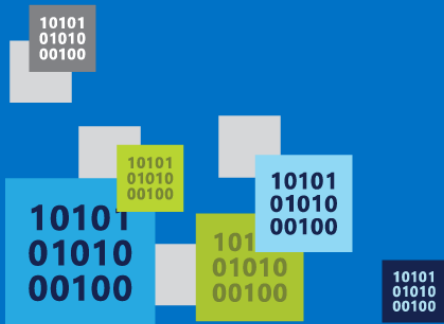


What's new on Azure?

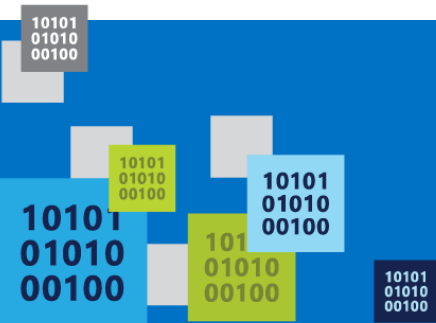
Jan Willem Groenenberg



Why the cloud?

- Rapidly setup environments to drive business priorities
- Scale to meet peak demands
- Increase daily activities, efficiency and reduced cost.

Why the cloud?



SaaS Solutions

+

Cloud Infrastructure

+

Higher-level services

DIFFERENTIATION

AGILITY

COST

Leading the journey to the Cloud





Microsoft
Dynamics



Microsoft Enterprise Mobility Suite

Leading the journey to the Cloud

SAAS SOLUTIONS	 Office 365 Microsoft Dynamics  Power BI
ENTERPRISE MOBILITY	Microsoft Enterprise Mobility Suite
Microsoft Azure	
DEVELOPER + APP PLATFORM	Visual Studio Family + Azure App Service
DATA + ANALYTICS	Cortana Analytics Suite
INTERNET OF THINGS	Azure IoT Suite
CLOUD INFRASTRUCTURE	Azure + Azure Stack + Operations Management Suite



28

Azure regions
Hyper-scale
around the world

Latest launch was in October 2015-

India – Central, India – South, India – West

GENERALLY AVAILABLE

6 new regions announced: Canada Central, Canada East, Germany Central,
Germany North East, United Kingdom (2 – regions TBD)

