# Java HTTP Adapter

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#### **Overview**

This tutorial is a continuation of Java Adapter (../../.server-side-development/java-adapter/) and assumes previous knowledge of the concepts described there.

Java adapters provide free reign over connectivity to your backend. It is therefore your responsibility to ensure best practices regarding performance and other implementation details.

This tutorial shows an example of a Java adapter that connects to an RSS feed by using a Java HttpClient.

#### Topics:

- RSSAdapterApplication
- RSSAdapterResource
- Results

# **RSSAdapterApplication**

RSSAdapterApplication extends MFPJAXRSApplication and is a good place to trigger any initialization required by your application.

```
@Override
protected void init() throws Exception {
   RSSAdapterResource.init();
   logger.info("Adapter initialized!");
}
```

## **RSSAdapterResource**

```
@Path("/")
public class RSSAdapterResource {
}
```

RSSAdapterResource is where we handle the requests to your adapter.

```
@Path("/") means that the resources will be available at the URL
http(s)://host:port/ProjectName/adapters/AdapterName/.
```

#### **HTTP Client**

```
private static CloseableHttpClient client;
private static HttpHost host;
public static void init() {
    client = HttpClients.createDefault();
    host = new HttpHost("developer.ibm.com")
;
}
```

Because every request to your resource will create a new instance of RSSAdapterResource, it is important to reuse objects that may impact performance. In this example we made the Http client a static object and initialized it in a static init() method, which gets called by the init() of RSSAdapterApplication as described above.

#### Procedure resource

```
@GET
@Produces("application/json")
public void get(@Context HttpServletResponse response, @QueryParam("tag") String tag) throws Clie
ntProtocolException, IOException, IllegalStateException, SAXException {
   if(tag!=null && !tag.isEmpty()){
      execute(new HttpGet("/mobilefirstplatform/tag/"+ tag +"/feed"), response);
   } else{
      execute(new HttpGet("/mobilefirstplatform/feed"), response);
   }
}
```

Our adapter exposes just one resource URL which allows to retrieve the RSS feed from the backend service.

- @GET means that this procedure only responds to HTTP GET requests.
- @Produces("application/json") specifies the Content Type of the response to send back. We chose to send the response as a JSON object to make it easier on the client-side.
- @Context HttpServletResponse response will be used to write to the response output stream. This enables us more granularity than returning a simple string.
- @QueryParam("tag") String tag enables the procedure to receive a parameter. The choice of QueryParam means the parameter is to be passed in the query (/RSSAdapter/? tag=MobileFirst\_Platform). Other options include @PathParam, @HeaderParam, @CookieParam, @FormParam, etc.
- throws ClientProtocolException, ... means we are forwarding any exception back to the client. The client code is responsible for handling potential exceptions which will be received as HTTP 500 errors. Another solution (more likely in production code) is to handle exceptions in your server Java code and decide what to send to the client based on the exact error.
- execute(new HttpGet("/mobilefirstplatform/feed"), response). The actual HTTP request to the backend service is handled by another method defined later.

Depending if you pass a tag parameter, execute will retrieve a different build a different path and retrieve a different RSS file.

#### execute()

```
public void execute(HttpUriReguest reg, HttpServletResponse resultResponse) throws ClientProtocolE
xception, IOException,
 IllegalStateException, SAXException {
  HttpResponse RSSResponse = client.execute(host, req);
  ServletOutputStream os = resultResponse.getOutputStream();
  if (RSSResponse.getStatusLine().getStatusCode() == HttpStatus.SC_OK){
    resultResponse.addHeader("Content-Type", "application/json");
    String json = XML.toJson(RSSResponse.getEntity().getContent());
    os.write(json.getBytes(Charset.forName("UTF-8")));
  } else {
    resultResponse.setStatus(RSSResponse.getStatusLine().getStatusCode());
    RSSResponse.getEntity().getContent().close();
    os.write(RSSResponse.getStatusLine().getReasonPhrase().getBytes());
  }
  os.flush();
  os.close();
}
```

- HttpResponse RSSResponse = client.execute(host, req). We use our static HTTP client to execute the HTTP request and store the response.
- ServletOutputStream os = resultResponse.getOutputStream(). This is the output stream to write a response to the client.
- resultResponse.addHeader("Content-Type", "application/json"). As mentioned before, we chose to send the response as JSON.
- String json = XML.toJson(RSSResponse.getEntity().getContent()). We used org.apache.wink.json4j.utils.XML to convert the XML RSS to a JSON string.
- os.write(json.getBytes(Charset.forName("UTF-8"))) the resulting JSON string is written to the output stream.

The output stream is then flush ed and close d.

If RSSResponse is not 200 0K, we write the status code and reason in the response instead.

### Results

Use the testing techniques described in Java Adapter (../#testing) to test your work.

The adapter should return the RSS feed converted to JSON.

```
"mobile_development",
    "mobilefirst",
    "xamarin"
],
    "commentRss": "https:\/\developer.ibm.com\/mobilefirstplatform\/2015\/09\/01\/integrating-mqa
-into-xamarin-android-app\/feed\/",
    "comments": [
        "https:\/\developer.ibm.com\/mobilefirstplatform\/2015\/09\/01\/integrating-mqa-into-xamarin-
android-app\/#comments",
        "0"
],
    "creator": "Vidyasagar MSC",
    "description": "The post <a rel=\"nofollow\" href=\"https:\/\developer.ibm.com\/mobilefirstpl
```

"description": "The post <a rel=\"nofollow\" href=\"https:\\/developer.ibm.com\/mobilefirstpl atform\/2015\/09\/01\/integrating-mqa-into-xamarin-android-app\\">Integrating MQA into Xamarin.Android app<\/a> appeared first on <a rel=\"nofollow\" href=\"https:\\/developer.ibm.com\/mobilefirstplatform\">IB M MobileFirst Platform<\/a>.<\\p>",

