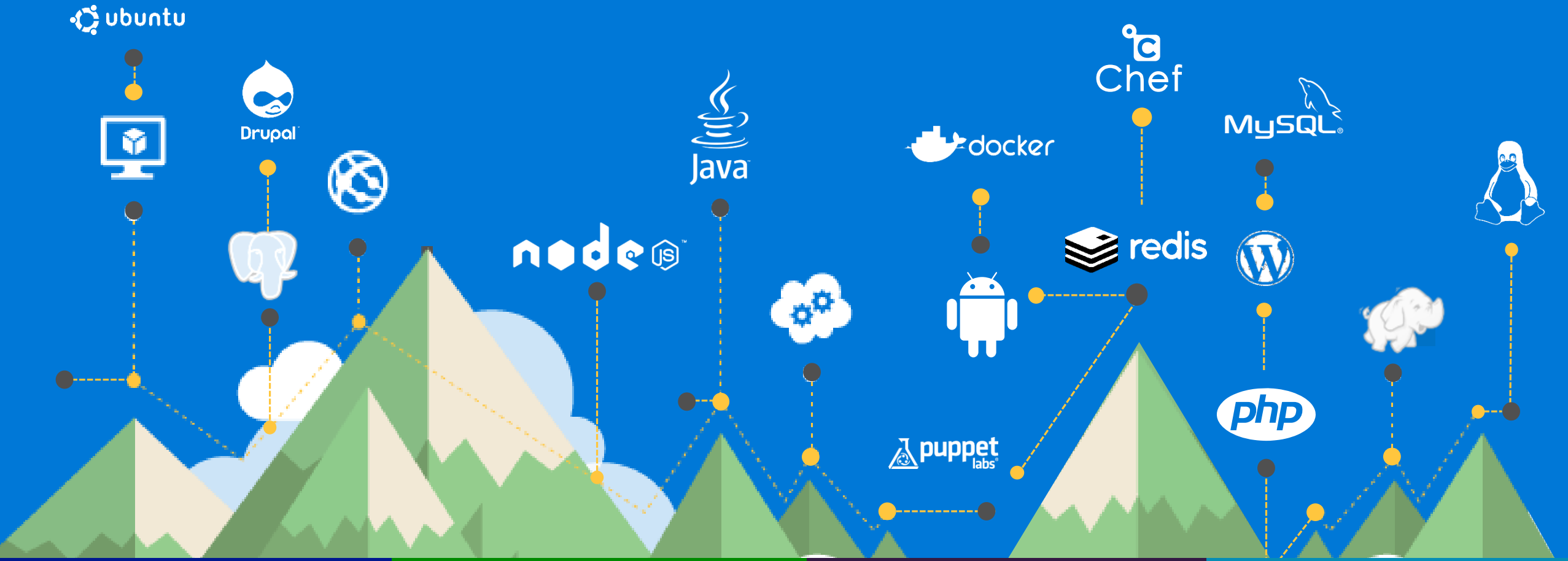
Love the outdoors

Met Satya last year



# Azure is an open cloud

Any language and any data source in any operating system for any device



Add value to your  
Linux investments

Embrace open source  
DevOps

Bring the tools you  
use and love

Build hyperscale at  
hyperspeed

# Big

ADJECTIVE

1. of considerable size, extent, or intensity:

"Space is big. You just won't believe how vastly, hugely, mind-bogglingly big it is. I mean, you may think it's a long way down the road to the chemist's, but that's just peanuts to space."

— Douglas Adams,  
*The Hitchhiker's Guide to the Galaxy*



Microsoft Azure

Platform Services

### Security & Management

- Portal
- Active Directory
- Multi-Factor Authentication
- Automation
- Key Vault
- Store / Marketplace
- VM Image Gallery & VM Depot

### Compute

- Cloud Services
- Service Fabric
- Batch
- Remote App

### Web and Mobile

#### AppService

- Web Apps
- Mobile Apps
- API Apps
- Logic Apps

- API Management
- Mobile Engagement
- Notification Hubs
- Power BI
- IoT Hub
- Machine Learning
- Stream Analytics

### Developer Services

- Visual Studio
- Azure SDK
- Team Project
- Application Insights

### Hybrid Operations

- Azure AD Connect Health
- AD Privileged Identity Management
- Backup
- Operational Insights
- Import/Export
- Site Recovery
- StorSimple

### Integration

- Storage Queues
- Biztalk Services
- Hybrid Connections
- Service Bus

### Analytics & IoT Suite

- HDInsight
- Data Factory
- Event Hubs

### Data

- SQL Database
- SQL Data Warehouse
- Redis Cache
- Search
- DocumentDB
- Tables

### Media & CDN

- Media Services
- Content Delivery Network (CDN)

