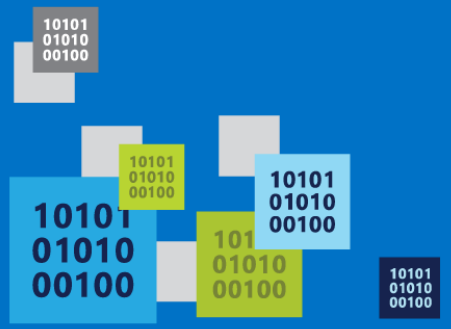
Microsoft Azure

Microsoft's PaaS for Web Apps

Teerachai Laothong



Microsoft

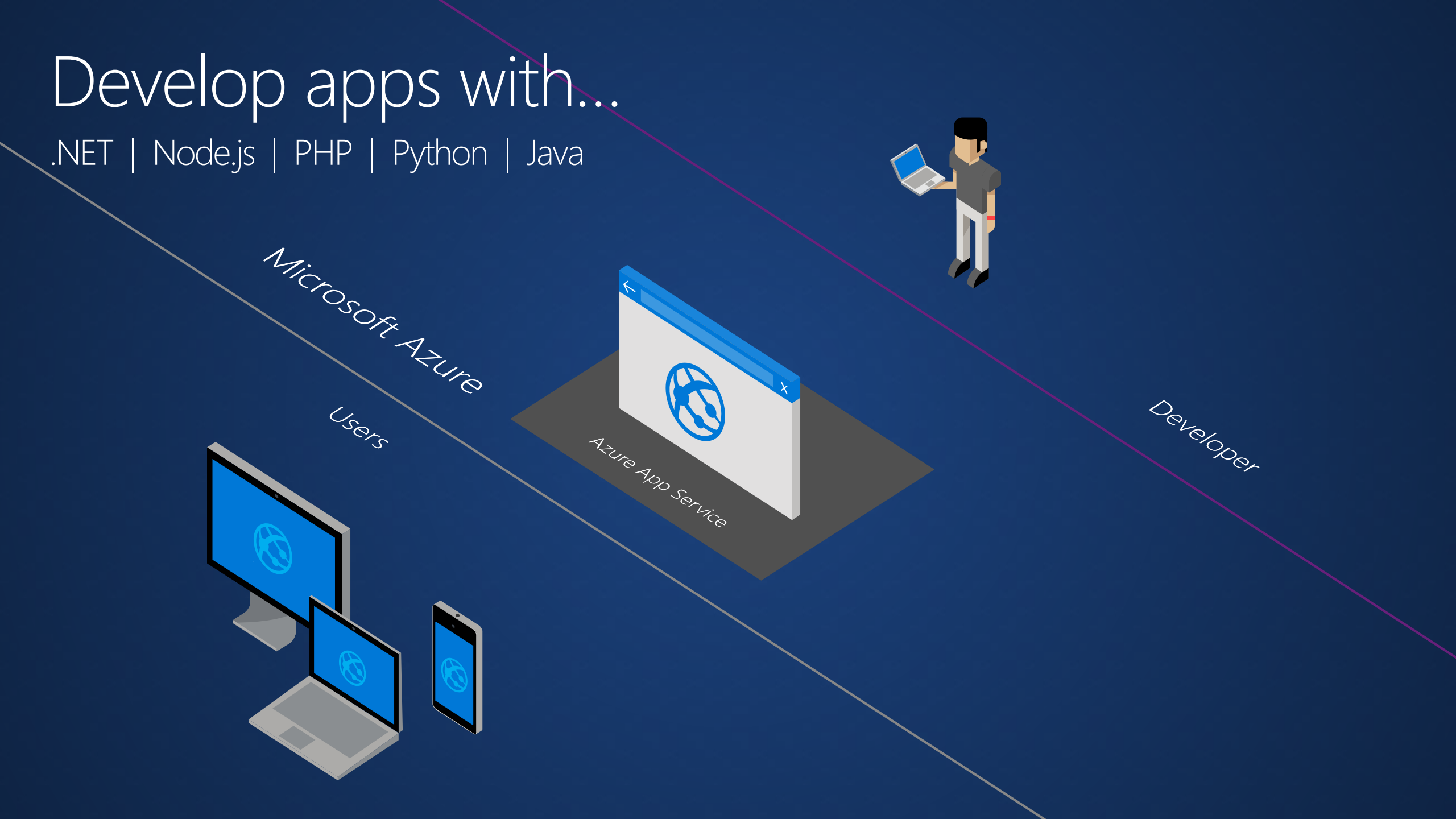
Agenda

- → Web App creation
- → Language Support
- → Deployment
- → Source Control Integration
- → Scale
- → Web Jobs
- → Site Slots
- → Traffic Manager

Azure App Service

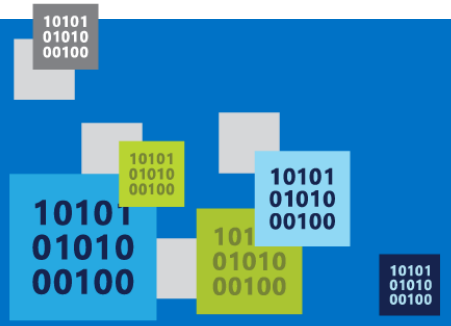
Develop apps with...

.NET | Node.js | PHP | Python | Java

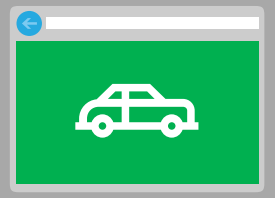


Benefits of App Services

- Automatic OS patching
- Enterprise-grade security
- High availability
  - **Automated scale out/in**
  - **Built-in load balancing**
- Supports many languages and platforms
  - **.NET, Node.js, Python, Ruby and many more**
- Easy continuous deployment
  - **Continuous delivery from third-party source control providers**
  - **Built-in Git repo**