"encoded": "It all started when I received an email seeking help on using MQA or to be m ore precise integrating MQA into Xamarin based android app. Before jumping into addressing the proble m, let's define MQA.\n<h4>What is MQA?</\h4>\nMQA stands for & amp;#8220;Mo bile Quality Assurance" and is part of the IBM MobileFirst Platform. em><span style=\"line-height: 1.5\">IBM MQA provides line of business professionals and development t eams with insightful and streamlined quality feedback and metrics from both pre-production and productio n, enabling them to prioritize and take action to support a dynamic mobile app strategy. p></blockquote>\nThe Features of MQA are<\/p>\n<div style=\"width: 1058px\" class=\"wp-caption al igncenter\"><a href=\"http:\/\vidyasagarmsc.com\/wp-content\/uploads\/2015\/09\/MQA1.png\"><img clas s=\"size-full wp-image-65\" src=\"http:\/\vidyasagarmsc.com\/wp-content\/uploads\/2015\/09\/MQA1.png\" alt=\"Features of Mobile Quality Assurance.\" width=\"1048\" height=\"350\" \/><\/a><p class=\"wp-caption -text">Features of Mobile Quality Assurance.</div>\n<em><strong>Note</strong></em>: To understand more about MQA, visit <a href=\"http:\//www-03.ibm.com/software/products/\en/ibm-mobil efirst-platform-quality-assurance\">IBM Mobile Quality Assurance<\/a><\p>\nSo, by now we should b e good with the first part of our blog title that is MQA. So, the next question is<\/p>\n<h4>What is Xamarin .Android?<\/h4>\nXamarin is a platform to create nativeA iOS, Android, Mac and Windows apps in C# .Ä Xamarin.Android allows us to create native Android applications using the same UI controls we would i n Java, except with the flexibility and elegance of a modern language (C#).hAs we are good wit h the definitions, let's address the problem.\n<strong>What&amp;#8217;s the problem. em in integrating MQA into Xamarin Android app?</strong>\nAt the time of this blog post, the av ailable MQA SDKs are iOS native SDK, Android native SDK and Javascript SDK.
\nSo, we hav e to find a workaround to address this use-case. The initial step is to download the Android MQA SDK an d see what's provided. you can download it from <a href=\"http:\/\www-01.ibm.com\/support\ /knowledgecenter\/#!\/SSJML5\_6.0.0\/com.ibm.mqa.uau.saas.doc\/topics\/c\_AndroidSDKsForDownload.h tml\">here<\/a>. Once successfully downloaded and unzipped, we should see a jar file namely <strong>< em>MQA-Android-library-<version number&amp;gt;.jar<\/em>A <\/strong>under lib folder<strong >.<\/strong><\/p>\n<div style=\"width: 634px\" class=\"wp-caption aligncenter\"><a href=\"http:\/\/vidyasag armsc.com/wp-content/uploads/2015/09/MQA2.png\"><img class=\"size-full wp-image-70\" src=\"http:\ //vidyasagarmsc.com/wp-content/uploads/2015\/09\/MQA2.png\" alt=\"MQA Android SDK \" width=\"62 4\" height=\"440\" \/><\/a>MQA Android SDK<\/p><\/div>\nAs Xamarin is C# based, What can we do with this jar file?
NWe have <strong>Xamarin bindings</strong> to our rescue, which helps using in consuming .JARs from C#.\n<em>Note</em>:</stro ng> Steps to consume MQA Android JAR in a Xamarin. Android app is mentioned A <a href=\"https:\//dev eloper.xamarin.com/guides/android/advanced\_topics/java\_integration\_overview/binding\_a\_java\_librar  $y_{(.jar)}$  here < a >< p > a + c width: 257px class = \"wp-caption aligncenter \">< a href = \"http:\// vidyasagarmsc.com/wp-content/uploads/2015\/09\/MQA31.png\"><img class=\"wp-image-72 size-full\" src=\"http:\/vidyasagarmsc.com/wp-content/uploads\/2015\/09\/MQA31.png\" alt=\"\" width=\"247\" heig ht=\"303\" \/><\/a>Xamarin binding project with MQA Android .JAR file<\/p> </div>\nThe files of our interest here are <strong>MQA-Android-library-2.7.4.jar<\/strong> (Version n umber may vary) and <strong>Metadata.xml.</strong><\/p>\n\nMQA-Android-library-2.7.4.jar file will have all the MOA related classes and methods required for us to start an Android MOA session <\/li>

nnMetadata.xml- <em>Allows changes to be made to the final API, such as changing the namespace o f the generated binding.</em>hBased on the errors thrown while building the project, M etadata.xml in my case looks like this
hpre class=\"brush: xml; title:; notranslate\"><metadat a>\n <!--\n This sample removes the class: android.support.v4.content.AsyncTaskLoader. LoadTask:\n <remove-node path=&amp;quot;\/api\/package[@name='android.support.v4.content'] \(\text{\class[@name='AsyncTaskLoader.LoadTask']&amp:quot: \\&amp:qt:\n\\n\ This sample removes the met hod: android.support.v4.content.CursorLoader.loadInBackground:\n <remove-node path=&amp;q uot;\/api\/package[@name='android.support.v4.content']\/class[@name='CursorLoader']\/method[@name ='loadInBackground']" \&qt;\n --&qt;\n\n <remove-node path=&amp;quot;\\a pi\package[@name='ext.com.google.inject.spi']\class[@name='InjectionPoint.Factory.1']"\\&a mp;gt;\n <remove-node path=&amp;quot;\/api\/package[@name='ext.com.google.inject.spi']\/clas s[@name='InjectionPoint.Factory.2']"\/&qt;\n <remove-node path=&amp;quot;\/api \package[@name='com.applause.android.log']\sinterface[@name='LoggerInterface']"\skamp;gt ;\n <remove-node path=&amp;quot;\/api\/package[@name='ext.com.google.inject.internal']&amp; quot;\/>\n <remove-node path=&amp;quot;\/api\/package[@name='ext.com.google.inject. matcher']"\/>\n <remove-node path=&amp;quot;\/api\/package[@name='com.a pplause.android.util']\class[@name='AbstractRequest']&amp:quot:\\&amp:qt:\n &amp:lt:remove-node pa th="\/api\/package[@name='ext.com.google.inject.spi']\/class[@name='Elements.RecordingBin der']\/method[@name='bind' and count(parameter)=1 and parameter[1][@type='ext.com.google.inject.Key 'll&amp:quot:\/&amp:gt:\n\n&amp:lt:attr path=&amp:guot:\/api\/package[@name='com.applause.android. messages']\/class[@name='Message']\/field[@name='message']\" name="managed Name">Message1<\/attr&amp;gt;\n&amp;lt;attr path=&amp;quot;\/api\/package[ @name='com.applause.android.log']" name="managedName">lo g&lt:\/attr&gt:\n&lt:\/metadata&gt:\n\n<\/pre>\nOnce all the errors are fixed and yo ur binding project builds successfully, add a new Xamarin Android project (if you haven't add ed yet). Now, add MQA binding project reference in our Xamarin android app. <em><strong>Note:<\stro ng></em> Both your binding project and Xamarin. Android project should be of same <strong>target fram ework. </strong>You can verify this by right clicking on your project -& amp;gt; Options -& amp;gt; Gener al.\n<div id=\"attachment 83\" style=\"width: 270px\" class=\"wp-caption aligncenter\"><a href=\"http :\/vidyasagarmsc.com/wp-content/uploads\/2015\/09\/MQA5.png\"><img class=\"size-full wp-image-83\ " src=\"http:\/\vidyasagarmsc.com\/wp-content\/uploads\/2015\/09\/MQA5.png\" alt=\"Xamarin Android pro ject with added reference to MQA\" width=\"260\" height=\"652\" \/><\/a>Xa marin Android project with added reference to MQA</div>\nNow, let&amp:#8217:s start MQA a ndroid session in our Count. Android app. Before doing this, we should create a MQA service on IBM Blue mix. You can follow the instructions mentioned at <a href=\"https:\/\www.ng.bluemix.net\/docs\/#service s\/MobileQualityAssurance\'index.html#MobileQualityAssurance\''>Getting started with Mobile Quality Ass urance- Bluemix<\/a>Ä or watch this video.\n<span class='embed-youtube' style='text-align:cent er; display: block;'><iframe class='youtube-player' type='text\/html' width='980' height='582' src='https:\/\/ www.youtube.com/embed/zHRfGatcKPM?version=3&rel=1&fs=1&show search=0&showinfo=1&iv load policy=1&wmode=transparent' frameborder='0' allowfullscreen='true'><\iframe><\/span><\/p>\nStarting a <span class=\"ph\"><spa n id=\"d6087e24\" class=\"ph\">Mobile Quality Assurance<\/span><\/span>Â session with the Android SD K entails three steps. First, build a configuration to define how <span class=\"ph\"><span id=\"d6087e24 -d6083e11a1310\" class=\"ph\">Mobile Quality Assurance<\/span><\/span>Â works with your app. Secon d, start the session itself. Third, add tracking to your activities. Open <strong>MainActivity.cs<\/strong> fil e (Android Project) and paste the code provided below<\p>\npre class=\"brush: csharp; title: ; notranslat e\">using System;\n\nusing Android.App;\nusing Android.Content;\nusing Android.Runtime;\nusing Andro id.Views;\nusing Android.Widget;\nusing Android.OS;\n\/\/MQA references\nusing Com.lbm.Mga.Config;\ nusing Com.lbm.Mqa;\n\nnamespace Count.Android\n\t\[Activity (Label = & amp;quot;Count.Android& amp;quot;, MainLauncher = true, Icon = & amp;quot;@drawable\/icon")]\n\tpublic class MainActi vity: Activity\n\t\tint count = 1;\n\t\t\v\Use your own generated APP KEY\n\t\tconst string APP\_KEY=& amp;quot;1g59b7d884f9fdf5426162e5cb1f87a700648bce4fg0g1g379e0d3a";\n\t\tprotected ov erride void OnCreate (Bundle bundle)\n\t\t{\n\t\tbase.OnCreate (bundle);\n\t\t\t\v\MQA Android session c onfiguration \n\t\tConfiguration configuration = new Configuration.Builder(this)\n\t\t\t.WithAPIKey(APP KEY) \(\triangle \Provides \) the quality assurance application APP\_KEY\n\t\t\.WithMode(MQA.Mode.Qa) \(\triangle \) Select s the quality assurance application mode\n\t\t\t\t.WithReportOnShakeEnabled(true) \WEnables shake rep

```
"guid": {
           "content": "https:\/\developer.ibm.com\/mobilefirstplatform\/?p=16964",
           "isPermaLink": "false"
         },
         "link": "https:\/\developer.ibm.com\/mobilefirstplatform\/2015\/09\/01\/integrating-mqa-into-xam
arin-android-app\/",
         "pubDate": "Tue, 01 Sep 2015 20:27:07 +0000",
         "title": "Integrating MQA into Xamarin.Android app"
       },
         "category": [
           "Uncategorized",
           "MobileFirst Platform"
         "commentRss": "https://developer.ibm.com/mobilefirstplatform/2015/08/19/try-on-bluemix-
and-buy-mfp\/feed\/",
         "comments": [
           "https:\//developer.ibm.com/mobilefirstplatform/2015/08/19/try-on-bluemix-and-buy-mfp/#
comments",
           "0"
         ],
         "creator": "ChethanKumar",
```