Infrastructure Services

### Compute

- Virtual Machines
- Containers

### Storage

- BLOB Storage
- Azure Files
- Premium Storage

### Networking

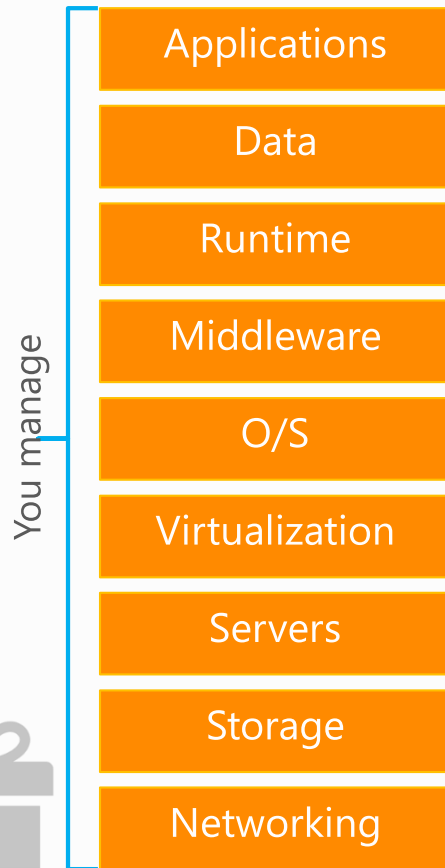
- Virtual Network
- Load Balancer
- DNS
- Express Route
- Traffic Manager
- VPN Gateway
- Application Gateway

Datacenter Infrastructure (24 Regions, 19 Online)

