Resource Request from Cordova Applications

Overview

MobileFirst applications can access resources using the `WLResourceRequest` REST API.
The REST API works with all adapters and external resources, and is supported in the following Cordova platforms: iOS, Android, Windows 8.1 Universal and Windows 10 UWP.

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

WLResourceRequest

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

```
var resourceRequest = new WLResourceRequest(
    "/adapters/RSSReader/getFeedFiltered",
    WLResourceRequest.GET
);
```

The parameters for the constructor are:

- **request URL**:
  - For JavaScript adapters, the URL should be `/adapters/{AdapterName}/{procedureName}`
  - For Java adapters, the URL should be `/adapters/{AdapterName}/{path}`
  - To access resources outside of the project, use the full URL
- **HTTP method**: Most commonly `WLResourceRequest.GET` or `WLResourceRequest.POST`
- **timeout**: Optional, request timeout in milliseconds

setQueryParameter

By using the `setQueryParameter` method, you can include query (URL) parameters in the REST request.

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

  ```
  resourceRequest.setQueryParameter("params", "['param1', 'param2']");
  ```

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

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

send(body)

The `send()` method triggers the request. It takes an optional parameter to set a body to the HTTP request, which could be a JSON object or a simple string.

```
resourceRequest.send().then(
    onSuccess,
    onFailure
)
```

Using JavaScript promises, you can define `onSuccess` and `onFailure` functions.

sendFormParameters(json)

To send URL-encoded form parameters, use the `sendFormParameters(json)` method instead. This method converts the JSON to a URL encoded string, sets the content-type to `application/x-www-form-urlencoded`, and sets it as the HTTP body.

> For more information about `WLResourceRequest`, see the API reference in the user documentation.

The response

Both the `onSuccess` and `onFailure` callbacks receive a `response` object, which typically contains the following properties:

- **`status`**: The HTTP response status
- **`responseJSON`**: An object that contains the data that is returned by the called resource, and additional information about the resource call

The `response` object is returned to the corresponding success/failure handler.

```
{
 "errors": [],
 "info": [],
 "warnings": [],
 "isSuccessful": true,
 "responseHeaders": {
  "Cache-Control": "no-cache, must-revalidate, post-check=0, pre-check=0"
 },
 "responseTime": 491,
 "statusCode": 200,
 "statusReason": "OK",
 "totalTime": 592,
 "Items": [{
  "creator": "Jon Fingas",
  "link": "http:\/\/www.engadget.com\/2014\/11\/10\/harvard-used-cameras-to-check-attendance\/?ncid=rss_truncated",
  "pubDate": "Mon, 10 Nov 2014 02:21:00 -0500",
  "title": "Harvard used cameras to track attendance without telling students"
 }, {
  "creator": "Jon Fingas",
  "link": "http:\/\/www.engadget.com\/2014\/11\/10\/bmw-ev-charging-street-lights\/?ncid=rss_truncated",
  "pubDate": "Mon, 10 Nov 2014 00:10:00 -0500",
  "title": "BMW's new street lights will charge your electric car"
 }, {
  "creator": "Daniel Cooper",
  "link": "http:\/\/www.engadget.com\/2014\/11\/09\/hwyc-lumia-925\/?ncid=rss_truncated",
  "pubDate": "Sun, 09 Nov 2014 22:43:00 -0500",
  "title": "How would you change Nokia's Lumia 925?"
 }]
}
```

- `errors`, `info`, and `warnings` are optional arrays of strings that contain messages.
- The `isSuccessful` property is set to `true` if the resource call succeeded (even if no data was retrieved), or to `false` otherwise.
- The response can contain other metadata such as `responseHeaders`, `responseTime`, `statusCode`, `statusReason`, and `totalTime`.

