Android end-to-end demonstration

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" Android Studio 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:

- Android Studio
- 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

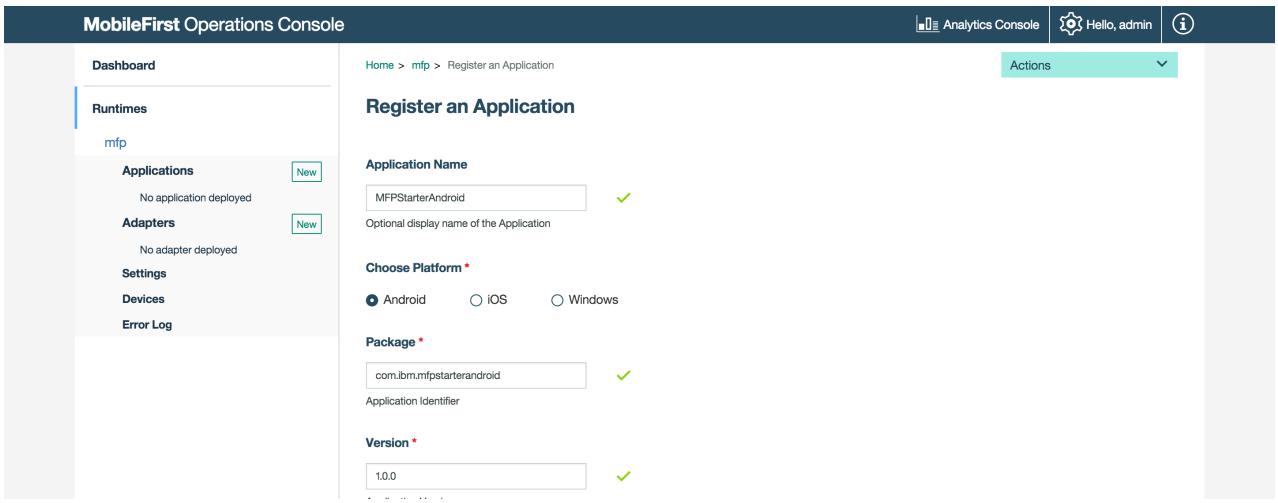
> If a remote server was already set-up, skip this step.

From a **Command-line** window, navigate to the server's folder and run the command: `./run.sh` in Mac and Linux or `run.cmd` in Windows.

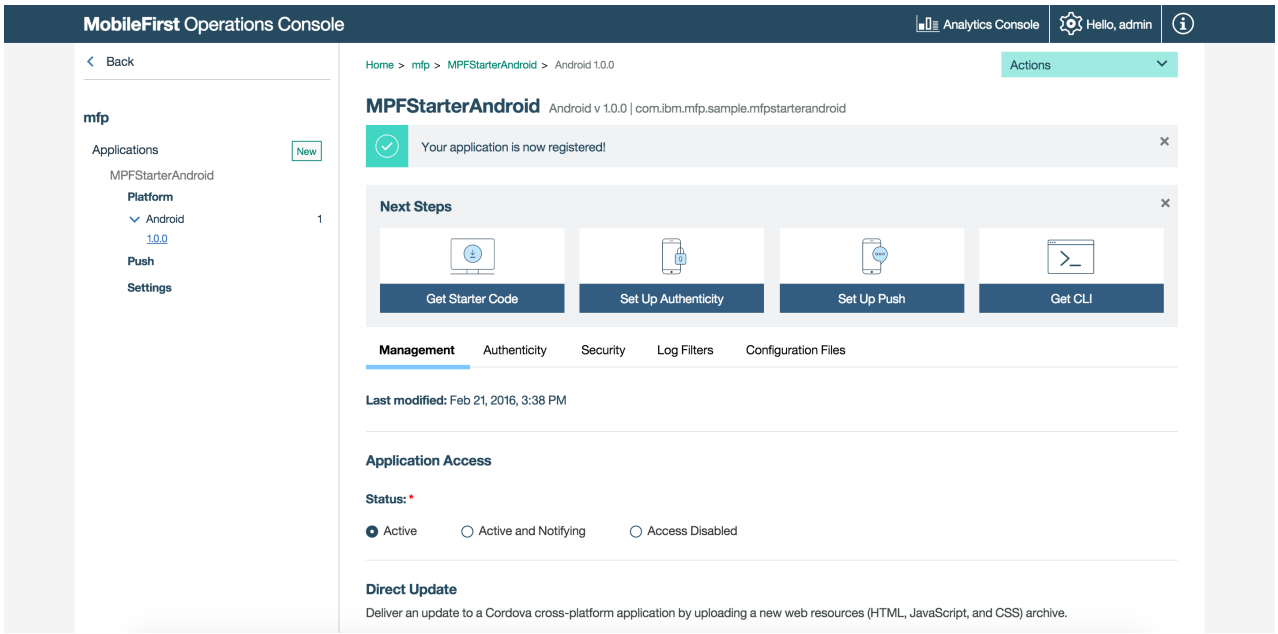
2. Creating an application

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 "New" button next to **Applications**
    - Select the **Android** platform
    - Enter **com.ibm.mfpstarterandroid** as the **application identifier**
    - Enter **1.0** as the **version** value
    - Click on **Register application**



2. Click on the **Get Starter Code** tile and select to download the Android mobile app scaffold.



3. Editing application logic

1. Open the Android Studio project and import the project.
2. Select the **app/java/com.ibm.mfpstarterandroid/ServerConnectActivity.java** file and:

- Add the following imports:

```
import java.net.URI;
import android.util.Log;
```

- Paste the following code snippet, inside the `protected void onCreate()` function:

```
WLClient.createInstance(this);
URI adapterPath = null;
try {
    adapterPath = new URI("/adapters/javaAdapter/users/world");
} catch (URISyntaxException e) {
    e.printStackTrace();
}

WLResourceRequest request = new WLResourceRequest(adapterPath, WLResourceRequest.GE
T);
request.send(new WLResponseListener() {
    @Override
     public void onSuccess(WLResponse wlResponse) {
        // Will print "Hello world" in LogCat.
        Log.i("MobileFirst Quick Start", "Success: " + wlResponse.getResponseText());
    }

    @Override
    public void onFailure(WLFailResponse wlFailResponse) {
        Log.i("MobileFirst Quick Start", "Failure: " + wlFailResponse.getErrorMsg());
    }
});
```

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 on the "New" button next to **Adapters**.