"description": "The post <a rel=\"nofollow\" href=\"https:\\/developer.ibm.com\/mobilefirstpl atform\/2015\/08\/19\/try-on-bluemix-and-buy-mfp\\">Try on Bluemix and migrate to on-prem MobileFirst Platform<\/a> appeared first on <a rel=\"nofollow\" href=\"https:\\/developer.ibm.com\/mobilefirstplatform\" >IBM MobileFirst Platform<\/a>.<\\p>",

"encoded": "Contributed By: Chethan Kumar SN (chethankumar.sn@in.ibm.com) and Vitt al Pai (vittalpai@in.ibm.com)\nWith the release of MobileFirst Platform v7.1, one can now migrat e any existing iOS app built for MobileServices on Bluemix to MobileFirst Platform with just a handful of si mple steps.
To elucidate the process, lets look at how to migrate a simple Bluemix iOS app. >\nTo migrate an existing iOS app built for MobileServices on Bluemix to run on MobileFirst Platform, follow the steps below.\n\n<a href=\"#migrateexisting\">Existing Bluemix Server Application figureclient\">Migration of Client Application<\/a><\/li>\n<a href=\"#migratemfp\">Migration of JAX-RS Application to JAVA Adapter<\a><\li>\n<|i>\a> href=\"#configoauth\">Configuring Custom-OAuth<\a><\li>\li >\n<a href=\"#configurepush\">Configuring Push Capability<\/a><\li>\n<a href=\"#sample\">Samp le and Source Code<\/a><\/li>\n<\/ul>\n<h2 id=\"migrateexisting\">Existing Bluemix Server Application<\/ h2>\nThe Bluemix app has the following functionality:\n\nOn the client side, the application on stores a list of items and provides a way to add more items to the list. Each item can able to store Nam e, Store, Price and image of the product. The App's are protected by Custom Authenticator v ia AMA security service provided by bluemix.On the server side, the App contains a JAX-RS cl ass to store and manipulate the data. It also contains the server side AMA security implementation. <\ul>\nOn BlueMix we have application with the following configuration:<\p>\n\nLiberty Runti

