# iOS end-to-end demonstration

fork and edit tutorial (https://github.com/MobileFirst-Platform-Developer-Center/DevCenter/#fork-destination-box) | report issue (https://github.com/MobileFirst-Platform-Developer-Center/DevCenter/issues/new)

#### Overview

The purpose of this demonstration is to experience an end-to-end flow where an application and an adapter are registered using the MobileFirst Operations Console, an "skeleton" Xcode project is downloaded and edited to call the adapter, and the result is printed to the log - verifying a successful connection with the MobileFirst Server.

#### Prerequisites:

- Xcode
- MobileFirst Developer CLI (download (file:////home/travis/build/MFPSamples/DevCenter/\_site/downloads))
- Optional Stand-alone MobileFirst Server (download (file:////home/travis/build/MFPSamples/DevCenter/\_site/downloads))

#### 1. Starting the MobileFirst Server

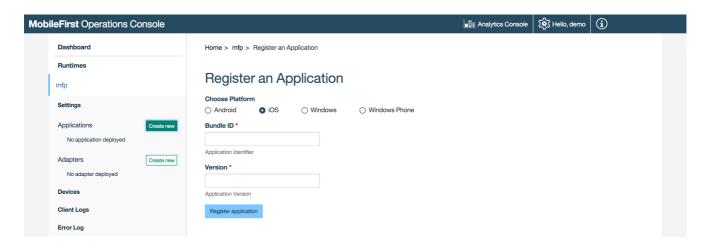
If a remote server was already set-up, skip this step.

From a Command-line window, navigate to the server's scripts folder and run the command: ./start.sh.

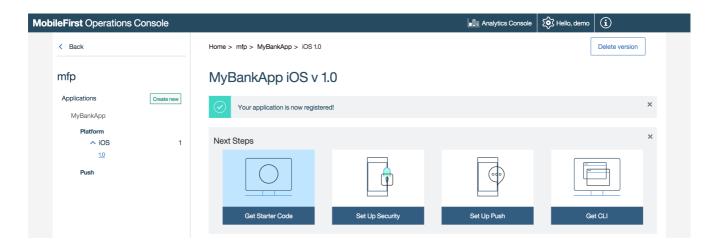
#### 2. Creating an application

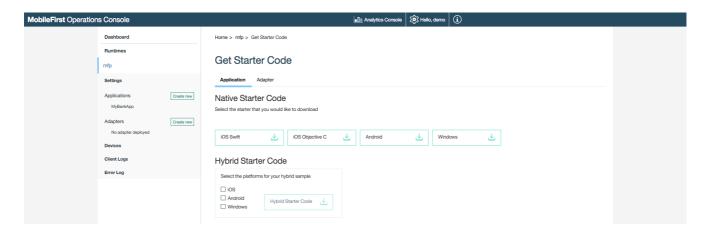
In a browser window, open the MobileFirst Operations Console by loading the URL: http://your-server-host:server-port/mfpconsole. If running locally, use: http://localhost:9080/mfpconsole (http://localhost:9080/mfpconsole). The username/password are admin/admin.

1. Click on the "Create new" button next to Applications and select the desired platform, identifier and version values.



2. Click on the Get Starter Code tile and select to download the iOS Starter Code.





## 3. Editing application logic

- 1. Open the Xcode project project by double-clickign the .xcworkspace file.
- 2. Select the [project-root]/ViewController.m/swift file and:
- Add the following header:

In Objective-C:

```
#import <IBMMobileFirstPlatformFoundation/IBMMobileFirstPlatformFoundation.h>
```

In Swift:

```
import\ IBMMobile First Platform Foundation
```

• Paste the following code snippet, replacing the existing viewDidLoad() function:

In Objective-C:

```
- (void)viewDidLoad {
    [super viewDidLoad];

NSURL* url = [NSURL URLWithString:@"/adapters/javaAdapter/users/world"];

WLResourceRequest* request = [WLResourceRequest requestWithURL:url method:WLHttpMethodGet];

[request sendWithCompletionHandler:^(WLResponse *response, NSError *error) {
    if (error != nil) {
        NSLog(@"Failure: %@",error.description);
    }

    else if (response != nill) {
        // Will print "Hello world" in the Xcode Console.
        NSLog(@"Success: %@",response.responseText);
    }
}];
}
```

