

# bring the cloud to your windows apps



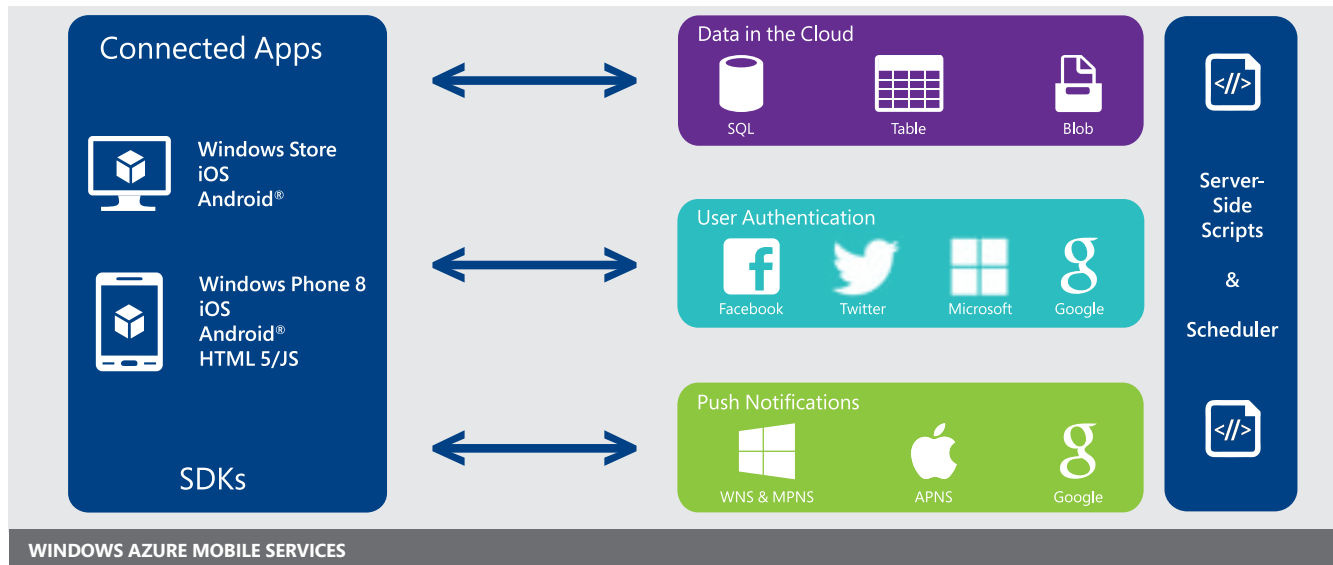
Create richer app experiences with Windows Azure. Add cloud services like data storage to create a leaderboard for a game app. Use identity services to make it easy for users to sign in with their Microsoft® (Live), Facebook, Twitter or Google accounts. Or let a game player know it's their turn next with push notifications. Windows Azure Mobile services can help you easily add cloud features to build the next killer app.

## GO WHERE THE JOBS ARE GOING

IDC, a leading technology analyst firm, predicts seven million jobs will be created in cloud computing in the next three years. Use this guide to start learning the developer skills high in demand.



# the sky's the limit



## WINDOWS DEVICES SOAR WITH AZURE MOBILE SERVICES

Windows provides a development platform for making fast, fluid apps designed for touch. Windows Azure Mobile Services takes Windows Store and Windows Phone app performance even higher. Let us show you what we mean.

### 3 THINGS YOU SHOULD CONSIDER

You can build an app that does everything locally, for example, a single-player card game where all you can do is play against the computer.

Or you can connect that app to a cloud backend using Windows Azure Mobile Services, and you can do much more:

1. **Data** (Store high scores in an SQL database with one line of code to insert, update or delete data objects from the SQL database.)
2. **Identity** (Add user profiles by using social sign-in from Microsoft (formerly Windows Live), Facebook, Twitter or Google.)
3. **Push notifications** (Notify a player that it's their turn by a notification popup or Live Tile update.)

You can spend energy on your app development and not have to reinvent the wheel. Go straight to gaining the benefits of the cloud for your app without having to spend tons of time on plumbing code in the backend.