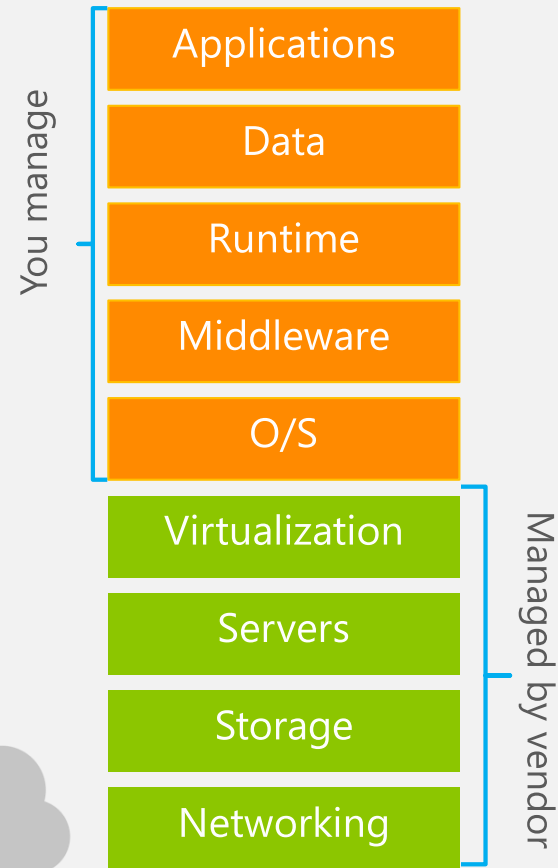


# Cloud Computing

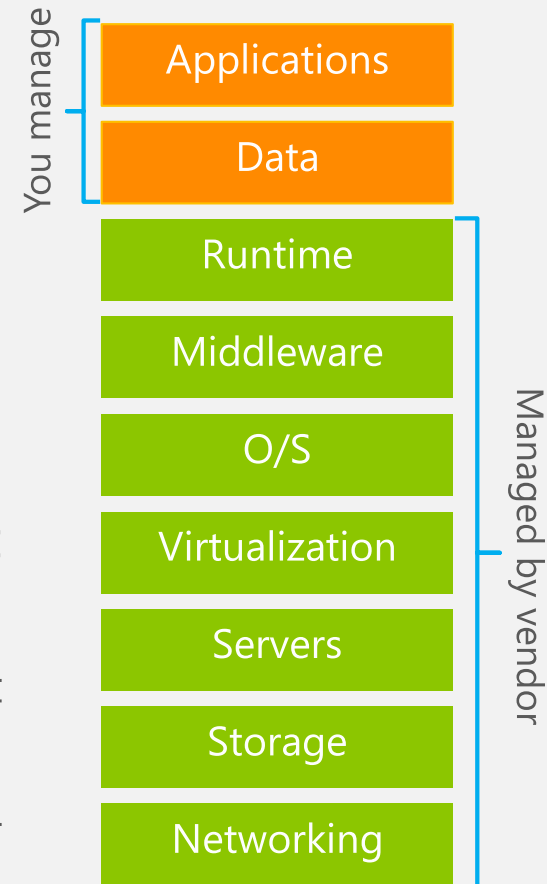
## Packaged Software



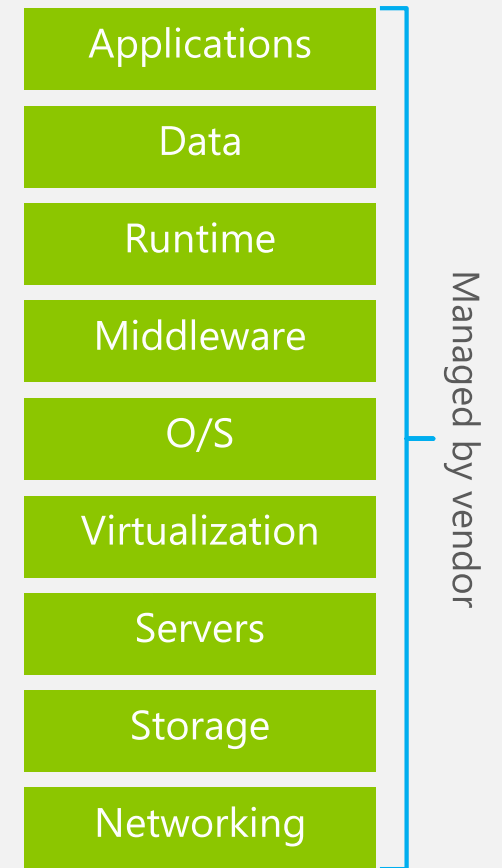
## Infrastructure (as a Service)



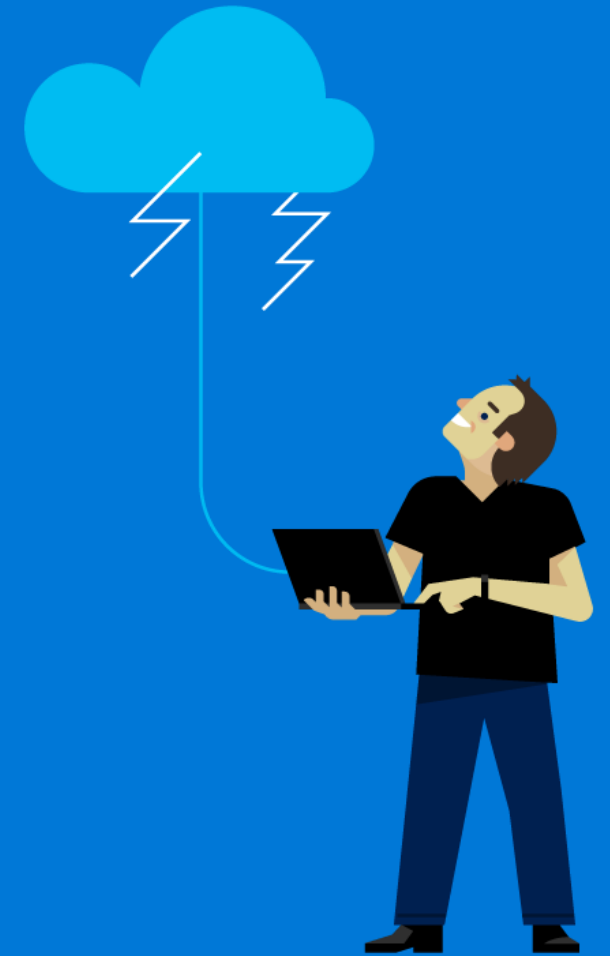
## Platform (as a Service)



## Software (as a Service)



# Virtual Machines in Microsoft Azure



# Virtual Machines

## Choice of OS

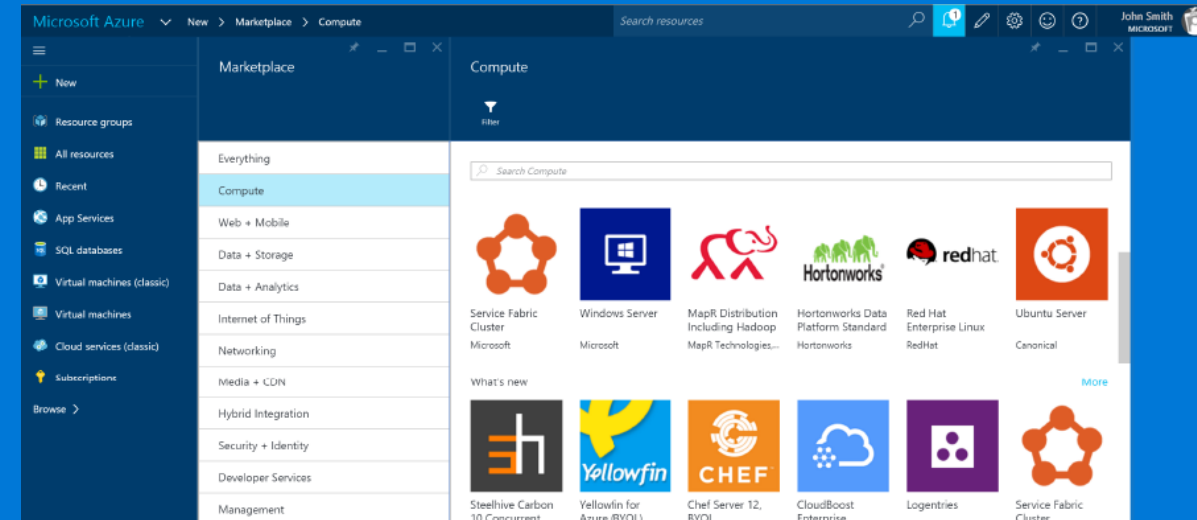
- *Support for Linux, Windows Server, SQL Server, Oracle, IBM, and SAP*

