

mobile Backend as a Service

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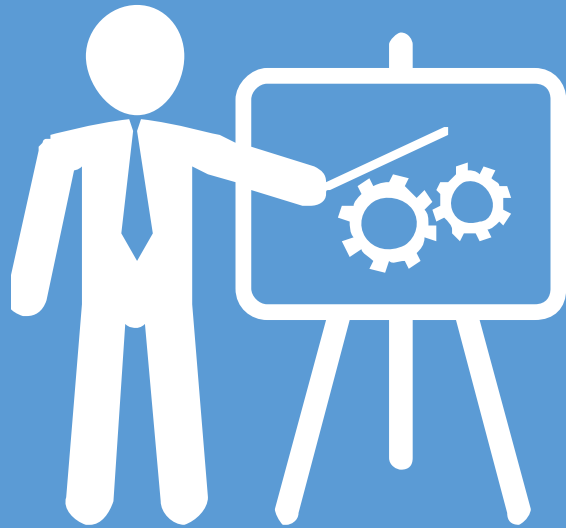
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Agenda



Introduction to mBaaS

Demo Azure Mobile Services

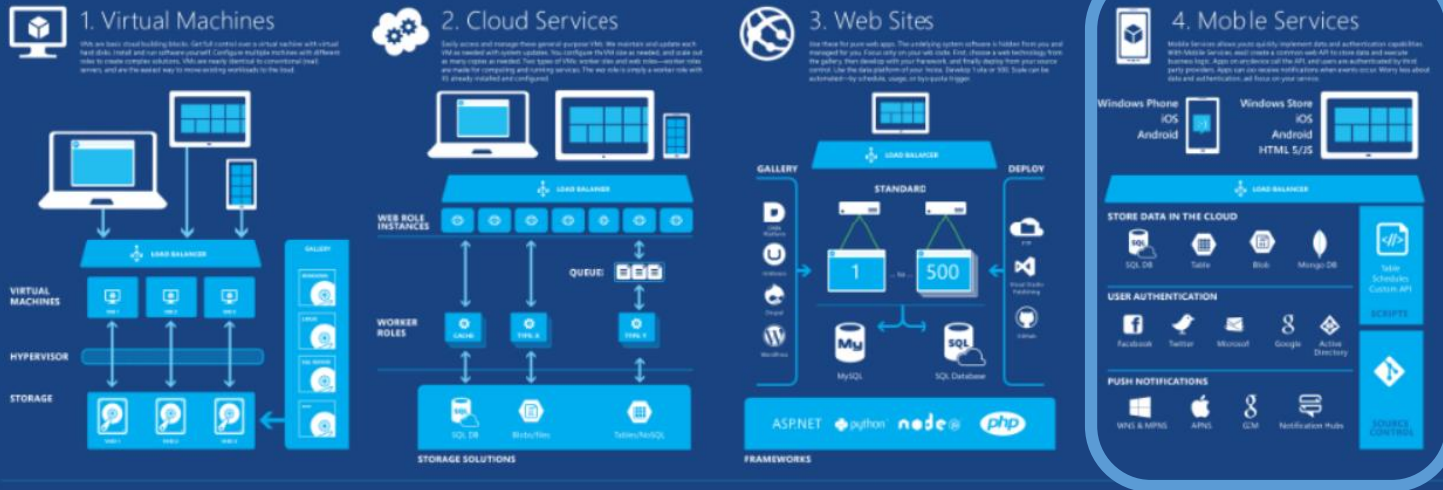
The all new Azure App Service

Demo Mobile Apps

Observations

Azure - The big picture

Four primary models for building and running apps



Microsoft Azure

Azure is an open and flexible cloud platform that enables you to quickly build, deploy, and manage applications across a global network of Microsoft-managed datacenters.

You can build applications using any language, tool, or framework. And you can integrate your public cloud applications with your existing IT environment.

Search [azure.microsoft.com](#), [MSDN](#), or [TechNet](#) for keywords found in this poster.