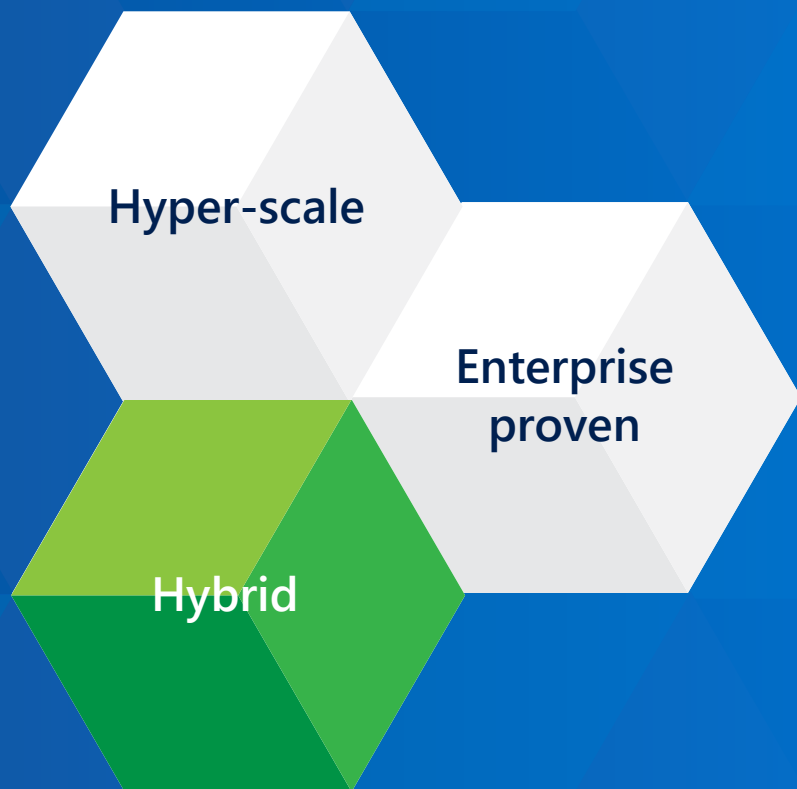


Hyper-scale

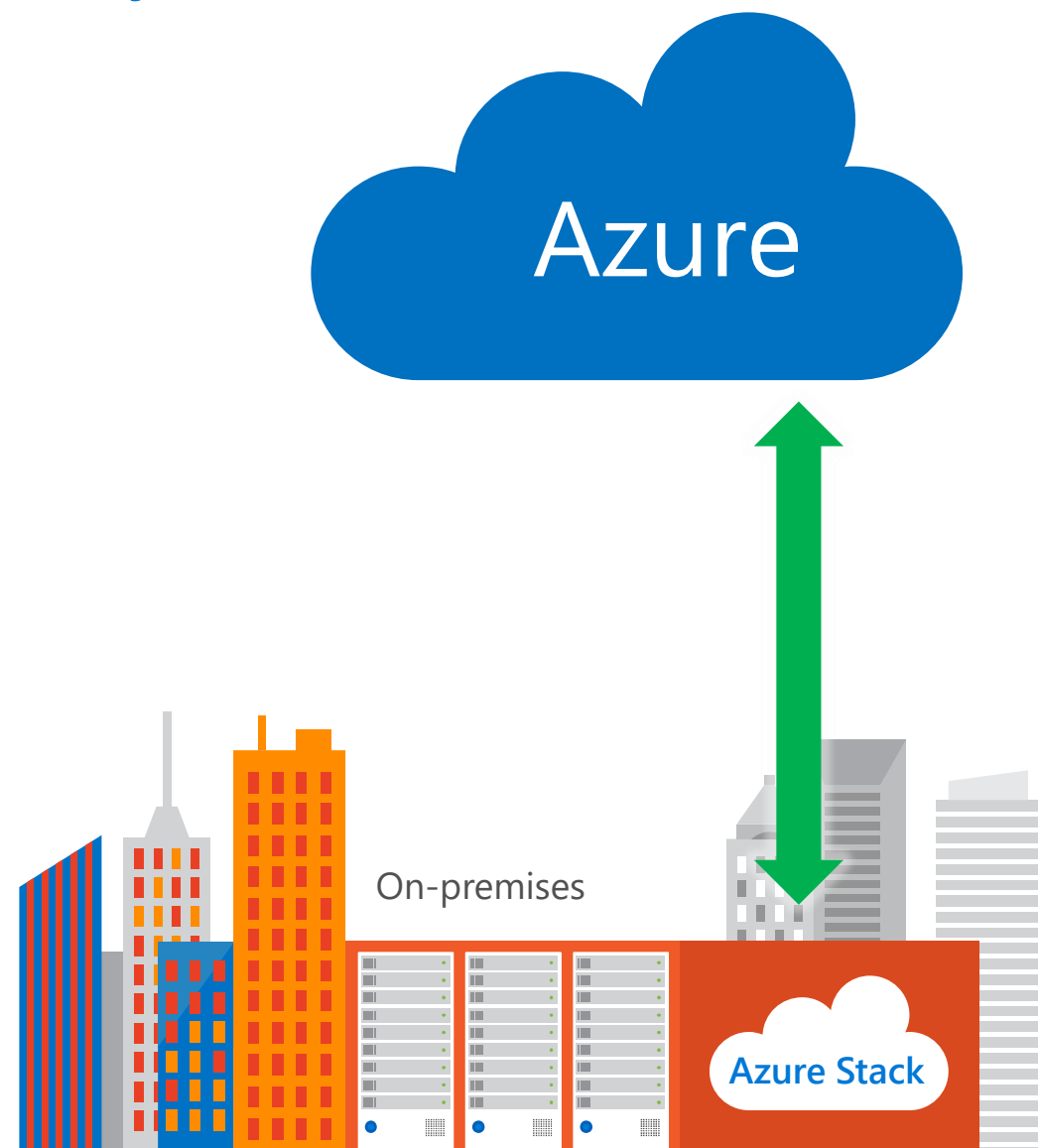
Enterprise
proven

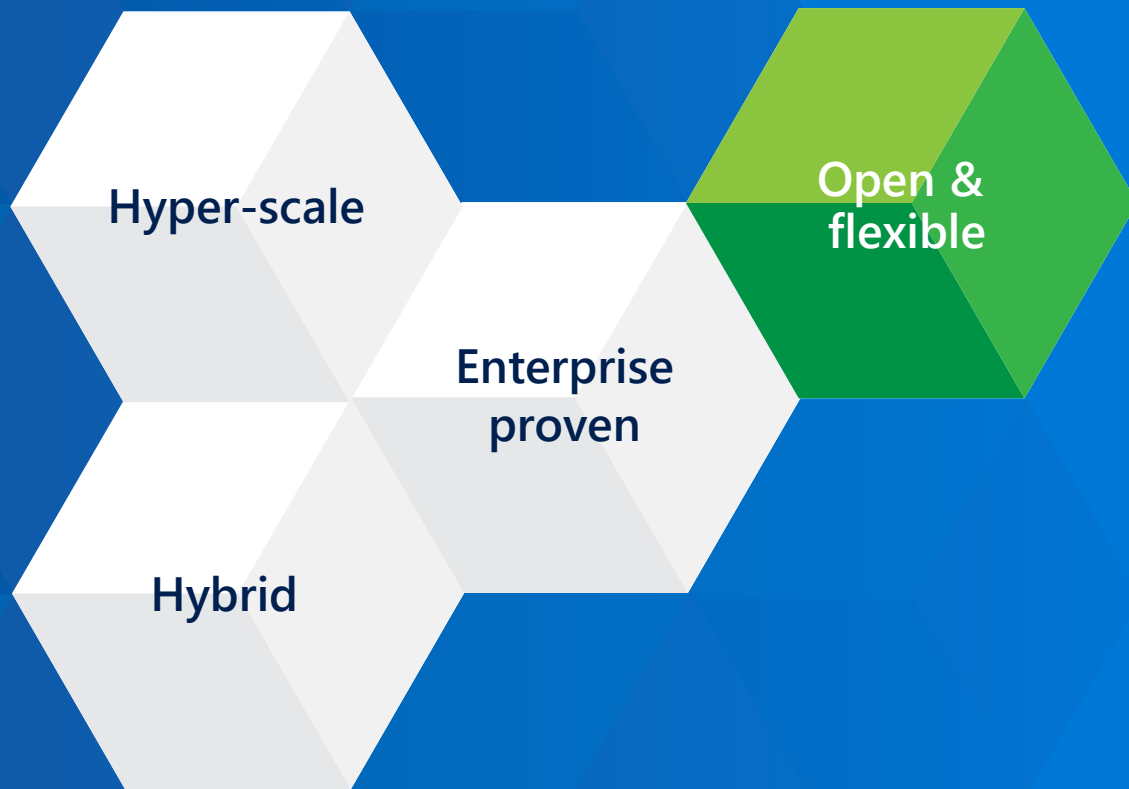
Hybrid

Azure



Hybrid





Open + Flexible

Management



Applications



App Frameworks

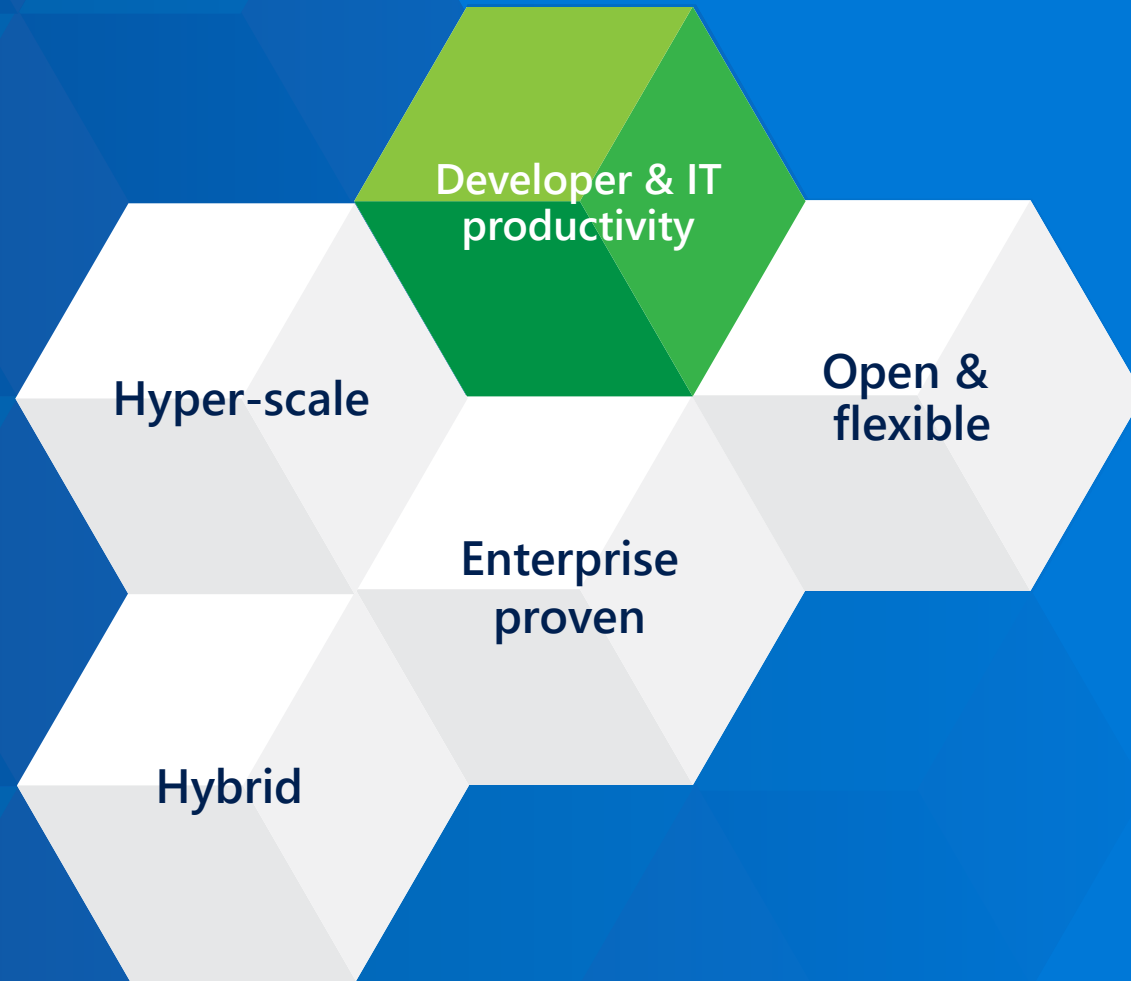


Databases & Middleware



Infrastructure





Dev + IT productivity



Visual Studio



GitHub



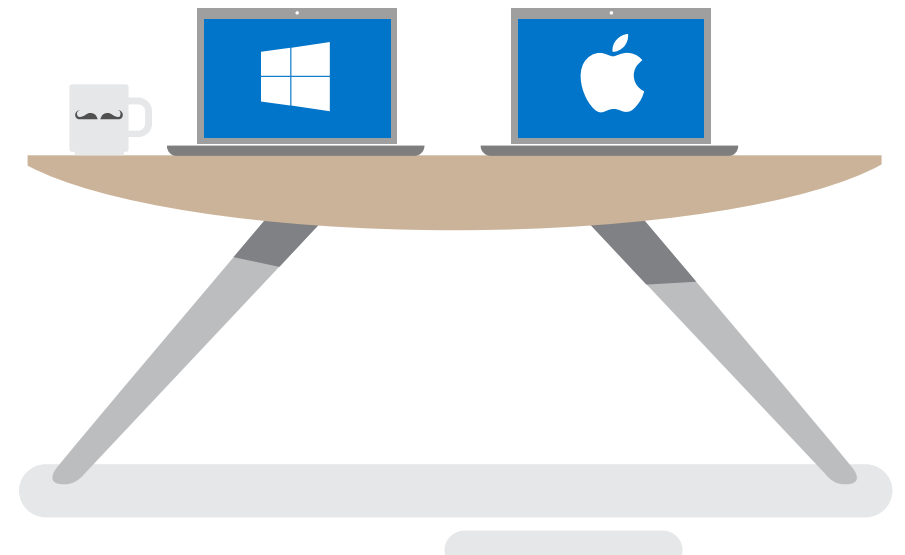
Eclipse

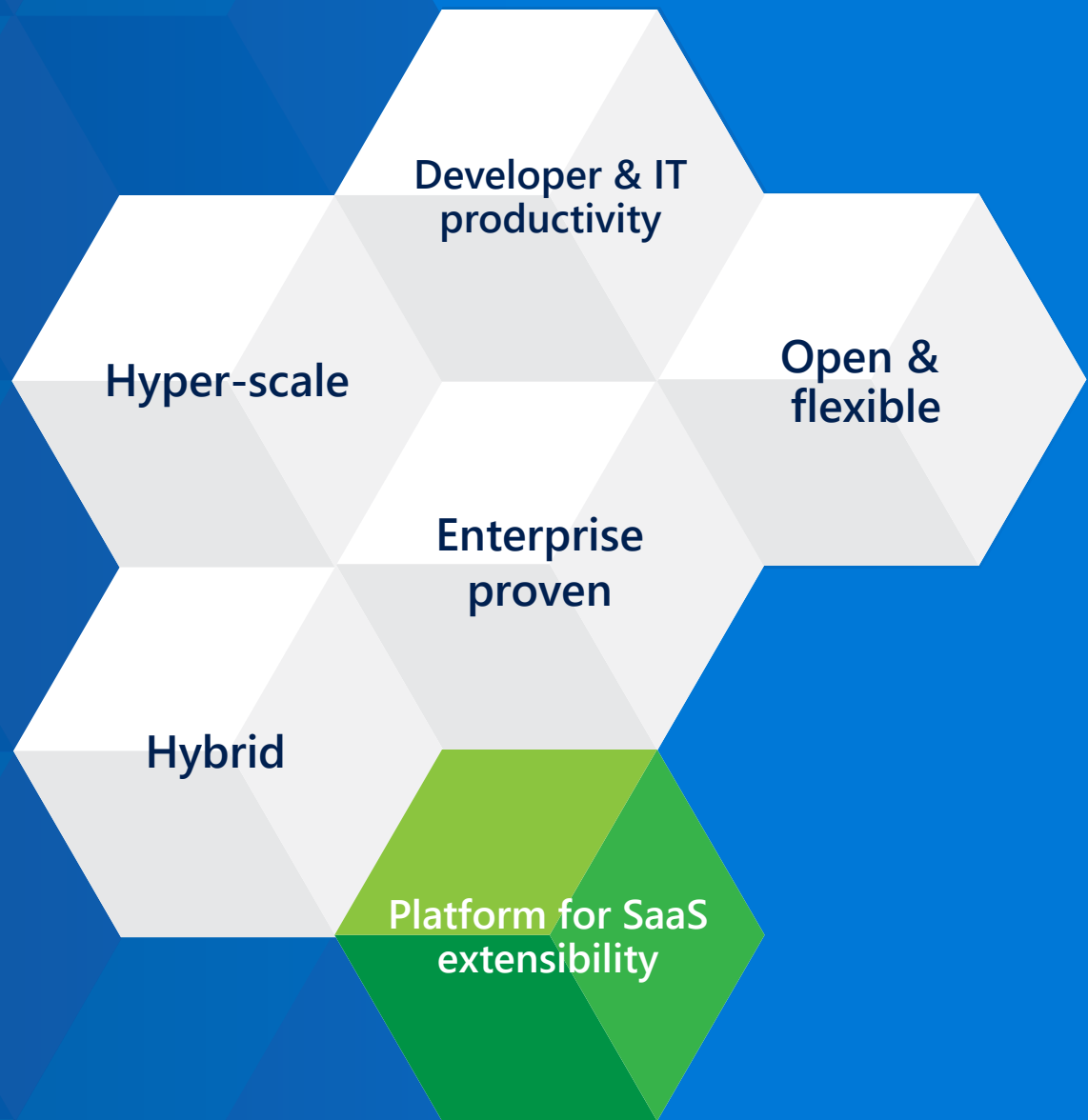


Chef + Puppet

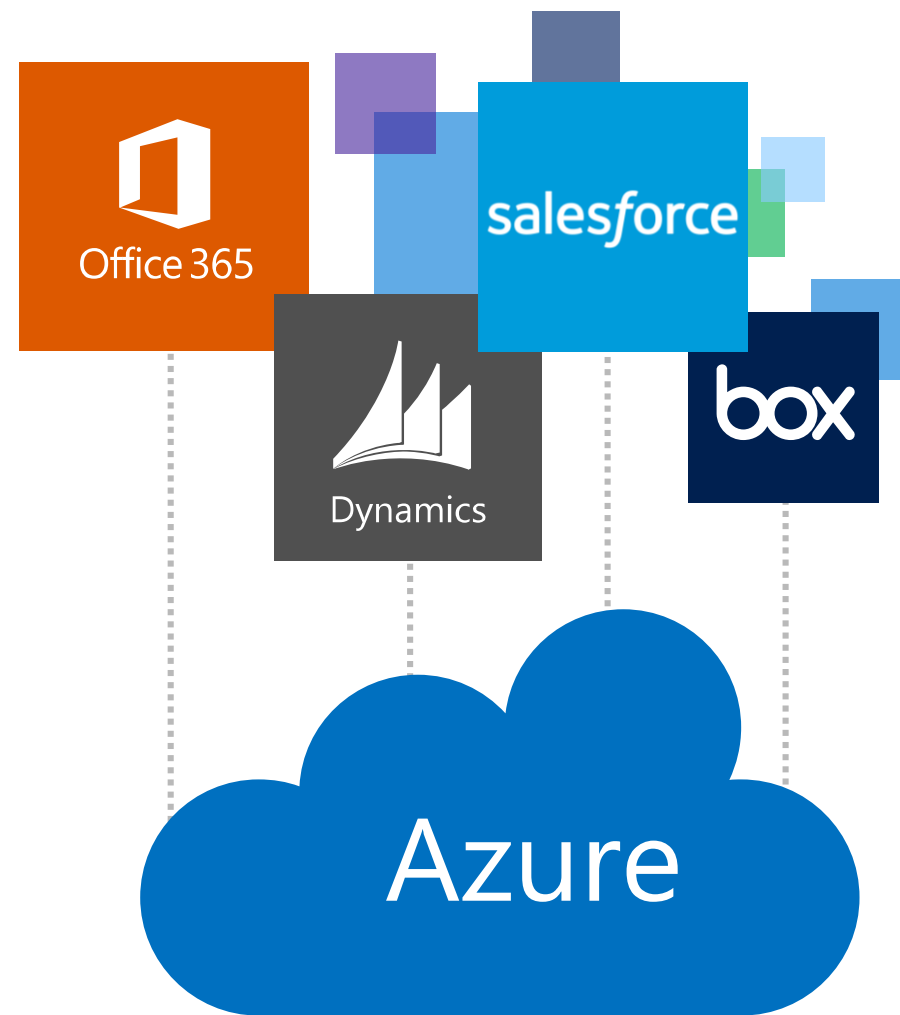


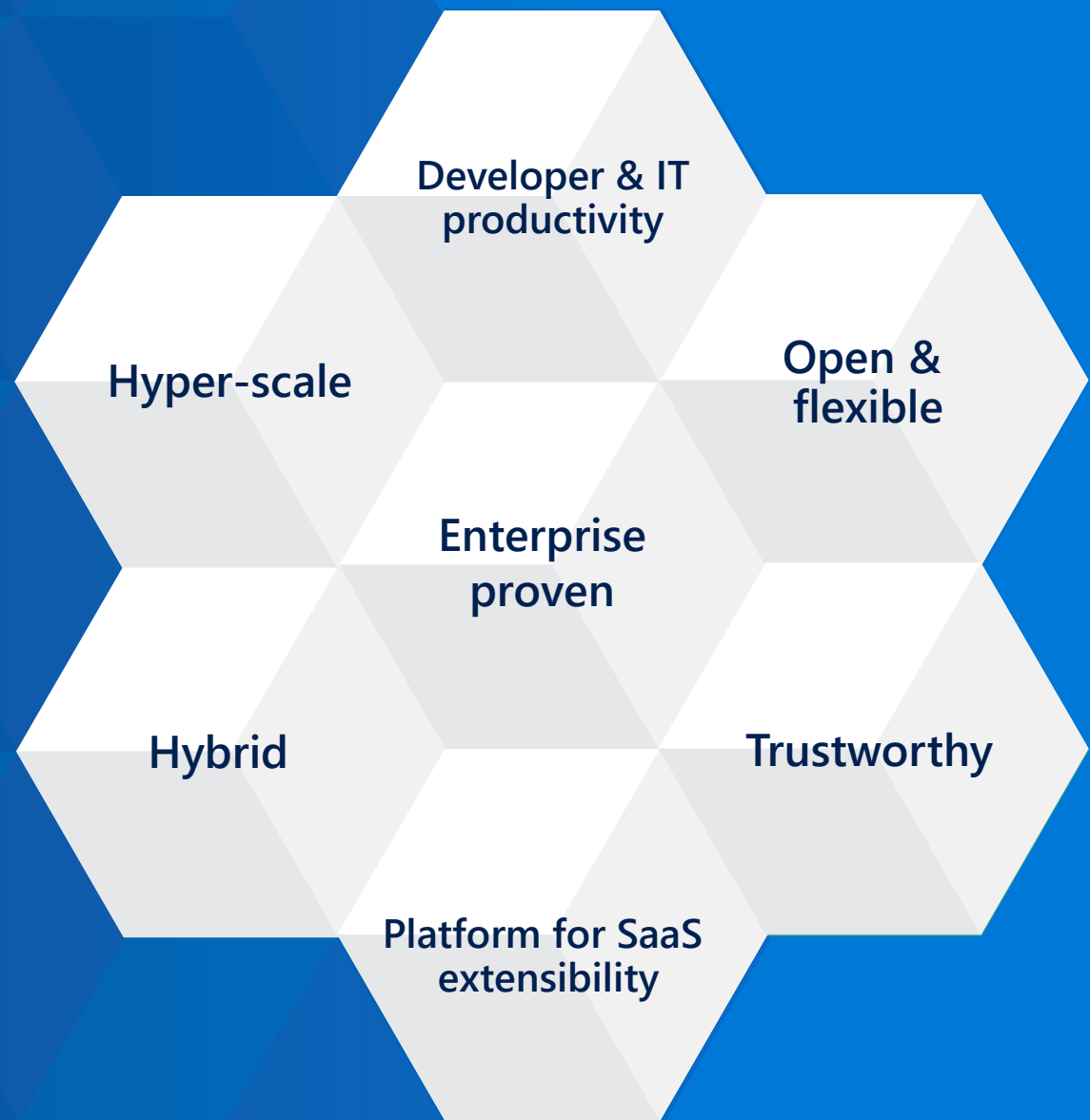
Powershell





SaaS extensibility





Trustworthy

More compliance certifications than any other cloud



> 90,000

New Azure customer
subscriptions/month

> 1.5 Million

SQL Databases
running on Azure

> 500 Million

Users in
Azure Active Directory

Azure momentum

1.5 Trillion

Messages per month
processed by Azure IoT

777 Trillion

Storage Transactions
per day

> 40%

Revenue from
Start-ups and ISVs

> 80%
of Fortune 500 use
the Microsoft Cloud



Leading the journey to the Cloud

Microsoft Azure

DEVELOPER + APP PLATFORM

Visual Studio Family + Azure App Service

DATA + ANALYTICS

Cortana Analytics Suite

INTERNET OF THINGS

Azure IoT Suite

CLOUD INFRASTRUCTURE

Azure + Azure Stack + Operations Management Suite

Microsoft Azure

CLOUD INFRASTRUCTURE

Compute



Virtual Machines



Containers



Remote App



Batch

Storage



Blob Storage



Azure Files



Premium Storage



Active Directory



Multi-Factor Auth



Automation



Key Vault

Security + Management

Networking



Express Route



Virtual Network



Load Balancer



DNS



Traffic Manager



VPN Gateway



Application Gateway

Hybrid Operations



Azure AD Connect Health



AD Privileged Identity Mgmt



Backup



Operational Insights



Import/Export

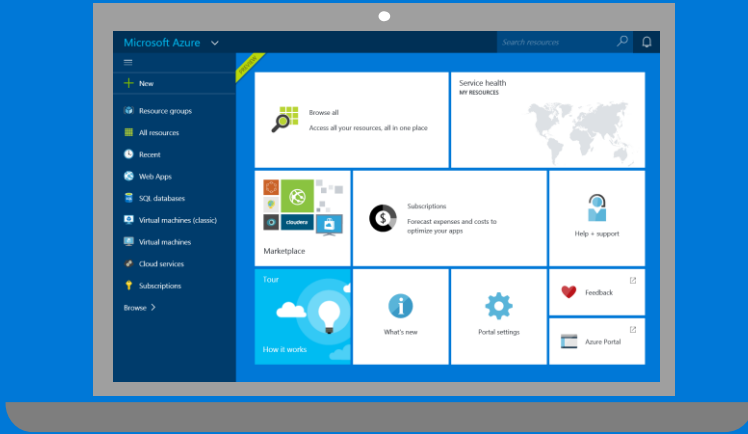


StorSimple



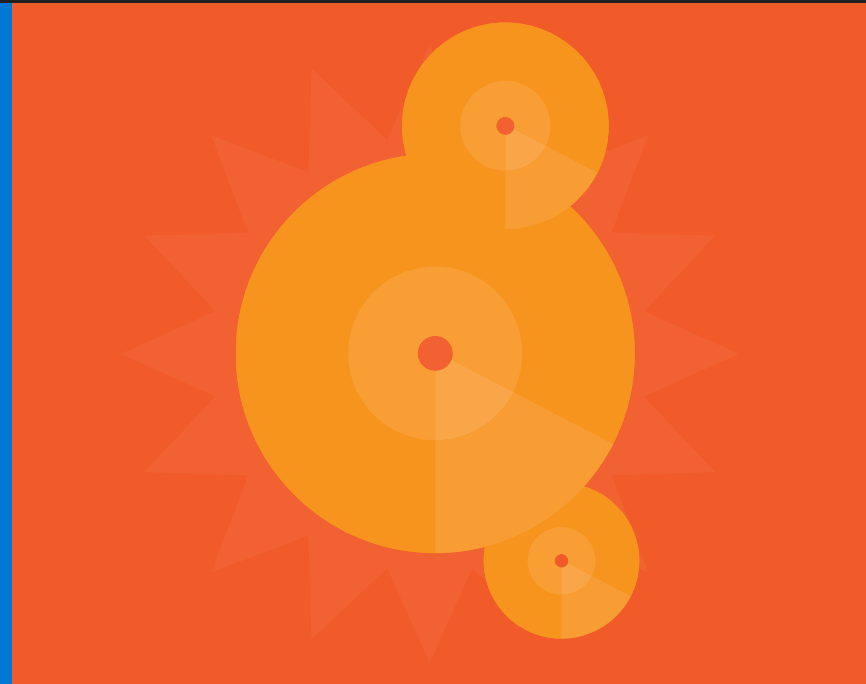
Site Recovery

Great Infrastructure Enhancements



End to End Management

Integrated management portal
Application Templates
Lifecycle Management
Role Based Access Control
Billing API



