

# Invoking adapter procedures from native Windows 8 applications

fork and edit tutorial (<https://github.ibm.com/MFPSamples/DevCenter/tree/master/tutorials/en/foundation/7.0/server-side-development/invoking-adapter-procedures-native-windows-8-applications.html>) | report issue (<https://github.ibm.com/MFPSamples/DevCenter/issues/new>) To create and configure a Windows 8 native project, first follow Tutorial Creating your first Native Windows 8 MobileFirst application ([../hello-world/creating-first-native-windows-8-mobilefirst-application/](https://github.ibm.com/MFPSamples/DevCenter/tree/master/tutorials/en/foundation/7.0/server-side-development/creating-first-native-windows-8-mobilefirst-application/)).

## 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 = "InvokingAdapterProceduresWin8";
WLRequestOptions options = new WLRequestOptions();
options.setInvocationContext(myContextObject);
WLClient.getInstance().invokeProcedure(invocationData, new MyInvokeListener(this), options);
```

## 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 InvokingAdapterProceduresWin8{
    public class MyInvokeListener : WLResponseListene
    {
    }
}
```

The `onSuccess` and `onFailure` methods are invoked by the `WLClient` instance. 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();
        await dispatcher.RunAsync(CoreDispatcherPriority.Normal, () =>
        {
            myMainPage.AddTextToReceivedTextBlock("Response Success: " + items.ToString());
        });
    }
    catch (JsonReaderException e)
    {
        Debug.WriteLine("JSONException : " + e.Message);
    }
}

public void onFailure(WLFailResponse response)
{
    await dispatcher.RunAsync(CoreDispatcherPriority.Normal, () =>
    {
        myMainPage.AddTextToReceivedTextBlock("Response failed: " + response.ToString());
    });
}
```

## Sample application

Click to download

(<http://public.dhe.ibm.com/software/products/en/MobileFirstPlatform/docs/v700/InvokingAdapterProceduresNativeProject.zip>)  
the Studio project.

Click to download

(<http://public.dhe.ibm.com/software/products/en/MobileFirstPlatform/docs/v700/InvokingAdapterProceduresWin8Project.zip>)  
the Native project.

The sample contains two projects:

- The `InvokingAdapterProceduresNativeProject.zip` file contains a **MobileFirst Native API** to deploy to MobileFirst Server.
- The `InvokingAdapterProceduresWin8project.zip` file contains a **native Windows 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 **InvokingAdapterProceduresWin8** with the relevant server settings.

# Hello World

Connect

Invoke

Invoking Procedure...

```
Response Success: {
  "statusCode": 200,
  "errors": [],
  "isSuccessful": true,
  "statusReason": "OK",
  "rss": {
    "channel": {
      "pubDate": "Thu, 15 Jan 2015 09:20:06 EST",
      "title": "CNN.com - Top Stories",
      "description": "CNN.com delivers up-to-the-
minute news and information on the latest top
stories, weather, entertainment, politics and more.",
      "item": [
        {
          "content": {
            "height": "51",
            "width": "90",
            "type": "image/jpeg",
            "url": "http://i2.cdn.turner.com/cnn/dam/
```