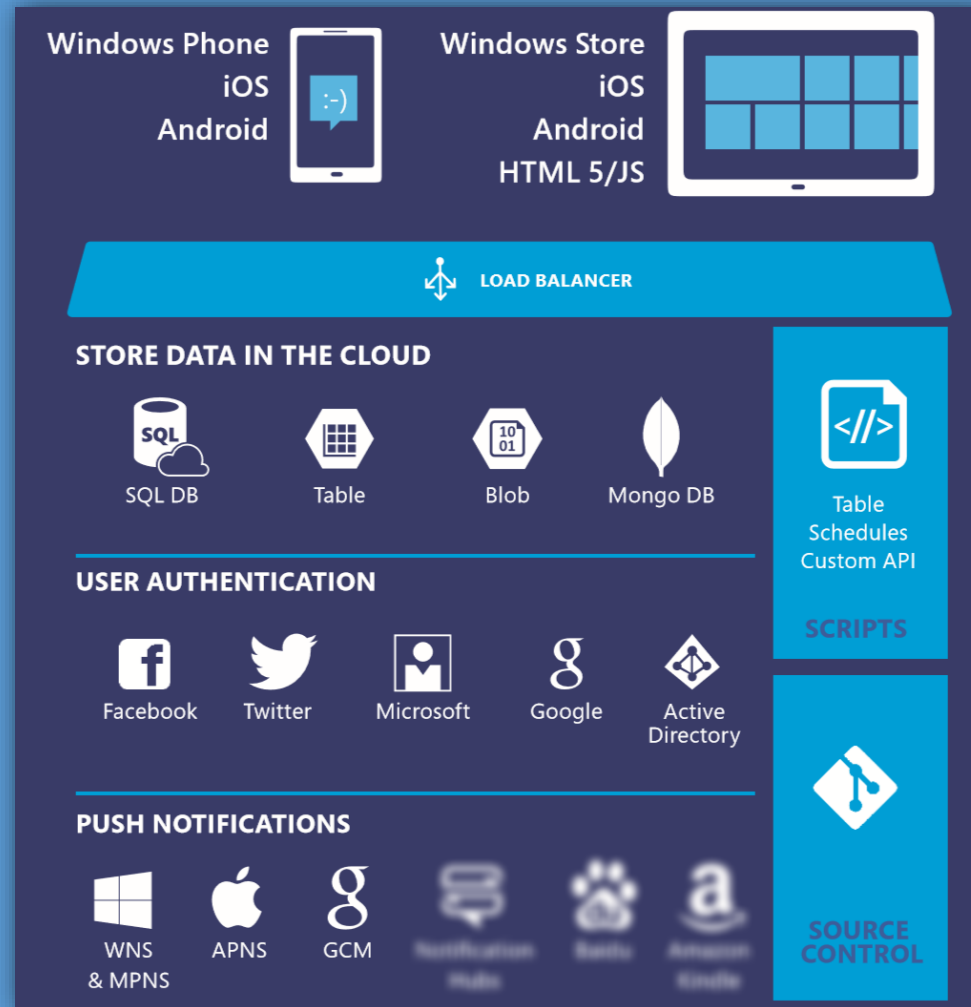
Here's just one way to get your first web app with a database running on Azure



