

Resource Request from Native Android Applications

Overview

MobileFirst applications can access resources using the `WLResourceRequest` REST API. The REST API works with all adapters and external resources.

Prerequisite: Ensure you have added the MobileFirst Platform SDK (../adding-the-mfpf-sdk/adding-the-mfpf-sdk-to-android-applications) to your Native Android project.

WLResourceRequest

The `WLResourceRequest` class handles resource requests to 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", ["param1", "param2"]);
```

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

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

4. CHANGE according to the new sample Call the resource 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.

The response

CHANGE according to the new sample When the resource call is completed, the framework calls one of the methods of the `MyInvokeListener` class.

1. CHANGE according to the new sample Specify that the `MyInvokeListener` class implements the `WLResponseListener` interface:

```
public class MyInvokeListener implements WLResponseListener {  
}
```

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

If the resource call 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) {  
    String responseText = response.getResponseText();  
    AndroidNativeApp.updateTextView("Successfully called the resource\n" + responseText);  
}  
  
public void onFailure(WLFailResponse response) {  
    String responseText = response.getResponseText();  
    AndroidNativeApp.updateTextView("Failed to call the resource\n" + responseText);  
}
```

For more information

For more information about `WLResourceRequest`, refer to the user documentation.

Sample application

The `ResourceRequestSwift` project contains a native Android application that makes a resource request using a Java adapter.

The adapter Maven project contains the Java adapter to be used during the resource request call.

Click to download (<https://github.com/MobileFirst-Platform-Developer-Center/ResourceRequestAndroid/tree/release80>) the Native project.

Click to download (<https://github.com/MobileFirst-Platform-Developer-Center/Adapters/tree/release80>) the adapter Maven project.

Sample usage

- Make sure to update the `app/src/main/assets/mfpclient.properties` file in the Android Studio project with the server properties.
- The sample uses the `JavaAdapter` contained in the Adapters Maven project. Use either Maven or MobileFirst Developer CLI to build and deploy the adapter (`../../creating-adapters/`).

SCREENSHOT