Premium Storage

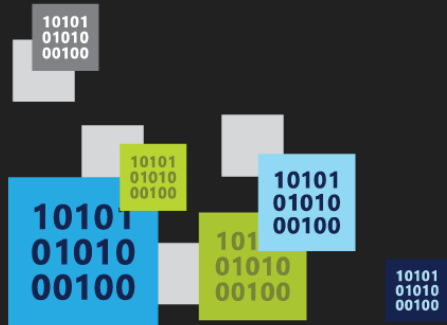
Up to 64 TB of storage per VM
>80,000 IOPS per VM
Less than 1ms read latency



Largest VMs in Public Cloud

Optimized for data workloads
Up to 32 CPU cores, 450 GB RAM,
6.5 TB local SSD
Latest generation Intel processor

Demo: Azure Portal





- Game sessions hosted using Azure
- Hosted using >100,000 Azure Virtual Machines

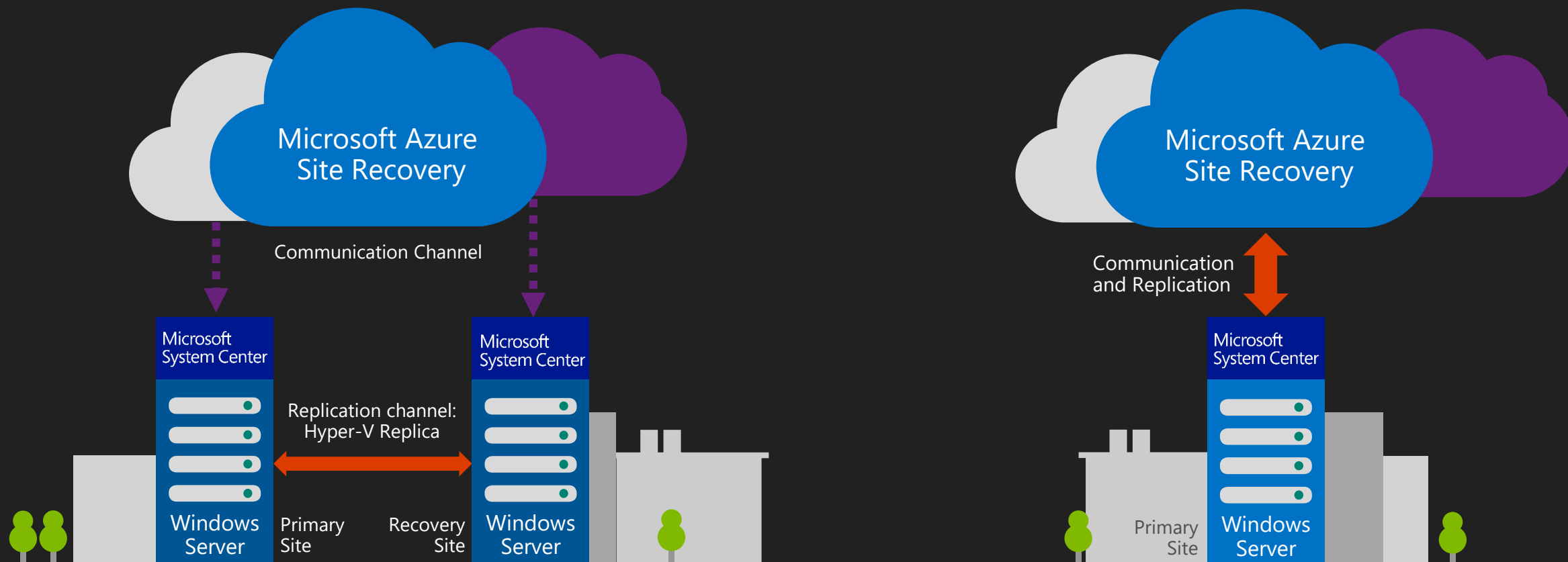


Announcing New **N** family of virtual machines

Latest NVIDIA GPU
Superfast RDMA network
High-end remote visualization

Microsoft Azure Site Recovery

Orchestrated disaster recovery to a second site or to Azure








Automated VM protection and replication
Remote health monitoring
Customizable recovery plans

No-impact recovery plan testing
Orchestrated recovery when needed

Microsoft Azure Leading the journey to the Cloud

DEVELOPER + APP PLATFORM





App Platform Services

-  App Service
-  Notification Hubs
-  API Management
-  Service Fabric
-  Cloud Services

Integration

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

Development Tools

-  Visual Studio
-  Visual Studio Online
-  Application Insights
-  Azure SDK

Media & CDN

-  Content Delivery Network
-  Media Services

CLOUD INFRASTRUCTURE

Azure + Azure Stack + Operations Management Suite

Agility

Visual Studio Online: Code Repository

The screenshot displays the Visual Studio Online web interface. The browser address bar shows the URL `https://devopsconferences.visualstudio.com/DefaultCollection/_/`. The page header includes the user name 'Sachin Raj' and navigation icons. The main navigation bar contains tabs for HOME, CODE, WORK, BUILD, TEST, and RELEASE*, along with a search bar. Below this, the 'MyShuttle' repository is selected, and the 'Explorer' view is active, showing a file tree with folders like 'MyShuttle.Client.Desktop', 'MyShuttle.Client.iOS', 'MyShuttle.Common', and files like 'RoutingFares.cs'. The main content area shows a code comparison for 'RoutingFares.cs' between two versions (f428c6 and 1030da). The code is displayed in two side-by-side panes, with line numbers on the left. The code includes comments and logic for calculating location-based allowance and default fare allowance for employees. The interface is clean and professional, with a blue header and a white background for the code editor.

```
13 var fareExemption = default(uint);
14
15 if (employee.Benefits.IncludesAllowance == false)
16 {
17     return fareExemption;
18 }
19
20 // Calculate location based allowance for employees
21 uint locationAllowance = default(uint);
22
23 switch (employee.Benefits.Location)
24 {
25     case Location.Metro:
26         locationAllowance = Convert.ToInt32(Math.Ceiling(0.5 * employee.AnnualBas
27         break;
28     case Location.NonMetro:
29         locationAllowance = Convert.ToInt32(Math.Ceiling(0.4 * employee.AnnualBas
30         break;
31     default:
32         throw new InvalidLocationException();
33 }
34
35 // Calculate default fare allowance for employees only
36
37 var defaultHRA = 12 * employee.Benefits.MonthlyAllowance - Convert.ToInt32(Math.C
38 // uint defaultallowance = default(uint);
39 // Calculate the minimum
40 fareExemption = defaultHRA;
41 if (locationAllowance < defaultHRA)
42 {
43     fareExemption = locationAllowance;
44 }
45 //Check for maximum allowance for employees
46 if (employee.AnnualTransportAllowance < fareExemption)
47 {
48     fareExemption = employee.AnnualTransportAllowance;
49 }
```

Visual Studio Online: Build + Deploy

The screenshot displays the Visual Studio Online web interface. The browser address bar shows the URL `https://devopsconferences.visualstudio.com/DefaultCollection/MyShuttle`. The page title is "Visual Studio Online / MyShuttle". The top navigation bar includes links for HOME, CODE, WORK, BUILD (active), TEST, RELEASE*, and SEARCH*. A search bar on the right contains the text "Search work items".

The left sidebar shows the "Explorer" view with a search bar "Search all definitions...". It lists several categories: "My favorites", "Team favorites" (including "MyShuttle Java" with a status of "Completed 3..."), "Build definitions" (including "All build definitions", "MyShuttle .Net", "MyShuttle Java", "MyShuttle-Android" (selected), and "MyShuttle-iOS"), and "XAML definitions" (including "All XAML definitions" and "MyShuttle-DailyBuild").

The main content area is titled "Definitions / MyShuttle-Android | Builds". It has tabs for Build (active), Options, Repository, Variables, Triggers, General, Retention, and History. Below the tabs are buttons for "Save", "Queue build...", and "Undo".

The "Add build step..." section lists several build steps:

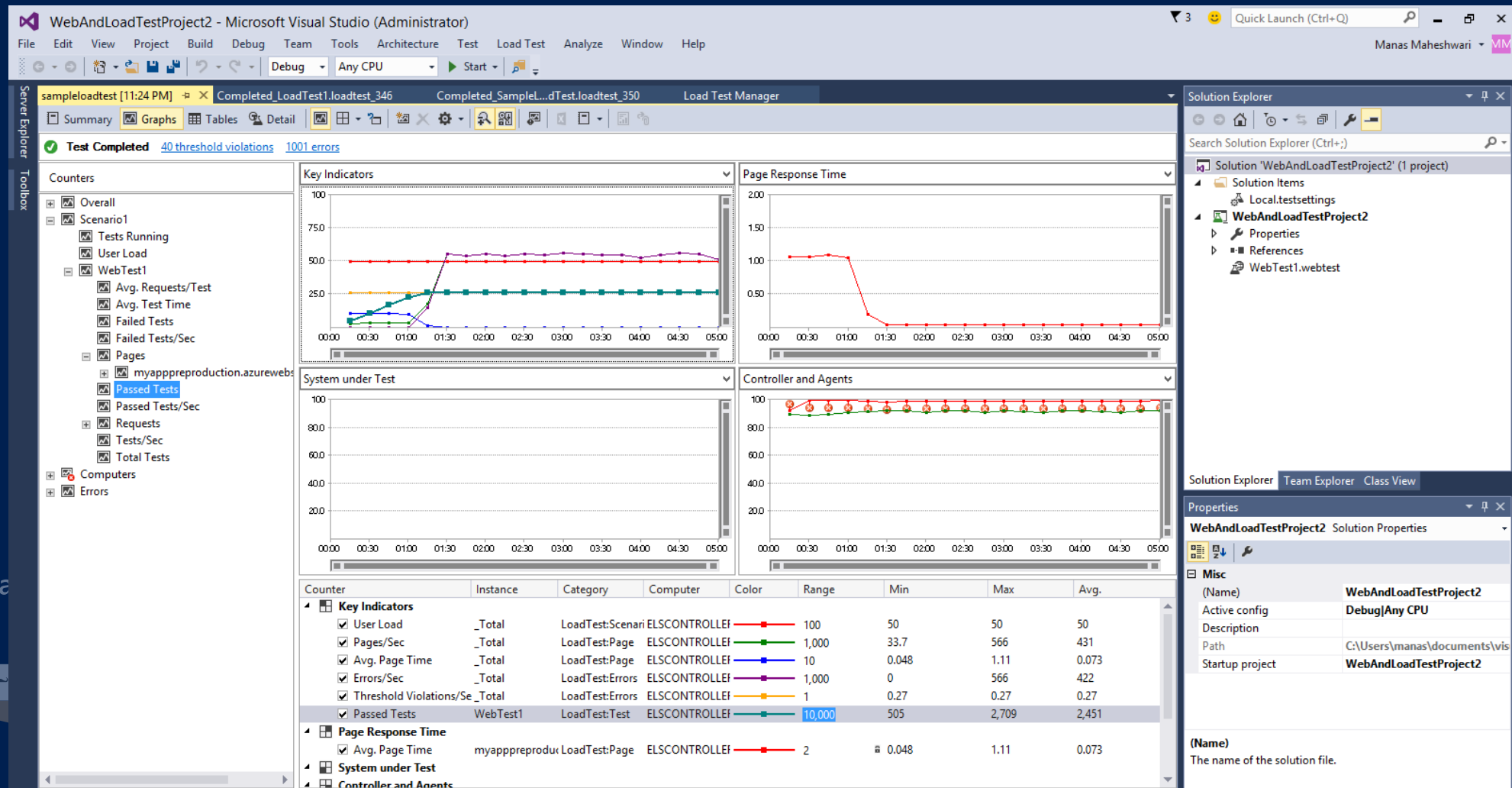
- Xamarin License: Activate Xamarin license
- Android Build: Android Build
- Android Signing: Signing and aligning APK file(s) \MyShuttle.Android\Myshuttle.apk (selected)
- NuGet Installer: NuGet restore ***.sln
- MSBuild: Build solution ***.sln
- Xamarin License: Deactivate Xamarin license
- Xamarin Test Cloud: Test MyShuttle.sln with Xamarin.UITest in Xamarin Test Cloud
- Publish Build Artifacts: Publish Artifact: j

The right sidebar shows the configuration for the selected "Android Signing" step, titled "Signing and aligning APK file(s) \MyShuttle.Android\Myshuttle.apk". It includes the following sections:

- APK Files:** A text box containing "\MyShuttle.Android\Myshuttle.apk".
- Jarsigner Options:**
 - Sign the APK: ☒
 - Keystore File: .\keystore
 - Keystore Password: (empty)
 - Alias: (empty)
 - Key Password: (empty)
 - Jarsigner Arguments: -verbose -sigalg MD5withRSA -digestalg SHA1
- Zipalign Options:**
 - Zipalign: ☒
 - Zipalign Location: (empty)
- Control Options:**
 - Enabled: ☒
 - Continue on error: ☐
 - Always run: ☐

At the bottom of the right sidebar is a link for "More Information".