Choose from an extensive service catalog

COMPUTE				WEB SERVICES				NETWORK SERVICES			
Virtual Machines Get full control over a machine in the cloud, and maintain it in your business network.	Web Sites Get started with web apps for free. Scale as you go. Build using a range of tools and languages.	Mobile Services Add backend capabilities to mobile apps, with native client support on most device platforms.	Cloud Services Create and easily scale Internet-facing web roles and worker roles that perform background tasks. All services are available across all regions and other services.	Storage Manage data more securely, using a range of storage options. Available via REST API only. Blob storage connects via the REST endpoint on services.	SQL Database Manage relational data with built-in high availability. Configure, restore, and recover backups easily on the Azure service.	HDInsight Process and bring data big data easily with built-in scaling, Microsoft Office and Amazon Elastic MapReduce.	SQL Data Sync Synchronize data regularly or on-demand between instances of SQL Database and instances of other SQL Server and Azure SQL Databases.	Hyper-V Recovery Manager Protect important services by controlling application and operating system recovery on Azure Hyper-V private clouds at a managed location.	Backup In-house backups of your local server data to Azure using PowerShell cmdlets.	Cache Make your applications scale and be more responsive until load by keeping data closer to application logic.	Store Easily access and manage services into data sets directly from the Management Portal.
Notification Hubs Deliver millions of cross-platform push notifications across millions from any application backend, on-premise, or in the cloud.	Service Bus Use this messaging channel for connecting your cloud applications to your on-premise applications, services and systems.	Visual Studio Online Host code, plan and track projects, and collaborate with team members to achieve better software.	Media Services Build workflows to create, manage, and distribute on demand media and live streaming content.	BizTalk Services Build ESB services and integrate application integration (EAI) solutions in the cloud.	Active Directory Use this cloud service to provide an identity and access management solution, allowing you to manage identity, governance, security, and application access management.	Scheduler Create jobs that run services on and outside of Azure, and specify when and how often those jobs run.	CDN Increase performance by caching static and dynamic content of complete instances of physical nodes globally.	Multi-Factor Authentication Implement with Azure Active Directory to safeguard access to data and operations when employing a single sign-on process.	Virtual Network Provision and manage VMs in Azure and on-premise data in your on-premise IT infrastructure.	Traffic Manager Load balance incoming global traffic across multiple services running in the same or different datacenters.	ExpressRoute Connect your on-premise infrastructure directly to Azure Datacenter's connections to get the best performance and improve reliability, speed, and security over typical Internet connections.

Azure - Mobile Services



azure.microsoft.com/en-us/documentation/infographics/azure

AMS - Platforms and Features

Platforms (client libraries)

**Windows Phone / Windows 8
(Universal, Javascript, Silverlight)**

Xamarin iOS

Xamarin Android

iOS

Android

HTML/JavaScript

PhoneGap

Sencha

Appcellerator

Features

Authentication

Custom API

Data and queries

Offline data sync

Mass push notification

SignalR

Remote debugging

Local deployment for testing

Etc.