[http://aka.ms/winaz\\_gsg1](http://aka.ms/winaz_gsg1)



## HAVE YOU BUILT AN APP BEFORE?

*If you've successfully built a Windows Phone or Windows 8 app, you can learn to add cloud-enabled performance in a few easy exercises.*

*Students who are new to app building, coding and publishing should start with one of these helpful Getting Started Guides.*

**WINDOWS PHONE GETTING STARTED GUIDE**  
([http://aka.ms/winaz\\_gsg2](http://aka.ms/winaz_gsg2))

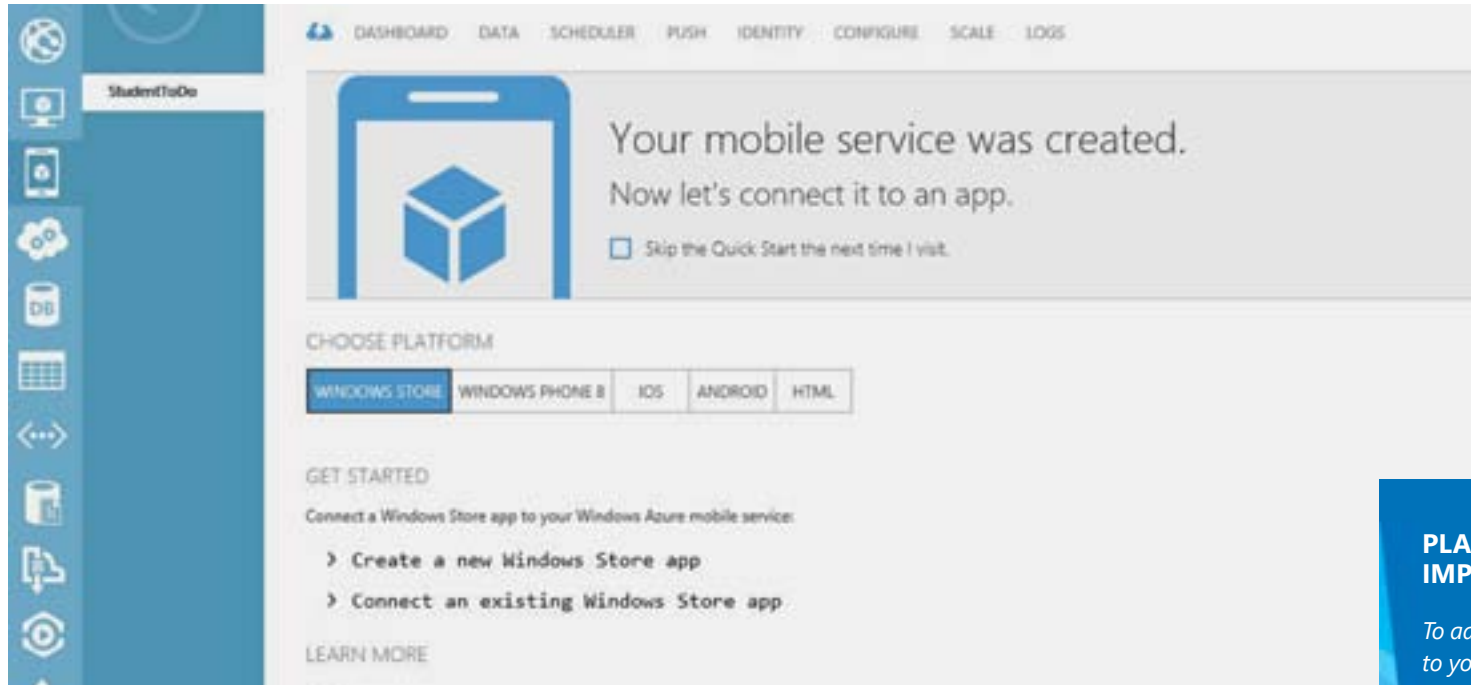


**WINDOWS 8 GETTING STARTED GUIDE**  
([http://aka.ms/winaz\\_gsg3](http://aka.ms/winaz_gsg3))



*They walk you through each stage, from downloading your tools to building and testing your first Windows app.*

# 3 simple steps to get started



**1** DOWNLOAD YOUR TOOLS

**2** PLAN AND BUILD YOUR APP

**3** TEST AND PUBLISH YOUR APP

## PLANNING AHEAD IS IMPORTANT

*To add cloud-enabled performance to your Windows app, you need to plan like a pro. This guide will walk you through the process of integrating Windows Azure Mobile Services into your design.*

# get your design and dev tools

Microsoft DreamSpark®



Get a Windows Azure Account. *Sign up online.*  
([http://aka.ms/winaz\\_gsg7](http://aka.ms/winaz_gsg7))

