

# Cordova end-to-end demonstration

## Overview

The purpose of this demonstration is to experience an end-to-end flow:

1. A scaffold application - an application that is pre-bundled with the MobileFirst client SDK, is registered and downloaded from the MobileFirst Operations Console.
2. An new or provided adapter is deployed to the MobileFirst Operations Console.
3. The application logic is changed to make a resource request.

### End result:

- Successfully pinging the MobileFirst Server.
- Successfully retrieving data using a MobileFirst Adapter.

### Prerequisites:

- Xcode for iOS, Android Studio for Android or Visual Studio 2013/2015 for Windows 8.1 Universal / Windows 10 UWP
- Cordova 6.x CLI
- *Optional.* MobileFirst Developer CLI (download (file:///home/travis/build/MFPSPamples/DevCenter/\_site/downloads))
- *Optional.* Stand-alone MobileFirst Server (download (file:///home/travis/build/MFPSPamples/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 folder and run the command: `./run.sh` in Mac and Linux or `run.cmd` in Windows.

## 2. Creating and registering 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 the **New** button next to **Applications**
  - Select a platform: **Android, iOS, Windows**
  - Enter **com.ibm.mfpstartercordova** as the **application identifier**
  - Enter **1.0.0** as the **version** value
  - Click on **Register application**

**MobileFirst Operations Console**

Home > mfp > Register Application

### Register Application

**Application Name**  
 ✓  
 Optional display name of the Application

**Choose Platform \***  
☐ Android ☒ iOS ☐ Windows

**Bundle ID \***  
 ✓  
 Application Identifier; case sensitive

**Version \***  
 ✓  
 Application Version

[Register Application](#)

- Click on the **Get Starter Code** tile and select to download the Cordova application scaffold.

**MobileFirst Operations Console**

Home > mfp > MFPStarterCordova > iOS 1.0

### MFPStarterCordova

✓ Your application is now registered!

**Next Steps**

[Get Starter Code](#) [Set Up Authenticity](#) [Set Up Push](#) [Get CLI](#)

**Management** | Authenticity | Security | Log Filters | Configuration Files

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**Application Access**

Status: \*

☒ Active ☐ Active and Notifying ☐ Access Disabled

**Direct Update**

Deliver an update to a Cordova cross-platform application by uploading a new web resources (HTML, JavaScript, and CSS) archive.

### 3. Editing application logic

- Open the Cordova project in your code editor of choice.
- Select the **www/js/index.js** file and paste the following code snippet, replacing the existing `WLAAuthorizationManager.obtainAccessToken()` function:

```

WLAuthorizationManager.obtainAccessToken()
.then (
  function(accessToken) {
    var statusText = document.getElementById("statusText");
    statusText.innerHTML = "Obtained Access Token Successfully";

    var resourceRequest = new WLResourceRequest(
      "/adapters/javaAdapter/users/world",
      WLResourceRequest.GET
    );

    resourceRequest.send().then(
      function(response) {
        // Will display "Hello world" in an alert dialog.
        alert("Success: " + response.responseText);
      },
      function(response) {
        alert ("Failure: " + response.errorMsg);
      }
    );
  },

  function(error) {
    var statusText = document.getElementById("statusText");
    statusText.innerHTML = "Failed to obtain access token: " + JSON.stringify(error);
  }
);

```

## 4. Creating an adapter

Download this prepared .adapter artifact (../javaAdapter.adapter) and deploy it from the MobileFirst Operations Console using the **Actions → Deploy adapter** action.

Alternatively, click the **New** button next to **Adapters**.