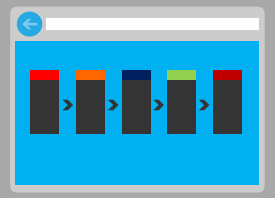


Web Apps



Customer site

Logic Apps



Order Completed

Mobile Apps

Administration App

Customer App

API Apps

Web Apps

WEB APPS

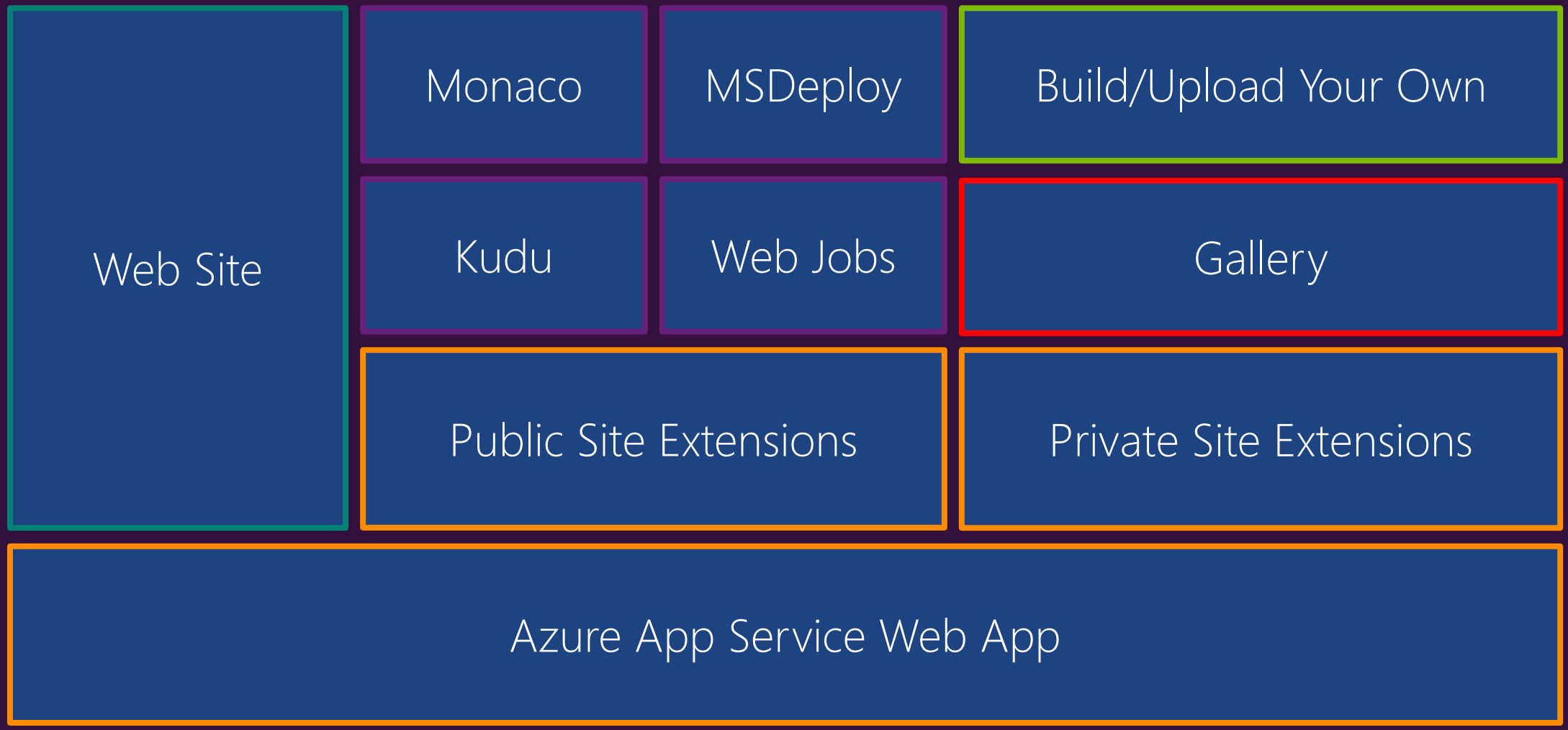
Web apps run as-is
no changes required

Full capability set available including:

- .NET, Node.js, Java, PHP, and Python
- WebJobs for long running tasks
- Integrated VS publish, remote debug…
- CI with GitHub, BitBucket, VSO
- Auto-load balance, Autoscale, Geo DR
- Virtual networking and hybrid connections
- Site slots for staged deployments

App Service Web App

Microsoft Azure



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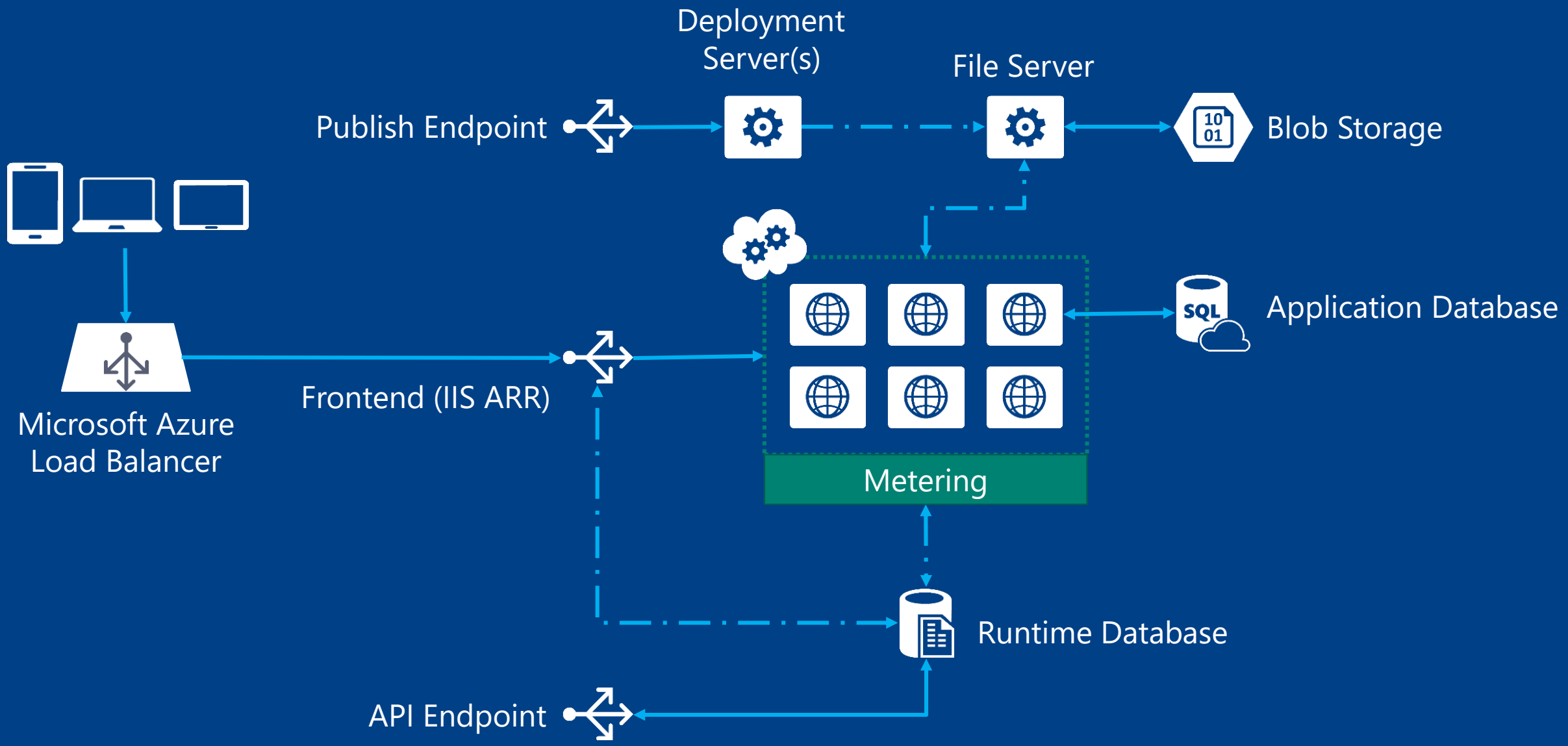
App Service Web App Architecture

Microsoft Azure



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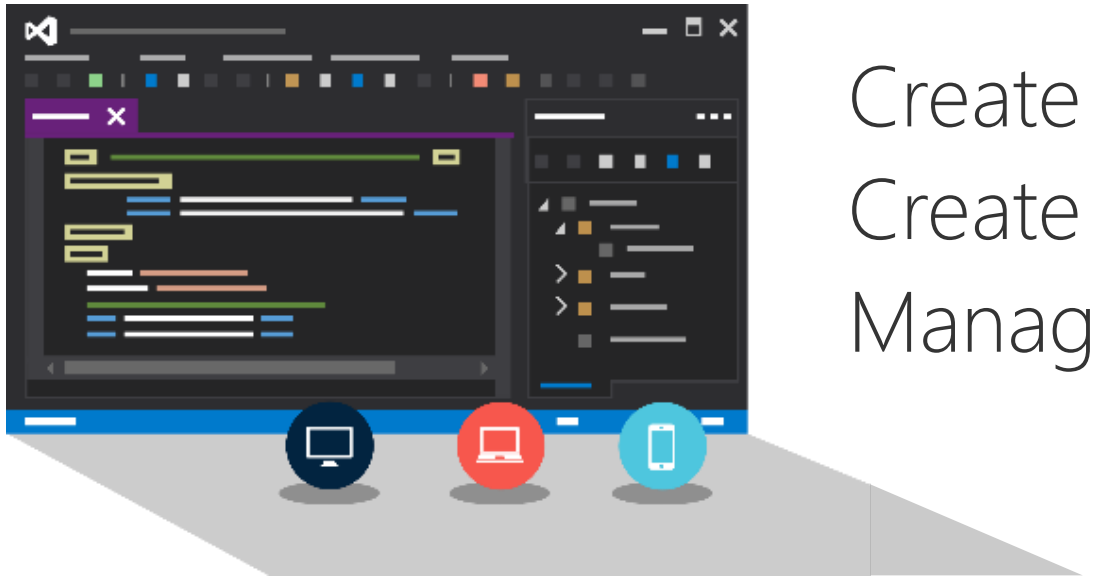
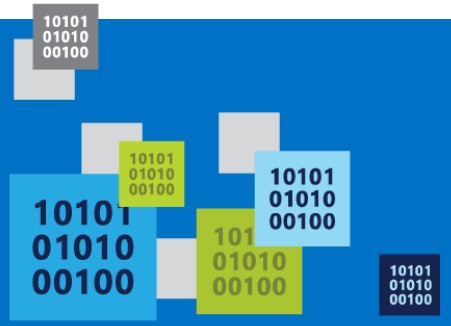
Visual Studio + App Service Web Apps



