Resource request from native iOS Swift applications

- Download MobileFirst project (https://github.com/MobileFirst-Platform-Developer-Center/InvokingAdapterProcedures)
- Download Native project (https://github.com/MobileFirst-Platform-Developer-Center/InvokingAdapterProceduresSwift)

Overview

To create and configure an iOS native project, first follow the "Configuring a native iOS application with the MobileFirst Platform SDK (../../configuring-the-mfpf-sdk/configuring-a-native-ios-application-with-the-mfp-sdk/)" tutorial.

If you are developing Swift-based applications, make sure that you follow the additional steps.

MobileFirst applications can access resources using the WLResourceRequest REST API. This tutorial explains how to use the WLResourceRequest API with an HTTP adapter.

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:

```
[code lang="swift"]
let connectListener = MyConnectListener(vc: self)
WLClient.sharedInstance().wlConnectWithDelegate(connectListener)
[/code]
```

- 3. Make sure that your Bridging Header includes the WLSwiftBridgingHeader.h file 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.

```
[code lang="swift"]
class MyConnectListener: NSObject, WLDelegate{
//...
}
[/code]
```

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 passed as an argument.

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

```
[code lang="swift"]
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)
}
[/code]
```

Calling an adapter procedure

The WLResourceRequest class handles resource requests to MobileFirst adapters or external resources.

1. To call a procedure, create a WLResourceRequest object and specify the path to the adapter and the HTTP method.

```
[code lang="swift"]
let request = WLResourceRequest(URL: NSURL(string: "/adapters/RSSReader/getFeed"), method:
WLHttpMethodGet)
[/code]
```

- 2. Add the required parameters.
 - For JavaScript-based adapters, use the params parameter name to set an array of parameters.

```
[code lang="swift"]
request.setQueryParameterValue("['MobileFirst_Platform']", forName: "params")
[/code]
```

 For Java adapters or other resources, you can use setQueryParameterValue for each parameter.

```
[code lang="swift"]
request.setQueryParameterValue("value1", forName: "param1")
```

```
request.setQueryParameterValue("value2", forName: "param2") [/code]
```

3. Call the procedure by using the sendWithCompletionHandler method. Supply a completion handler to manage the retrieved data.

```
[code lang="swift"]
request.sendWithCompletionHandler { (WLResponse response, NSError error) -> Void in
var resultText = ""
if(error != nil){
resultText = "Invocation failure. "
resultText += error.description
}
else if(response != nil){
resultText = "Invocation success. "
resultText += response.responseText
}
self.updateView(resultText)
}
[/code]
```

For more granular management of the retrieved data (such as non-text responses, PDF, etc), you can use the sendWithDelegate method and provide a delegate that conforms to both the NSURLConnectionDataDelegate and NSURLConnectionDelegate protocols.

Other signatures, which are not covered in this tutorial, exist for the send method. Those signatures enable you to set parameters in the body instead of the query, or to handle the response with a delegate instead of a completion handler. See the user documentation to learn more.

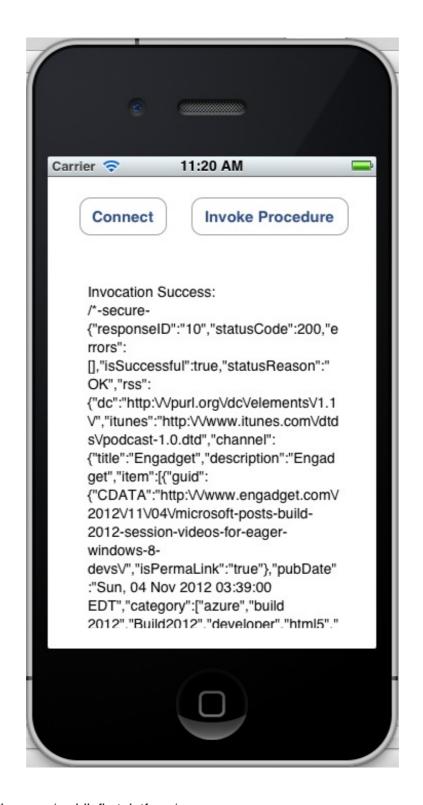
Learn more about WLResourceRequest in the user documentation.

Sample application

Click to download (https://github.com/MobileFirst-Platform-Developer-Center/InvokingAdapterProcedures) the MobileFirst project.

Click to download (https://github.com/MobileFirst-Platform-Developer-Center/InvokingAdapterProceduresSwift) the Native project.

- The InvokingAdapterProcedures project contains a **MobileFirst native API** that you can deploy to your MobileFirst Server instance.
- The InvokingAdapterProceduresSwift project 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 **NativeiOSInvoking** with the relevant server settings.



(http://developer.ibm.com/mobilefirstplatform/wp-content/uploads/sites/32/2014/11/04_08_results_swift.pptx_.png)