Configuring a native Windows Phone 8 application with the MobileFirst Platform SDK

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

To serve a native Windows Phone 8 (Silverlight) application, MobileFirst Server must be aware of it. For this purpose, IBM MobileFirst Platform Foundation provides a Native API library, which contains a set of APIs and configuration files.

This tutorial explains how to generate the Windows Phone 8 Native API and how to integrate it with a native Windows Phone 8 (Silverlight) application. These steps are necessary for you to be able to use it later on for tasks such as connecting to MobileFirst Server, invoking adapter procedures, implementing authentication methods, and so on.

Prerequisite: Developers are expected to be proficient with Microsoft developer tools.

This tutorial covers the following topics:

- Creating a MobileFirst native API
- The wlclient.properties file
- Creating and configuring a Windows Phone 8 native application(Silverlight)
- Tutorials to follow next

Creating a MobileFirst native API

CLI

- 1. In the terminal with the CLI (../../advanced-client-side-development/using-cli-to-create-build-and-manage-mobilefirst-project-artifacts/) installed, create a new MobileFirst project using: \$ mfp create HelloWorldNative.
- 2. Go to the newly created project directory: \$ cd HelloWorldNative/.
- 3. Add a new Windows Phone 8 native API using \$ mfp add api WP8HelloWorld -e windowsphone8.
- 4. Navigate into the native API folder and run the command: \$ mfp push. This action is required for MobileFirst Server to recognize the application if it attempts to connect.

Studio

- In MobileFirst Studio, create a MobileFirst project and add a MobileFirst Native API.
- In the New MobileFirst Native API dialog, enter your application name and select Windows Phone Sliverlight 8 for the Environment field.
- 3. Right-click the generated NativeAPI folder (located in *your-projects*/apps/your-nativeapi-app-name) and select **Run As > Deploy Native API**.

Note: This action is required for MobileFirst Server to recognize the application if it attempts to connect.

The MobileFirst native API contains several components:

- The worklight-windowsphone8.dll file is a MobileFirst API library that you must copy to your native WP8 project. This can be found in "buildtarget" folder under the respective hardware architecture.
- The Newtonsoft. Json. dll file is a library that provides JSON support.
- The application-descriptor.xml file defines application metadata and security settings that MobileFirst Server enforces.
- The wlclient.properties file contains connectivity settings that a native Windows Phone 8 Silverlight application uses. You must copy this file to your native Windows Phone 8 Silverlight project.
- As with any MobileFirst project, you create the server configuration by modifying the files that are in the server\conf folder.

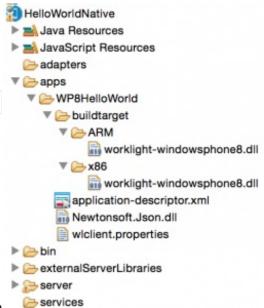
The wlclient.properties file

You can edit the wlclient.properties file to set connectivity information.

- wlServerProtocol The communication protocol to MobileFirst Server, which is either http or https.
- wlServerHost The host name of the MobileFirst Server instance.
- wlServerPort The port of the MobileFirst Server instance.
- wlServerContext The context root path of the application on MobileFirst Server.
- wlAppId The application ID as defined in the application-descriptor.xml file.
- wlAppVersion The application version.
- wlEnvironment The target environment of the native application.
- wlPlatformVersion The MobileFirst SDK version.
- languagePreferences The list of preferred locales.

Creating and configuring a Windows Phone 8 native application

- 1. Create a Windows Phone Silverlight project or use an existing one.
- 2. Add as a *reference* the worklight-windowsphone8.dll and Newtonsoft.Json.dll files.Choose the right worklight-windowsphone8.dll from the folder that matches the architecture of the target device (ARM/x86).



- 3. Copy the wlclient.properties file to the root of the native project.
- 4. In Visual Studio, open the wlclient.properties Properties window and set the Copy to Output Directory option to Copy always.
- 5. Add the following capabilities to the WMAppManifest.xml file:

```
ID_CAP_NETWORKING

ID_CAP_IDENTITY_DEVICE
```

For more information, see the topic about developing native C# applications for Windows Phone 8, in the user documentation.

Tutorials to follow next

Now that your application contains the Native API library, you can follow the tutorials in the Native WP8 Development (../../windows-phone-8-tutorials/) section to learn more about authentication and security, server-side development, advanced client-side development, notifications and more.