Create Azure Resources during File / New
Create Web App during deploy
Manage with Server Explorer



WebJobs

Light-weight CPU Intensive Tasks

run.cmd, run.bat

run.exe

run.ps1

run.sh

run.php

run.py

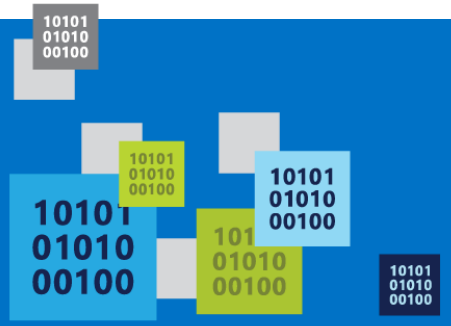
run.js

Job Type: On-Demand, Scheduled, Continuous

Scale: Singleton, Multi-instance

WebJobs SDK Feature: BlobTrigger, TableTrigger, QueueTrigger, ServicebusTrigger

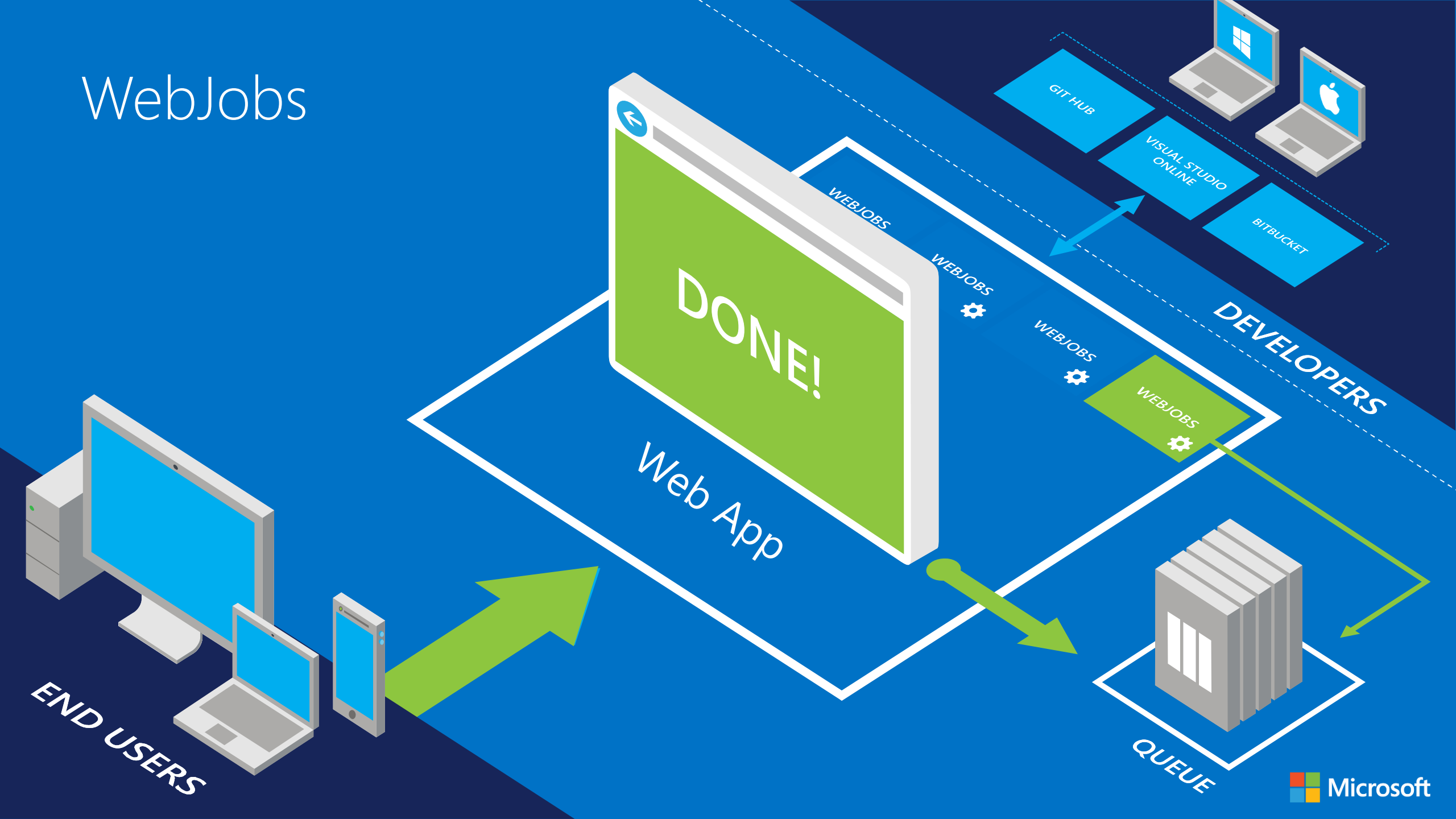
Deployment: Portal, Visual Studio, CLI, Git



WebJobs

Microsoft

WebJobs



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API Apps

API APPS

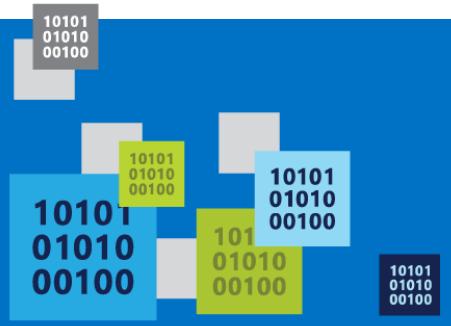
Create, consume and host APIs more easily

Easily use cloud or custom APIs:

- Dozens of built-in APIs for popular SaaS
- An ecosystem of APIs for any need
- Create and publish custom, reusable APIs
- Visual Studio tooling with one click publish and remote debugging
- Automatic client SDK generation for many languages

Benefits of API Apps

- Bring your API as-is
  - .NET Web API
  - Node.js + Express
  - Java
  - PHP
  - Many other technologies
- Connect easily to SaaS platforms



API Apps addresses key pains around building and consuming APIs

Build your API

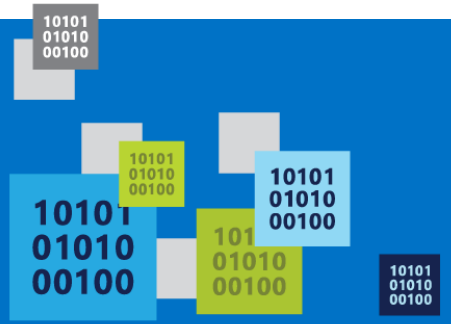
Web Apps++: Bring you API as is in your language of choice	Simple access control	SSO	Metadata contract	Microservice style	Expose enterprise APIs