## On-Demand

- *Create and deploy virtual machines in minutes*

## Scalable

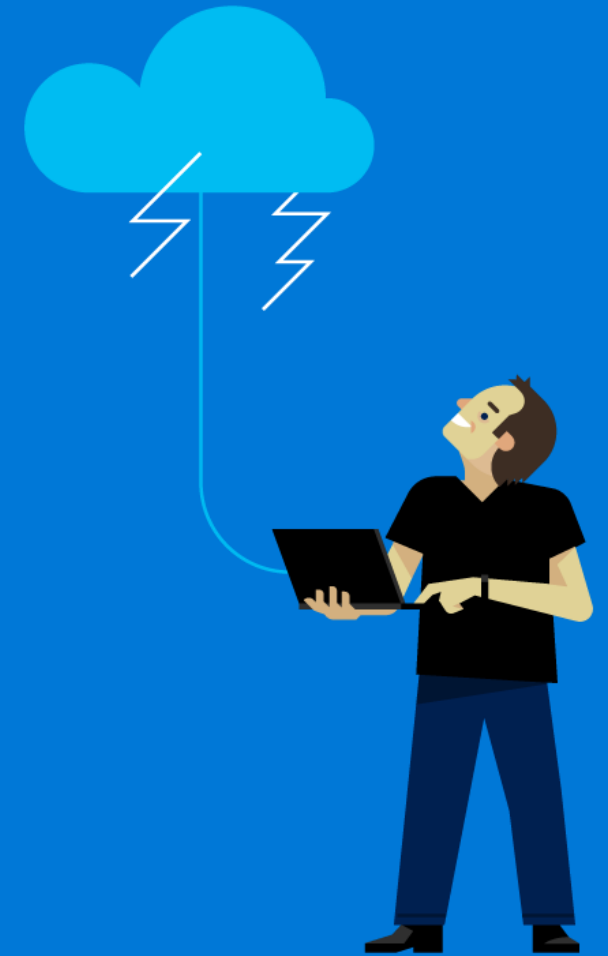
- *Scale from one to thousands of virtual machine instances across regions*





Visit  [Azure.com](https://azure.com)  
to get started

# Cross-Platform Web Development in Microsoft Azure



```
npm install -g azure-cli
```

# VS Code & xplat-cli

## Open-Source X-Platform IDE

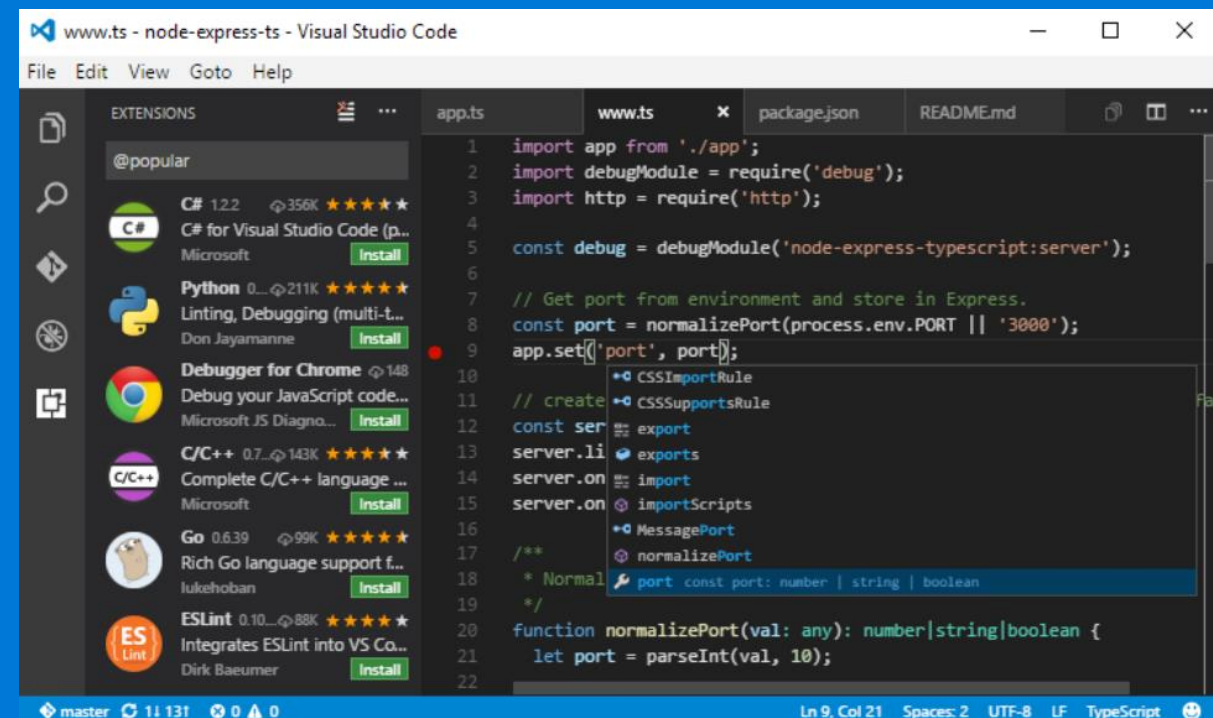
- *Code editor with support for development operations like debugging, task running and version control*

