Invoking adapter procedures from native iOS Swift applications

fork and edit tutorial (https://github.ibm.com/MFPSamples/DevCenter/tree/master/tutorials/en/foundation/6.3/server-side-development/invoking-adapter-procedures-native-ios-swift-applications.html) | report issue (https://github.ibm.com/MFPSamples/DevCenter/issues/new)

Overview

To create and configure an iOS native project, first follow the "Creating your first Native iOS MobileFirst application (../../hello-world/creating-first-native-ios-mobilefirst-application/)" tutorial.
Make sure that you follow the extra steps for Swift-based applications.

Initializing WLClient

1. Access the `WLClient` functionality by calling the `WLClient.sharedInstance` method anywhere in your application.
2. Initiate the connection to the server by using the `wlConnectWithDelegate` method.
   For most actions, you must specify a delegate object, such as a `MyConnectListener` instance in the following example:

   ```
   let connectListener = MyConnectListener(vc: self)
   WLClient.sharedInstance().wlConnectWithDelegate(connectListener)
   ```

3. Make sure that your Bridging Header includes **WLSwiftBridgingHeader.h** for access to MobileFirst APIs.
4. To specify the delegate object, create a delegate for the `wlConnectWithDelegate` method and receive the response from the MobileFirst Server instance. Name the class `MyConnectListener`.For your `MyConnectListener` class, the header file must specify that it implements the `WLDelegate` protocol.
   Note: To avoid a compiler error raising that your delegate does not conform to `NSObjectProtocol`, make your class a subclass of `NSObject`.

   ```
   class MyConnectListener: NSObject, WLDelegate{
   //...
   }
   ```

   The `WLDelegate` protocol specifies that the class implements the following methods:
   - The **onSuccess** method: `func onSuccess(response: WLResponse!)`
   - The **onFailure** method: `func onFailure(response: WLFailResponse!)`
   After `wlConnectWithDelegate` finishes, the `onSuccess` method or the `onFailure` method of the supplied `MyConnectListener` instance is called.
   In both cases, the response object is sent as an argument.
5. Use this object to operate data that is retrieved from the server.

```
func onSuccess(response: WLResponse!) {
    var resultText = "Connection success. "
    if(response != nil){
        resultText += response.responseText
    }
    self.vc.updateView(resultText)
}
func onFailure(response: WLFailResponse!) {
    var resultText = "Connection failure. "
    if(response != nil){
        resultText += response.errorMsg
    }
    self.vc.updateView(resultText)
}
```

Calling an adapter procedure

1. To call a procedure, create a `WLProcedureInvocationData` object and specify the adapter name and the procedure name.

   ```
   let invocationData = WLProcedureInvocationData(adapterName: "RSSReader", procedureName: "getStories")
   ```

2. Call the procedure by using the shared instance of `WLClient`. As previously stated, supply a delegate object to manage the retrieved data.

   ```
   let invokeListener = MyInvokeListener(vc: self)
   WLClient.sharedInstance().invokeProcedure(invocationData, withDelegate: invokeListener)
   ```

   ## Receiving a procedure response

   When the procedure call is complete, a delegate method of the `MyInvokeListener` instance is called.
   Any delegate header file must specify that it complies with a `WLDelegate` protocol.

   ```
   class MyInvokeListener: NSObject, WLDelegate{
   }
   ```

   After the procedure call finishes, the `onSuccess` method or the `onFailure` method of the supplied `MyInvokeListener` instance is called.
   In both cases, a response object is sent as an argument.