In Swift:

```
override func viewDidLoad() {
    super.viewDidLoad()

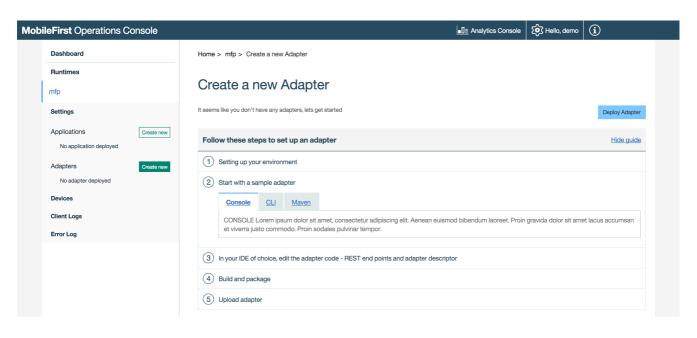
let url = NSURL(string: "/adapters/javaAdapter/users/world")
let request = WLResourceRequest(URL: url, method: WLHttpMethodGet)

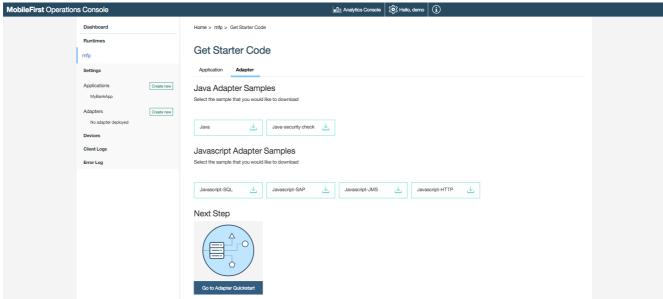
request.sendWithCompletionHandler { (WLResponse response, NSError error) -> Void in
    if (error != nil){
        NSLog("Failure: " + error.description)
    }
    else if (response != nil){
        NSLog("Success: " + response.responseText)
    }
}
```

### 4. Creating an adapter

1. Click on the "Create new" button next to Adapters and download the Java adapter sample.

If Maven and MobileFirst CLI are not installed, follow the on-screen Setting up your environment instructions to install.





2. From a Command-line window, navigate to the adapter's Maven project root folder and run the command:

mfpdev adapter build

3. When the build finishes, run the command:

mfpdev adapter deploy

If using a remote MobileFirst Server, run the command:

mfpdev adapter deploy Replace-with-remote-server-name

#### 5. Testing the application

- 1. In Xcode, select the mfpclient.plist file and edit the host property with the IP address of the MobileFirst Server.
- 2. Press the Play button.

The adapter response is then printed in the Xcode Console.

```
Date = "Tue, 19 Jan 2016 06:14:40 GMT";
"Transfer-Encoding" identity;
"X-Powered-By" = "Servlet/3.1";

}
Response Data:

("access_token:":ey)Thbc:ioijSUzIINiIsImp3ay16ey]LIjoiQVFBQiIsIm4i0iJBTTBEZDd4QWR2NkgteWdMN314cUMMZEUtM0kyaz90NXpnMnREZF9xczhmdm5ZZmRpcVRTVjRfMnQ2T0ddHOENMNUNLNDF0TXBJd2IMNDewDLJMm52aHhvwMLGY01TYU9\SXFvZ51ySkEwdVpJdz
JySGhVjlXXKHLSZVBUIZj0097c1FGULMRSz8tZnol1xxhu\MV2MFVZdiHrdvB93QkjsMWvocUl3VkR372LIZzXHTUdsMEVVriBabarchwkktsFyU0bbajsOsiLvKMewLJAbaltTHztM0loT0Vb63MVTkExMZtQ0twaDJXccIInTJTMjFukGhnXdgRNw95DURNUFQUJITVJNVAITACJZJTTVJHSVAJTVJNVAITACJZJTTVJHSVAJTVJNVAITACJZJTTVJHSVAJTVJNVAITACJZJTTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHSVAJTVJHS
```

Note: Xcode 7 enables Application Transport Security (ATS)

(https://developer.apple.com/library/ios/releasenotes/General/WhatsNewIniOS/Articles/iOS9.html#//apple\_ref/doc/uid/TP40016198-SW14) by default.

To complete the tutorial, disable ATS (http://iosdevtips.co/post/121756573323/ios-9-xcode-7-http-connect-server-error).

- 1. In Xcode, right-click the [project]/info.plist file → Open As → Source Code
- 2. Paste the following:

```
<key>NSAppTransportSecurity</key>
<dict>
    <key>NSAllowsArbitraryLoads</key>
    <true/>
</dict>
```

3. Press the Play button.

# **Next steps**

Learn more on using adapters in applications, and how to integrate additional services such as Push Notifications, using the MobileFirst security framework and more:

- Review the Server-side development tutorials (../../adapters/)
- Review the Authentication and security tutorials (../../authentication-and-security/)
- Review the Notifications tutorials (../../notifications/)
- Review All Tutorials (../../all-tutorials)