Creating your first native Windows 8 MobileFirst application

Overview

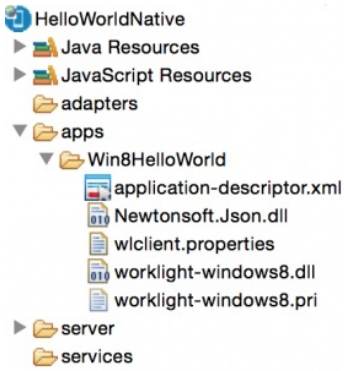
To serve a native Windows 8 application, MobileFirst Server must be aware of it. For this purpose, IBM MobileFirst Platform Foundation provides a Native API library, which contains a set of APIs and configuration files.

This tutorial explains how to generate the Windows 8 Native API and how to integrate it with a native Windows 8 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's developer tools.

Creating a MobileFirst Native API

- 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 8** for the **Environment** field.
- Right-click the generated NativeAPI folder (located in `your-projects/apps/your-nativeapi-app-name`) and select **Run As > Deploy Native API**.
  This action is required in order for MobileFirst Server to recognize the application if it attempts to connect.



The MobileFirst native API contains several components:

- *worklight-windows8.dll* is a MobileFirst API library that you must copy to your native Win8 project.
- *Newtonsoft.Json.dll* is a library that provides JSON support.
- *application-descriptor.xml* defines application metadata and security settings that MobileFirst Server enforces.
- *wlclient.properties* contains connectivity settings that a native Windows 8 application uses. You must copy this file to your native Windows 8 project.
- As with any MobileFirst project, you create the server configuration by modifying the files that are in the *server\conf* folder.

wlclient.properties

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 Studio version.
- *languagePreferences* – The list of preferred locales.

Creating and configuring a Windows 8 native application

1. Create a Windows 8 Application project or use an existing one.
2. Add as a *reference* the files *worklight-windows8.dll* and *Newtonsoft.Json.dll*.
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 *Package.appxmanifest*:
   Internet (Client & Server)
   Private Networks (Client & Server)

> For more information, review the "Developing native C# applications for Windows 8" user documentation topic