Invoking adapter procedures from native iOS applications

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.

Initializing WLClient

1. Access the `WLClient` functionality by using `[WLClient sharedInstance]` 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:

   ```
   MyConnectListener *connectListener = [[MyConnectListener alloc] initWithController:self];
   [[WLClient sharedInstance] wlConnectWithDelegate:connectListener];
   ```

   Note: Remember to import **WLClient.h** and **WLDelegate.h** in your header file.

   You must supply a connection delegate (listener) to the MobileFirst invocation methods.
3. Create a delegate to be used in the `wlConnectWithDelegate` method and receive the response from the MobileFirst Server. Name the class `MyConnectListener`. The header file must specify that it implements the `WLDelegate` protocol.

   ```
   @interface MyConnectListener : NSObject <WLDelegate> {
       @private
       ViewController *vc;
   }
   ```

   The `WLDelegate` protocol specifies that the class implements the following methods: - The **onSuccess** method: `(WLResponse *)response` - The **onFailure** method: `(WLFailResponse *)response`

   After `wlConnectWithDelegate` finishes, the `onSuccess` method or the `onFailure` method of the supplied `MyConnectListener` instance is invoked. In both cases, the response object is sent as an argument.
4. Use this object to operate data that is retrieved from the server.

   ```
   -(void)onSuccess:(WLResponse *)response{
       NSLog(@"\nConnection Success: %@", response);
       NSString *resultText = @"Connection success. ";
       if ([response responseText] != nil){
           resultText = [resultText stringByAppendingString:[response responseText]];
       }
       [vc updateView:resultText];
   }
   -(void)onFailure:(WLFailResponse *)response{
       NSString *resultText = @"Connection failure. ";
       if ([response responseText] != nil){
           resultText = [resultText stringByAppendingString:[response responseText]];
       }
       [vc updateView:resultText];
   }
   ```

Invoking an adapter procedure

To invoke a procedure, create a `WLProcedureInvocationData` object and specify the adapter name and the procedure name. Invoke the procedure by using the shared instance of the `WLClient`.

```
    WLProcedureInvocationData *myInvocationData = [[WLProcedureInvocationData alloc] initW
ithAdapterName:@"RSSReader" procedureName:@"getStories"];
    MyInvokeListener *invokeListener = [[MyInvokeListener alloc] initWithController: self];
    [[WLClient sharedInstance] invokeProcedure:myInvocationData withDelegate:invokeListener];
```

As previously stated, you must supply a delegate object to manage the retrieved data.

Receiving a procedure response

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

```
@interface MyInvokeListener : NSObject <WLDelegate> {
@private
    ViewController *vc;
    NSString *strResponse;
}
- (id)initWithController: (ViewController *) mainView;</p>
@end
```

After the procedure invocation 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. Use this object to operate data that is retrieved from the server.

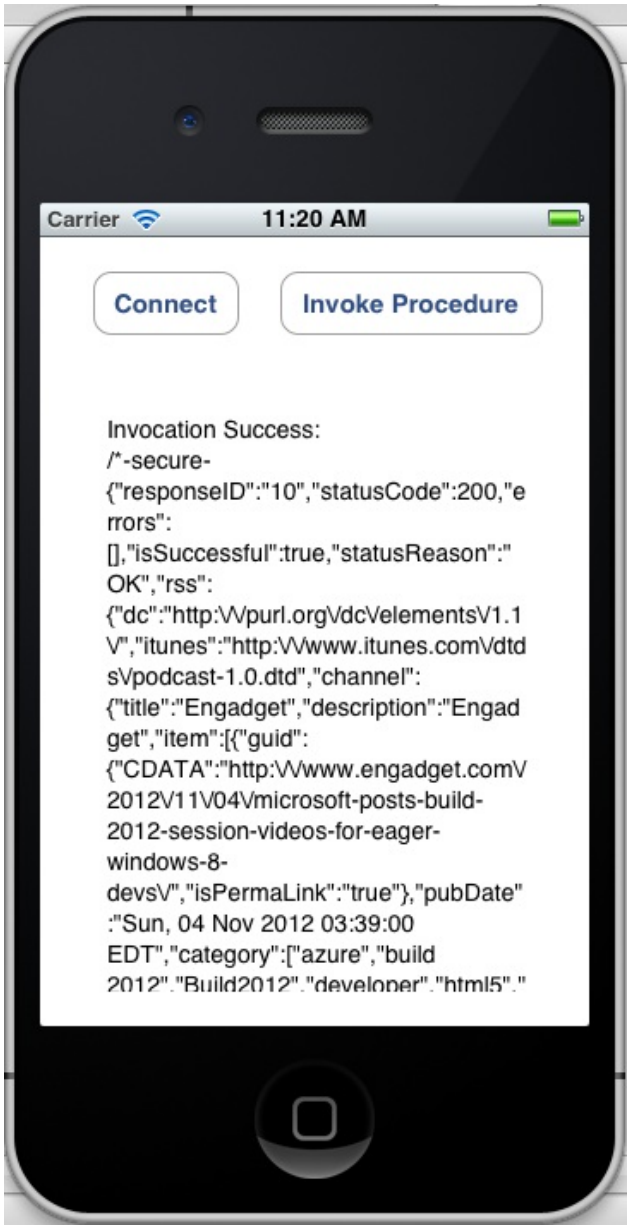
```
-(void)onSuccess:(WLResponse *)response {
    NSLog(@"Invocation Success: %@", response);
    NSString *resultText = @"Invocation success. ";</p>
   if ([response responseText] != nil){
        resultText = [resultText stringByAppendingString:[response responseText]];
    }
    [vc updateView:resultText];
}
-(void)onFailure:(WLFailResponse *)response{
    NSLog(@"Invocation Failure: %@", response);
    NSString *resultText = @"Invocation failure. ";</p>
    if ([response responseText] != nil){
        resultText = [resultText stringByAppendingString:[response responseText]];
    }
    [vc updateView:resultText];
}
```

Sample application

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

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



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