3. Use this object to operate data that is retrieved from the server.

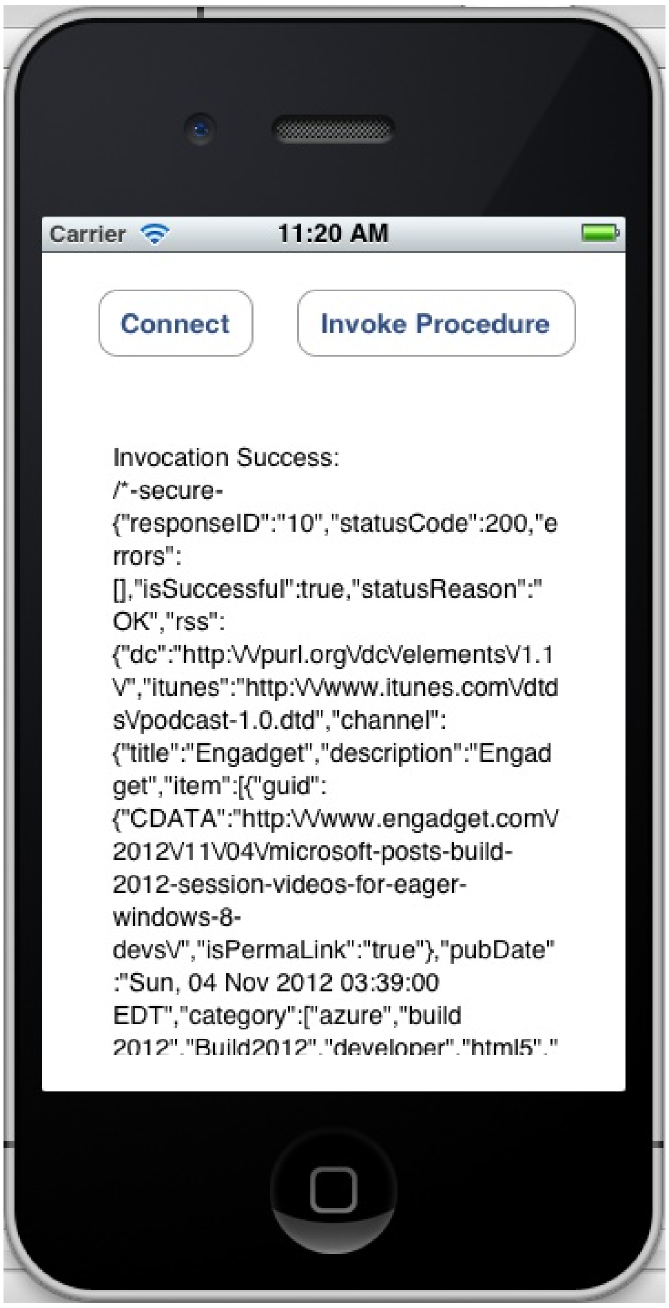
```
func onSuccess(response: WLResponse!) {
    var resultText = "Invocation success. "
    if(response != nil){
        resultText += response.responseText
    }
    self.vc.updateView(resultText)
}
func onFailure(response: WLFailResponse!) {
    var resultText = "Invocation failure. "
    if(response != nil){
        resultText += response.errorMsg
    }
    self.vc.updateView(resultText)
}
```

Sample application

The attached sample contains two projects:
- The **InvokingAdapterProceduresNativeProject.zip** file contains a MobileFirst native API that you can deploy to your MobileFirst server.
- The **InvokingAdapterProceduresSwiftProject.zip** file contains a native iOS Swift application that uses a MobileFirst native API library to communicate with the MobileFirst Server instance.

Make sure to update the **worklight.plist** file in **SwiftNativeApp** 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/InvokingAdapterProceduresSwiftProject.zip) the Native project.



```
Invocation Success:
/*-secure-
{"responseID":"10","statusCode":200,"e
rrors":
[],"isSuccessful":true,"statusReason":"
OK","rss":
{"dc":"http:\/\/purl.org\/dc\/elements\/1.1
\/","itunes":"http:\/\/www.itunes.com\/dtd
s\/podcast-1.0.dtd","channel":
{"title":"Engadget","description":"Engad
get","item":[{"guid":
{"CDATA":"http:\/\/www.engadget.com\/
2012\/11\/04\/microsoft-posts-build-
2012-session-videos-for-eager-
windows-8-
devs\/","isPermaLink":"true"},"pubDate"
:"Sun, 04 Nov 2012 03:39:00
EDT","category":["azure","build
2012","Build2012","developer","html5","
```