# Background

IBM has reached out to us to build a demo mobile application (“app”) for the World of Watson conference. The criteria for this mobile application is that it should consume several Watson Services that are available on Bluemix and should be made public and downloadable from the public Application stores for both Apple and Android.

As we have to get the app built and into the public stores by the conference we have a very short runway to get it built and released.

The drivers for this initiative are as follows;

* We will arm IBM sellers with a selling tool that is Prolifics branded to push more traffic to our booth and hopefully will lead to opportunity Identification (“OI”) for Prolifics.
* On the same note we arm our own sellers with this selling tool
* Technically it aligns with our push to learn Bluemix, Cloud and Mobile

# Overview

The context of the application is around Finance industry, so we will need to teach the Watson API about the conversation we want to have for the demo. This will require some form of a decision tree which will have to be seeded.

Based upon the above background the following has been selected from a use case perspective, please note that these are high level and will be refined during the execution of this initiative.

| **Use Case #** | **Use Case Title** | **Actors** |
| --- | --- | --- |
| UC001 | Shake phone and provide feedback on app | End user |
| UC002 | View dashboard information around tone analysis from feedback | App Admin |
| UC003 | Interact with app via voice | End User |
| UC004 | App interacts with actor via voice | End User |
| UC005 | Have a conversation with the app via voice | End User |

The Watson catalogue can be found here; <https://www.ibm.com/watson/developercloud/services-catalog.html>

The following Watson services will probably be required:

* Speech to Text
* Text to Speech
* Conversation
* Tone Analysis

The Hybrid Mobile Application will be build using the Ionic Mobile Development Framework as it encompasses Angular JS which is a leading JavaScript framework that existing Java developers can transition into with relative ease.

Leveraging the Command Line Interface (“CLI”) on a developer’s workstation the Ionic application can build 2 deployable files of type .ipa and .apk for iOS and Android respectively for testing.

These files will be deployed manually onto the devices by plugging the test devices into the developer workstation where the CLI is running.

The Hybrid Mobile Application will connect directly to the Bluemix Watson services.

At this time there are no authentication requirements for the app.

# Architecture



# Build and Deploy

The application will be built locally on developer’s workstations using their preferred IDE or Editor such as Sublime.

The CLI for Ionic will have to be installed locally on a developer’s machine. At a high level the following steps need to occur;

* Install node and npm
* Install Cordova
* Install ionic
* Install apple and android SDKs

In order to preview the app the ionic serve command from the CLI can be used to view changes in real time.

**KEY: Look at the Ionic and Bluemix blogs they provide great examples of how to do everything described in this document.**