# Invoking adapter procedures from native Windows Phone 8 applications

To create and configure a Windows Phone 8 native project, first follow the Creating your first Native WP8 MobileFirst application (../../hello-world/creating-first-native-windows-phone-8-mobilefirst-application/) tutorial.

This tutorial covers the following topics:

- Initializing WLClient
- Invoking an adapter procedure
- · Receiving a procedure response
- Sample application

### **Initializing WLClient**

WLClient client = WLClient.getInstance();

 To establish a connection to MobileFirst Server, use the connect method by specifying the MyConnectResponseListener class instance as a parameter.

client.connect(new MyConnectResponseListener(this));

The WLClient instance tries to connect to the MobileFirst Server instance according to the properties of the wlclient.properties file.

After the connection is established, it invokes one of the methods of the MyConnectResponseListener class.

2. Specify that the MyConnectResponseListener class implements the WLResponseListener interface.

public class MyConnectResponseListener: WLResponseListener

The WLResponseListener interface defines two methods:

- o public void onSuccess (WLResponse response) { }
- o public void onFailure (WLFailResponse response) { }
- 3. Use the previous methods to process connection success or connection failure.

#### Invoking an adapter procedure

After the connection is established with a MobileFirst Server instance, you can use the WLClient instance to invoke adapter procedures.

- 1. Create a WLProcedureInvocationData object with the adapter and procedure names.
- 2. Add the required parameters as an object array and set request options (for example: Invocation Context).
- 3. Get the existing WLClient instance and use it to invoke an adapter procedure.
- 4. Specify the MyInvokeListener class instance as a parameter.

```
WLProcedureInvocationData invocationData = new WLProcedureInvocationData("RSSReader", "getStories");<invocationData.setParameters(new Object[]{});
String myContextObject = "InvokingAdapterProceduresWP8";
WLRequestOptions options = new WLRequestOptions();
options.setInvocationContext(myContextObject);
WLClient.getInstance().invokeProcedure(invocationData, new MyInvokeListener(this), options);<br/>br />
```

## Receiving a procedure response

After the procedure invocation is completed, the WLClient instance calls one of the methods of the MyInvokeListener class.

As before, you must specify that the MyInvokeListener class implements the WLResponseListener interface.

```
using IBM.Worklight;
namespace InvokingAdapterProceduresWP8{
  public class MyInvokeListener :
WLResponseListener
  { }
{
```

The onSuccess and onFailure methods are invoked by the WLClient. The response object contains the response data. You can use its methods and properties to retrieve the required information.

```
public void onSuccess(WLResponse response)
  WLProcedureInvocationResult invocationResponse = ((WLProcedureInvocationResult) response);
  JObject items;
  try
    items = invocationResponse.getResponseJSON();
    Deployment.Current.Dispatcher.BeginInvoke(() =>
       myMainPage.AddTextToReceivedTextBlock("Response Success: " + items.ToString());
    });
  catch (JsonReaderException e)
     Deployment.Current.Dispatcher.BeginInvoke(() =><
       myMainPage.AddTextToReceivedTextBlock("JSONException : " + e.Message);
    });
  }
}
public void onFailure(WLFailResponse response)
  Deployment.Current.Dispatcher.BeginInvoke(() =>
    myMainPage.AddTextToReceivedTextBlock("Response failed: " + response.ToString());
  });
```

## Sample application

Click to download

(http://public.dhe.ibm.com/software/products/en/MobileFirstPlatform/docs/v700/InvokingAdapterProceduresNativeProject.zip) the Studio project.

Click to download

(http://public.dhe.ibm.com/software/products/en/MobileFirstPlatform/docs/v700/InvokingAdapterProceduresWP8Project.zip) the Native project.

The sample contains two projects:

- The InvokingAdapterProceduresNativeProject.zip file contains a **MobileFirst Native API** to deploy to MobileFirst Server.
- The InvokingAdapterProceduresWP8project.zip file contains a **native Windows Phone 8 application** that uses a MobileFirst native API library to communicate with a MobileFirst Server instance.

Make sure to update the wlclient.properties file in InvokingAdapterProceduresWP8 with the relevant server settings.

