Microsoft Azure - Starter Kits for Partners

Hands on Lab

Mobile App

Last Update: September 2015





**MICROSOFT MAKES NO WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, AS TO THE INFORMATION IN THIS DOCUMENT.**

The information contained in this document represents the current view of Microsoft Corporation on the issues discussed as of the date of publication. Because Microsoft must respond to changing market conditions, it should not be interpreted to be a commitment on the part of Microsoft, and Microsoft cannot guarantee the accuracy of any information presented after the date of publication.

Complying with all applicable copyright laws is the responsibility of the user. Without limiting the rights under copyright, no part of this document may be reproduced, stored in or introduced into a retrieval system, or transmitted in any form or by any means (electronic, mechanical, photocopying, recording, or otherwise), or for any purpose, without the express written permission of Microsoft Corporation.

Microsoft may have patents, patent applications, trademarks, copyrights, or other intellectual property rights covering subject matter in this document. Except as expressly provided in any written license agreement from Microsoft, the furnishing of this document does not give you any license to these patents, trademarks, copyrights, or other intellectual property.

The descriptions of other companies’ products in this document, if any, are provided only as a convenience to you. Any such references should not be considered an endorsement or support by Microsoft. Microsoft cannot guarantee their accuracy, and the products may change over time. Also, the descriptions are intended as brief highlights to aid understanding, rather than as thorough coverage. For authoritative descriptions of these products, please consult their respective manufacturers.

© 2015 Microsoft Corporation. All rights reserved. Any use or distribution of these materials without express authorization of Microsoft Corp. is strictly prohibited.

Microsoft and Windows are either registered trademarks of Microsoft Corporation in the United States and/or other countries.

The names of actual companies and products mentioned herein may be the trademarks of their respective owners.

Contents

[Introduction 4](#_Toc429476547)

[Azure Services Overview 4](#_Toc429476548)

[Tutorials for Implementing the Mobile Application 5](#_Toc429476549)

[1. Create Cordova Sample App with Mobile Services 5](#_Toc429476550)

[2. Upload Images to Azure Storage with Cordova 5](#_Toc429476551)

[3. Integrate Azure AD with Cordova 5](#_Toc429476552)

[4. Implement Media Services 6](#_Toc429476553)

[5. Integrate Media Services with Cordova 6](#_Toc429476554)

## Introduction

This document is designed to assist the consultant responsible for delivering this solution and is a reference for the online documentation about how to leverage **Azure Mobile Services** to build the back end for a Cross Platform Mobile Application.

## Azure Services Overview

Azure Mobile Services quickly adds login, push, and data sync to your iOS, Android, or Windows app. Connect your app to enterprise systems and on-premises resources. Scale your app to millions of customers across multiple geographies:

* Secure and store data in the cloud from your mobile app on any device
* Deliver a global mobile app with high availability and low latency
* Engage your customers with push notifications
* Expand your web presence with mobile apps
* Build your mobile app to enterprise line-of-business systems

**Azure App Service** is a new and unique cloud service that enables developers to create web and mobile apps for any platform and any device. App Service is an integrated solution designed to streamline repeated coding functions, integrate with enterprise and SaaS systems, and automate business processes while meeting your needs for security, reliability, and scalability.

App Service brings together the following existing Azure services - Websites, Mobile Services, and BizTalk Services into a single combined service, while adding powerful new capabilities. App Service allows you to host the following app types:

• Web Apps

• Mobile Apps - Mobile Services continue to be available as a standalone service and remain fully supported.

• API Apps

• Logic Apps

## Tutorials for Implementing the Mobile Application & Back end

### Create Cordova Sample App with Mobile Services

Visual Studio Tools for Apache Cordova combines the goodness of your favorite IDE with the ease of creating apps for multiple mobile operating systems, all in a simple to use workflow. One of the major pain points for our enterprise developers is the effort required to build apps for multiple platforms, while keeping costs and effort down. Visual Studio Tools for Apache Cordova allows developers to use HTML5 and JavaScript, along with their favorite open source framework libraries to build web applications.

The TODO sample helps you get up and running with an app that you can F5 and start playing around with. It showcases the use of the Geolocation plugin from Cordova, that lets the app use native device capabilities. It also uses Microsoft Azure as its cloud backend, to sync and make data available on any device, at any time.

**Scenario guide**: <http://github.com/Microsoft/cordova-samples/tree/master/todo-angularjs>

### Upload Images to Azure Storage with Cordova

This scenario demonstrates how to use Azure Mobile Services to enable your Apache Cordova app to upload and store user-generated images in Azure Storage. Mobile Services uses a SQL Database to store data. However, binary large object (BLOB) data is more efficiently stored in Azure Blob storage service. This sample is an Apache Cordova Tools for Visual Studio 2015 RTM project. The REST APIs are used to access the Blob service.

**Scenario guide:** <http://github.com/Mikejo5001/mobile-services-samples/tree/master/CordovaUploadImages>

### Integrate Azure AD with Cordova

In this scenario, we will use the Apache Cordova plugin for Active Directory Authentication Library (ADAL) to improve a simple app with the following features:

• With just few lines of code, authenticate an AD user and obtain a token for calling the Azure AD Graph API.

• Use that token to invoke the Graph API to query that directory and display the results

• Leverage the ADAL token cache for minimizing the authentication prompts for the user.

**Scenario guide:** <https://azure.microsoft.com/en-us/documentation/articles/active-directory-devquickstarts-cordova/>

### Implement Media Services

Part 1 - This scenario will allow you create professional streaming capabilities in a few clicks. Keep reading to learn more about how to use Microsoft Azure Media Services and its smooth streaming feature with the first-class citizen HTML player: Dash.js..

**Scenario guide:** <https://msopentech.com/blog/2015/02/25/using-azure-media-services-streaming-video-with-dash-js-player/>

### Integrate Media Services with Cordova

Part 2 - Using Dash.js is a good alternative/solution for displaying a streaming video within a Cordova Application. It is easy to use, and does not need any plug in, just dash.js source file in your project.

Follow along with the steps outlined below to learn how you may be able to leverage this open source code to create a cross-platform media player that streams video hosted from Azure Media Services.

**Scenario guide:** <http://msopentech.com/blog/2015/03/06/using-dash-js-to-run-cordova-apps-within-azure-media-services>