Visual Studio Online: Load Testing



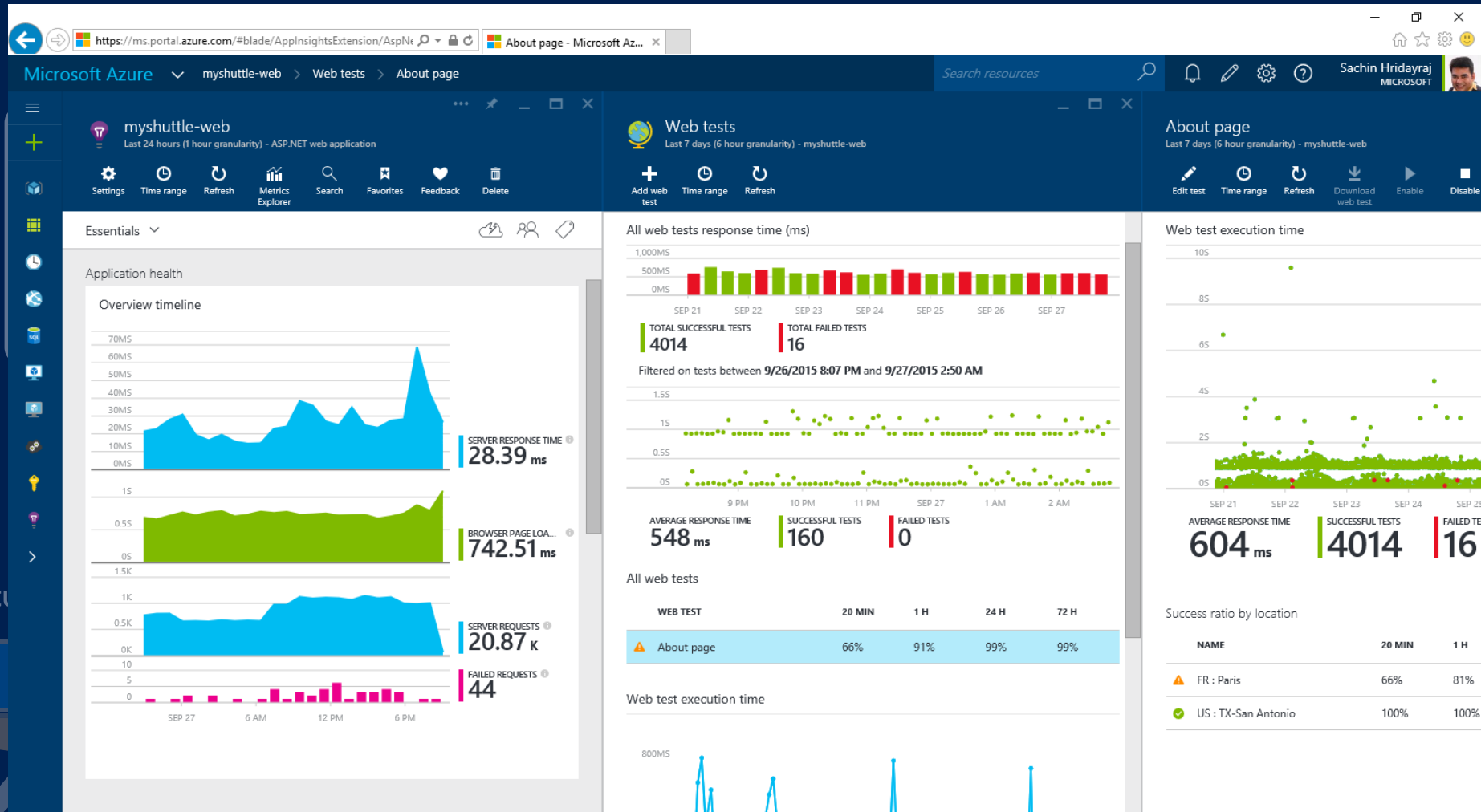
Visual Studio Online: Release Management

The screenshot displays the Visual Studio Online Release Management interface. The browser address bar shows the URL: <https://devopsconferences.visualstudio.com/DefaultCollection/MyShuttle>. The page title is "Visual Studio Online / MyShuttle". The navigation bar includes links for HOME, CODE, WORK, BUILD, TEST, and RELEASE*. A search bar is present on the right. A message banner states: "This is the preview version of Release Management service. Refer to [documentation](#) for more information."

The left sidebar shows the "Release Definitions" section with a search bar and a list of definitions: MyShuttle CRM, MyShuttle IT, MyShuttle Plat, MyShuttle Web, MyShuttle-Temp, PartsUnlimited, and Tracking Service. The main content area is titled "All release definitions" and shows a grid of release definitions. Each definition includes a name, version, date, and a bar chart representing build history.

Release Definition	Version	Date	Build History
MyShuttle CRM	CRM 2.0	4/27/2015	Green bars
MyShuttle CRM	CRM 1.7	4/27/2015	Green bars
MyShuttle CRM	CRM 1.5	4/27/2015	Green bars
MyShuttle IT	ITWeb 3.4	4/25/2015	Green bars
MyShuttle IT	ITWeb 3.2	4/25/2015	Green bars
MyShuttle Plat	Release.20150915155247	9/15/2015	Green bars
MyShuttle Web	Release.20150529002320	5/29/2015	Green bars
MyShuttle Web	Release.20150529002320	5/29/2015	Green bars
MyShuttle Web	Release.20150527153631	5/27/2015	Green bars
MyShuttle-Temp	Default Environment	Release.20150714142139	Green bars

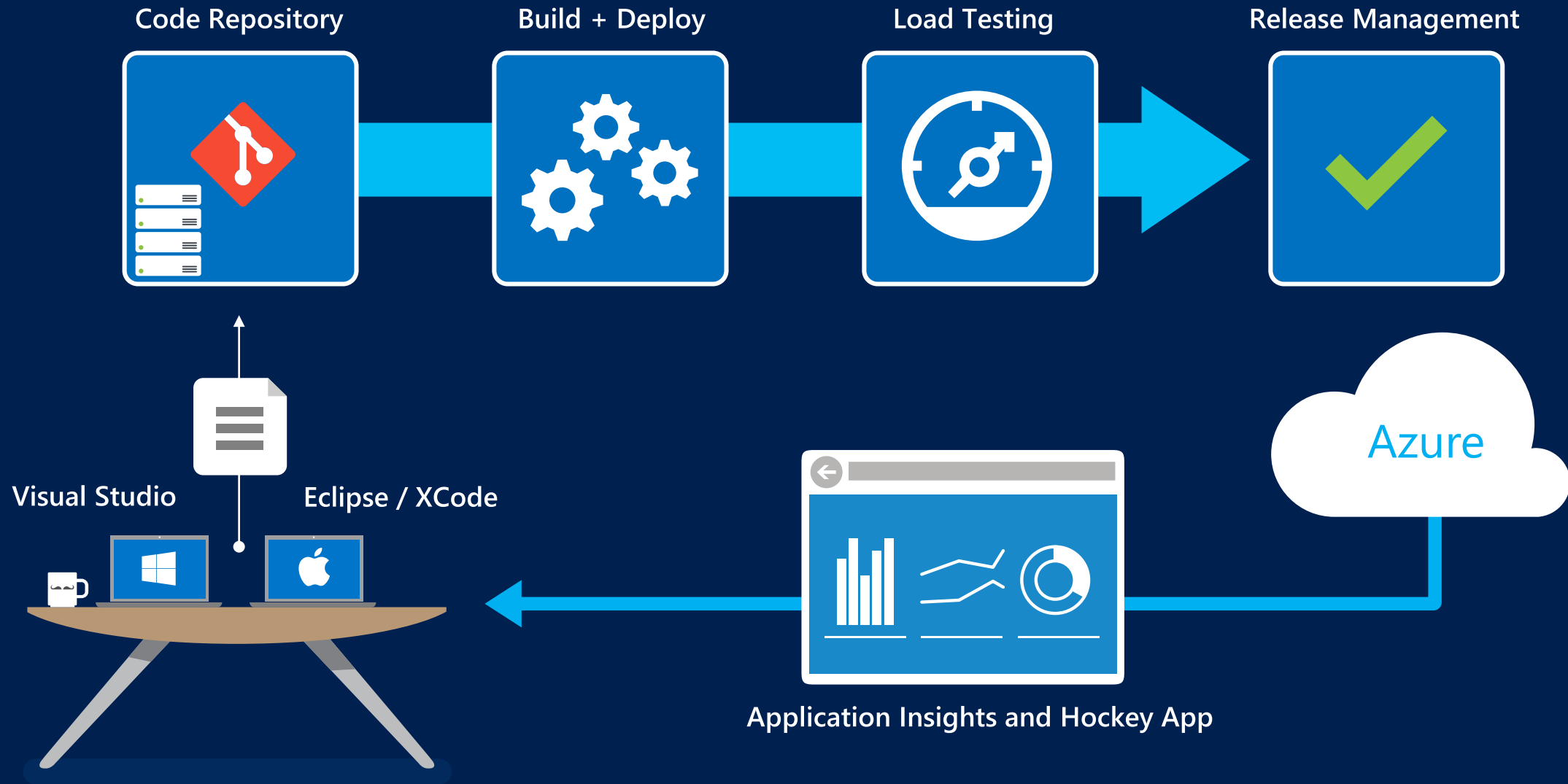
Visual Studio Online: Application Insights



Visual Studio

Application Insights and Hockey App

Visual Studio Online: DevOps



Azure App Service

Build and scale great cloud apps



.NET, Java, Node.js, PHP, Python

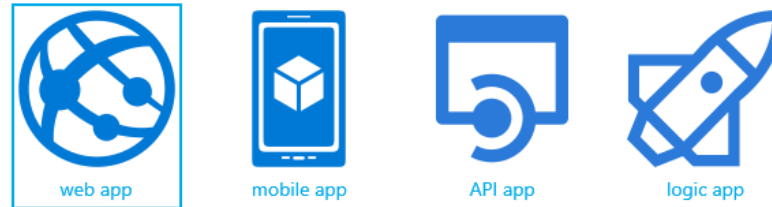
Auto patching

Auto scale

Integration with existing apps

Continuous deployment

1) Select your App Service

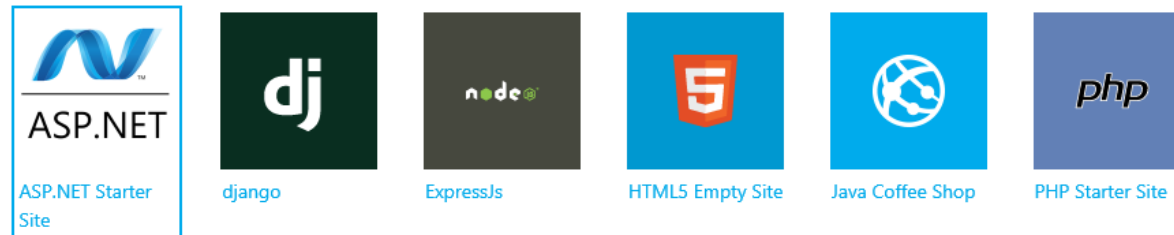


Free

No Signup or
Account Required

2) Select a template and create your web app

Change language:



Create ➔

Try App Service Today

Azure App Service Web Apps



Start simple

Easily create and scale your new sites in seconds

Automatically scale your sites that scale with your business

Quickly improve performance and reduce latency with right resources

Built-in web jobs support

Office Blog



Code smart

Leverage existing skills –
Languages and databases you know

Start with open source apps
and frameworks

Develop with VS and WebMatrix

Supports X-Plat development

ASP.NET site



Go live

Improve developer productivity
through continuous automated
deployment

Built-in monitoring of perf and
usage data

Built-in diagnostics to assist with
debugging

Built for DevOps

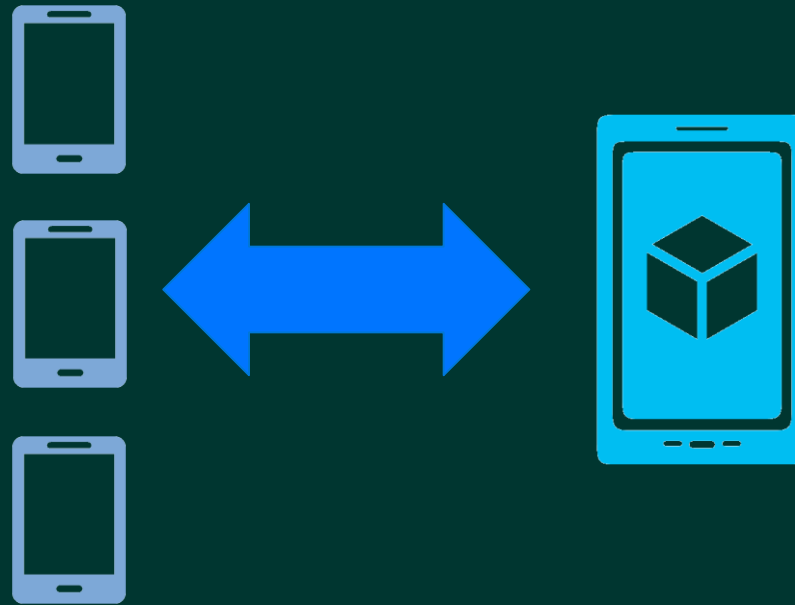
microsoft.com

Azure App Service Mobile Apps

- Provides essential services to support client development

- Client Support

- iOS
- Android
- HTML5/Web
- Xamarin
- Windows
- Windows Phone
- PhoneGap
- Sencha