me: which used to run JAX-RS application on Bluemix gives mobile application security and monitoring functionalityIn-Push Service for iOS 8: which pro vides the capability to use iOS Push features<\/li>\n<\/ul>\n<h3> Liberty Runtime <\/h3>\n\nLiberty Runtime <\/h3>\n\nLiberty Runtime <\/h3>\n\nLiberty Runtime <\/h3>\n\nLiberty Runtime <\/h3>\n\nLiberty Runtime <\/h3>\n y contains two projects with JAX-RS service (i.e Custom-oauth-java for Custom Authentication and Local storeAdapter for storing items). The service include the protected resource and the custom identity provid er code. The liberty server is configured with TAI.\n<\/li>\r\cli>Trust Association Interface (TAI) is a servic e provider API that enables the integration of third-party security services with a Liberty profile server. For more info on TAI: <a href=\"http:\//www-01.ibm.com/support/knowledgecenter/was\_beta\_liberty/com.i bm.websphere.wlp.nd.multiplatform.doc\/ae\/twlp\_dev\_custom\_tai.html\" target=\"\_blank\">click here<\/a> \n<\li>\n\cli>\n\cli>\text{li>The custom identity provider authenticates a user by sending challenges to the client. Howev er, custom identity providers do not communicate directly with clients. They send challenges and receive responses to the challenges by means of the Advanced Mobile Access service. When a custom identity p rovider successfully authenticates the user, it provides the user identity information to Advanced Mobile A ccess. For more information on custom authentication refer bluemix documentation : <a href=\"https:\//w ww.ng.bluemix.net\/docs\/services\/mobileaccess\/security\/id provs\/index-gentopic2.html#custom id pr ov\" target=\" blank\">click here<\/a>\nThe custom identity provider code is defined by two http API:<\ /p>\nclass=\"brush: plain; title: ; notranslate\">\startAutorization<\pre>\n and\npre class=\"brush" h: plain; title: ; notranslate\">\/handleChallengeAnswer<\/pre>\nclass=\"brush: java; title: ; notranslat e\"> @POST\n\t@Consumes ("application\json")\n\t@Path("\/{tenantId}\/ customAuthRealm 3\startAuthorization")\n\t@Produces(MediaType.APPLICATION JSON)\n\ tpublic JSONObject startAuthorization(String payload,\n\t\t\@PathParam("tenantId" ) String deviceId,\n\t\t\@PathParam("realmName") String realmName) throws Exce ption {\n\t\JSONObject returnJson = (JSONObject) JSON.parse(CHALLENGE JSON);\n\t\treturn returnJ son;\n\t\n\t\n\t\@POST\n\t@Consumes ("application\/json")\n\t@Path("\/{ tenantId}\/customAuthRealm 3\/handleChallengeAnswer")\n\t@Produces(MediaType.APPLIC ATION JSON)\n\tpublic JSONObject handleChllengeAnswer(String payload,\n\t\t\t@PathParam(&q uot;tenantId") String deviceId,\n\t\t@PathParam("realmName") String re almName) throws Exception {\n\t\t\n\t\tSONObject userStoreJson = (JSONObject) JSON.parse(USER\_ STORE JSON);\n\t\tJSONObject failedResponseJson = (JSONObject) JSON.parse(FAILURE JSON);\n\ t/t/n/t/tif(payload == null || payload.isEmpty()) {\n/t/t/treturn failedResponseJson;\n/t/t}\n/t/tJSONObject pa yloadJson = (JSONObject) JSON.parse(payload);\n\t\tJSONObject challengeAnswer = (JSONObject) pay loadJson.get("challengeAnswer");\n\t\t\n\t\tif (challengeAnswer == null ) {\n\t\tretur n failedResponseJson;\n\t\t}\n\t\t\n\t\tString userName = (String) challengeAnswer.get("userNa me");\n\t\tString password = (String) challengeAnswer.get("password");\n \t\t\n\t\tif (userName == null || userName.isEmpty() || password == null || password.isEmpty()) {\n\t\t\tretur n failedResponseJson;\n\t\t\n\t\tif (userStoreJson.containsKey(userName)) {\t\n\t\t\JSONObject user InfoJson = (JSONObject) userStoreJson.get(userName);\n\t\t\tString userPassword = (String) userInfoJso n.get("password");\n\t\t\String userDisplayName = (String) userInfoJson.get(& quot;displayName");\n\t\t\t\n\t\t\tif (password.equals(userPassword)) {\n\t\t\t\JSONObject retur nJson = new JSONObject();\n\t\t\tJSONObject userIdentityJson = new JSONObject();\n\t\t\t\userIdentity Json.put("userName", userName);\n\t\t\t\tuserIdentityJson.put("displayNa ;success");\n\t\t\treturnJson.put("userIdentity", userIdentityJson);\n\t\t\t\treturnJson.put("userIdentity") eturn returnJson;\n\t\t\n\t\t\n\t\t\n\t\treturn failedResponseJson;\n\t}\n<\pre>\nThe Localstore a dapter contains few http API's to perform some basic operations like Add, Update, Create an d Delete in client application.\nhpre class=\"brush: java; title: ; notranslate\"> @GET\n\t@Path(&amp ;quot;\/getAllItems"\/n\tpublic String getAllItems() throws IOException{\n\t\tinit();\n\t\tJsonArray j sonArray = new JsonArray();\n\t\tfor(Object key : props.keySet()){\n\t\t\tjsonArray.add(parser.parse(props. getProperty((String) key)).getAsJsonObject());\n\t\\\n\t\treturn jsonArray.toString();\n\t\\\n\t@PUT\n\t@P ath(")\addltem")\n\tpublic void addltem(String itemJson) \n\t\t\throws IOException, URISyntaxException{\n\t\ttry{\n\t\t\tinit();\n\t\t\tint newKey = props.keySet().size()+1;\n\t\t\tprops.put(String. valueOf(newKey), itemJson);\n\t\t\tURL url = this.getClass().getClassLoader().getResource("da ta.properties"); \n\t\tFile file = new File(url.toURI().getPath());\n\t\tFileOutputStream foStream = new FileOutputStream(file);\n\t\t\props.store(foStream, & amp;quot;saving new item");\n\t\t\tf oStream.close();\n\n\t\}catch(IOException ioe){\n\t\t\tioe.printStackTrace();\n\t\t\\n\n\t\n\n\t@POST\n\t@ Path("\/addAllItems"\/n\tpublic String addAllItems(String itemsJson) \n\t\tthrows U RISyntaxException, IOException{\n\t\try{\n\t\t\tinit();\n\t\t\tclearAllData();\n\t\t\JsonArray jsonArr = parser.

parse(itemsJson).getAsJsonArray();\n\t\tfor(int i=0;i<jsonArr.size();i++){\n\t\t\trops.put(Stri ng.valueOf(i+1), jsonArr.get(i).toString());\n\t\t\t}\n\t\t\tURL url = this.getClass().getClassLoader().getReso urce("data.properties"); \n\t\tFile file = new File(url.toURI().getPath());\n\t\ t\tFileOutputStream foStream = new FileOutputStream(file);\n\t\tprops.store(foStream, "s aving new item");\n\t\t\foStream.close();\n\t\t\treturn "true" ;\n\t\t}catch(IOException ioe){\n\t\t\tioe.printStackTrace();\n\t\t}\n\t\treturn & amp;quot;false& amp;quot;;\n\t} \n\n\t@DELETE\n\t@Path("\/clearAll")\n\tpublic String clearAllData() \n\t\tthrows Mi ssingConfigurationOptionException, URISyntaxException, IOException{\n\t\t\init();\n\t\t\tprops.clear();\n\t\t \tSystem.out.println("Size: "+props.size());\n\t\t\URL url = this.getClass().getClassL oader().getResource("data.properties"); \n\t\tFile file = new File(url.toURI().getPath ());\n\t\tFileOutputStream foStream = new FileOutputStream(file);\n\t\t\tprops.store(foStream, & mp;quot ;clearing all data");\n\t\tfoStream.close();\n\t\treturn "cleared";\n\t}\n<\p re>\n<\/li> Add TAI Extension in the following path of server directory server\/usr\/extensions<br/>br \/>\ nTAI Extension Link: Download the extension.zip from <a href=\"https:\//hub.jazz.net\/project\/chethan\/p arkstore-bluemix-server/voverview\" target=\"\_blank\">here</a>\n<\li>\nAdd TAI Security constraint i n web.xml file for both the projects.\n<security-constr aint>\n \t<web-resource-collection&amp;gt;\n \t &amp;lt;web-resource-name&amp;gt ;LocalstoreApplication<\/web-resource-name&amp;gt;\n \t <url-pattern&amp;gt;\/apps\/ \*<\/url-pattern&amp;gt;\n \t&amp;lt;\/web-resource-collection&amp;gt;\n \t<auth-constr <role-name&amp;gt;TAIUserRole&amp;lt;\/role-name&amp;gt;\\n aint>\n \t& It;\/auth-constraint>\n<\/security-constraint&amp;gt;\n&amp;lt;security-role id=&amp;quot;S ecurityRole TAIUserRole" >\n <role-name&amp;gt;TAIUserRole&amp;lt;\/ro le-name>\n<\/security-role&amp;gt;<\/pre>\n<\/li> Add OAuthTai feature in server.xml \n<feature&amp;gt;usr:OAuthTai-1.0&amp;lt;\/featur e>\n<\li>\nProtect the Url&amp;#8217;s using TAI by adding following code in server. xml\nre class=\"brush: xml; title: ; notranslate\"> <usr\_OAuthTAI id=&amp;quot;myOAuthTAI&a mp;quot; realmName="imfRealm">\n\t\t<securityConstraint httpMeth ods="GET, POST" securedURLs=" \/ LocalstoreAdapter \/ \* " \/ &am mp;gt;\n\t\amp;lt;securityConstraint httpMethods="GET, POST" securedURLs=&a mp;quot;\/custom-oauth-java\/\*"\/>\n\t<\/usr\_OAuthTAl&amp;gt;\n\n &amp;lt; webApplication id="custom-oauth-java" location="custom-oauth-java.war " name="custom-oauth-java">\n <application-bnd&amp; gt;\n\t\t<security-role name=&amp;quot;TAIUserRole&amp;quot;&amp;gt;\n\t\t\t&amp;lt;special-su bject type="ALL\_AUTHENTICATED\_USERS"V>\n\t\t<Vsecurity-role& amp;gt;\n\t<\/application-bnd&amp;gt; \n\t&amp;lt;\/webApplication&amp;gt; \n\t &amp;lt;webApp lication id="LocalstoreAdapter" location="LocalstoreAdapter.war&qu ot; name="LocalstoreAdapter">\n <application-bnd&amp;gt;\n\t\t &|t;security-role name="TAIUserRole">\n\t\t\&|t;special-subject ty pe="ALL\_AUTHENTICATED\_USERS"V>\n\t\t<Vsecurity-role&amp;gt ;\n\t<\/application-bnd&amp;gt; \n\t&amp;lt;\/webApplication&amp;gt;<\/pre>\n<\/li>\nSpecify th e IMF Auth Url inside Server.env file in liberty.\nre class=\"brush: xml; title: ; notranslate\">imfServiceUr I=https://vimf-authserver.ng.bluemix.net/imf-authserver\n Create a server package whic h contains above two applications using following command.\npre class=\"brush: plain; title: ; notranslate \">.\/server package \${server\_name} --include=usr<\/pre>\n<\/li>\nPush the newly created server package \${server\_name} --include=usr<\/pre>\n<\/li> kage to bluemix using following command.\ncf push \${app} name} -p \${path\_to\_server\_package\_zip}<\/pre>\n<\/li>\n<\/ul>\n<A3>Advance Mobile Access service<\/h 3>\n\nBind the pushed application to Advance Mobile Access Service.\n<a href=\"https:\/\de veloper.ibm.com\/mobilefirstplatform\/wp-content\/uploads\/sites\/32\/2015\/07\/Screen-Shot-2015-07-17at-3.28.04-pm.png\"><img src=\"https:\/\/developer.ibm.com\/mobilefirstplatform\/wp-content\/uploads\/sit es\/32\/2015\/07\/Screen-Shot-2015-07-17-at-3.28.04-pm-1024x346.png\" alt=\"Advance Mobile Access\" width=\"980\" height=\"331\" class=\"alignnone size-large wp-image-14882\" \/><\a>\n<\/li>\nRegister your client application in AMA dashboard. For more info refer documentation : <a href=\"https:\/\www.ng. bluemix.net\/docs\/services\/mobileaccess\/index.html\" target=\" blank\">click here<\/a>\n<a href=\"h ttps:\/\developer.ibm.com\/mobilefirstplatform\/wp-content\/uploads\/sites\/32\/2015\/07\/Screen-Shot-201 5-07-17-at-3.42.32-pm.png\"><img src=\"https:\/\developer.ibm.com\/mobilefirstplatform\/wp-content\/upl oads\/sites\/32\/2015\/07\/Screen-Shot-2015-07-17-at-3.42.32-pm.pnq\" alt=\"AMA Client Registration\" wi dth=\"935\" height=\"452\" class=\"alignnone size-full wp-image-14883\" \/><\a>\n<\/li>\nAMA provid

