Cordova end-to-end demonstration

Overview

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

1. A sample application that is pre-bundled with the MobileFirst client SDK is registered and downloaded from the MobileFirst Operations Console.
2. A 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 CLI 6.x.
- *Optional*. MobileFirst CLI (download (file:////home/travis/build/MFPSamples/DevCenter/_site/downloads))
- *Optional*. Stand-alone MobileFirst Server (download (file:////home/travis/build/MFPSamples/DevCenter/_site/downloads))

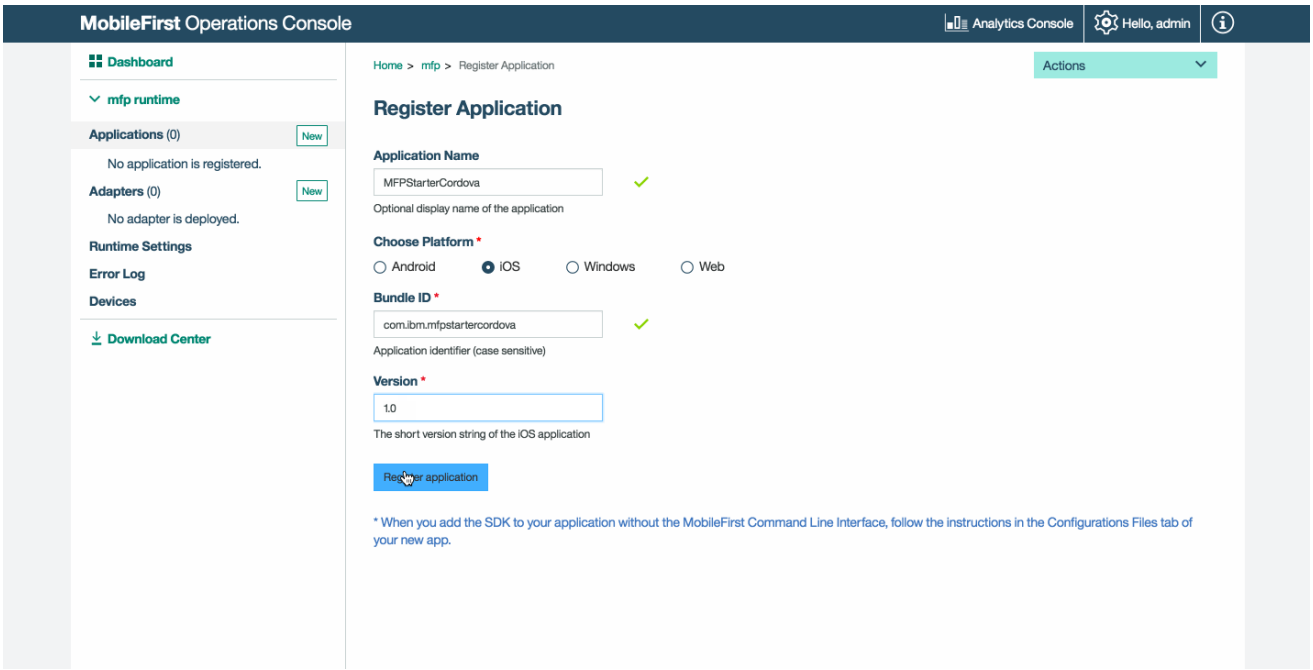
1. Starting the MobileFirst Server

Make sure you have created a Mobile Foundation instance (../../bluemix/using-mobile-foundation), or
If using the MobileFirst Foundation Development Kit (../../installation-configuration/development/mobilefirst), navigate to the server's folder and run the command: `./run.sh` in Mac and Linux or `run.cmd` in Windows.

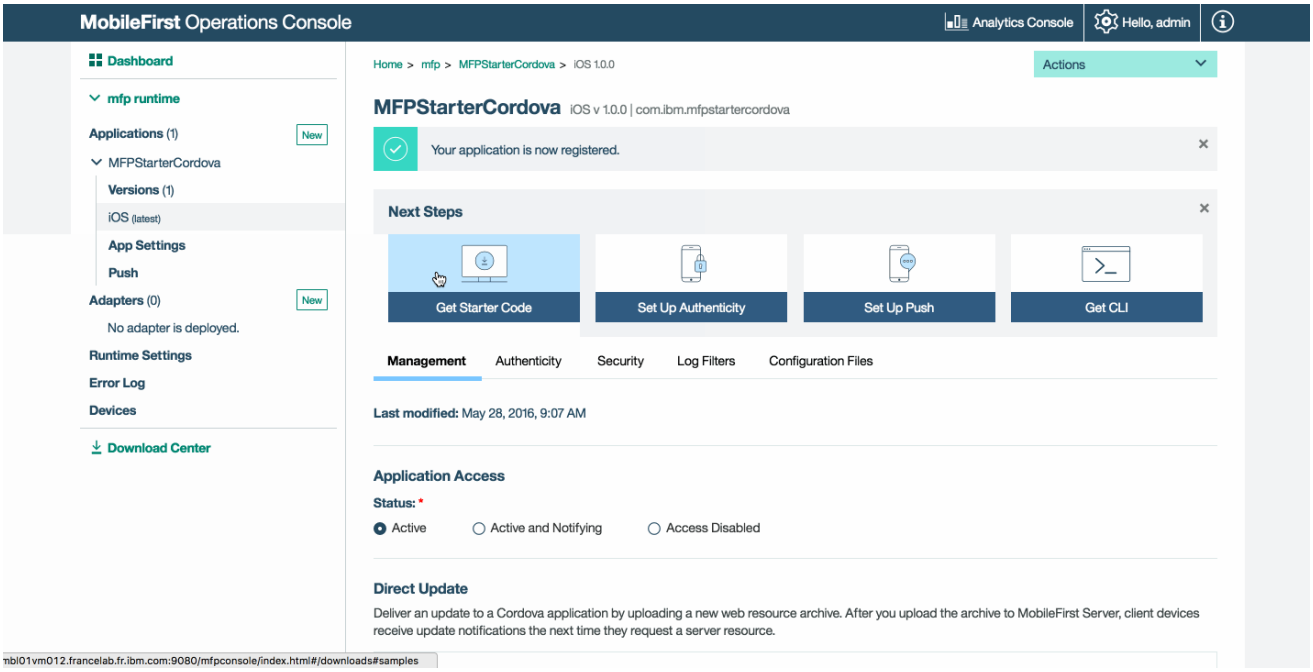
2. Creating and registering an application