Storage



Authentication



Logic



Push



Scheduler

Microsoft Azure

DATA + ANALYTICS

Data



SQL Database



DocumentDB



Redis Cache



Search



SQL Data Warehouse



Data Lake



Tables

Analytics



HDInsight



Machine Learning



Data Factory



Mobile Engagement

INTERNET OF THINGS

Azure IoT Suite

CLOUD INFRASTRUCTURE

Azure + Azure Stack + Operations Management Suite



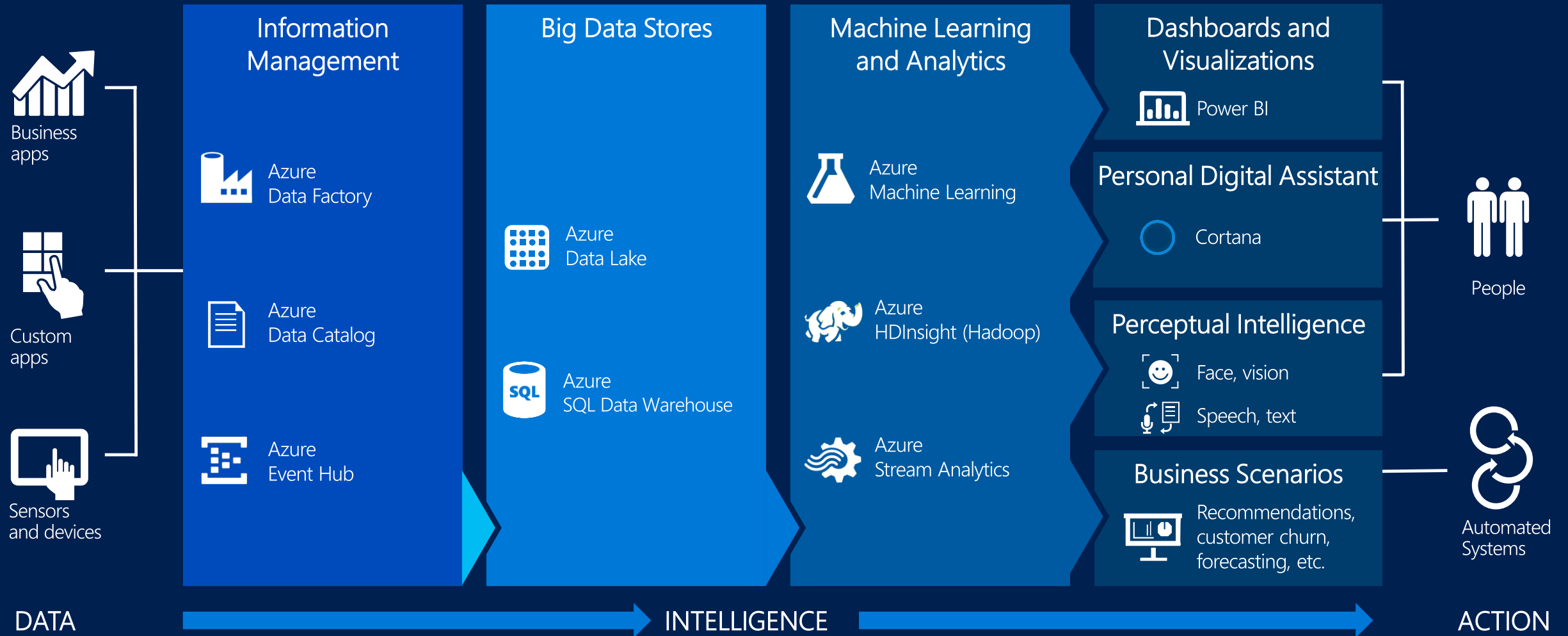
Intelligent
action

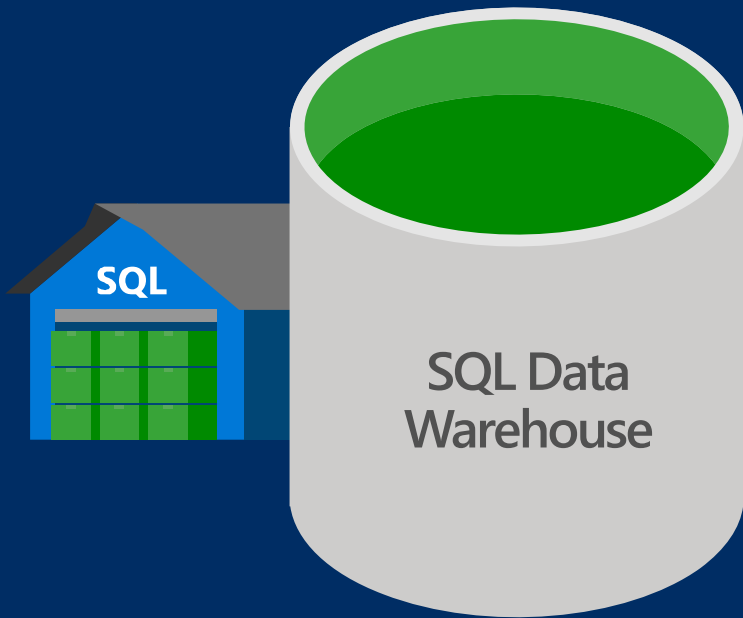
Cortana Analytics Suite



Cortana Analytics Suite

Transform data into intelligent action



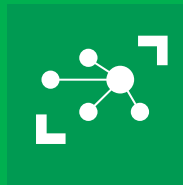


SQL Data Warehouse

Aggregate + store petabytes of data
Interactively query and visualize data
Operationalize machine learning

Microsoft Azure

INTERNET OF THINGS



IoT Hub



Stream
Analytics



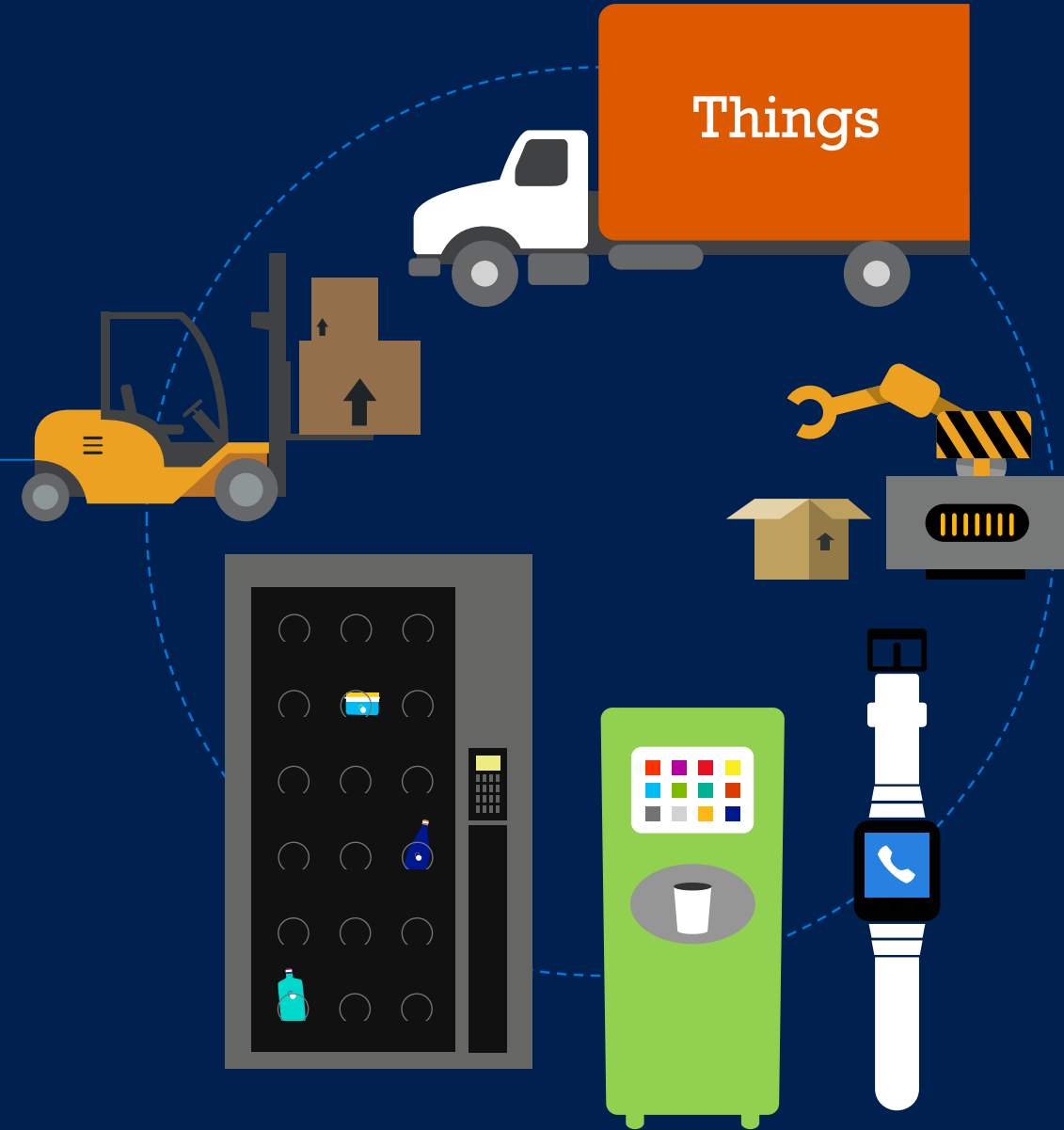
Logic Apps

CLOUD INFRASTRUCTURE

Azure + Azure Stack + Operations Management Suite

Now Available to Purchase Azure IoT Suite

Device Connectivity and Security
Data Ingestion and Command & Control
Stream Processing & Predictive Analytics
Workflow Automation
Dashboards and Visualization
Preconfigured Solutions



DASHBOARD

DEVICES

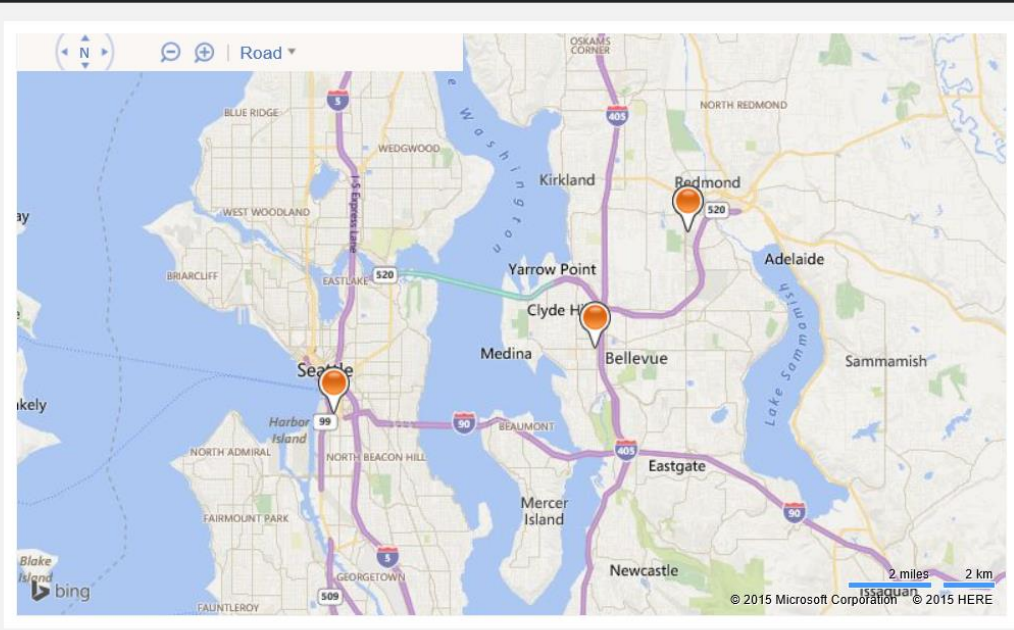
RULES

ACTIONS

Full-screen

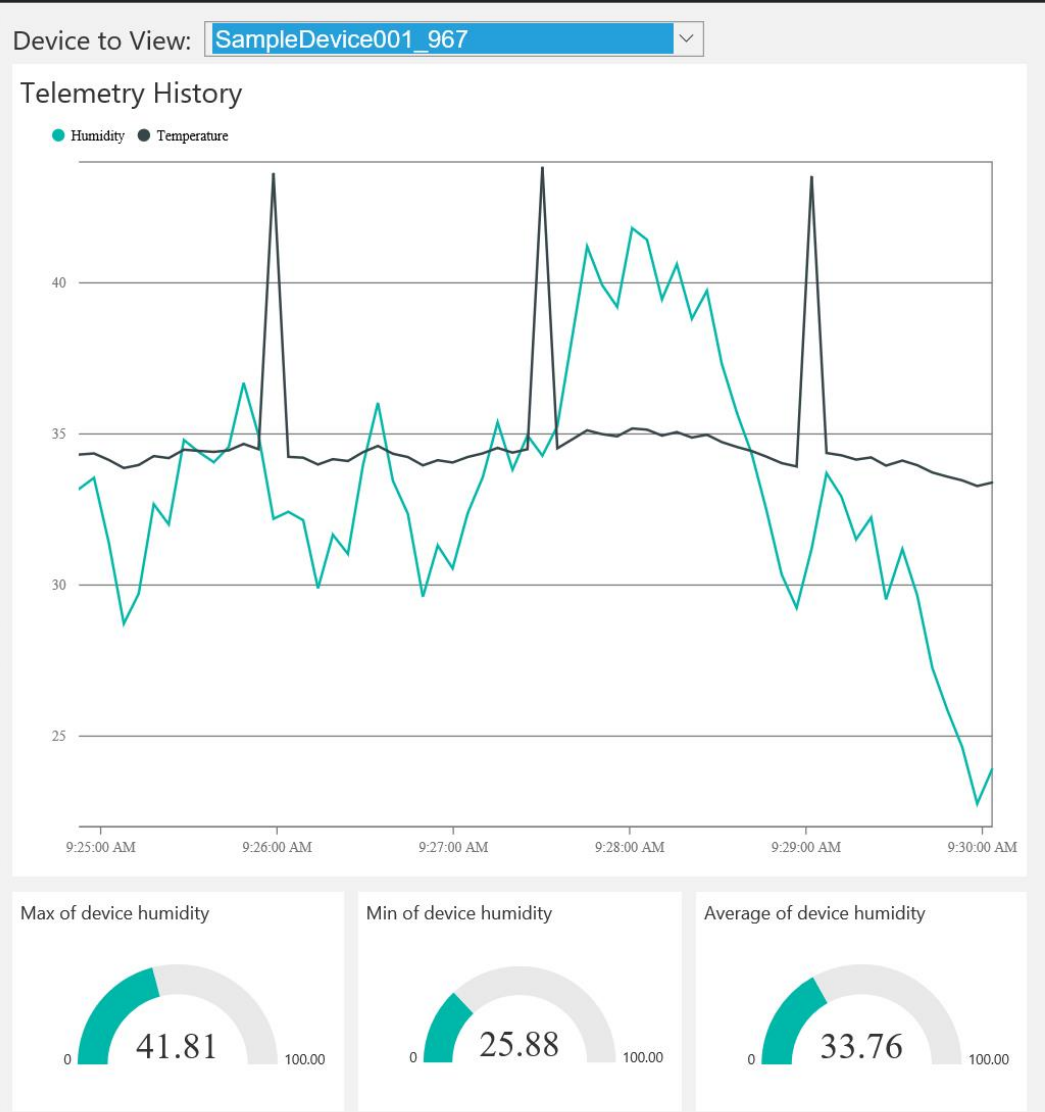
+

ADD A DEVICE



Alarm History

TIME	DEVICE ID	RULE OUTPUT	VALUE
09/26/2015 9:29:01 AM	SampleDevice001_967	AlarmTemp	43.540
09/26/2015 9:29:01 AM	SampleDevice001_967	AlarmHumidity	31.201
09/26/2015 9:27:30 AM	SampleDevice001_967	AlarmTemp	43.848
09/26/2015 9:27:30 AM	SampleDevice001_967	AlarmHumidity	34.283
09/26/2015 9:25:58 AM	SampleDevice001_967	AlarmTemp	43.639
09/26/2015 9:25:58 AM	SampleDevice001_967	AlarmHumidity	32.192
09/26/2015 9:24:26 AM	SampleDevice001_967	AlarmTemp	43.332
09/26/2015 9:24:26 AM	SampleDevice001_967	AlarmHumidity	29.125