es Facebook, Google, or a custom identity provider to authenticate access to protected resources. Add C ustom identity provider feature as it can be migrated to MFPF and specify the corresponding jax-rs custo m authentication application url and realm name.<br/>
href=\"https:\/\developer.ibm.com\/mobilefirs tplatform\/wp-content\/uploads\/sites\/32\/2015\/07\/Screen-Shot-2015-07-17-at-4.03.21-pm.png\"><img s rc=\"https:\/\developer.ibm.com\/mobilefirstplatform\/wp-content\/uploads\/sites\/32\/2015\/07\/Screen-Sh ot-2015-07-17-at-4.03.21-pm.png\" alt=\"Custom Auth AMA\" width=\"955\" height=\"375\" class=\"alignno ne size-full wp-image-14890\" \/><\/a>\n<\/li> Add the following code inside didFinishLaunchingWith Options function in AppDelegate of client application which will register the realm and initialize connection with Bluemix Application.\npre class=\"brush: plain; title: ; notranslate\"> IMFClient.sharedInstance().regi sterAuthenticationDelegate(customAuthDelegate, forRealm: & amp;quot;customAuthRealm 3& amp;quot;) \nIMFClient.sharedInstance().initializeWithBackendRoute("https:\//parkstore.mybluemix.net&a mp;quot;, backendGUID: "5e3ad88d-dd48-469d-b46f-2c4ad66b5345")\n<\/li> >\nThe following is the sample code to invoke the Rest url&amp:#8217;s in client application.\npre c lass=\"brush: plain; title: ; notranslate\">var request: IMFResourceRequest = IMFResourceRequest(path: "https:\/\parkstore.mybluemix.net\/LocalstoreAdapter\/apps\/5e3ad88d-dd48-469d-b46f-2c4ad 66b5345\/localstore\/getAllItems", method: "GET")\n thCompletionHandler { (wlResponse:IMFResponse!, err:NSError!) -&qt; Void in<\/pre>\n<\/li>\n<\/ul> \n<h3>Push Service for iOS 8<\/h3>\n\nBind the application with Push Service for iOS 8<br/>br\/>\n <a href=\"https:\//developer.ibm.com/mobilefirstplatform/wp-content/uploads/sites/32/2015/07/Scree n-Shot-2015-07-17-at-4.07.01-pm.png\"><img src=\"https:\//developer.ibm.com\/mobilefirstplatform\/wp-c ontent/uploads/sites/32/2015/07/Screen-Shot-2015-07-17-at-4.07.01-pm-1024x367.png\" alt=\"Push AMA\" width=\"980\" height=\"351\" class=\"alignnone size-large wp-image-14891\" \/><\a>\n<\/li>\nC onfigure Apple Push Notification service (APNs) which requires Apple Developer Account and Generate pl2 certificates. Documentation link : <a href=\"https:\/\www.ng.bluemix.net\/docs\/services\/mobilepush\/i ndex.html#certificates\" target=\" blank\">click here<\/a>\n<\/li>\li>\upload the generated pl2 certificate in Push service dashboard\n<a href=\"https:\/\/developer.ibm.com\/mobilefirstplatform\/wp-content\/up loads/sites/32/2015/07/Screen-Shot-2015-07-12-at-6.47.14-pm.png\"><img src=\"https://developer.ib m.com/mobilefirstplatform/wp-content/uploads/sites/32/2015/07/Screen-Shot-2015-07-12-at-6.47.14pm-1024x377.png\" alt=\"Push Service\" width=\"980\" height=\"361\" class=\"alignnone size-large wp-im age-14816\" \/><\a>\n<\/li>\nAdd the following code inside didFinishLaunchingWithOptions function in AppDelegate of client application which will register notifications in client app.\npre class=\"brush: plain; title:; notranslate\"> let notificationTypes: UIUserNotificationType = UIUserNotificationType.Badge | UIUs erNotificationType.Alert | UIUserNotificationType.Sound\n let notificationSettings: UIUserNotification Settings = UIUserNotificationSettings(forTypes: notificationTypes, categories: nil)\n applicatio n.registerUserNotificationSettings(notificationSettings)\n application.registerForRemoteNotifications() \n<\li>Add the following code inside didRegisterForRemoteNotificationsWithDeviceToken fu nction in AppDelegate of client application which will register pushclient and subscribe to tag in client app .\nIMFPushClient.sharedInstance().registerDeviceToken(de viceToken, completionHandler: { (response, error) -> Void in\n if error != nil {\n println("Error during device registration \\((error.description)\")\n println("Response during device registration json: \\((response.responseJson.de scription)")\n var tags = ["parkstore"]\n **IMFPushClie** nt.sharedInstance().subscribeToTags(tags, completionHandler: { (response:IMFResponse!, err:NSError!) -> Void in\n if err != nil {\n println("There was an error while e subscribing to tag")\n }else{\n println("Successfully s ubscribe to tag parkstore")\n })\n }<\pre>\n<\li>Add th }\n e following function inside Appdelegate which triggers when push notification arrived in client app.\npre class=\"brush: plain; title: ; notranslate\">func application(application: UIApplication, didReceiveRemoteN otification userInfo: [NSObject : AnyObject]) {\n println("Got remote Notification. Data: \\(u serInfo.description)")\n let info = userInfo as NSDictionary\n let data = info.objectFor Key("aps")?.objectForKey("alert") as! NSDictionary\n serData = data.objectForKey("body") as! String\n let alertView = UIAlertView(titl e: "WishList!", message: "\\(userData)", delegate: nil, cancelBu ttonTitle: "OK")\n alertView.show()\n grateblu\">Existing Bluemix Client Application<\/h2>\nAdd the following Code snippets to the existing Bluemix Client Application and name the application with same name which you have registered in Advan