Consume APIs

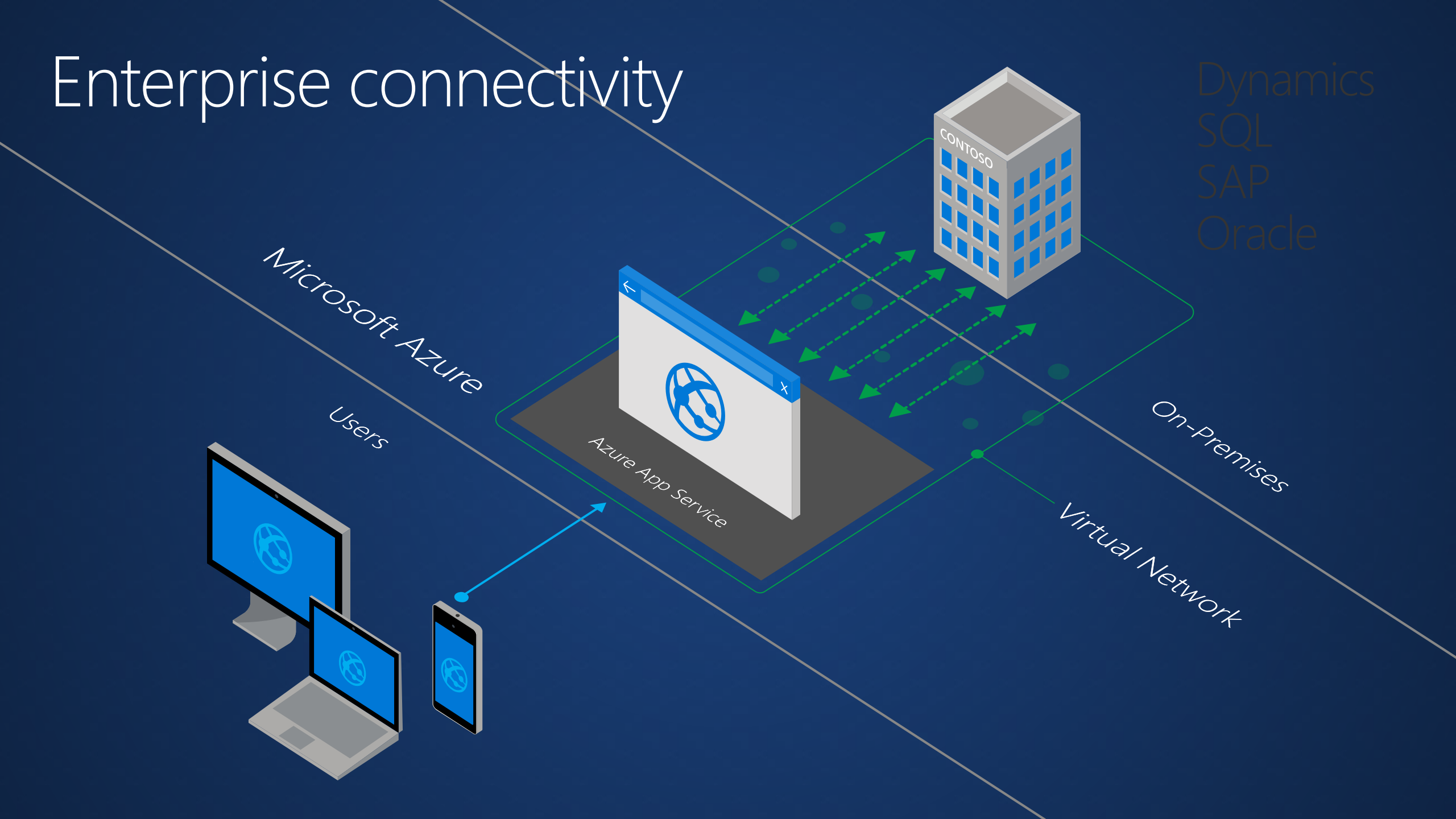
	Authentication, built-in to mobile and web SDKs	SSO, handled by server	SDK generation	API discovery	Gallery – public & organization

Consuming API Apps

- API Apps expose HTTP services
- Metadata is exposed using Swagger 2.0 metadata
  - JSON file
  - Widely supported
- Client applications