Demo

Some Azure Mobile Services features



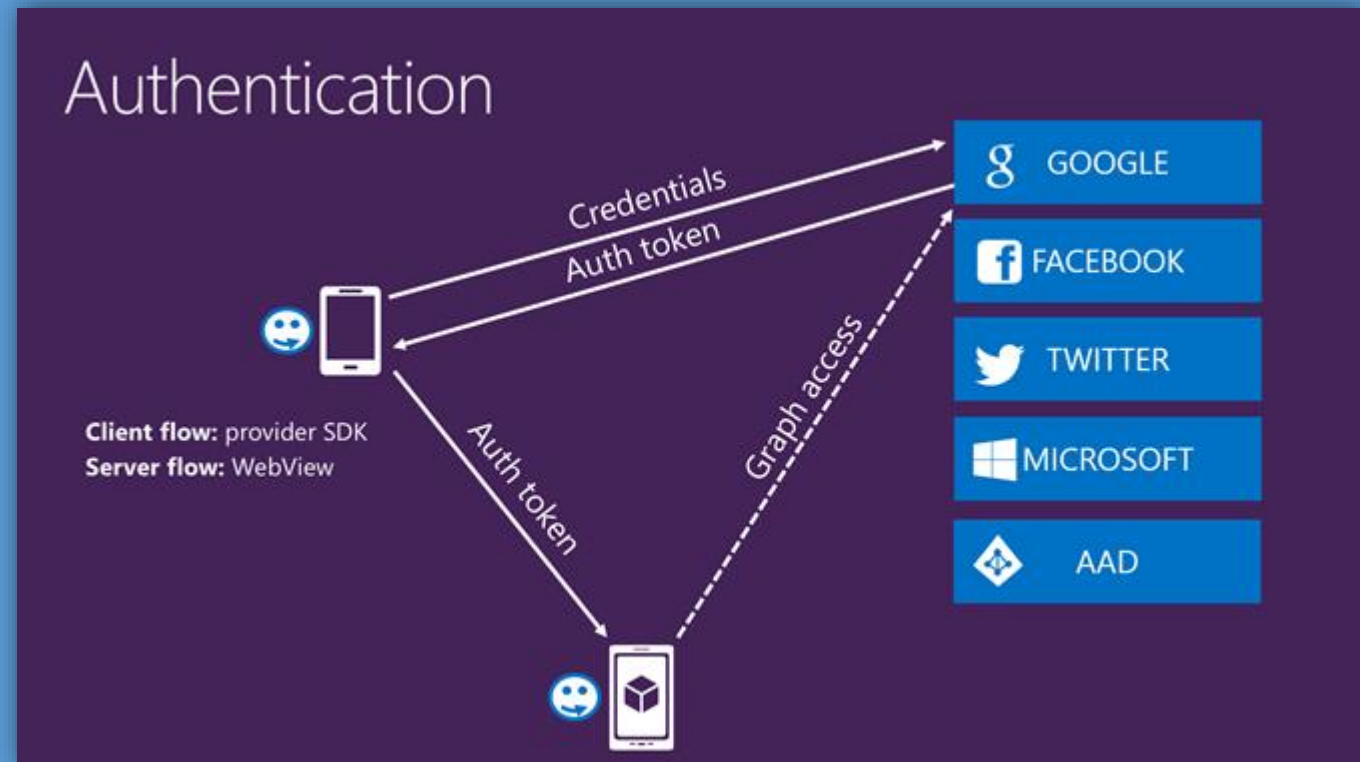
Oauth authentication

Default support for

- **Facebook**
- **Twitter**
- **Google**
- **Microsoft account**
- **Azure Active directory**

Based on Oauth

- **Good: we see no passwords**
- **Bad: we only get a lousy token**



Oauth claims

Access the specific Graph API of a provider
Perfect to get email address and full name eg.
Not easy to obtain

- **Facebook wants scope defined**
 - Add to config **MS_FacebookScope=email**
- **Microsoft want extra scope defined**
 - Add to config **MS_MicrosoftScope=wl.emails**
- **Azure Active Directory want extra security**
 - Add to config **CLIENT_ID, CLIENT_KEY and TENANT_DOMAIN**
- **Twitter wants extra security**
 - Add to config **CONSUMERKEY, CONSUMERSECRET, ACCESSTOKEN and ACCESSTOKENSECRET**
 - Use Nuget package **LinqToTwitter**

Database support

ConnectionString is managed in the portal

- **LocalHost uses LocalDB**

Related to the schema of the database

Offline sync

- **Use local storage for your tables (default is SQLite)**
- **No relations supported**
- **Extra columns needed**
- **Soft delete to track deletion**
- **AMS database != CRUD database**