ca Mohila Access Dashhoard //n/n/ul/n/lix Add the following code incide didfinishl aunching/WithOnt

```
CE INIODITE ACCESS DASTIDUATU.
ions function in AppDelegate of client application which will register the realm and initialize connection wit
h Bluemix Application.\nre class=\"brush: plain; title: ; notranslate\"> IMFClient.sharedInstance().registe
rAuthenticationDelegate(customAuthDelegate, forRealm: & amp;quot;customAuthRealm 3& amp;quot;)\nl
MFClient.sharedInstance().initializeWithBackendRoute("https:\/\parkstore.mybluemix.net&amp
;quot;, backendGUID: "5e3ad88d-dd48-469d-b46f-2c4ad66b5345")<\pre>\n<\li>\n
< The following is the sample code to invoke the Rest url&amp;#8217;s in client application.\n<pre>pre clas
s=\"brush: plain; title: ; notranslate\">var request: IMFResourceRequest = IMFResourceRequest(path: &a
mp:quot;https://parkstore.mybluemix.net/LocalstoreAdapter/apps/5e3ad88d-dd48-469d-b46f-2c4ad66
b5345\localstore\getAllItems", method: "GET")\n
                                                                                                             request.sendWith
CompletionHandler { (wlResponse:IMFResponse!, err:NSError!) -&qt; Void in<\/pre>\n<\li>\nAdd
the following code inside didFinishLaunchingWithOptions function in AppDelegate of client application wh
ich will register notifications in client app.\npre class=\"brush: plain: title: : notranslate\"> let notificationT
ypes: UIUserNotificationType = UIUserNotificationType.Badge | UIUserNotificationType.Alert | UIUserNoti
ficationType.Sound\n
                                let notificationSettings: UIUserNotificationSettings = UIUserNotificationSettings
(forTypes: notificationTypes, categories: nil)\n
                                                               \n
                                                                        application.registerUserNotificationSettings(not
                             application.registerForRemoteNotifications()\n<\li>\nAdd the following
ificationSettings)\n
code inside didRegisterForRemoteNotificationsWithDeviceToken function in AppDelegate of client applic
ation which will register pushclient and subscribe to tag in client app.\nnpre class=\"brush: plain; title: ; not
ranslate\">IMFPushClient.sharedInstance().registerDeviceToken(deviceToken, completionHandler: { (res
ponse, error) -> Void in\n
                                                                                  println("Error during device
                                                  if error != nil {\n
registration \\(error.description)")\n
                                                                               else {\n
                                                                                                     println("Res
                                                                  }\n
ponse during device registration json: \((response.responseJson.description)\)"\\n
tags = ["parkstore"]\n
                                                                  IMFPushClient.sharedInstance().subscribeToTags(t
ags, completionHandler: { (response:IMFResponse!, err:NSError!) -&qt: Void in\n
                                                                                                                            if err!
= nil \{ \n
                            println("There was an error while subscribing to tag")\n
}else{\n
                            println("Successfully subscribe to tag parkstore")\n
                             }\n<\li>Add the following function inside Appdelegate which trigger
               })\n
s when push notification arrived in client app.\npre class=\"brush: plain; title: ; notranslate\">func applica
tion(application: UIApplication, didReceiveRemoteNotification userInfo: [NSObject : AnyObject]) {\n
rintln("Got remote Notification. Data:\\(userInfo.description)"\\n
nfo as NSDictionary\n
                                  let data = info.objectForKey("aps")?.objectForKey(&
                                                          let userData = data.objectForKey("body&q
quot;alert") as! NSDictionary\n
                           let alertView = UIAlertView(title: "WishList!", message: &
uot:) as! String\n
quot;\\(userData)", delegate: nil, cancelButtonTitle: "OK")\\n
                                                                                                                         alertView
                 \n\<\pre>\n<\li>The following are the screenshots of client application.<br \/>\n<a hr
ef=\"https:\/\developer.ibm.com\/mobilefirstplatform\/wp-content\/uploads\/sites\/32\/2015\/07\/IMG 0020.
jpg\"><img src=\"https:\/\developer.ibm.com\/mobilefirstplatform\/wp-content\/uploads\/sites\/32\/2015\/07
\/IMG 0020-169x300.jpg\" alt=\"IMG 0020\" width=\"169\" height=\"300\" class=\"alignnone size-medium
wp-image-14917\" \/><\a><a href=\"https:\/\developer.ibm.com\/mobilefirstplatform\/wp-content\/uploads\
/sites\/32\/2015\/07\/IMG 00211.jpg\"><img src=\"https:\//developer.ibm.com\/mobilefirstplatform\/wp-con
tent\uploads\sites\\32\\2015\\07\/IMG 00211-169x300.jpg\" alt=\"IMG 0021\" width=\"169\" height=\"300
\" class=\"alignnone size-medium wp-image-14918\" \/><\a><a href=\"https:\/\developer.ibm.com\/mobile
firstplatform\/wp-content\/uploads\/sites\/32\/2015\/07\/IMG 0025.jpg\"><img src=\"https:\/\/developer.ibm.
com/mobilefirstplatform/wp-content/uploads/sites/32/2015/07/IMG 0025-169x300.jpg\" alt=\"IMG 00
25\" width=\"169\" height=\"300\" class=\"alignnone size-medium wp-image-14920\" \/><\a><a href=\"http
s: \forall \forall developer. ibm. com \forall mobile first platform \forall wp-content \forall uploads \forall sites \forall 32 \forall 2015 \forall 07 \forall IMG\_0024. jpg \ ">< image: limit of the platform in the platform of the platform is the platform of the
mg src=\"https:\//developer.ibm.com/mobilefirstplatform/wp-content/uploads/sites/32/2015/07/IMG
0024-169x300.jpg\" alt=\"IMG 0024\" width=\"169\" height=\"300\" class=\"alignnone size-medium wp-im
age-14919\" \/><\a><a href=\"https:\/\developer.ibm.com\/mobilefirstplatform\/wp-content\/uploads\/sites\
/32\/2015\/07\/IMG 0026.jpg\"><img src=\"https:\/\/developer.ibm.com\/mobilefirstplatform\/wp-content\/u
ploads\sites\/32\/2015\/07\/IMG 0026-169x300.jpg\" alt=\"IMG 0026\" width=\"169\" height=\"300\" class
=\"alignnone size-medium wp-image-14921\" \/><\a>\n<\li>\n<\vul>\n<h2>Migration to On-Prem<\/h2>\n
<h3 id=\"configureclient\">Migration of Client Application<\/h3>\nMigration of Client Application includ
es following two steps\nConfiguring Cocoapods\li>Client App Migration\li>\n<h3 id=\"co
coapods\">Configuring Cocoapods<\h3>\nIf CocoaPods has not been installed on a specific comput
er:\n\nFollow the & amp;#8220; Getting Started& amp;#8221; guide for Cocoa Pods installatio
```