## Integrated Terminal Support

- *Access installed shells directly from VS Code*

## Azure-xplat-cli

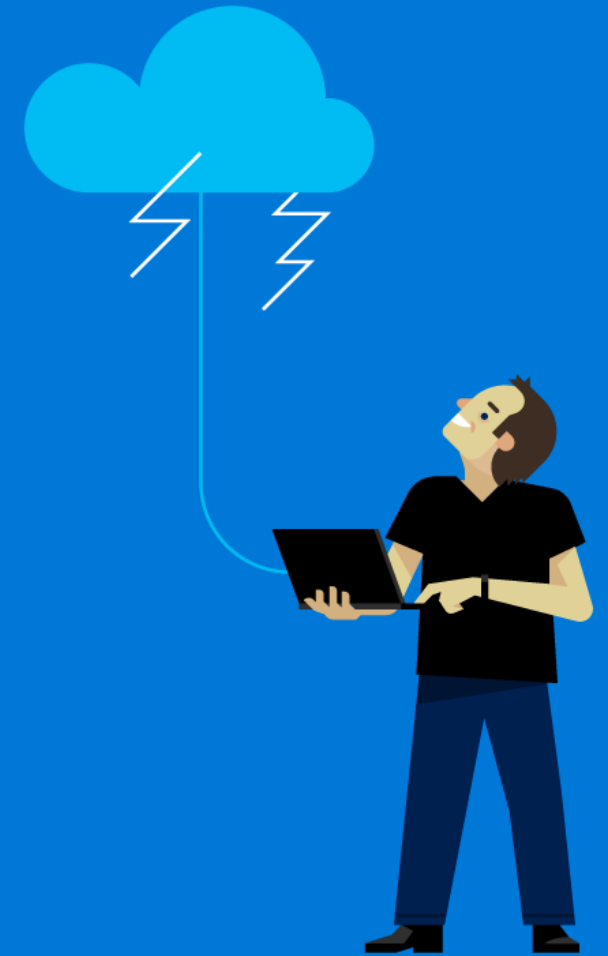
- *cross-platform cli for developers and IT admins to develop, deploy and manage Azure apps*
- *npm install -g azure-cli*