Using your own database is possible

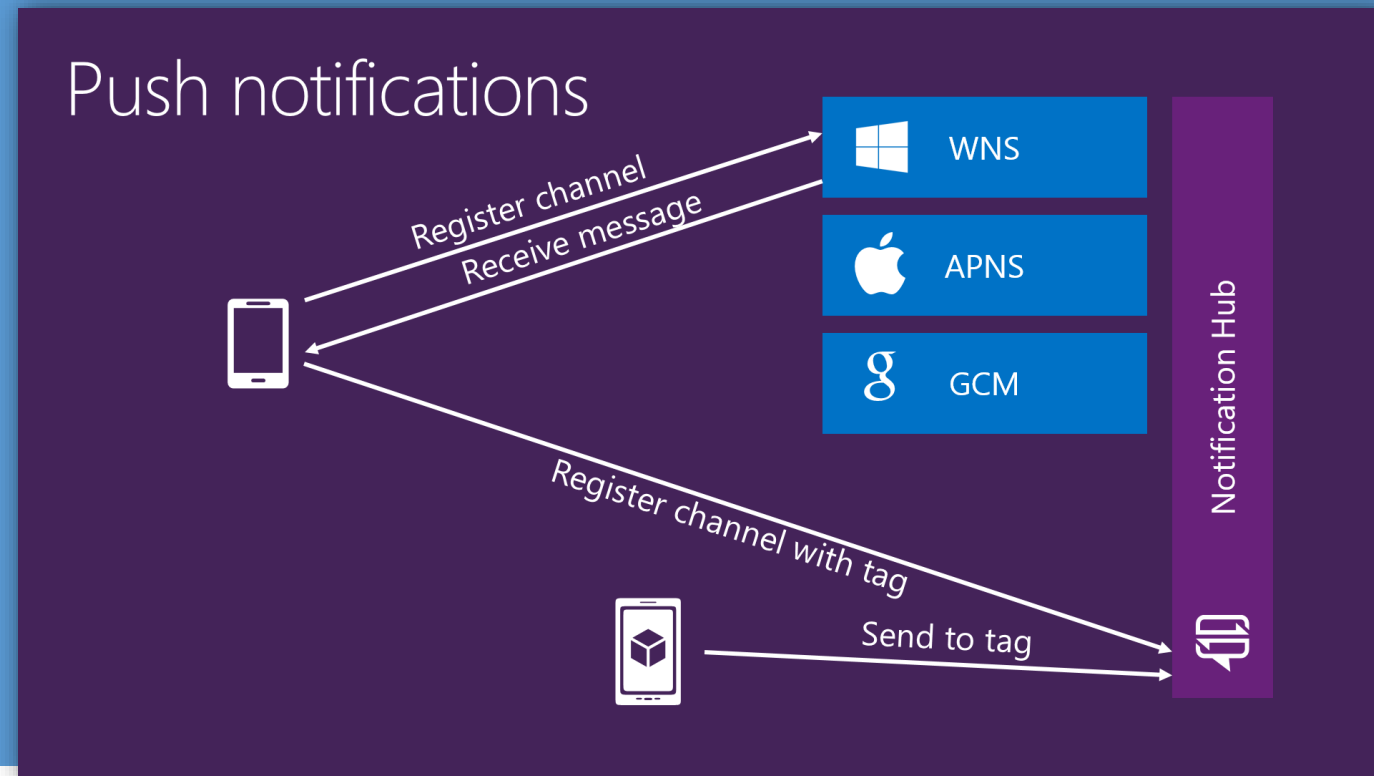
- **But TableControllers make it cumbersome**