## FOLLOW THESE STEPS

1. Download [Visual Studio® 2012 Express for Windows 8](http://aka.ms/winaz_gsg4)  
([http://aka.ms/winaz\\_gsg4](http://aka.ms/winaz_gsg4))
2. Get a [Windows Azure account](http://aka.ms/winaz_gsg7)  
([http://aka.ms/winaz\\_gsg7](http://aka.ms/winaz_gsg7))
3. Download the [Windows Azure Mobile Services SDK](http://aka.ms/winaz_gsg6)  
([http://aka.ms/winaz\\_gsg6](http://aka.ms/winaz_gsg6))  
for Visual Studio 2012

## PROFESSIONAL DESIGN TOOLS AND DEVELOPMENT AT NO CHARGE TO STUDENTS

[Microsoft DreamSpark.com](http://aka.ms/winaz_gsg013)  
([http://aka.ms/winaz\\_gsg013](http://aka.ms/winaz_gsg013))  
offers you software and tools so you  
can build the technology skills that  
build your career.

You can find all the resources and  
instructions to make an awesome app.  
Let us guide you to the best video  
tutorials, lab exercises, app templates,  
code samples, relevant forums and  
expert help from Microsoft.

# plan and build your app

## ONE STEP AT A TIME

We have what you need to easily learn how to use Windows Azure Mobile Services. You can choose a video or step-by-step instructions online.



*Choose the type of Windows app you're making, and get started*

### WINDOWS 8 APP

[http://aka.ms/winaz\\_gsg11](http://aka.ms/winaz_gsg11)

### WINDOWS PHONE APP

[http://aka.ms/winaz\\_gsg12](http://aka.ms/winaz_gsg12)

## LEARN BY DOING

In this [exercise \(http://aka.ms/winaz\\_gsg11\)](http://aka.ms/winaz_gsg11) you will create a simple To Do List app, and then a new cloud-connected service that lets you store your Windows app data in the cloud.



## ADD PRO FEATURES



### Data

Learn how to store and retrieve data for a Windows Store app.

[http://aka.ms/winaz\\_gsg8](http://aka.ms/winaz_gsg8)

Discover how Azure handles all of the Web service APIs for you to create, read, update and delete rows from your table. You'll gain professional skills in storing your Windows app's data in SQL database tables.



### Identity

Learn how to authenticate people that use your app.

[http://aka.ms/winaz\\_gsg9](http://aka.ms/winaz_gsg9)

Discover how to identify your app users using your favorite identification providers such as Microsoft, Facebook, Twitter and Google.



### Notifications

Learn how easy it is to add push notifications to your app.

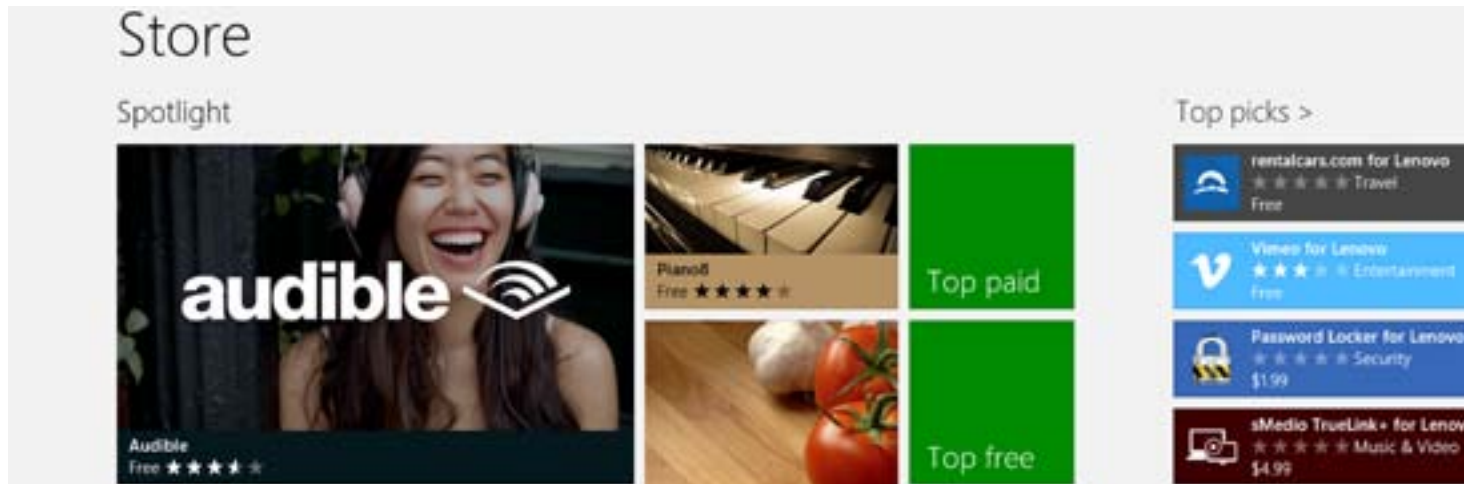
[http://aka.ms/winaz\\_gsg10](http://aka.ms/winaz_gsg10)

Make sure your app users get updates when the app is not open or in use. Notifications can overlay on a device screen to get the user's attention; a simple tap takes the user right to the relevant place in your app to take action.

