

# Resource Request from Native Windows 8 Universal Applications

## Overview

MobileFirst applications can access resources using the `WLResourceRequest` REST API. The REST API works with all adapters and external resources [LINK TO using-mobilefirst-server-authenticate-external-resources](#).

This tutorial explains how to use the `WLResourceRequest` API with an HTTP adapter.

To create and configure a Windows 8 (Universal) native project, first follow the [Adding the MobileFirst Platform Foundation SDK to Windows 8 Universal Applications \(../../adding-the-mfpf-sdk/adding-the-mfpf-sdk-to-windows-8-applications\)](#) tutorial.

## Calling an adapter procedure

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

1. Define the URI of the resource:

```
URI adapterPath = new URI("/adapters/RSSReader/getFeed");
```

- For JavaScript adapters, use `/adapters/{AdapterName}/{procedureName}`
- For Java adapters, use `/adapters/{AdapterName}/{path}`
- To access resources outside of the project, use the full URL

2. Create a `WLResourceRequest` object and choose the HTTP Method (GET, POST, etc):

```
WLResourceRequest request = new WLResourceRequest(adapterPath, WLResourceRequest.GET);
```

3. Add the required parameters:

- In JavaScript adapters, which use ordered nameless parameters, pass an array of parameters with the name `params`:

```
request.setQueryParameter("params", ["MobileFirst_Platform"]);
```

- In Java adapters or external resources, use the `setQueryParameter` method for each parameter:

```
request.setQueryParameter("param1", "value1");
request.setQueryParameter("param2", "value2");
```

4. Call the procedure by using the `.send()` method.

Specify a `MyInvokeListener` class instance:

```
request.send(new MyInvokeListener());
```

See the user documentation to learn more about `WLResourceRequest` and other signatures for the `send` method, which are not covered in this tutorial.

## Receiving a procedure response

When the procedure invocation is completed, the framework calls one of the methods of the `MyInvokeListener` class.

1. Specify that the `MyInvokeListener` class implements the `WLResponseListener` interface:

```
public class MyInvokeListener : WLResponseListener{
}
```

2. Implement the `onSuccess` and `onFailure` methods.

If the procedure invocation is successful, the `onSuccess` method is called. Otherwise, the `onFailure` method is called. Use these methods to get the data that is retrieved from the adapter. The `response` object contains the response data and 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 (<https://github.com/MobileFirst-Platform-Developer-Center/InvokingAdapterProcedures>) the MobileFirst project.

Click to download (<https://github.com/MobileFirst-Platform-Developer-Center/InvokingAdapterProceduresWin8>) the Native project.

- The `InvokingAdapterProcedures` project contains a **MobileFirst Native API** to deploy to MobileFirst Server.
- The `InvokingAdapterProceduresWin8` project contains a **native Windows 8 Universal application** that uses a MobileFirst native API library to communicate with a MobileFirst Server instance.
- Make sure to update the `mfpclient.properties` file in **InvokingAdapterProceduresWin8** with the relevant server settings.

SCREENSHOT