DASHBOARD

DEVICES

RULES

ACTIONS

+

ADD A DEVICE

Rules (10) Previous Next

STATUS	RULE ID	DEVICE ID	DATA FIELD	OPERATOR	THRESHOLD	RULE OUTPUT
Enabled	435a07fd-7897-47ef-abd2-c2d97b83613d	SampleDevice001_750	Temperature	>	42	AlarmTemp
Enabled	c5e59a36-fa2c-4f38-8b2a-a8975e494e6a	SampleDevice001_750	Humidity	>	45	AlarmHumidity
Enabled	444569d9-93b1-4b4f-80b4-92f8c6a1f463	SampleDevice001_967	Humidity	>	48	AlarmHumidity
Enabled	cba47df7-fe4b-4406-ab21-2712279bbf27	SampleDevice001_967	Temperature	>	38	AlarmTemp
Enabled	2870f066-4b2b-40c7-b383-ebd84733d1b5	SampleDevice002_967	Humidity	>	57	AlarmHumidity
Enabled	e3af247f-3111-48d5-9b88-9980749129b2	SampleDevice002_967	Temperature	>	45	AlarmTemp
Enabled	3dfa65c5-6694-4b41-988c-244c2179ab52	SampleDevice003_967	Temperature	>	45	AlarmTemp
Enabled	44c233be-2eb7-420a-b7e8-abafaa5a20e6	SampleDevice003_967	Humidity	>	54	AlarmHumidity
Enabled	5c9ebf03-21b3-48c5-85be-5643ebdf5fbb	SampleDevice004_967	Humidity	>	64	AlarmHumidity
Enabled	d165156b-9068-4df2-84ec-5225795a313b	SampleDevice004_967	Temperature	>	47	AlarmTemp

> Properties

Device Properties

DEVICE ID

SampleDevice001_967

Rule Status

Disable Rule

Rule Properties

Edit

DATA FIELD

Temperature

OPERATOR

>

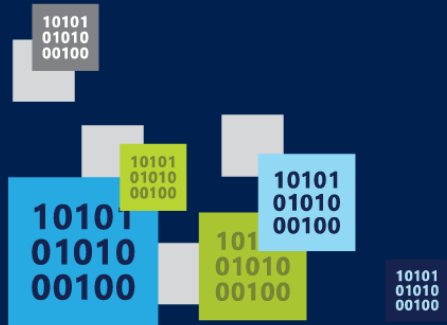
THRESHOLD

38

RULE OUTPUT

AlarmTemp

Demo: Azure IoT Hub



Internet of Things

stackoverflow

GameStop

xerox

SAXO
BANK

SAAB

SAMSUNG

SBI Liquidity Market

Rockwell
Automation



ThyssenKrupp

The ThyssenKrupp logo, featuring a stylized white 'A' shape composed of three interlocking circles inside a dark blue circle.

Itaú

OPENTEXT

NASDAQ OMX

EASTMAN

Lufthansa Systems
IT that makes your life easier

TELECOM
ITALIA

CJ E&M

Delivering secure apps

Announcing Azure Security Center

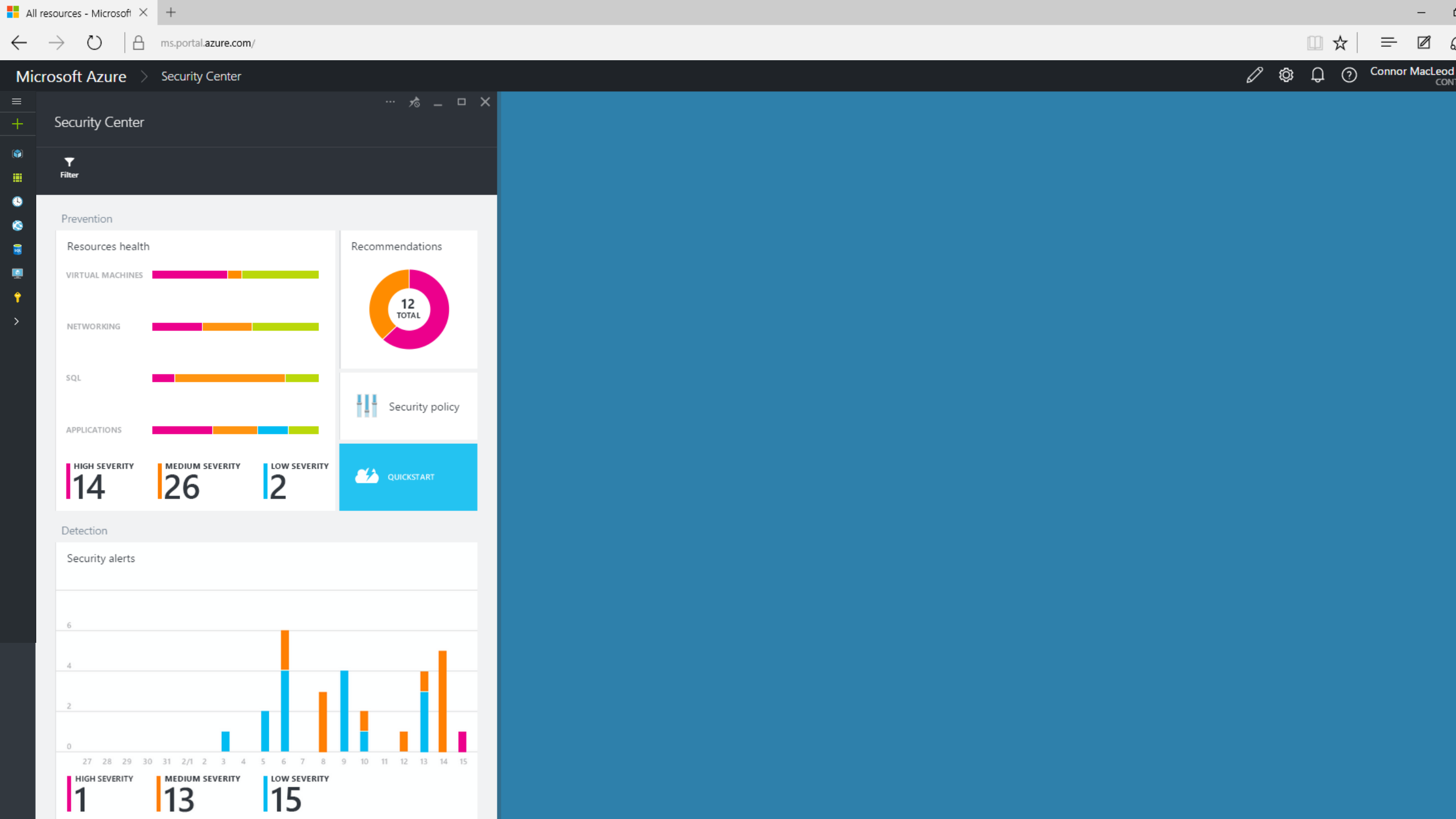
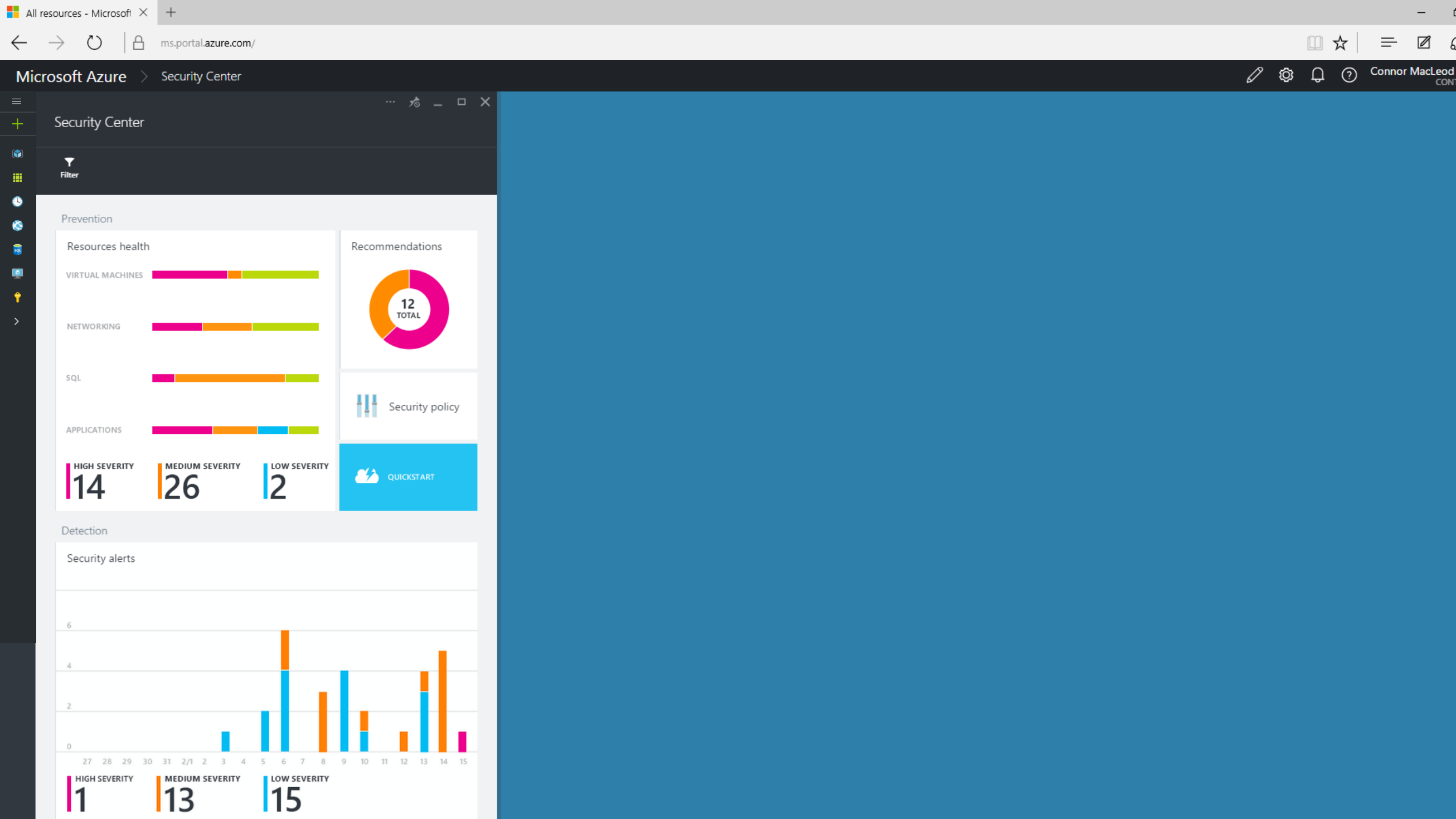
Gain visibility and control

Integrated security, monitoring, policy management

Built in threat detections and alerts

Works with broad ecosystem of security solutions





All resources - Microsoft

ms.portal.azure.com/

Microsoft Azure

Security Center

Recommendations

Add a Web Application Firewall

Security Center

Filter

Prevention

Resources health

VIRTUAL MACHINES

NETWORKING

SQL

APPLICATIONS

HIGH SEVERITY

MEDIUM SEVERITY

LOW SEVERITY

Recommendations

12 TOTAL

Security policy

QUICKSTART

Detection

Security alerts

6

4

2

0

27

28

29

30

31

2/1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

HIGH SEVERITY

MEDIUM SEVERITY

LOW SEVERITY

Recommendations

PREVENTION STEPS

Filter

DESCRIPTION	RESOURCE	STATE	SEVERITY
Enable Data Collection	subscription1	Resolved	High
Enable Antimalware	4 Virtual Machi...	Resolved	High
Add a Web Application Firewall	retail.contoso.c...	Open	High
Enable Network Security Groups	4 Subnets	Open	High
Enable Auditing on 3 SQL servers	5 SQL servers	Open	High
Enable Transparent Data Encryption on 7 SQL d...	7 SQL Databases	Open	High
Restrict access through public external endpoint	2 Subnets	Open	High
Apply 5 security updates	5 Virtual Machi...	Open	High
Resolve 7 baseline rules mismatch	5 Virtual Machi...	Open	High
Enable multi factor authentication	5 Users	Open	High
Configure ACLs for 6 endpoints	4 Virtual Machi...	Open	Medium
Reroute traffic through Web Application Firew...	2 Web Apps	In Progress	Medium

Add a Web Application Fir...

CHOOSE THE WEB APPLICATION FIREWALL YOU WANT TO USE

Use existing web application firewall

contoso-waf

F5 BIG-IP WAF BYOL

- Or -

Create new web application firewall

Barracuda Web Application F...