Push notification

Multiple stores supported

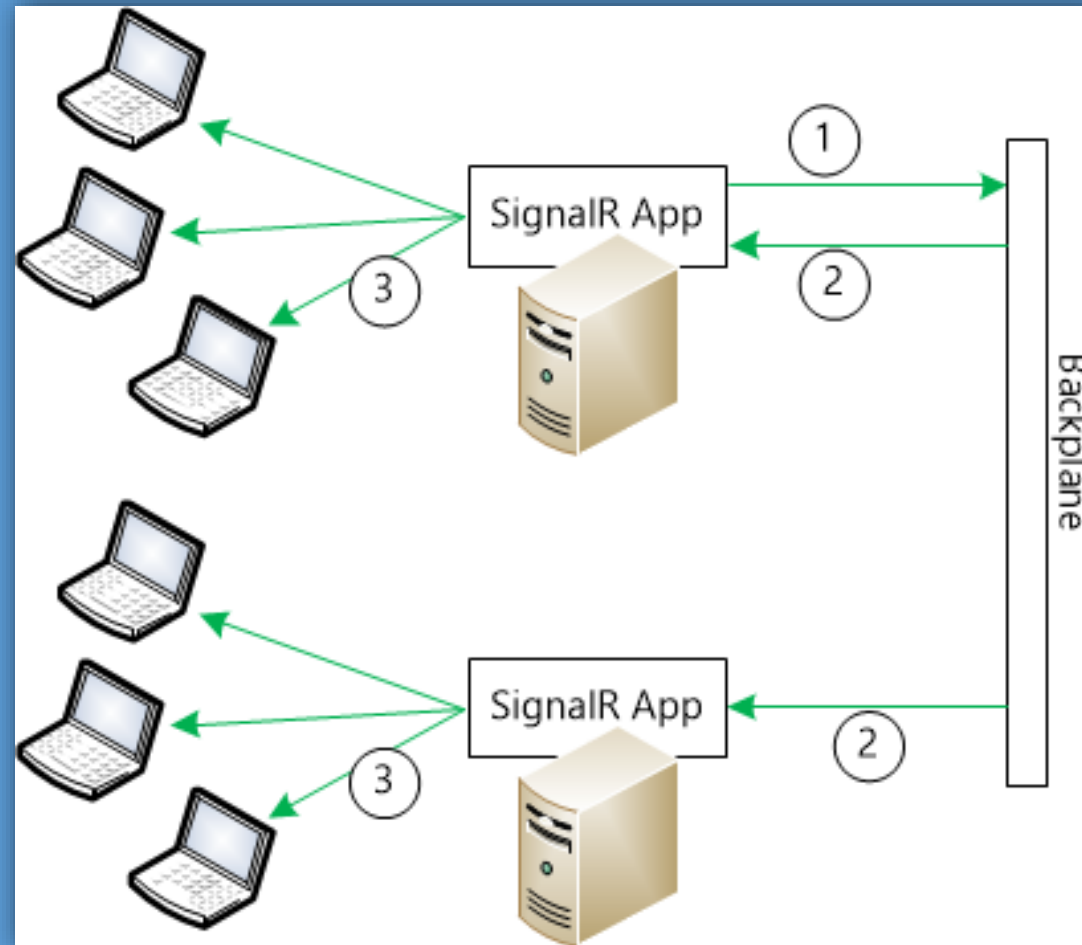
Tagging supported

- Send only to individuals or groups registered to a tag)



SignalR

Backplane for multiple servers is already configured by AMS



Pros

One stop shopping for all major mobile services

Abstraction, quick time-to-market

Easy to use, easy to configure, easy to expand

Cons

Vendor lock-in?

Redundant? Everything is also available in other ways?

Nearest hosting location is North Europe = lag

No staging

Wind of change



App Service: one integrated offering



Web Apps

Web apps that scale with your business



Mobile Apps

Build Mobile apps for any device



LOGIC Apps

Automate business process across SaaS and on-premises



API Apps

Easily build and consume APIs in the cloud

Easily use cloud or custom APIs



API APPS

**Create, consume and
host APIs more easily**

- **WebApi with Swashbuckle gives Swagger documentation**
- **Create and publish custom, reusable APIs**
- **Automatic client SDK generation for many languages**
- **Dozens of built-in APIs for popular SaaS**

New Logic Apps for easy automation



LOGIC APPS

**Automate SaaS and
on-premises systems**

- **No code designer for rapid creation**
- **In code design for maximum power**
- **Dozens of pre-built templates to get started**
- **Out of box support for popular SaaS and on-premises apps**
- **Or use your own custom API apps**
- **Biztalk APIs for expert integration scenarios**

Mobile Apps - New hosting benefits

Richer monitoring and alerting

Traffic manager

Custom CNAMEs

VNET and VPN

Backup and restore

More VM size and instance options

In production A/B testing

Auto load-balance

Share capacity across Web and Mobile

Staging slots

- **Validate changes in your staging environment before publishing to production**

More DevOps features

- **Support for BitBucket and Visual Studio Online; seamless integration with GitHub**

Web Jobs



Courtesy of Azure Web Apps!

Demo

Azure App Service Mobile Apps (burning hot)



Observations (in current preview)

No Node.js backend yet

No automatic migration

Support for Azure Mobile Services Nuget packages deprecated

Scheduled jobs deprecated; Use Webjobs or LogicApps

“Facebook:12345” is now “sid:12345”

(User.ServiceUser).GetIdentitiesAsync() deprecated

Logging is now mature

Is SignalR backplane still available?