For Windows Phone and Windows 8 apps, you can add "Live tile" updates, a unique and popular feature.



# 3 test and publish your app



## STUDENTS CAN PUBLISH WINDOWS APPS AT NO COST

To get your free Windows Store or Windows Phone Dev Center account, you must first verify you're a student at [DreamSpark.com \(http://aka.ms/winaz\\_gsg13\)](http://aka.ms/winaz_gsg13). It's fast and easy.

## HOW TO PUBLISH YOUR APP

Next, use your Windows Store code that you get from DreamSpark.com to publish your Windows Store app for free.

The simple instructions on [how to publish your app \(http://aka.ms/winaz\\_gsg14\)](http://aka.ms/winaz_gsg14) are explained at the Store.

## EASY SCALING OF YOUR APP

When you attach Azure Mobile Services to your app, there's a new world of possibilities.

From the start, your app will be connecting your app users to the extra features that come from being in the cloud.

As your app gets more downloads and attracts more users, you can scale up your Windows Azure Mobile Service to grow as your app grows as easily as moving a slider. More users means more data to store and more Web API requests to your Mobile Service for data. It's all easily managed from your Windows Azure Management Portal.

For this added performance, there will be a modest monthly fee. The good news is that the popularity of your app should help cover the cost for greater cloud storage.



### TIP

*When you submit your app to the Store, make sure you have good sample data in your Windows Azure Mobile Service SQL Database so the reviewer sees your app perform in the best light.*

*Do not make changes to your Windows Azure Mobile Service that would break your app and make it fail in the Windows Store testing and certification.*

# resources recap



## 1 DOWNLOAD

Visual Studio 2012 Express  
[http://aka.ms/winaz\\_gsg4](http://aka.ms/winaz_gsg4)

Windows Azure  
Management Portal  
[http://aka.ms/winaz\\_gsg5](http://aka.ms/winaz_gsg5)

Windows Azure Mobile  
Services SDK  
[http://aka.ms/winaz\\_gsg6](http://aka.ms/winaz_gsg6)

Sign Up for Azure Account  
[http://aka.ms/winaz\\_gsg7](http://aka.ms/winaz_gsg7)

## 2 PLAN AND BUILD

Data  
[http://aka.ms/winaz\\_gsg8](http://aka.ms/winaz_gsg8)

Identity  
[http://aka.ms/winaz\\_gsg9](http://aka.ms/winaz_gsg9)

Notifications  
[http://aka.ms/winaz\\_gsg10](http://aka.ms/winaz_gsg10)

Build a Windows 8 App  
[http://aka.ms/winaz\\_gsg11](http://aka.ms/winaz_gsg11)

Build a Windows Phone App  
[http://aka.ms/winaz\\_gsg12](http://aka.ms/winaz_gsg12)

## 3 TEST AND PUBLISH

DreamSpark.com  
[http://aka.ms/winaz\\_gsg013](http://aka.ms/winaz_gsg013)

Publish Your App  
Instructions  
[http://aka.ms/winaz\\_gsg14](http://aka.ms/winaz_gsg14)

Windows Azure offers a lot more services to build large, scalable systems. **Learn more**  
([http://aka.ms/winaz\\_gsg15](http://aka.ms/winaz_gsg15))



**Websites** – Create and deploy websites in seconds, as powerful as you need them to be.



**Virtual Machines** – Helps IT departments migrate their existing applications and infrastructure to the cloud.



**Mobile Services** – Turnkey backend cloud services for your mobile or client app.



**Cloud Services** – Quickly deploy and manage powerful applications and services. Focus just on the application and not the infrastructure.



**SQL Databases** – Rapidly create, scale and extend database applications into the cloud with familiar tools and the power of Microsoft SQL Server™ technology.



**Storage** – Tables offer NoSQL capabilities at a low cost, and Blobs provide inexpensive storage for data such as video, audio and images.



**Networks** – The most complete set of networking capabilities to connect your on-premises infrastructure to the public cloud.



**Service Bus** – Service Bus connects on-premises applications to the cloud.



**Media Services** – Cloud-based versions of many Microsoft media technologies for on-demand and live-streaming capabilities.