Barracuda Networks Inc

F5 BIG-IP WAF BYOL

F5 Networks

iMPERVA

iMPERVA Networks

INCAPSULA

Incapsula Networks

Cloud Flare

Cloud Flare Networks

Microsoft Azure > Security Center > Security alerts > Brute Force attempts were detected

Security Center

Filter

Prevention

Resources health

VIRTUAL MACHINES

NETWORKING

SQL

APPLICATIONS

HIGH SEVERITY 14

MEDIUM SEVERITY 26

LOW SEVERITY 2

Recommendations

12 TOTAL

Security policy

QUICKSTART

Detection

Security alerts

6

4

2

0

26 27 28 29 30 31 7/1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

HIGH SEVERITY 1

MEDIUM SEVERITY 13

LOW SEVERITY 15

Security alerts

Filter

6

4

2

0

26 27 28 29 30 31 7/1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

HIGH SEVERITY 1

MEDIUM SEVERITY 13

LOW SEVERITY 15

DESCRIPTION	DETECTED BY	EVENTS	DATE	STATE	SEVERITY
Incident detected: database breach	Microsoft	1	7/15	Open	🔴
A user account password has be...	Microsoft	2	7/14	Open	🟡
Critical malware action failed	Antimalware	3	7/14	Open	🟡
Traffic to malicious IP 3.3.3.3	Microsoft	2	7/13	Open	🔵
Brute Force attempts were detect...	Microsoft	1	7/13	Open	🔵
Exploitable Process Detected (sql-s...	Microsoft	1	7/13	Open	🟡
SQL Injection attempt from 103.3...	Web Applic...	1	7/12	Open	🟡
Non-critical malware action failed	Antimalware	1	7/10	Open	🟡
Traffic to malicious IP 104.12.112...	Microsoft	1	7/10	Open	🔵
SQL Injection attempt from 103.3...	Microsoft	4	7/9	Open	🔵
Traffic to malicious IP 121.14.112...	Microsoft	1	7/8	Open	🟡
Brute Force attempts were detect...	Web Applic...	2	7/8	Open	🟡
DDOS Attack from 103.14.120.12...	Web Applic...	2	7/6	Open	🟡
SQL Injection attempt from 103.3...	Web Applic...	4	7/6	Open	🔵
Non-critical malware action failed	Antimalware	2	7/5	Open	🔵