...

Your existing investments are safe

Azure Mobile Services still supported

New features will go into Mobile Apps

After General Availability, seamless migration experience offering

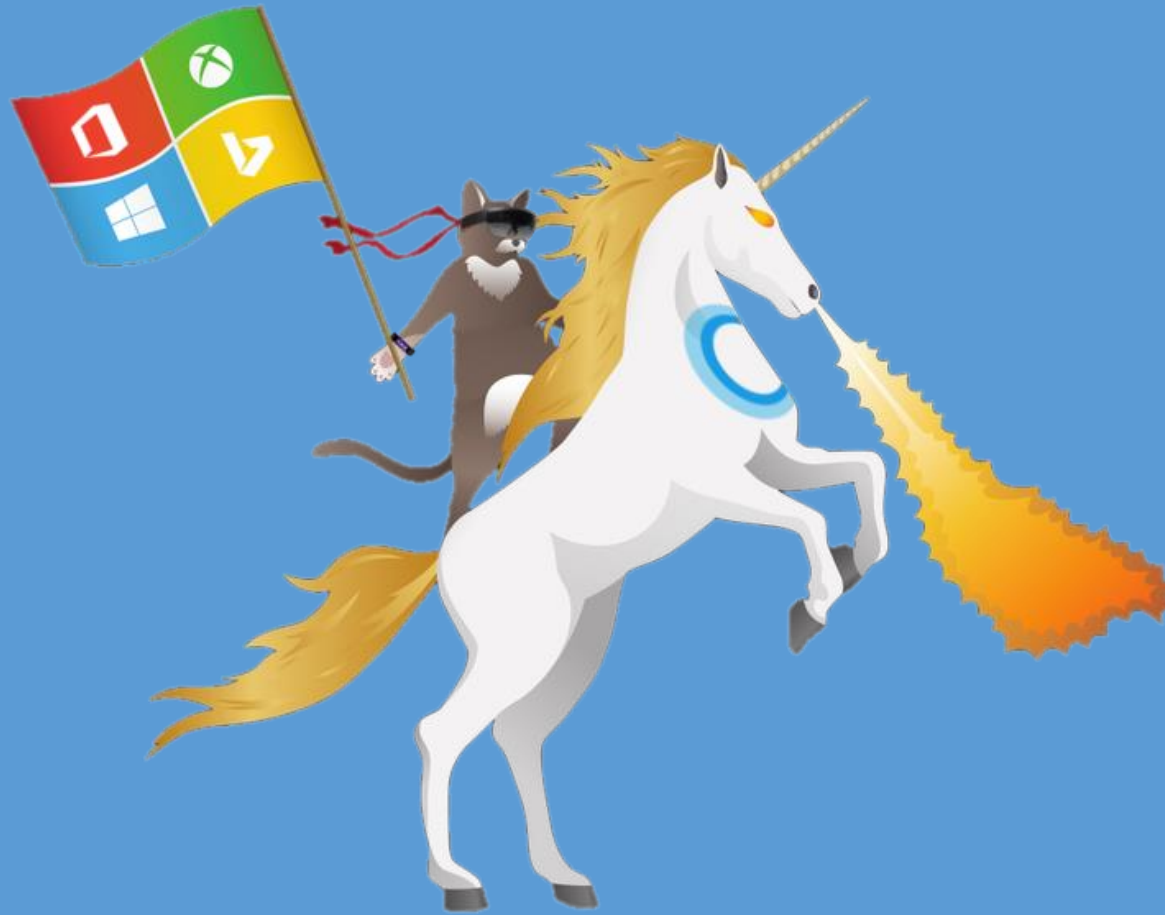
After General Availability, you choose when to migrate



Mobile Apps still in preview, your chance to influence the product

Questions?

“Putting the cloud in your apps is very easy”



Resources

<http://azure.microsoft.com/en-us/documentation/services/mobile-services/>

<http://azure.microsoft.com/blog/topics/mobile/>

<https://blog.vandeveldede-online.com/>

Build 2015

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