n: http://guides.cocoapods.org/using/getting-started.html/loopen " I erminal&# 8221; at the installation location and run the "pod init" command<\/li> p>The following steps assume that the client application is working with CocoPods. If not, follow this &am p:#8220:Using CocoaPods&amp:#8221: documentation : <a href=\"http:///quides.cocoapods.org/using/ using-cocoapods.html\" target=\" blank\">click here<\/a><\/p>\nIn both cases, the instructions below explain how to edit the "Podfile" file.\n< file" file located in the root of your XCode project in a favourite text editor.<\/li>\nCommen t out or remove the existing content.Add the following lines:\npre class=\"brush: plain; title: ; n otranslate\">source 'https:\/\github.rtp.raleigh.ibm.com\/imflocalsdks\/imf-client-sdk-specs.git\\npod 'IMFC ompatibility'\n<\li>Open &amp;#8220;Terminal&amp;#8221; at the location of &amp;#8220; Podfile"..<\/li>\nVerify that the XCode project is closed.<\/li>\nRun the &amp;#8220;po d install" command.\n<\vol>\nOpen the [MyProject].xcworkspace file in XCode. This f ile is located side by side with [MyProject].xcodeproj.<br/>-kp\/>\nAn usual CocoaPods-based project is mana ged as a workspace containing the application (the executable) and the library (all project dependencies brought by the CocoaPods manager).
In Xcode's Build Settings, search for & Description of the CocoaPods manager. #8220:Other Linker Flags&amp:#8221; and insert \${inherited} (if -ObiC is defined in this field, you can jus t delete it, since it is configured in the CocoaPod project).\n<h3>Client App Migration</h3>\n\n Search for bluemix dependency imports like\nre class=\"brush: plain; title: ; notranslate\">#import & amp;lt;IMFCore\IMFCore.h&qt;\n#import <IMFPush\h&amp;qt;<\/pre>\nReplac e the above imports with \nre class=\"brush: plain; title: ; notranslate\">#import <IMFComp atibility/IMFCompatibility.h>\n<\li>\n\nLook for a call to the &amp;#8220;initializeWithBa ckendRoute" method and replace the route URL with your on-premise server URL. For exam ple:\nple:\npre class=\"brush: plain; title: ; notranslate\">IMFClient.sharedInstance().initializeWithBackendRout e("https://vparkstore.mybluemix.net", backendGUID: "5e3ad88d-dd48-46 9d-b46f-2c4ad66b5345"\nshould be replaced with your on-premise MFP server UR L<\/p>\nclass=\"brush: plain; title: ; notranslate\">IMFClient.sharedInstance().initializeWithBackendR oute(&amp:guot:http://localhost:10080/ParkStoreMFP&amp:guot:, backendGUID: &amp:guot;5e3ad88d -dd48-469d-b46f-2c4ad66b5345"\nNote, that backendGUID parameter is ignored a nd can be empty. Look for all instantiations of IMFResourceRequest class and update it<\/li> r all instantiations of IMFResourceRequest class and update the request URL with absolute or relative pat h to the resource. For example:\n\nre class=\"brush: plain; title: ; notranslate\">var request: IMFResource Request = IMFResourceRequest(path: "https:\/\parkstore.mybluemix.net\/LocalstoreAdapter\/ apps\/5e3ad88d-dd48-469d-b46f-2c4ad66b5345\/localstore\/getAllItems", method: " GET")\nshould be replaced with\nclass=\"brush: plain; title: ; notranslate\" >var request: IMFResourceRequest = IMFResourceRequest(path: "http:\/\localhost:10080\/Pa rkStoreMFP\adapters\LocalstoreAdapter\localstore\getAllItems", method: "GET& amp;quot;)\n<\li>\nAdd the following code inside didRegisterForRemoteNotificationsWithDevic eToken function in Appdelegate of Client application.\nre class=\"brush: plain; title: ; notranslate\"> WL Push.sharedInstance().tokenFromClient = deviceToken.description<\/pre>\n<\/li>\nAll on-premise app lications require the "worklight.plist" file to be present in the application resource s. In the <code>IBMMobileFirstPlatformFoundationNativeSDK<\/code> pod we supply a file named <stro ng>sample.worklight.plist</strong>.\n\nLocate the &amp;#8220;sample.worklight.plist&amp;#82 21: file in the â€~IBMMobileFirstPlatformFoundationNativeSDK' pod.<\/li>\nl>Copy this file to the pa rent (application) project and rename it to "worklight.plist".<\/li>\nEdit the &a mp;#8220;worklight.plist" file by setting the "application id" key to th e name of your application deployed to the on-premise MFPF server<\/li>
</r> "migratemfp\">Migration of JAX-RS Application to JAVA Adapter<//h3>\n\nTo migrate JAX-RS ap plication to on-prem (MobileFirst Foundation) server we need to do the following steps for server:\n Create MobileFirst Project & Dright Street Project & Create Notice API app for iOS < Dr V > \n ​​<br ∨ >\n<a href=\"https:\/\developer.ibm.com\/mobilefirstplatform\/wp-content\/uploads\/sites\/32\/2015\/07\/Sc reen-Shot-2015-07-12-at-6.50.04-pm.png\"><img src=\"https:\//developer.ibm.com/mobilefirstplatform/w p-content/uploads/sites/32/2015/07/Screen-Shot-2015-07-12-at-6.50.04-pm.png\" alt=\"Screen Shot 2 015-07-12 at 6.50.04 pm\" width=\"595\" height=\"596\" class=\"alignnone size-full wp-image-14817\" \/><\ /a><\p>\n<a href=\"https:\\/developer.ibm.com\/mobilefirstplatform\/wp-content\/uploads\/sites\/32\/2 015\/07\/Screen-Shot-2015-07-12-at-6.51.13-pm.png\"><img src=\"https:\/\/developer.ibm.com\/mobilefirs tplatform\wp-content\uploads\sites\/32\/2015\/07\/Screen-Shot-2015-07-12-at-6.51.13-pm.png\" alt=\"Sc reen Shot 2015-07-12 at 6.51.13 pm\" width=\"598\" height=\"590\" class=\"alignnone size-full wp-image-