Enterprise connectivity



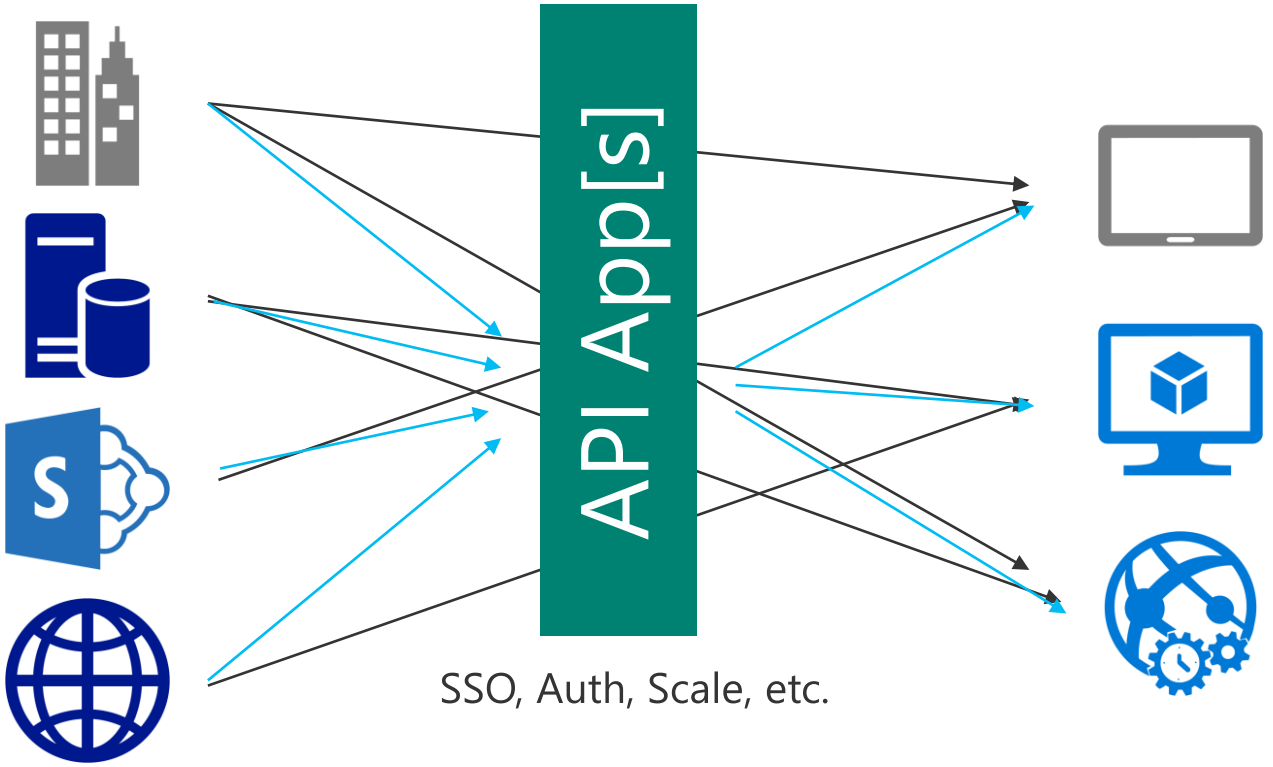
Managed Middle Tier

On Premise Applications

Databases in Azure VMs

SharePoint Online

Cloud-Hosted Web Apps



Simplifying Integration

Logic Apps

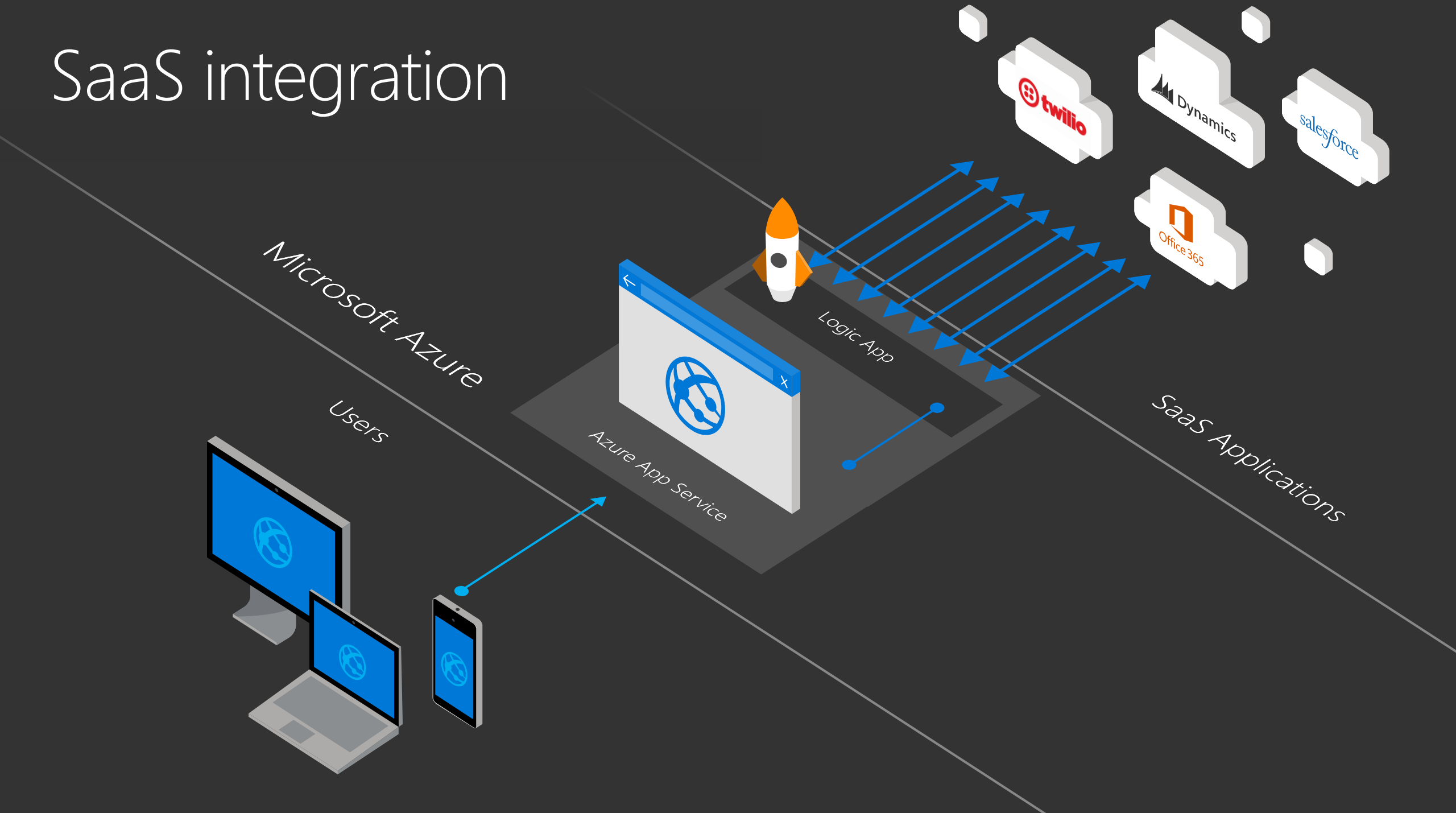
LOGIC APPS

Automate SaaS and on-premises systems

New Logic Apps for easy automation

- No code designer for rapid creation
- Dozens of pre-built templates to get started
- Out of box support for popular SaaS and on-premises apps
- Use with custom API apps of your own
- Biztalk APIs for expert integration scenarios

SaaS integration



Built-in API Connectors

Connectors

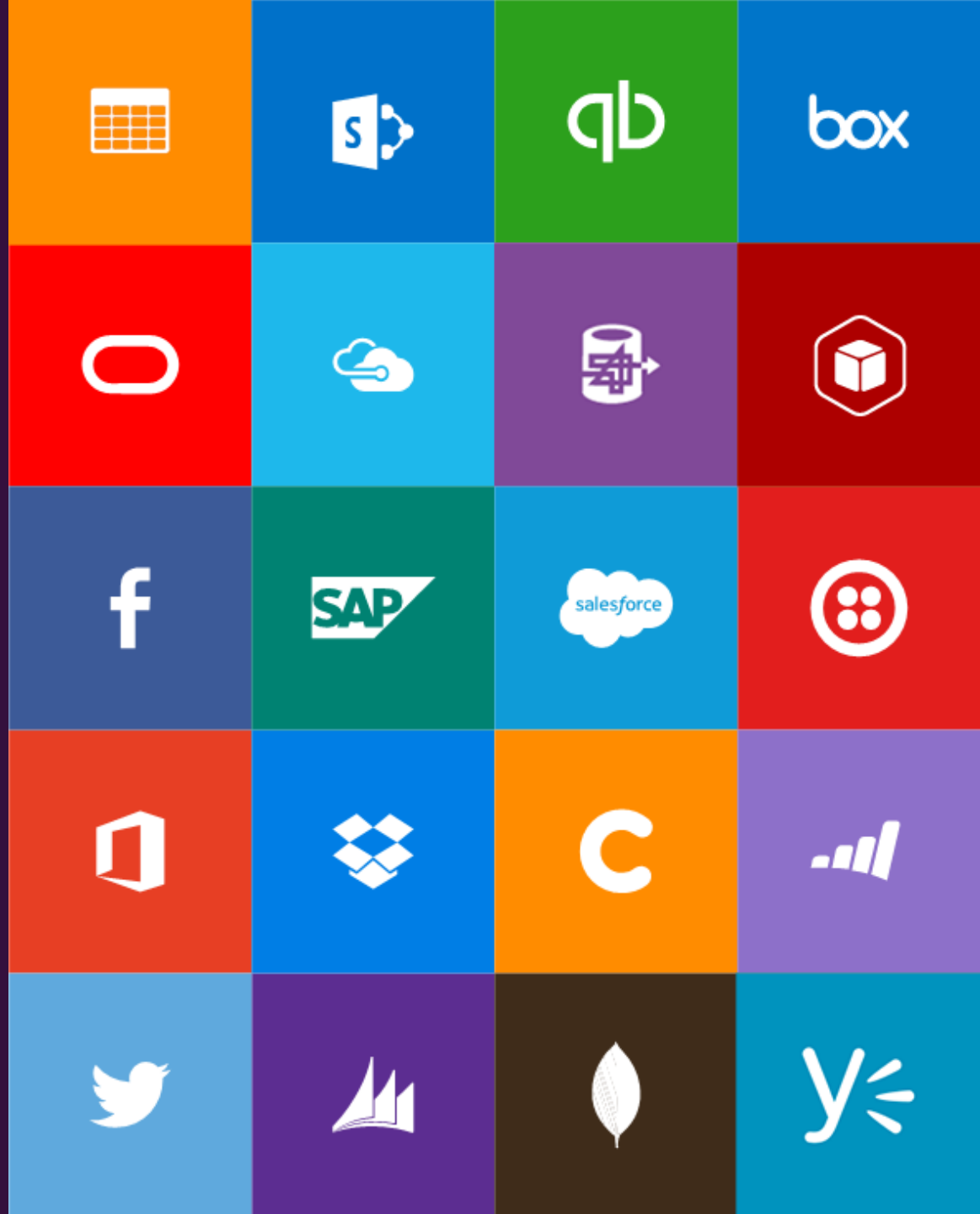
- Box
- Chatter
- Delay
- Dropbox
- Azure HD Insight
- Marketo
- Azure Media Services
- OneDrive
- SharePoint
- SQL Server
- Office 365
- Oracle
- QuickBooks
- SalesForce
- Sugar CRM
- SAP
- Azure Service Bus
- Azure Storage
- Timer / Recurrence
- Twilio
- Twitter
- IBM DB2
- Informix
- Websphere MQ
- Azure Web Jobs
- Yammer
- Dynamics CRM
- Dynamics AX
- Hybrid Connectivity

Protocols

- HTTP, HTTPS
- File
- Flat File
- FTP, SFTP
- POP3/IMAP
- SMTP
- SOAP + WCF

BizTalk Services

- Batching / Debatching
- Validate
- Extract (XPath)
- Transform (+Mapper)
- Convert (XML-JSON)
- Convert (XML-FF)
- X12
- EDIFACT
- AS2
- TPMOM
- Rules Engine



