

Invoking adapter procedures from native iOS Swift applications

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.

Note: The **Keychain Sharing** capability is mandatory while running iOS apps in the iOS Simulator when using Xcode 8. You need to enable this capability manually before building the Xcode project.

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.

