

# Spike Research Development

## iOS Native Application

We created a conceptual mobile application for the iPhone operating system that features push notification support.

For more information on Push Notifications see this <https://www.urbanairship.com/push-notifications-explained>.

Application currently provides a login view that requires email/password input, taking the user to the landing view. (see screenshots below).

Landing view requests permission from a user and sets up firebase connection to accept push notifications even when application is not running. This version is fully functional.

For the application to display in the Apple Application Store requires several weeks to process/request.

We were able to distribute and test this native application using Microsoft's Mobile Center allowing the testing of multiple developer builds.

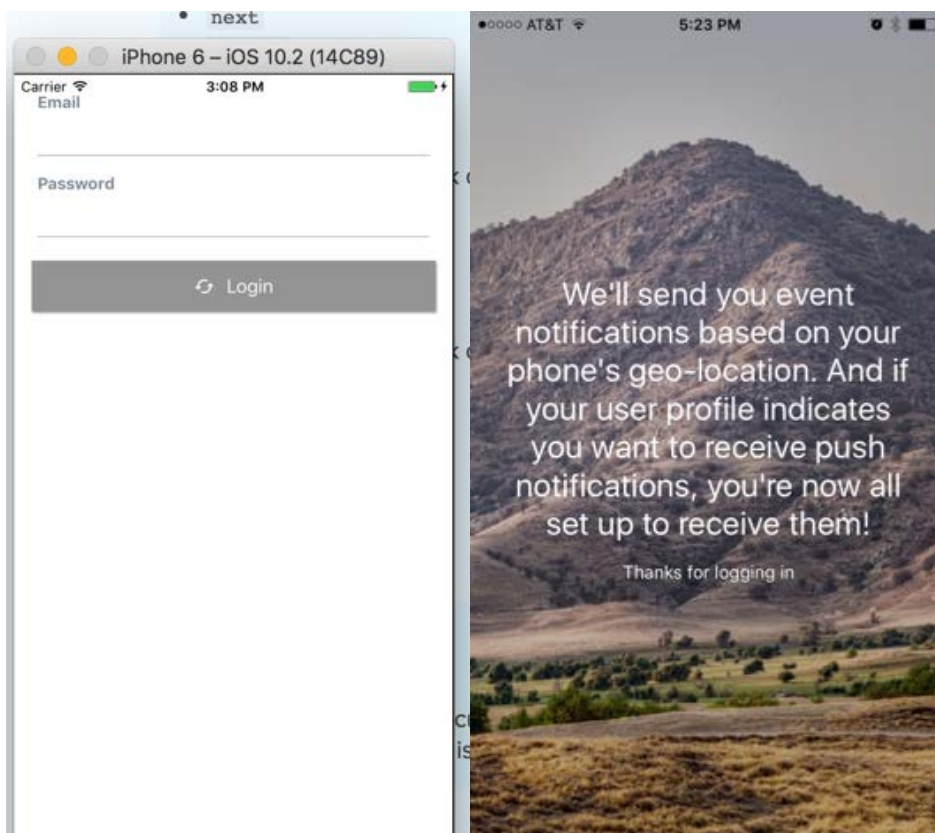
Push service is built with Firebase (google cloud).

Application is primarily tested on iOS however Android version will work without push support.

Technology: React Native, iOS, android , firebase, nodejs

Code resides in a separate GitHub branch: **nativeapp-poc**

Screenshots of Login and Landing views



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## PUSH notification to desktop browser and Mobile client

Push notifications for browsers Chrome, Firefox and Opera for desktop and mobile devices are becoming more popular and have been supported since 2016 versions.

A user would be asked for permission to receive push notification.

The Web Push behaves very similarly to Native Push on mobile devices.

Notification appearance is very similar on desktop and the same on mobile devices (including tablets).

Firebase powers this service. More information is available at <https://en.wikipedia.org/wiki/Firebase>

Spike development succeeded in getting a sample push data service running from a server backend to the client browser.

Code resides in separate GitHub branches representing separate stories:

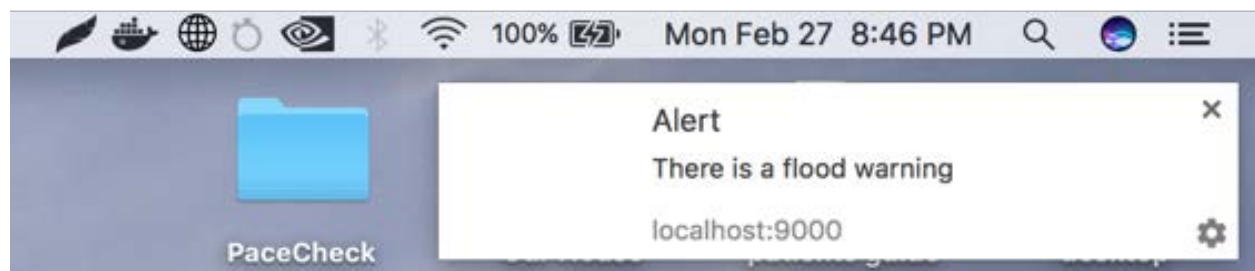
Front end: setup, configuration and acquiring permission and unique token  
**pqvp-154\_push\_web**

Backend that sends notification from server:

**PQVP-225\_Send\_push\_fcm\_notification**

API endpoint to store firebase token for a particular resident  
**PQVP-220\_api\_support\_to\_store\_and\_update\_firebase\_token**

Screenshot of a desktop browser requesting permission from a user:





Screenshot of an example push notification received by the Mac Desktop browser