Target audience is *anyone* who can use Azure

… but not necessarily business users or consumers

Mobile Apps

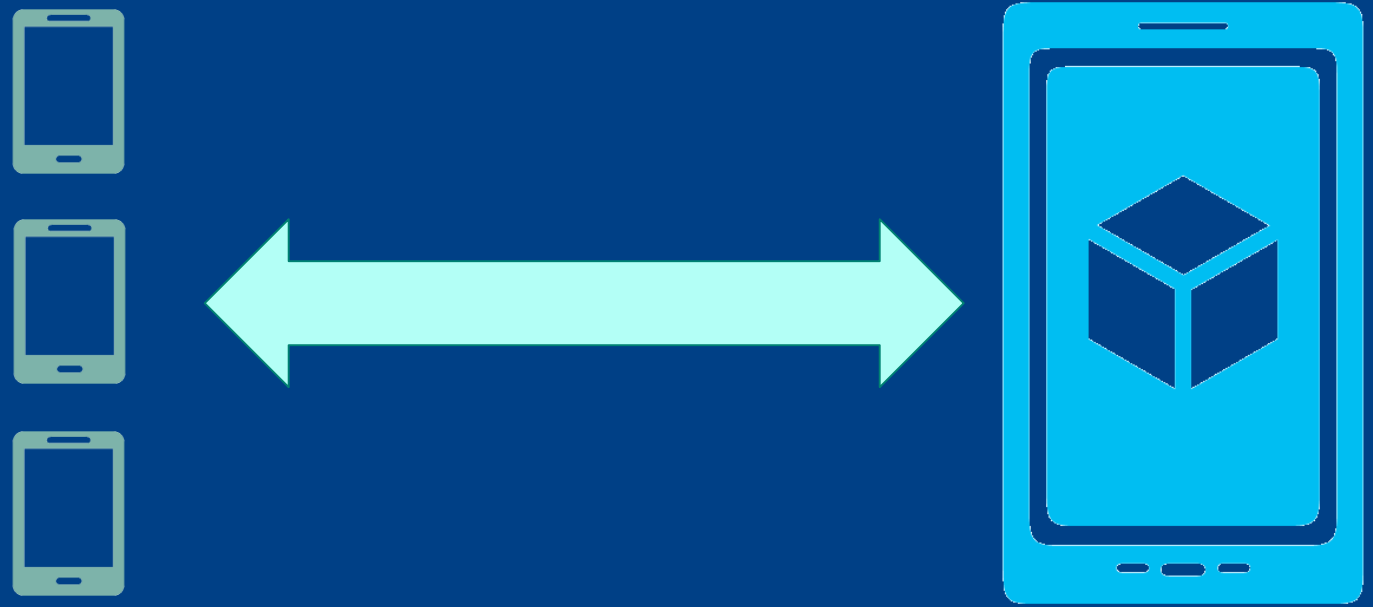
MOBILE APPS

Mobile services plus
a whole lot more

New capabilities for Mobile apps:

- Webjobs for long running tasks
- CI with GitHub, BitBucket, VSO
- Auto-load balance, Autoscale, Geo DR
- Virtual networking and hybrid connections
- Site slots for staged deployments

Azure Mobile Services



- Storage
- Authentication
- Logic
- Push
- Scheduler

Structured Storage

- Powered by SQL Database
- Supports rich querying capabilities
- Dynamic Schematization
- Data management in:
  - Azure Portal
  - SQL Portal (Silverlight)
  - SQL Management Studio
  - REST API
  - Azure CLI Tools
  - SQL CLI

Node.js scripts

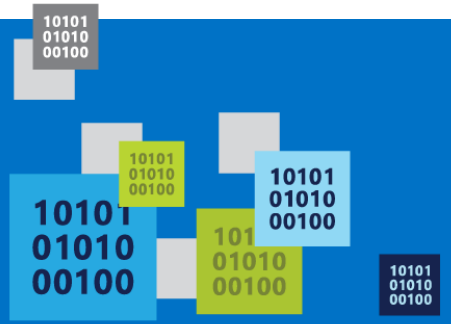
.NET Web API backend in Visual Studio

Passes through to SQL by default

MongoDB, Table Storage, SQL out of the box

Intercept CRUD requests to tables

Fully customizable



Server Side Table Scripts

Custom API

- Non-table based endpoints
- Accessible from
  - GET
  - POST
  - PUT
  - PATCH
  - DELETE
- For node.js logic in scripts like table endpoints
- For .NET delivered through a WebAPI
- Expose any functionality you want

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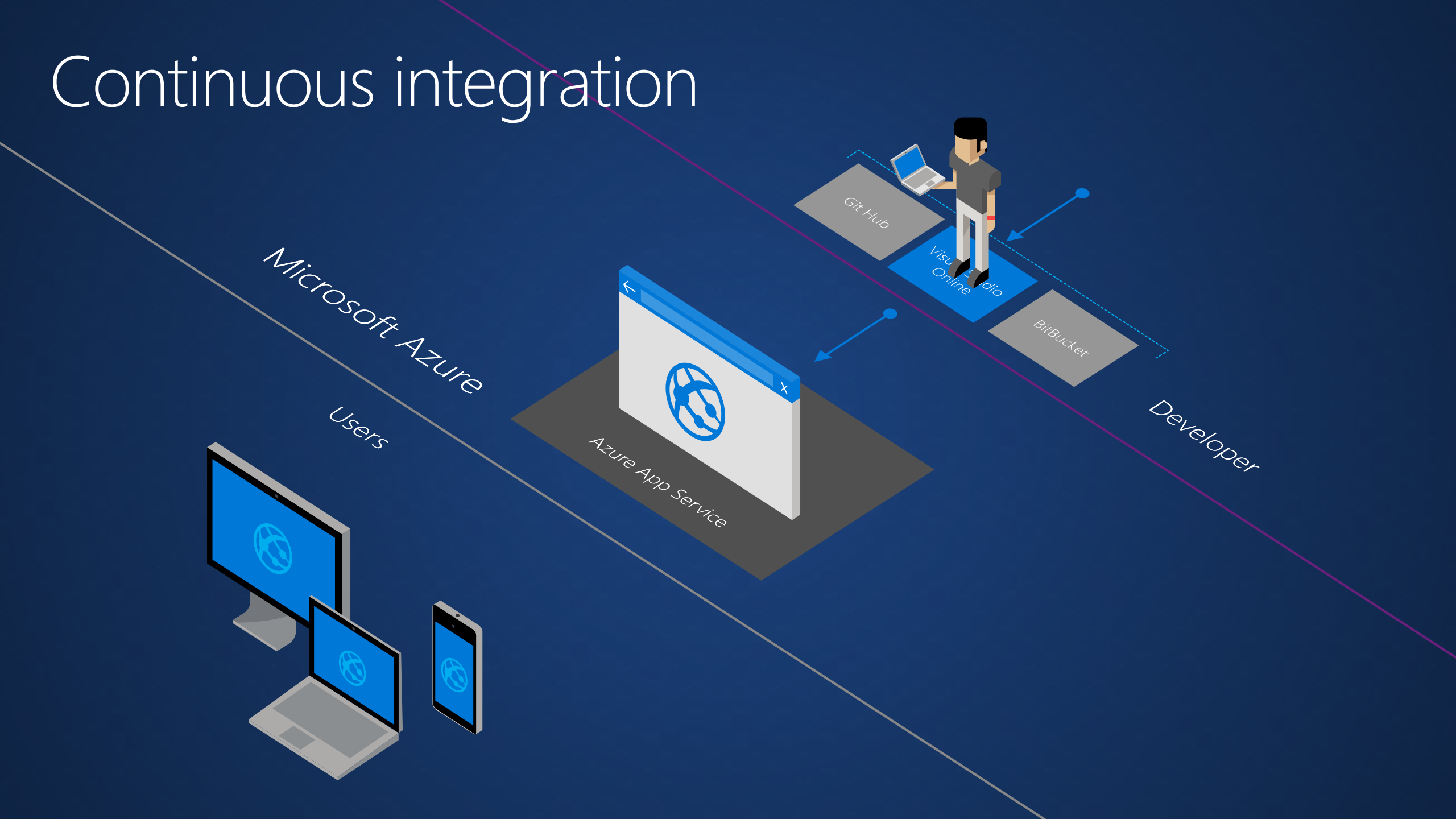
Continous Delivery with App Service