Visit 

<https://code.visualstudio.com>  
to get started

# Cross-Platform App Development in Microsoft Azure



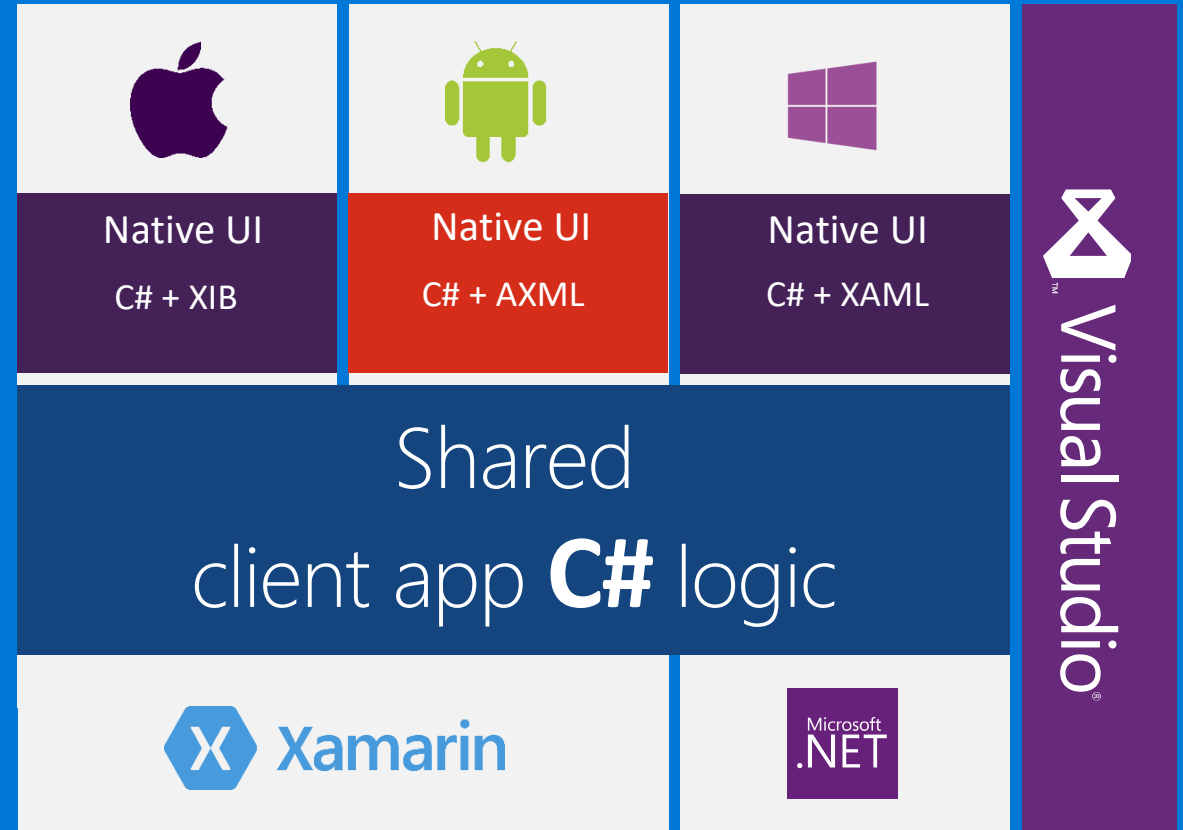
# .NET and Xamarin

## Share app logic across platforms

- Native apps for Windows, iOS and Android devices using .NET
- Most productive and powerful platform for creating native applications
- Maximize code reuse with Universal Projects & Portable Class Libraries