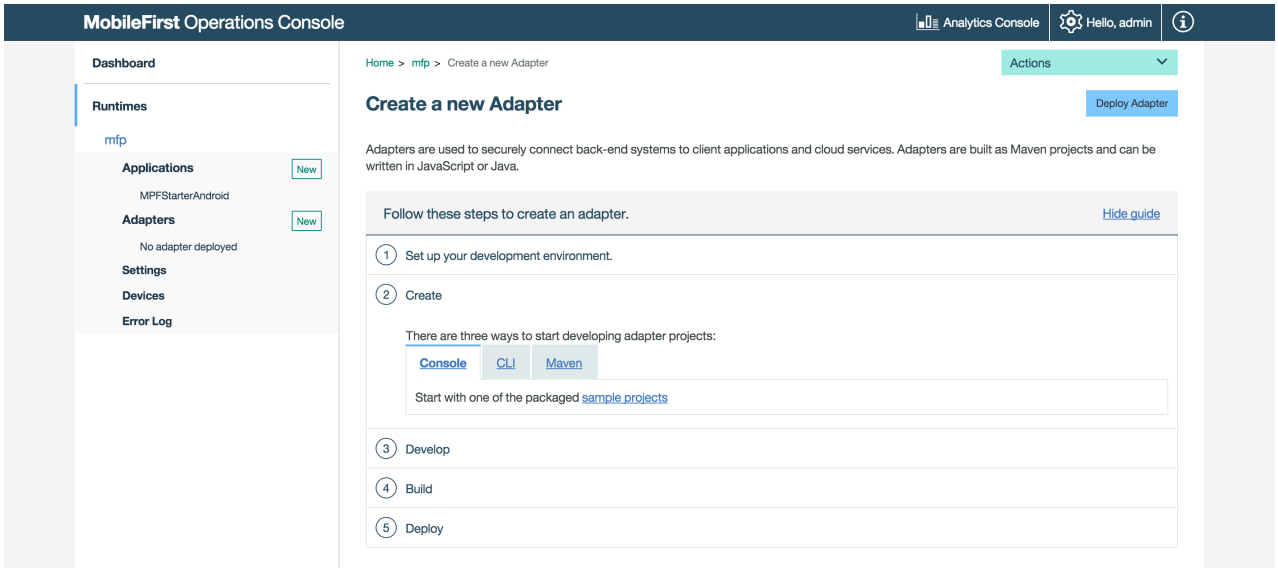
1. Select the **Actions → Download sample** option. Download the "Hello World" **Java** adapter sample.

   > 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.



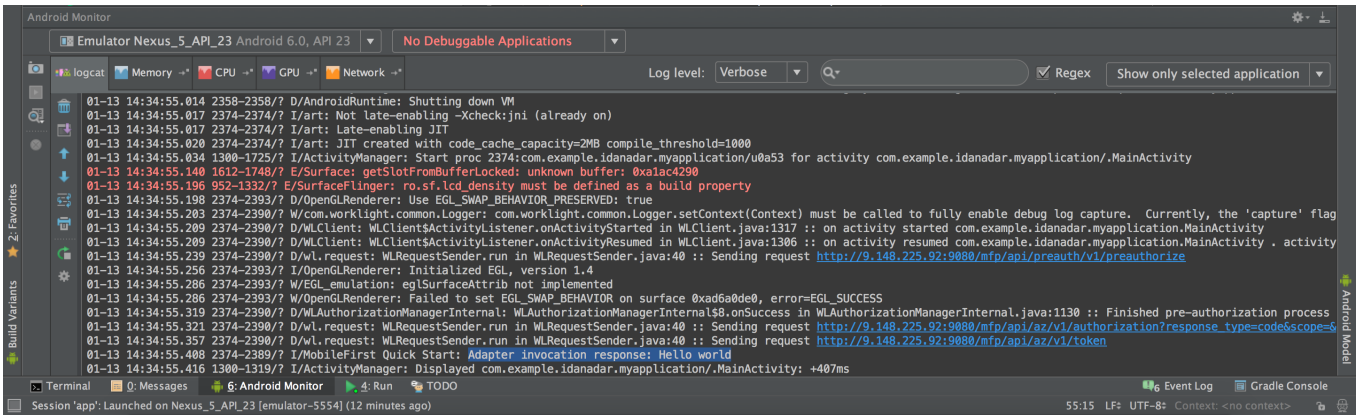
5. Testing the application

1. In Android Studio, select the **[project]/app/src/main/assets/mfpclient.properties** file and edit the **host** property with the IP address of the MobileFirst Server.
2. Click on the **Run App** button.

Results

- Clicking on the **Test Server Connection** button will display **Client has connected to server**.
- If the application was able to connect to the MobileFirst Server, a resource request call using the Java adapter will take place.

The adapter response is then printed in Android Studio's LogCat view.



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)