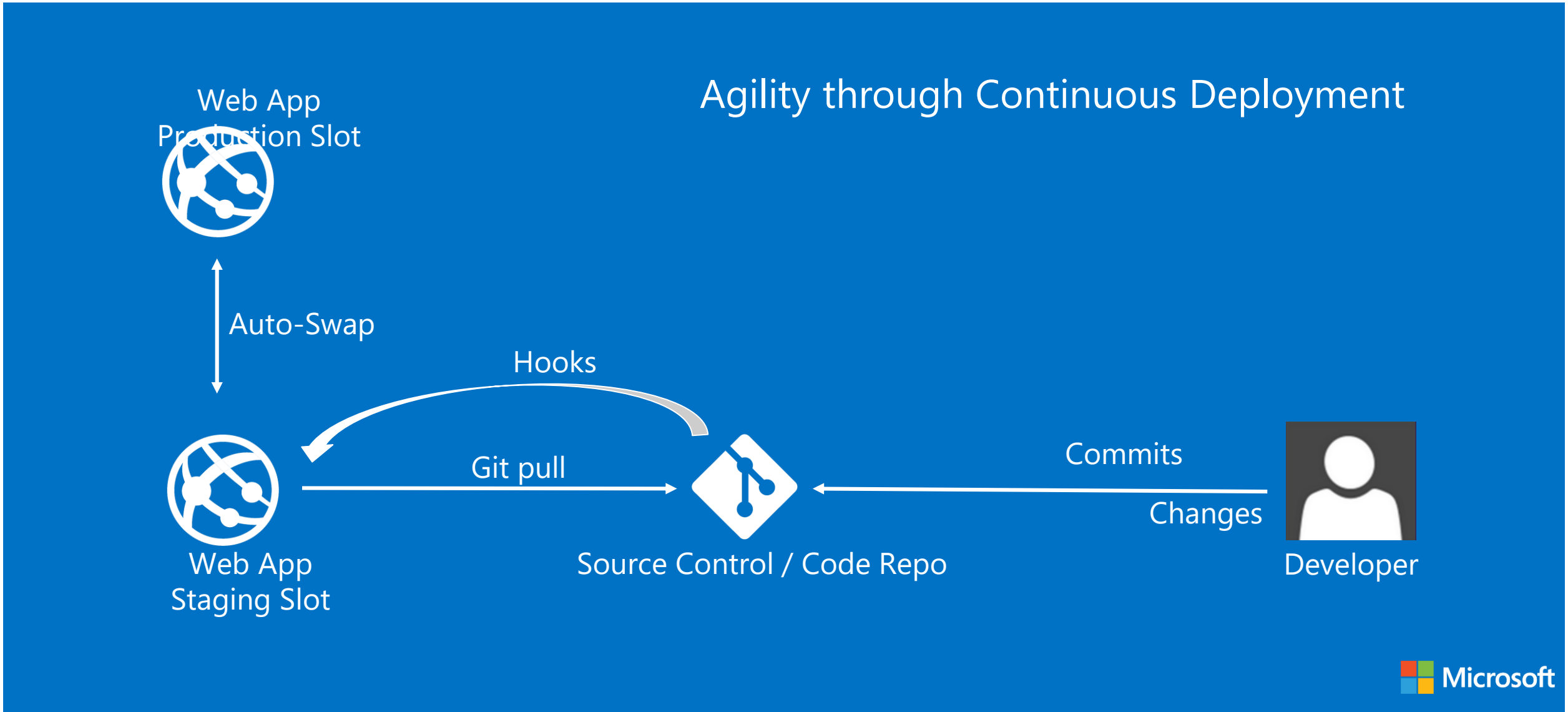
Microsoft

Continuous integration



Continuous Deployment for Web Apps

Microsoft Azure



Microsoft

Source Control for Web/API/Mobile Apps

Microsoft Azure

Git

Visual Studio Online

CodePlex

GitHub

BitBucket

DropBox

FTP

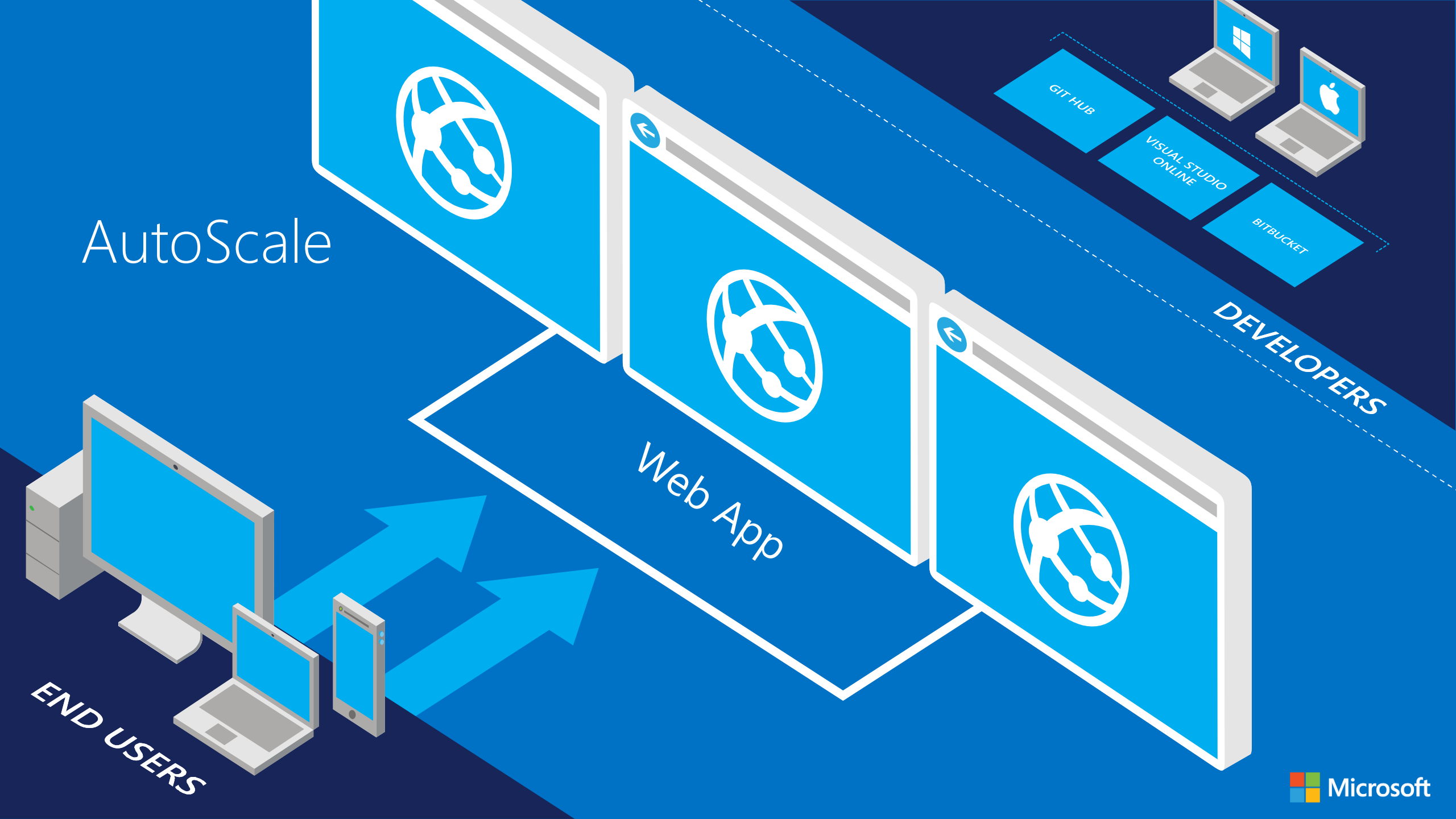
Choose your own adventure!