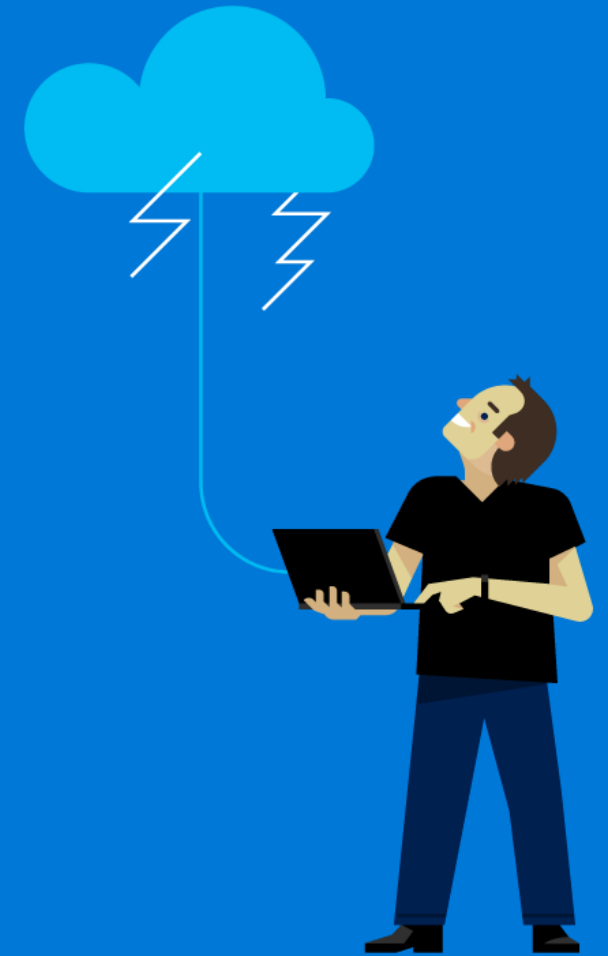
## 100% APIs exposed

- *Everything you can do in xCode or ADT you can do with Visual Studio*



Visit  [Xamarin.com](https://xamarin.com)  
to get started

# Internet of Things Scenarios in Microsoft Azure





# IoT Hacks

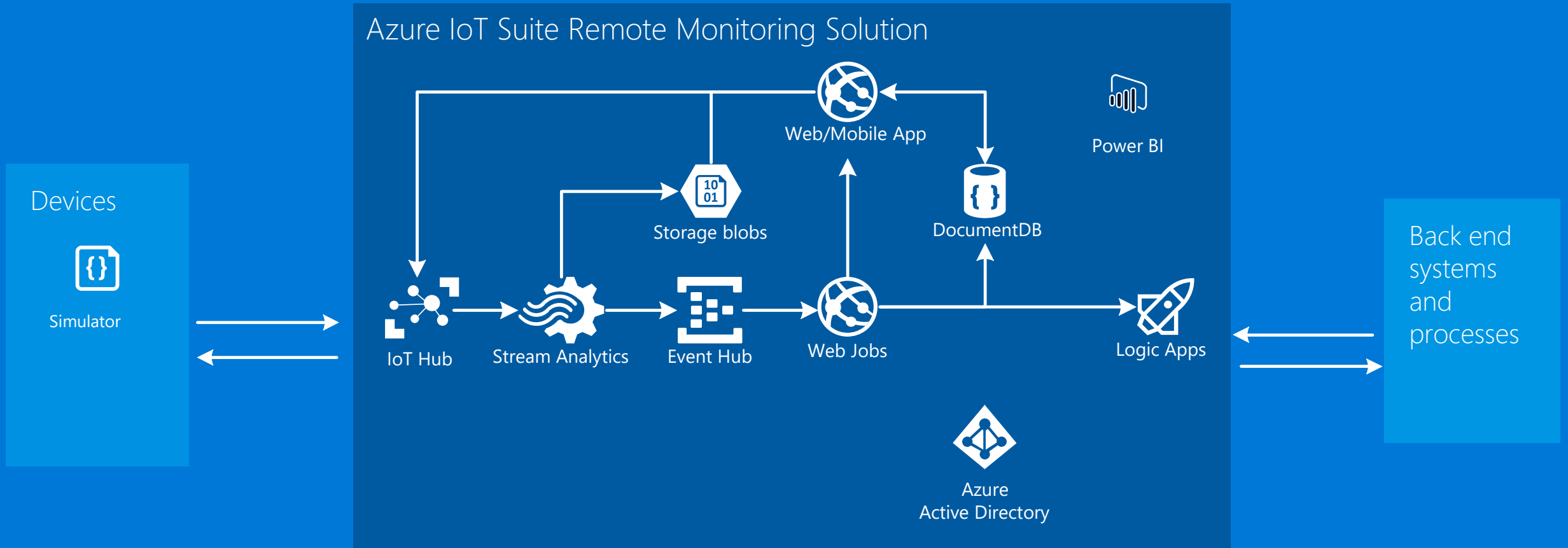


HelloHolo – Real Time Translating  
Hologram TechCrunch Disrupt 2015



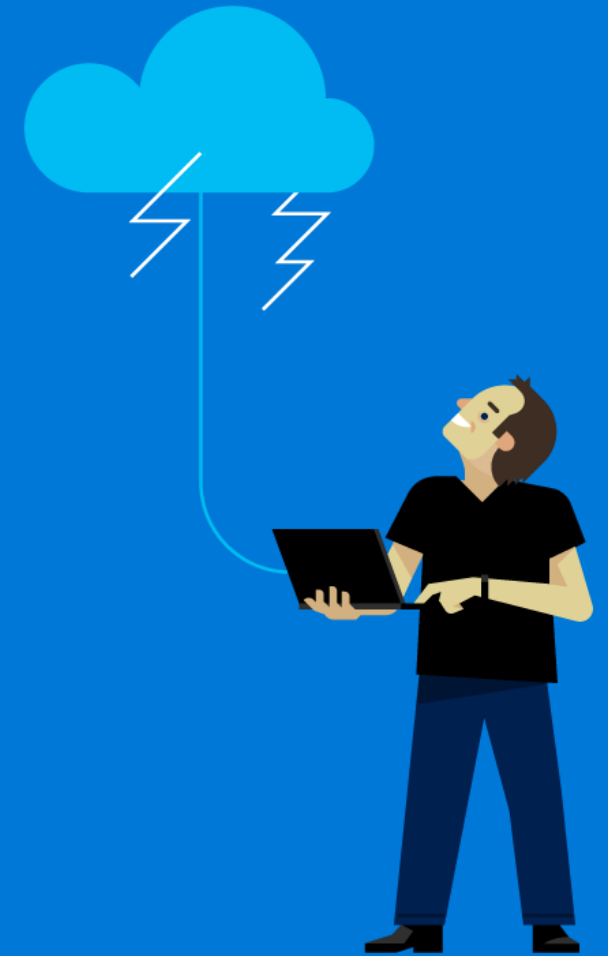
Internet of Trees  
([aka.ms/internetoftrees](https://aka.ms/internetoftrees))

# Microsoft Azure IoT Suite



Visit  [InternetofYourThings.com](https://InternetofYourThings.com)  
to get started