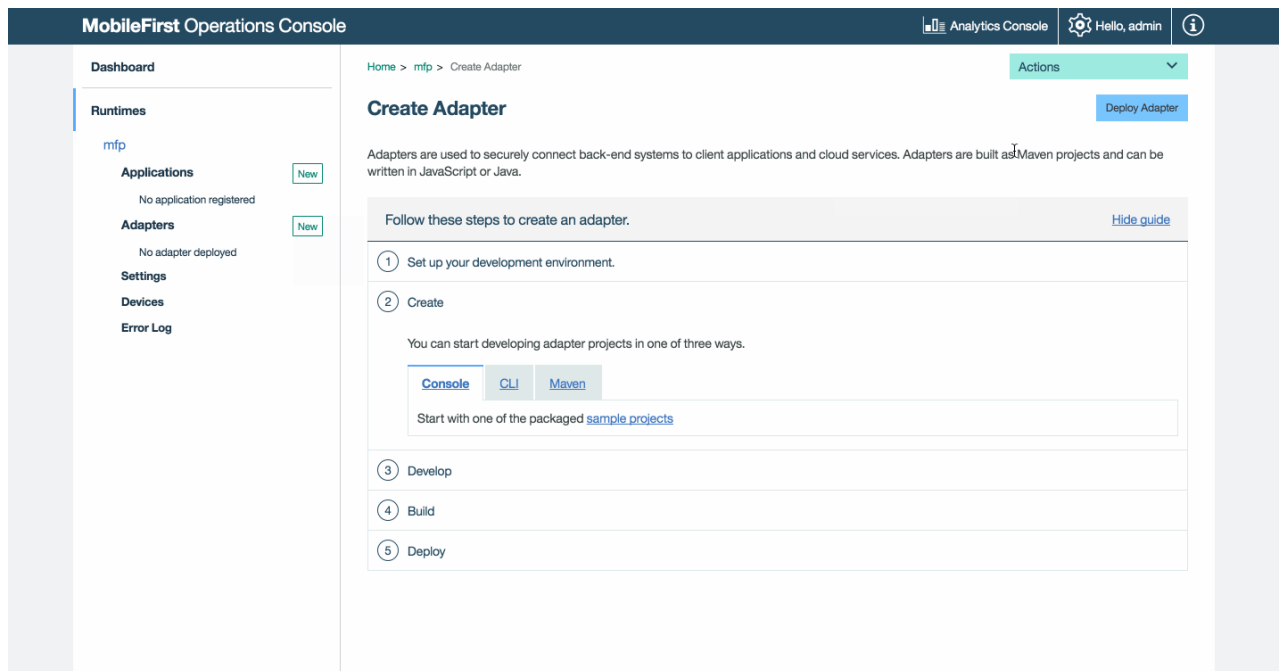
1. Select the **Actions → Download sample** option. Download the "Hello World" **Java** adapter sample.

If Maven and MobileFirst Developer CLI are not installed, follow the on-screen **Set up your development environment** instructions.

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

```
mfpdev adapter build
```

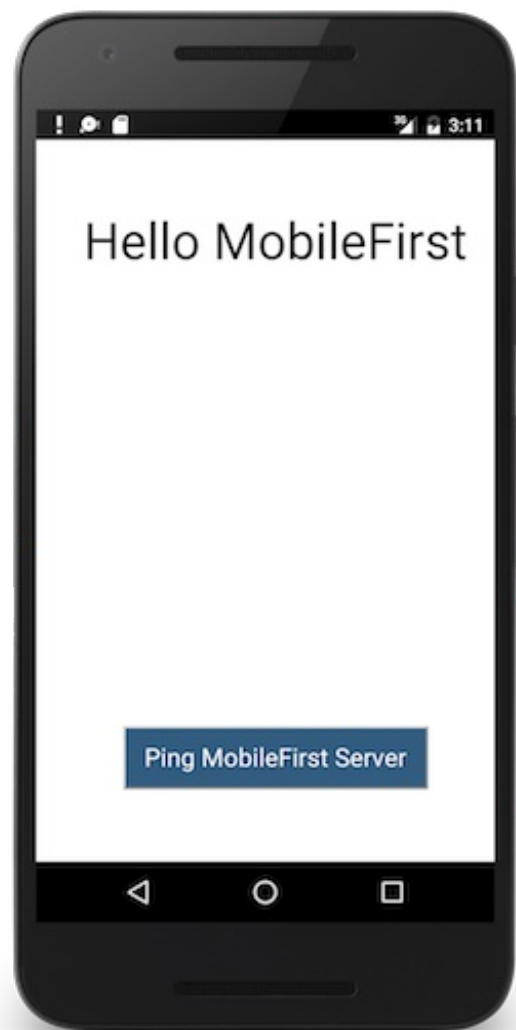
3. When the build finishes, deploy it from the MobileFirst Operations Console using the **Actions → Deploy adapter** action. The adapter can be found in the **[adapter]/target** folder.



## 5. Testing the application

1. From a **Command-line** window, navigate to the Cordova project's root folder.
2. Run the command: `cordova platform add ios/android/windows` to add a platform.
3. In the Cordova project, select the **config.xml** file and edit the `<mf:server ... url=" "/>` value with the IP address of the MobileFirst Server. Alternatively, if you have installed the MobileFirst Developer CLI then navigate to the project root folder and run the command `mfpdev app register`. If a remote server is used instead of a local server, first use the command `mfpdev server add` to add it.
4. Run the command: `cordova run`.

If a device is connected, the application will be installed and launched in the device, Otherwise the Simulator or Emulator will be used.



## Results

- Clicking the **Ping MobileFirst Server** button will display **Connected to MobileFirst Server**.
- If the application was able to connect to the MobileFirst Server, a resource request call using the deployed Java adapter will take place.

The adapter response is then displayed in an alert.

## 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 Using the MobileFirst Platform Foundation ([../using-the-mfpf-sdk/](#)) tutorials
- Review the Adapters development ([../adapters/](#)) tutorials
- Review the Authentication and security tutorials ([../authentication-and-security/](#))
- Review the Notifications tutorials ([../notifications/](#))
- Review All Tutorials ([../all-tutorials](#))