Invoking adapter procedures from native Windows Phone 8 applications

Overview

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.

Initializing WLClient

```
WLClient client = WLClient.getInstance();
```

1. 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:
   - `public void onSuccess (WLResponse response) { }`
   - `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 />
   ```

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.

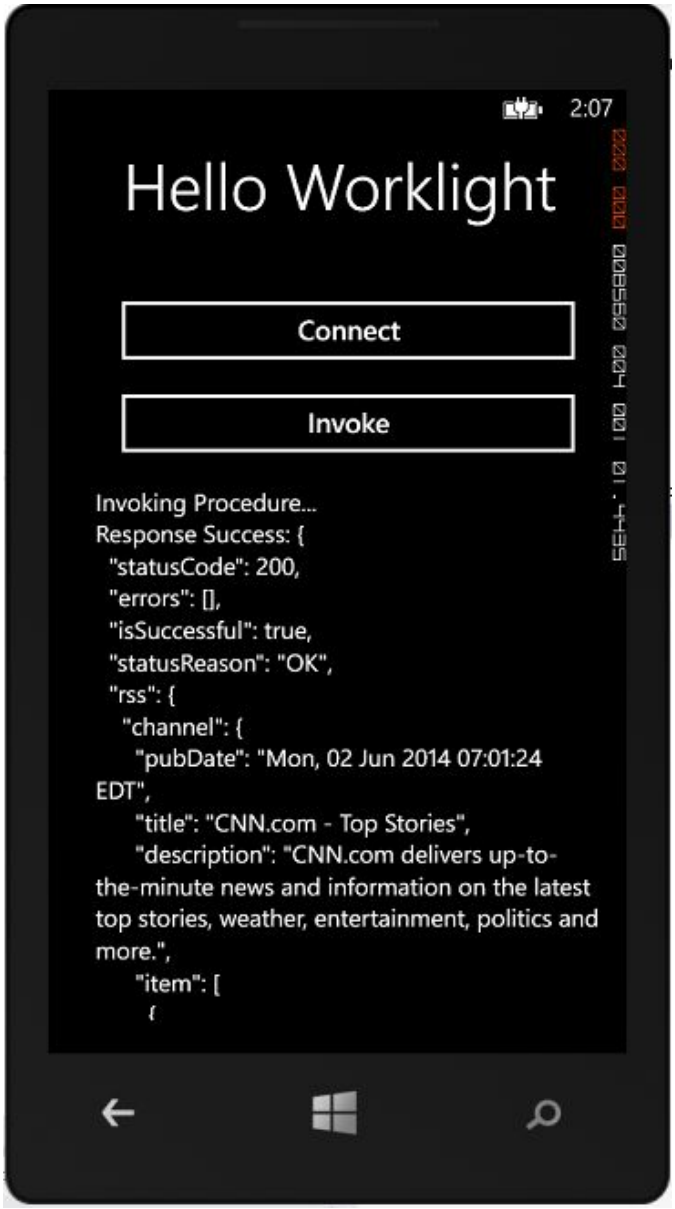
```
public void onSuccess(WLResponse response)
{
   WLProcedureInvocationResult invocationResponse = ((WLProcedureInvocationResult) response)
;
   JObject items;
   try
   {
      items = invocationResponse.getResponseJSON();
      Deployment.Current.Dispatcher.BeginInvoke(() =>
      {
         myMainPage.AddTextToReceivedTextBlock("Response 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

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.

Click to download (http://public.dhe.ibm.com/software/products/en/MobileFirstPlatform/docs/v630/InvokingAdapterProceduresNativeProject.zip) the Studio project.
Click to download (http://public.dhe.ibm.com/software/products/en/MobileFirstPlatform/docs/v630/InvokingAdapterProceduresWP8Project.zip) the Native project.


2:07
Hello Worklight
Connect
Invoke
Invoking Procedure...
Response Success: {
"statusCode": 200,
"errors": [],
"isSuccessful": true,
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