Handling the response

The rest of the resource call result depends on what was retrieved from the back-end system. In this example, the `Items` element is a JSON representation of the XML code that was received from the back end, after the rules in the XSL file were applied.

```
function loadFeedsSuccess(result){
  WL.Logger.debug("Feed retrieve success");
  if (result.responseJSON.Items.length > 0)
     displayFeeds(result.responseJSON.Items);
}
```

For more information

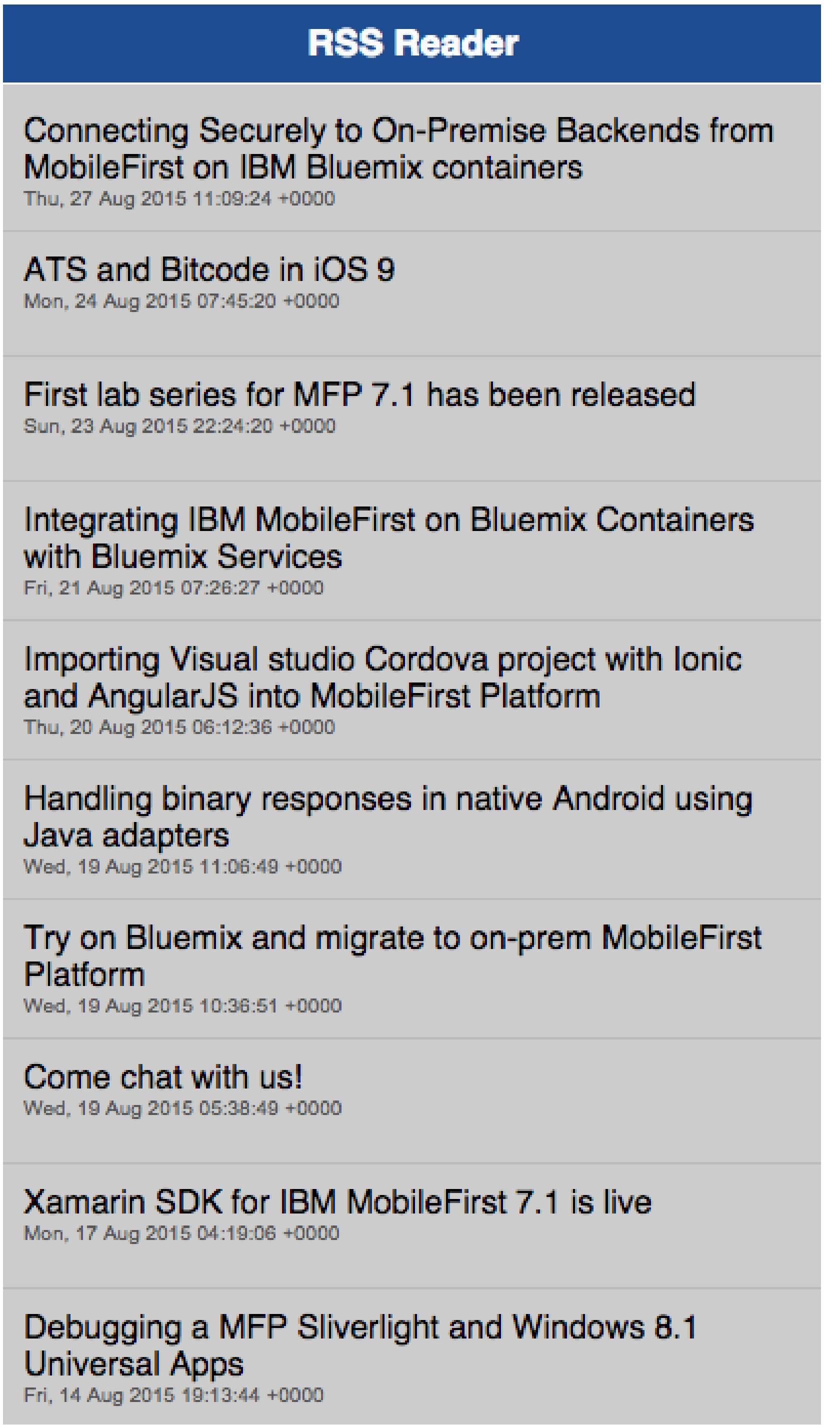
> For more information about WLResourceRequest, refer to the user documentation.

Sample application

Click to download (https://github.com/MobileFirst-Platform-Developer-Center/ResourceRequestCordova/tree/release80) the MobileFirst 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 **mfpclient.plist** file in the Xcode 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/).



RSS Reader

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