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**
    - Click on **Register application**



2. Click on the **Get Starter Code** tile and select to download the Cordova sample application.



3. Editing application logic

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

```
WLAuthorizationManager.obtainAccessToken()
    .then(
        function(accessToken) {
            titleText.innerHTML = "Yay!";
            statusText.innerHTML = "Connected to MobileFirst Server";

            var resourceRequest = new WLResourceRequest(
                "/adapters/javaAdapter/resource/greet/",
                WLResourceRequest.GET
            );

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

        function(error) {
            titleText.innerHTML = "Bummer...";
            statusText.innerHTML = "Failed to connect to MobileFirst Server";
        }
    );
```

4. Deploy 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**.

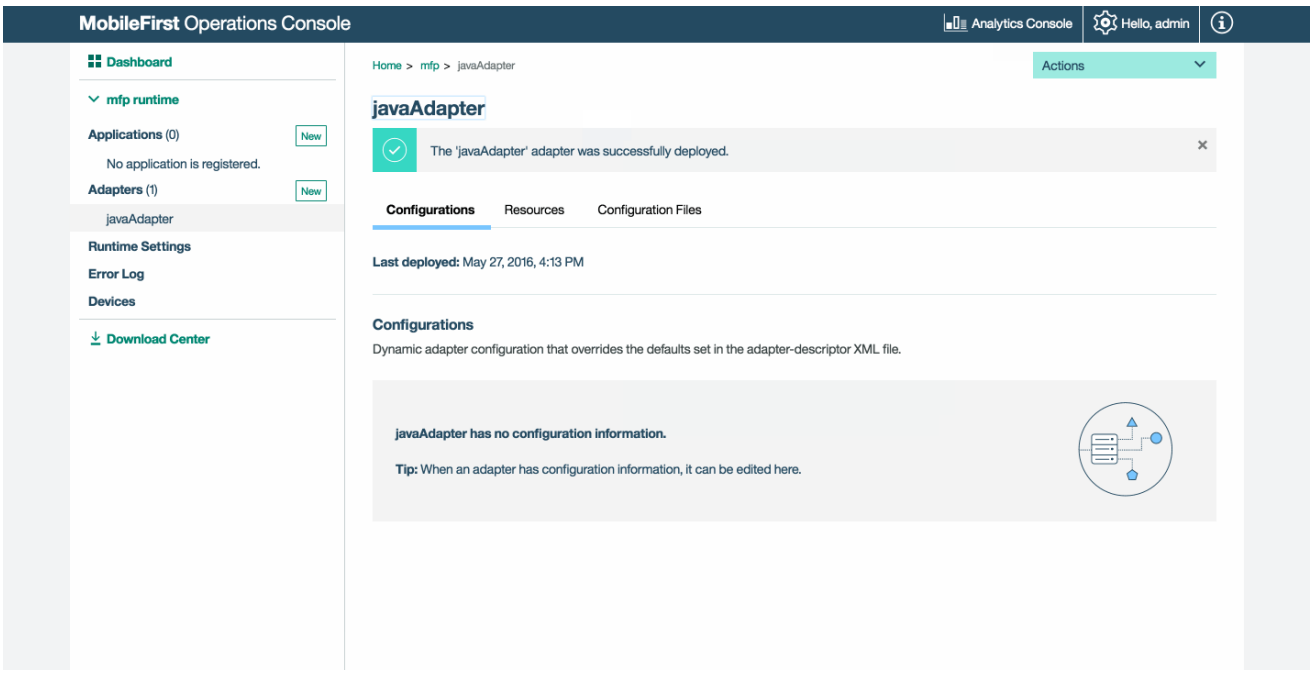
1. Select the **Actions → Download sample** option. Download the "Hello World" **Java** adapter sample.

> If Maven and MobileFirst 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 `<mfp:server ... url=" "/>` value with the **protocol**, **host** and **port** properties with the correct values for your MobileFirst Server.
    - If using a local MobileFirst Server, the values are typically **http**, **localhost** and **9080**.
    - If using a remote MobileFirst Server (on Bluemix), the values are typically **https**, **your-server-address** and **443**.

    Alternatively, if you have installed the MobileFirst CLI, then navigate to the project root folder and run the command `mfpdev app register`. If a remote MobileFirst Server is used, run the command `mfpdev server add` (../../application-development/using-mobilefirst-cli-to-manage-mobilefirst-artifacts/#add-a-new-server-instance) to add the server, followed by for example: `mfpdev app register myBluemixServer`.

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 Foundation (../../application-development/) 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)

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