# Cognitive Services & Bots in Microsoft Azure



# AI as a Service

## Computer Vision

- Computer Vision, Emotion, Face, Video

## Speech

- *Speech to Text, Speech Recognition, Speaker Identification*

## Language

- *Spell Check, Language Understanding*



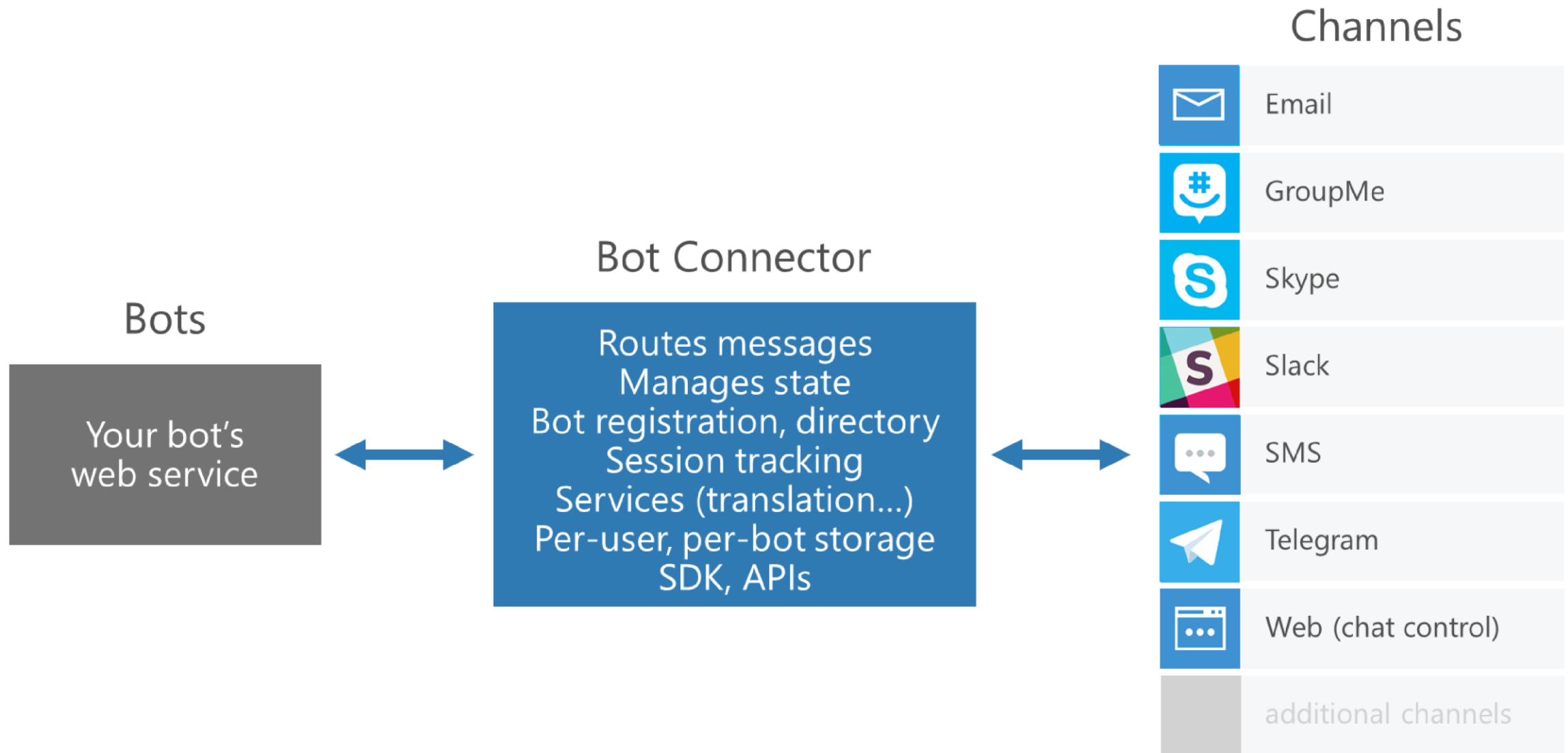
The screenshot displays a web-based interface for computer vision. On the left, a photograph of three men is shown with blue bounding boxes around their faces. A table of emotion scores is overlaid on the image:

Emotion	Score
Anger	0.00000
Contempt	0.00000
Disgust	0.00000
Fear	0.00000
Happiness	1.00000
Neutral	0.00000
Sadness	0.00000
Surprise	0.00000

Below the image is an input field labeled "Image URL" and two green buttons (back and forward). On the right, a panel shows the "Detection Result: 5 faces detected" and a JSON output:

```
Detection Result:
5 faces detected

JSON:
[
  {
    "faceRectangle": {
      "left": 488,
      "top": 263,
      "width": 148,
      "height": 148
    },
    "scores": {
      "anger": 9.075572e-13,
      "contempt": 7.048959e-9,
      "disgust": 1.02152783e-11,
      "fear": 1.778957e-14,
      "happiness": 0.9999999,
      "neutral": 1.31694478e-7,
      "sadness": 6.04054263e-12,
      "surprise": 3.92249462e-11
    }
  },
  {
    "faceRectangle": {
      "left": 263,
      "top": 263,
      "width": 148,
      "height": 148
    },
    "scores": {
      "anger": 9.075572e-13,
      "contempt": 7.048959e-9,
      "disgust": 1.02152783e-11,
      "fear": 1.778957e-14,
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  {
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    },
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      "happiness": 0.9999999,
      "neutral": 1.31694478e-7,
      "sadness": 6.04054263e-12,
      "surprise": 3.92249462e-11
    }
  }
]
```



Visit



[microsoft.com/cognitive-services](https://microsoft.com/cognitive-services)  
to get started