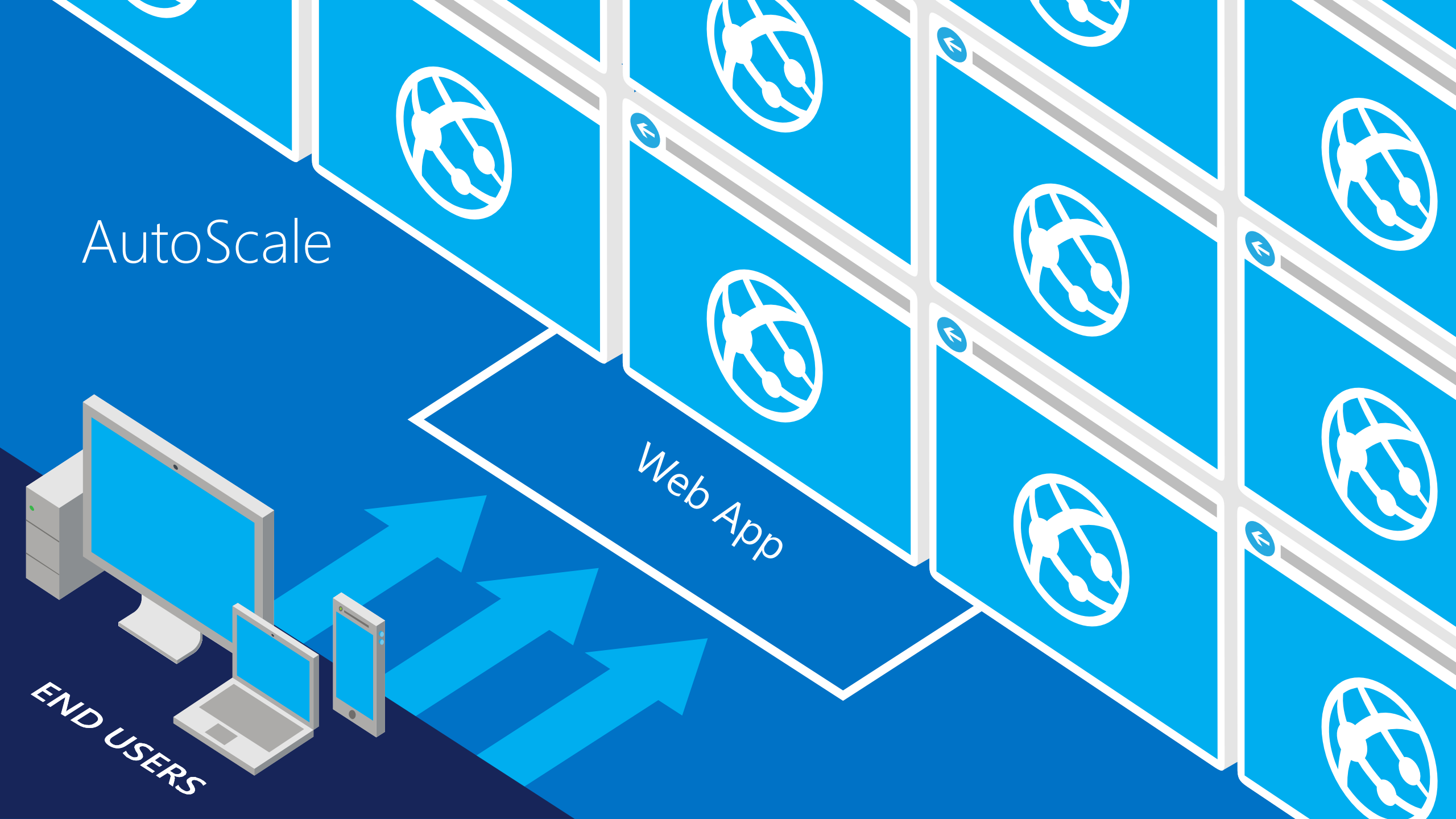
Microsoft

AutoScale

AutoScale

Microsoft


AutoScale
GIT HUB
VISUAL STUDIO ONLINE
BITBUCKET
DEVELOPERS
Web App
END USERS
Microsoft


AutoScale
Web App
END USERS

App Service Environment

App Service Environment (ASE)

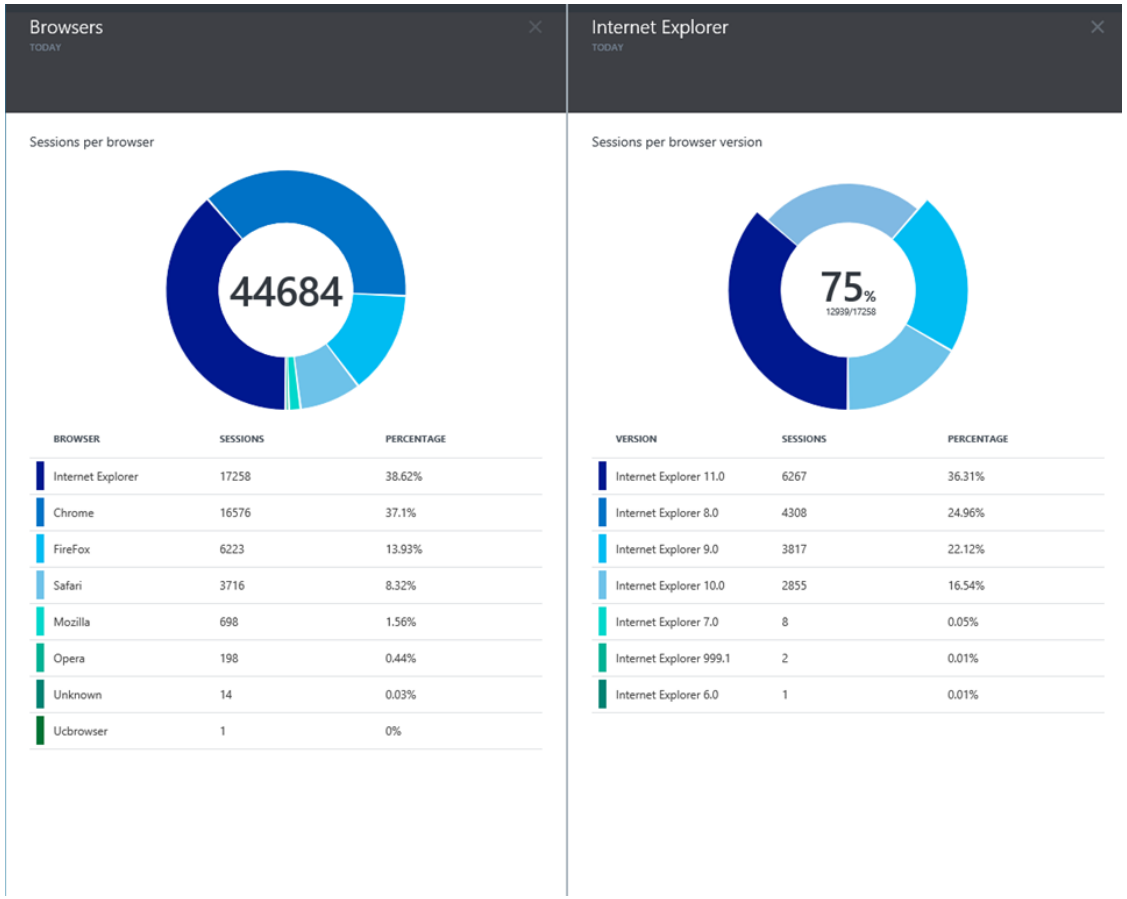
- New Premium Tier Feature
- Dedicated compute resources and network resources
- Increased Scaling Options
- Directly created in a Virtual Network
- Support all Web App features and capabilities
- Support Web, Mobile and API Apps
- Global Scale

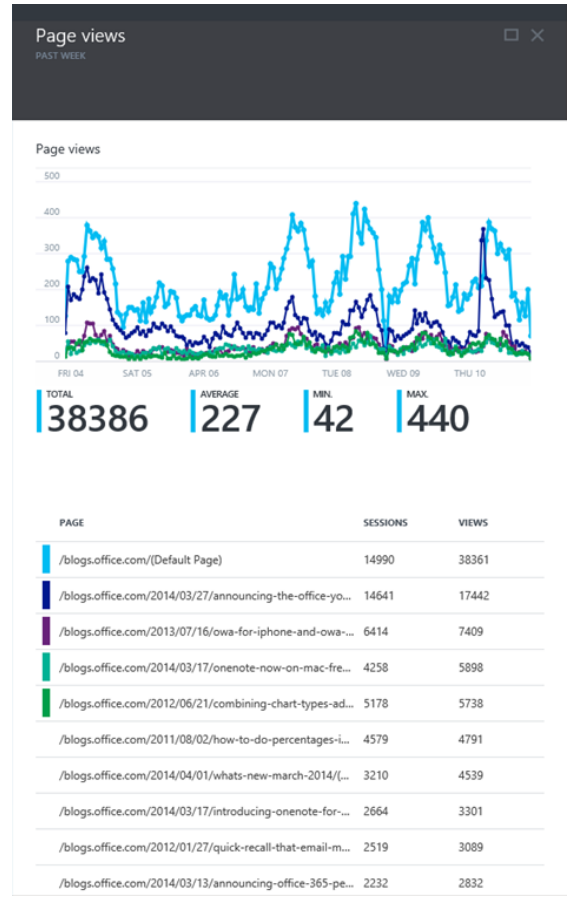
Conceptual Model

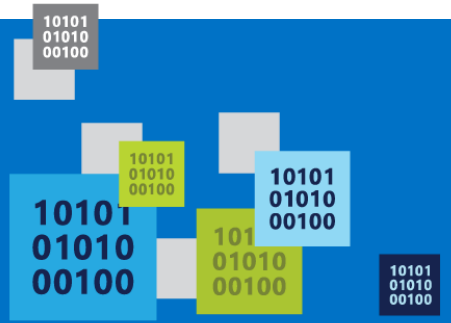
Note: For App Service Environment the SKU will always be Premium

Application Insights

Application Insights







Microsoft

Try App Service: Web Apps today

https://tryappservice.azure.com

Ask Questions:

Twitter:

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Public forum:

Get started

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Microsoft

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