Brute Force attempts were detected

ATTACKER IP 90.150.112.27

ATTACKER LOCATION 🇷🇺 Russia

RDP activity per hour

100%

80

60

40

20

0:00 0:30 1:00

Threat map

🔵

🔴

Infrastructure

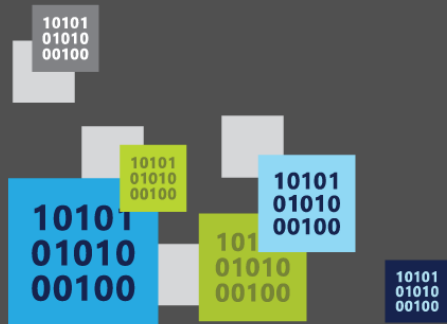


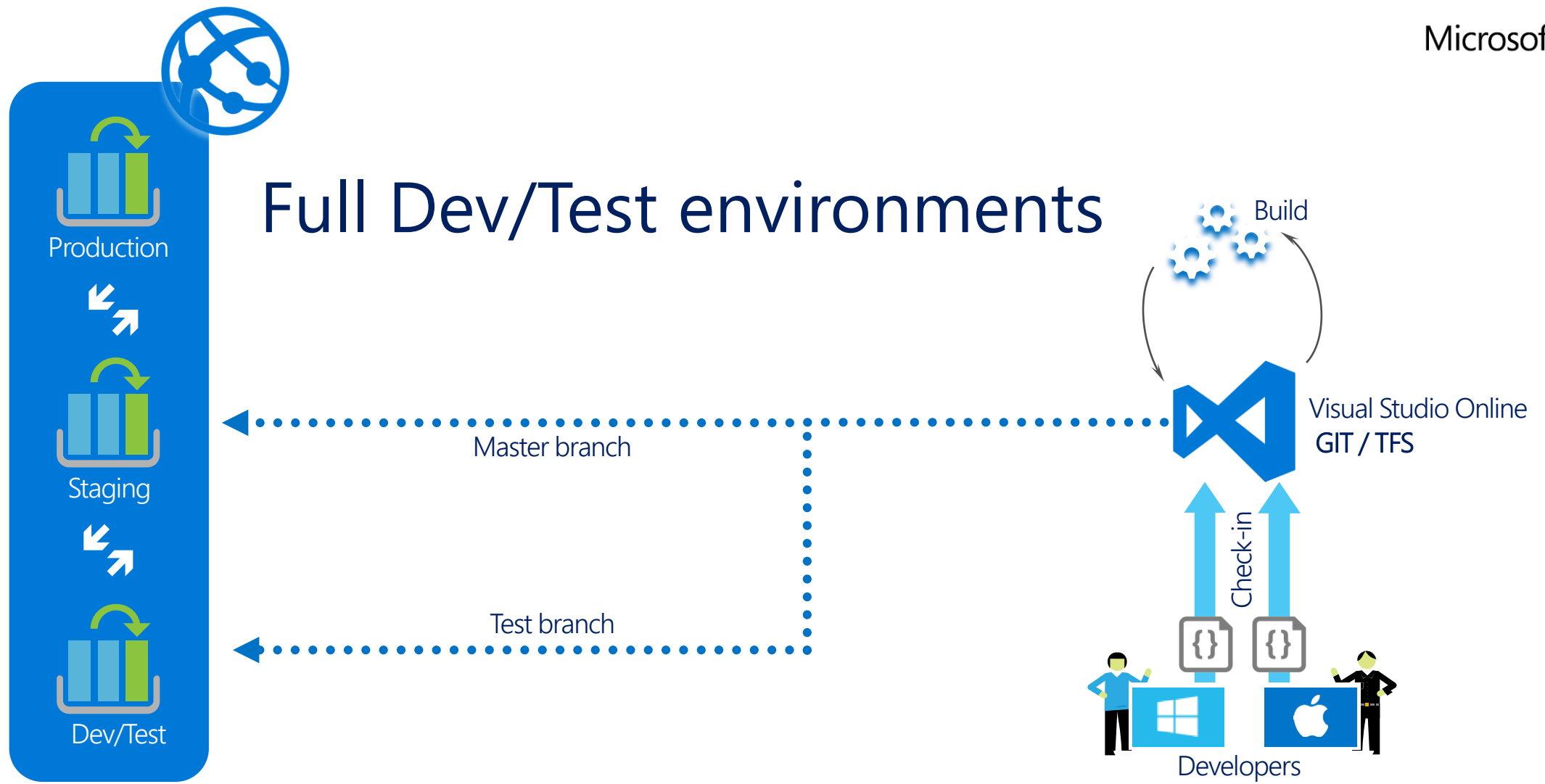
TEMENOS
The Banking Software Company



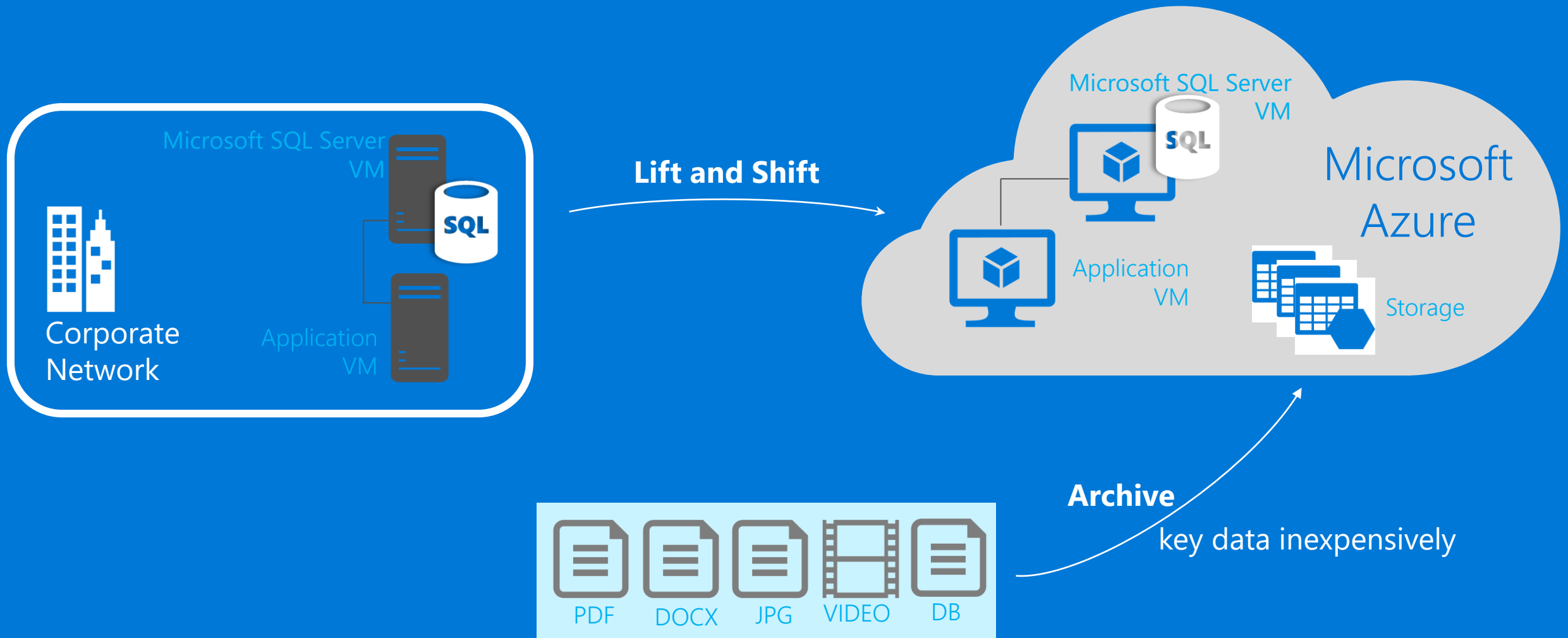
United Nations

Key Scenarios to Get Started with Microsoft Azure

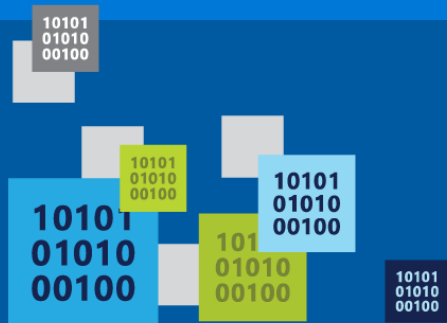


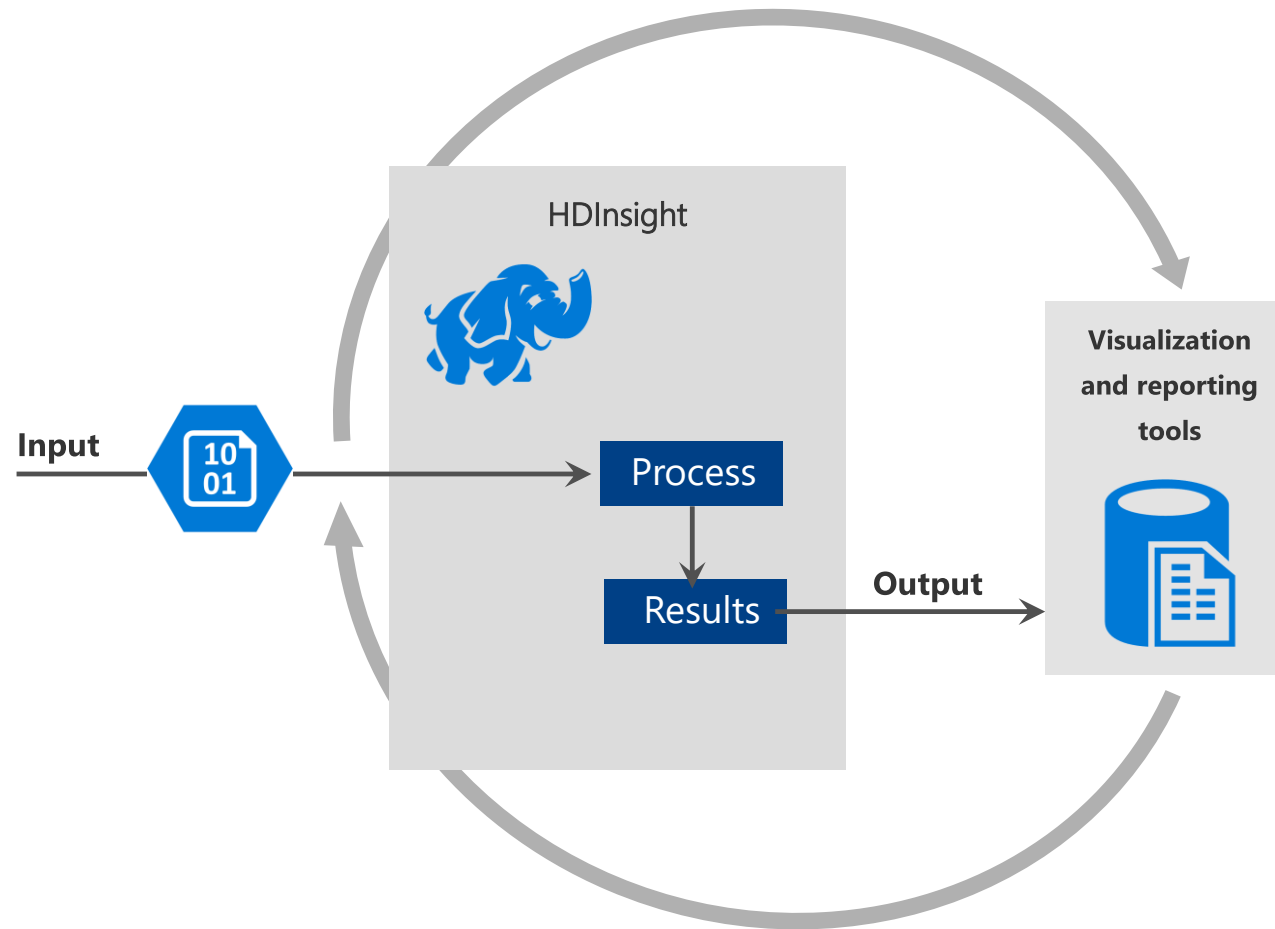


Key Scenarios to get started with
Microsoft Azure



Key Scenarios to get started with
Microsoft Azure



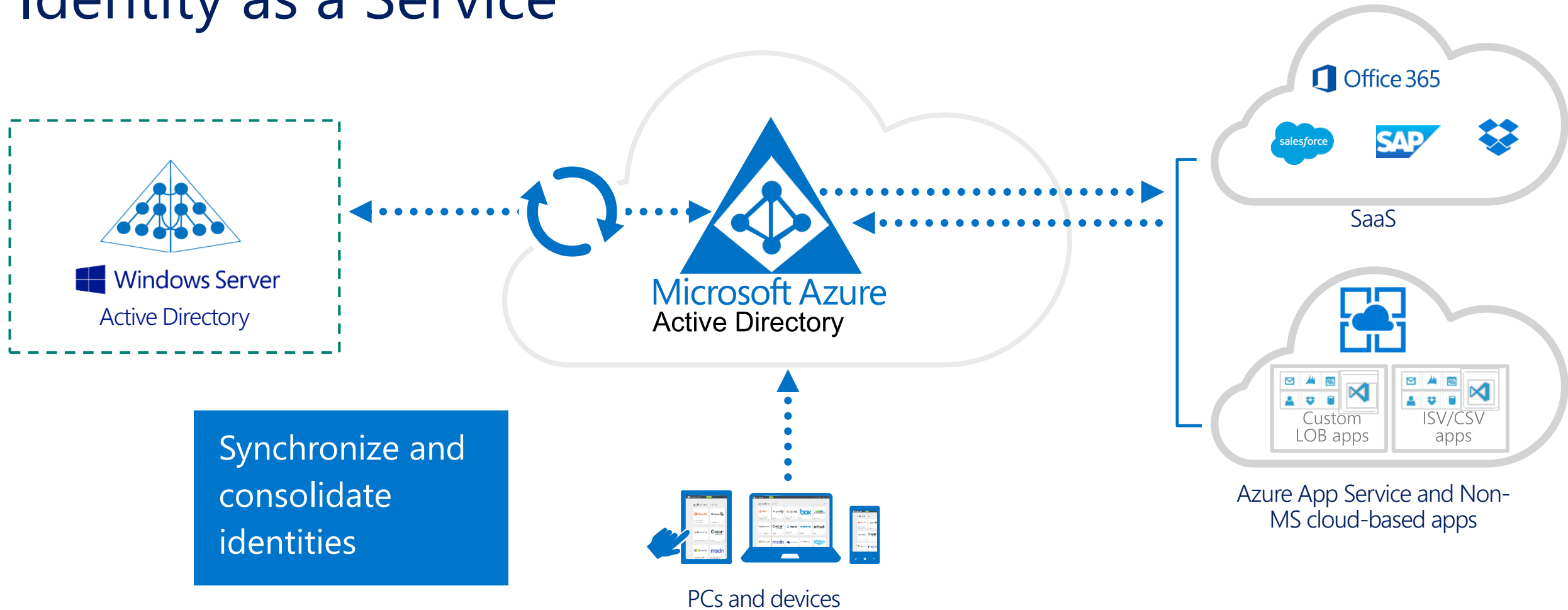


Iterative exploration - Process key data into business intelligence using Hadoop

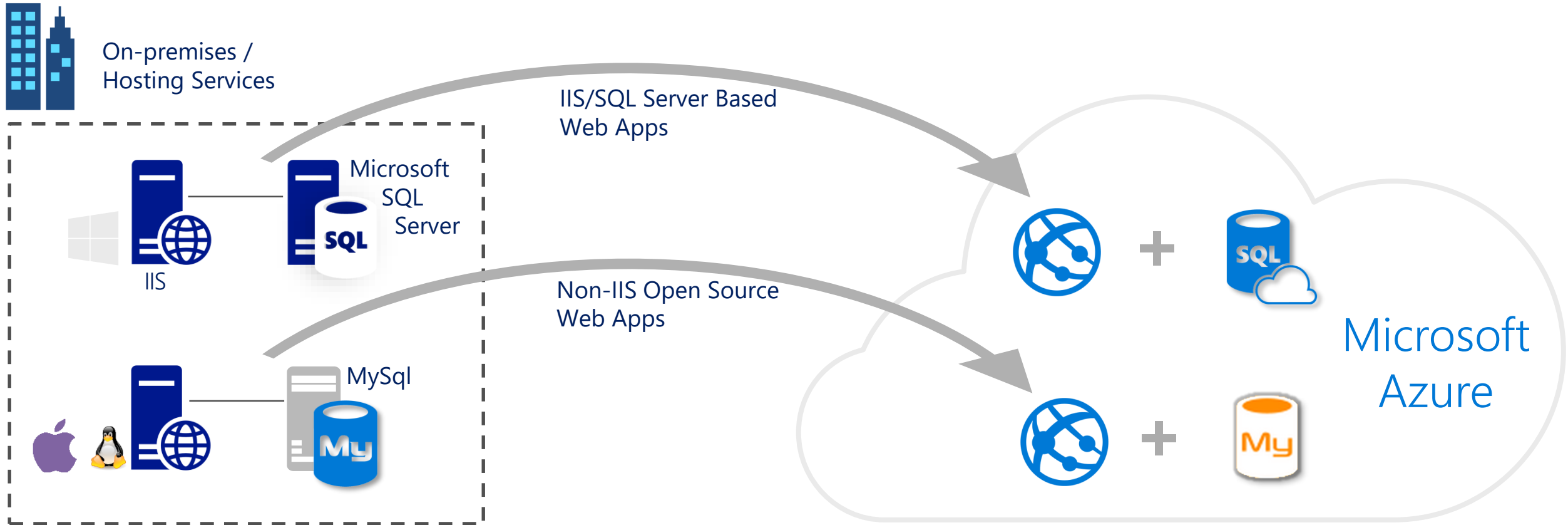
Key Scenarios to get started with
Microsoft Azure

Identity as a Service

Microsoft Azure



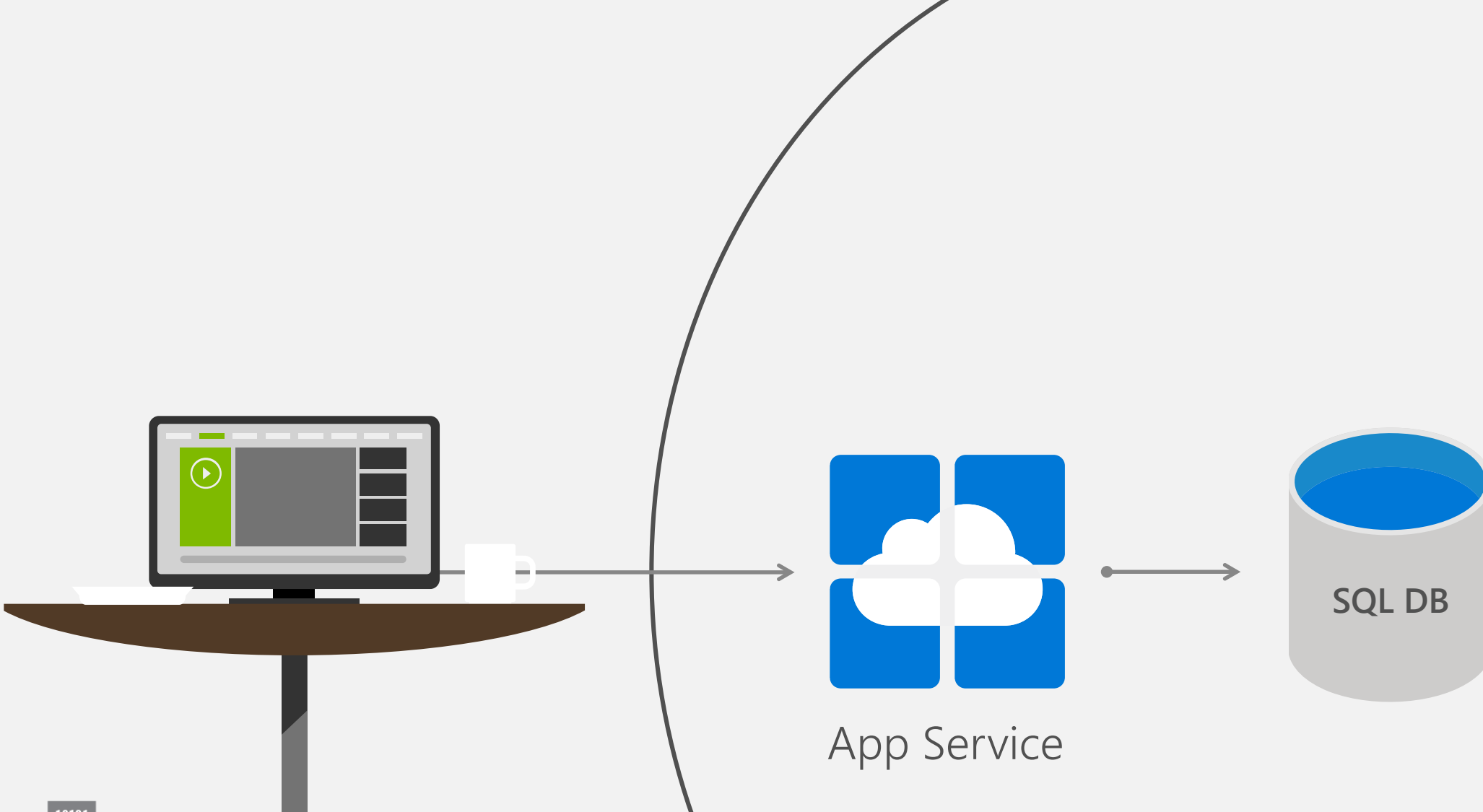
Key Scenarios to get started with
Microsoft Azure



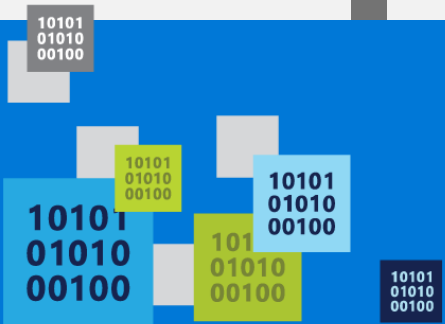
Web Apps - Take your web apps to the cloud using inexpensive App Service Web Apps

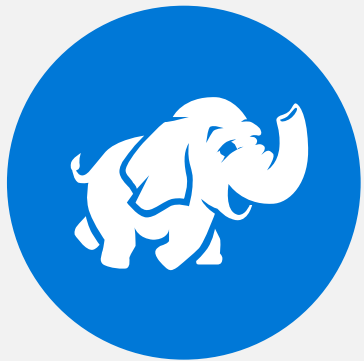
Key Scenarios to get started with
Microsoft Azure

Azure



Key Scenarios to get started with
Microsoft Azure





Hadoop



SQL Data Warehouse

App Service

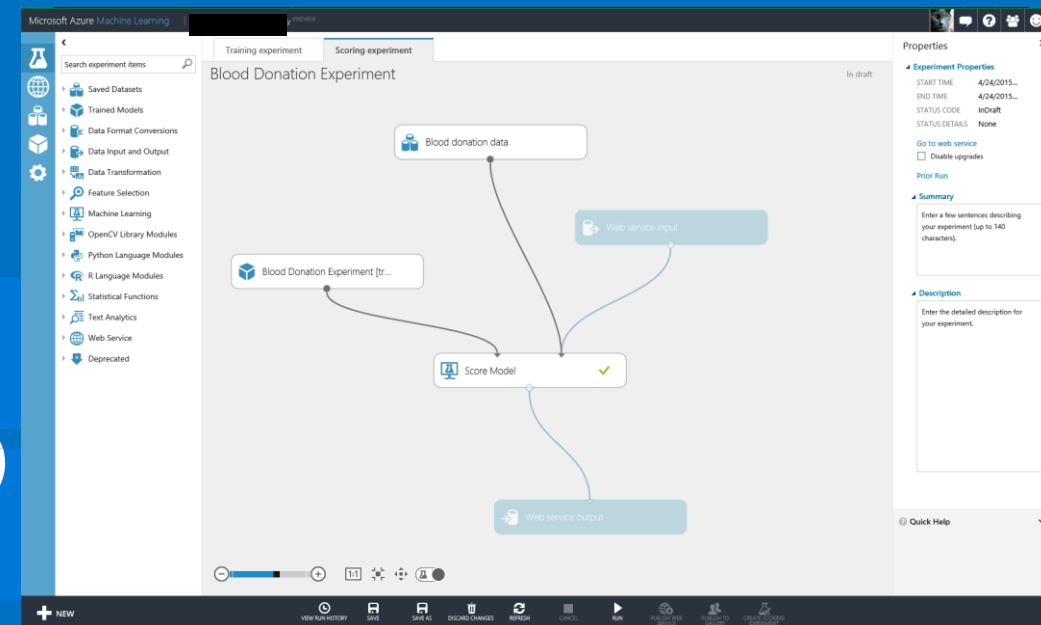
On-Premises

SAP

Oracle

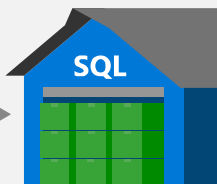
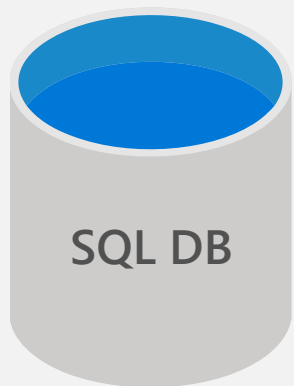
Dynamics

Machine Learning



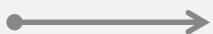
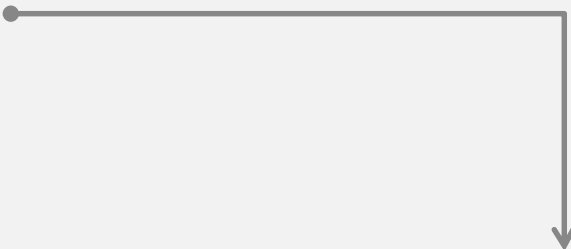
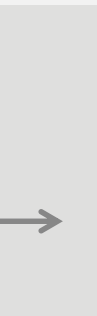


Hadoop



Machine Learning

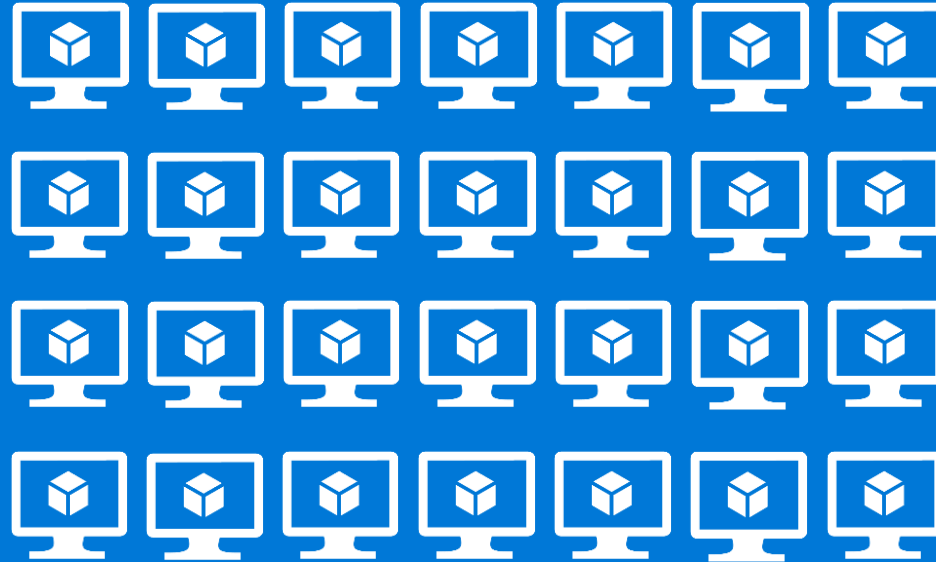
Intelligent Action



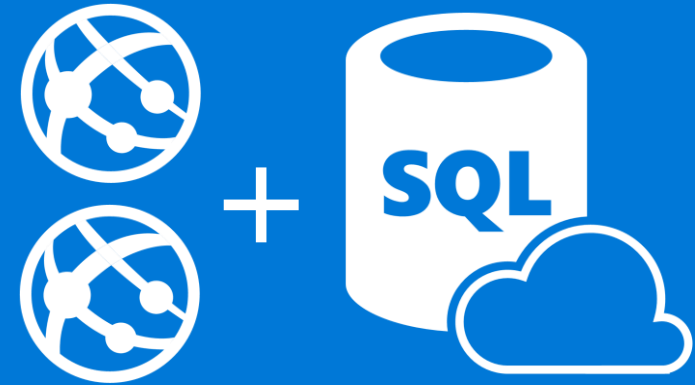
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Other Dev/Test

89
Countries

A stylized background featuring a large, white, cloud-like shape with a blue outline. To the left, there are smaller, darker blue cloud shapes. The overall color scheme is light blue and white.

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