14818\" \/><\a><\p>\n<a href=\"https:\/\developer.ibm.com\/mobilefirstplatform\/wp-content\/uploads \sites\\32\\2015\\07\\Screen-Shot-2015-07-12-at-6.52.28-pm.png\"><img src=\"https:\\/\developer.ibm.co m/mobilefirstplatform/wp-content/uploads/sites/32/2015/07/Screen-Shot-2015-07-12-at-6.52.28-pm. png\" alt=\"Screen Shot 2015-07-12 at 6.52.28 pm\" width=\"717\" height=\"424\" class=\"alignnone size-f ull wp-image-14819\" \/><\/a><\/li>\nAdd two adapters for Custom Authentication and Localstore and migrate the JAX-RS code as shown in the following example. x code and paste it in the newly created Localstore Java adapter JAX-RS file.hAdd and remove the following changes in your adapter code.\nremove <code>\{\text{tenantId}}\<\code><\li>\n remove the <code>@PathParam -&amp;gt; PathParam(\"tenantId\") String deviceId<\/code> and <c</li> ode>@PathParam("realmName\") String realmName</code>\nhdd scope to the all http api res ource <code>@OAuthSecurity (scope=\"customAuthRealm 3\")<\/code><\/li>\n<\/ul>\nThe code look s like the following\nclass=\"brush: plain; title: ; notranslate\">\n\t@GET\n\t@OAuthSecurity (sc ope="customAuthRealm\_3")\n\t@Path("\/getAllItems")\n\tpubli c String getAllItems() throws MissingConfigurationOptionException{\n\t\tinit();\n\t\tJsonArray jsonArray = n ew JsonArray();\n\t\tfor(Object key : props.keySet()){\n\t\t\jsonArray.add(parser.parse(props.getProperty( (String) key)).getAsJsonObject());\n\t\treturn jsonArray.toString();\n\t\n\t@PUT\n\t@OAuthSecurit y (scope="customAuthRealm\_3")\n\t@Path("\/addItem")\n\tpu blic void addItem(String itemJson) \n\t\t\throws MissingConfigurationOptionException, URISyntaxExcepti on, IOException{\n\t\try{\n\t\t\tinit();\n\t\t\tint newKey = props.keySet().size()+1;\n\t\t\tprops.put(String.valu eOf(newKey), itemJson);\n\t\t\tURL url = this.getClass().getClassLoader().getResource("data.p roperties"); \n\t\t\File file = new File(url.toURI().getPath());\n\t\t\FileOutputStream foStream = n ew FileOutputStream(file);\n\t\tprops.store(foStream, & p;quot;saving new item");\n\t\t\foStr eam.close();\n\n\t\t}catch(IOException ioe){\n\t\t\tioe.printStackTrace();\n\t\t}\n\n\t{\n\n\t@POST\n\t@OAut hSecurity (scope="customAuthRealm\_3")\n\t@Path("\/addAllItems& quot;)\n\tpublic String addAllItems(String itemsJson) \n\t\tthrows MissingConfigurationOptionException, URISyntaxException, IOException{\n\t\ttry{\n\t\tinit();\n\t\t\learAllData();\n\t\t\JsonArray jsonArr = parse r.parse(itemsJson).getAsJsonArray();\n\t\tfor(int i=0;i<jsonArr.size();i++){\n\t\t\tprops.put(St ring.valueOf(i+1), jsonArr.get(i).toString());\n\t\t\t]\n\t\t\tURL url = this.getClass().getClassLoader().getRes ource("data.properties"); \n\t\t\file file = new File(url.toURI().getPath());\n\ t\t\tFileOutputStream foStream = new FileOutputStream(file);\n\t\t\tprops.store(foStream, & mp;amp;quot; saving new item");\n\t\t\foStream.close();\n\t\t\treturn "true&quo t;;\n\t\t}catch(IOException ioe){\n\t\t\tioe.printStackTrace();\n\t\t}\n\t\treturn "false&am p;quot;;\n\t\n\n\t@DELETE\n\t@OAuthSecurity(enabled=false)\n\t@Path("\clearAll&quot ;)\n\tpublic String clearAllData() \n\t\t\throws MissingConfigurationOptionException, URISyntaxException, IOException{\n\t\t\init();\n\t\t\tprops.clear();\n\t\t\System.out.println("Size: "+props.s ize());\n\t\tURL url = this.getClass().getClassLoader().getResource("data.properties&quo t;); \n\t\t\File file = new File(url.toURI().getPath());\n\t\tFileOutputStream foStream = new FileOutputStre am(file);\n\t\ttprops.store(foStream, "clearing all data");\n\t\ttfoStream.close();\n\t\tt return & amp;quot;cleared & amp;quot;;\n\t}\n<\/pre>\n<h3 id=\"configoauth\">Configuring Custom-OAuth<\ /h3>\n\nAdd realm with same name you had on BlueMix and login module to the authenticationC onfig.xml.\n<realm name=&amp;quot;customAuthRea Im\_3" loginModule="customAuthLoginModule\_3">\n<class Name>com.worklight.core.auth.ext.CustomIdentityAuthenticator<\/className&amp;gt;\t\n &|t;parameter name="providerUrl" value="http:\/\localhost:10080\/P arkStoreMFP\adapters\Customauth"\\>\n\amp;gt;\realm>\n\n⁢loginMo dule name="customAuthLoginModule 3" expirationInSeconds="3600&a mp;quot;>\n<className&amp;gt;com.worklight.core.auth.ext.CustomIdentityLoginModule &|t;\/className>\n&|t;\/loginModule><\/pre>\n<\/li>Add Custom-oauth Rea Im in userIdentityRealms in Application Descriptor file of iOS Native API\npre class=\"brush: xml; title: ; n otranslate\"><userIdentityRealms&amp;gt;customAuthRealm\_3&amp;lt;\userIdentityRealms&amp ;gt;\n<\li>\n<h3 id=\"configurepush\">Configuring Push Capability<\h3>\n\nAdd a pns p12 certificate which is generated from Apple Developer Account under iOS Native API Folder\n <a href=\"https:\//developer.ibm.com/mobilefirstplatform/wp-content/uploads/sites/32/2015/07/Scree n-Shot-2015-07-12-at-6.58.03-pm.png\"><img src=\"https:\//developer.ibm.com\/mobilefirstplatform\/wp-c ontent/uploads/sites/32/2015/07/Screen-Shot-2015-07-12-at-6.58.03-pm.png\" alt=\"Screen Shot 201 5-07-12 at 6.58.03 pm\" width=\"286\" height=\"171\" class=\"alignnone size-full wp-image-14820\" \/><\/a >\n<\/li>\nAdd Push configuration in Application Descriptor file of iOS Native API and include the pas

sword of added apns certificate.\n<pushSender pass word="password"\/&qt;\n<tags&amp;gt;\n &amp;lt;tag&amp;gt;\n &a mp;lt;\name>\n <\/tag&amp;gt;\n&amp;lt;\/tag&amp;gt;\n&amp;lt;\/tag&amp;gt;\/ /pre>\n<\/li>\Create HTTP Push Adapter with following function code which will send the user push notification to the devices which is subscribed to tag "parkstore".\nre class=\" brush: xml; title: ; notranslate\">function sendTagNotification(notificationText) {\n var notificationOptions = {};\n notificationOptions.message = {};\n notificationOptions.target = {};\n\n notificationOptions.me ssage.alert = notificationText;\n notificationOptions.target.tagNames = ["parkstore&quot ;];\n\n WL.Server.sendMessage("ParkStoreMFP", notificationOptions);\n\n retur result: & amp;quot; Notification sent to users subscribed to the tag parkstore. & amp;quot; \n \ \;\n n {\n \/c/pre>\n<\/li>\/nBy performing above steps one can easily run iOS app built for Bluemix on M obileFirst Platform and following are the links to samples.\n<h3 id=\"sample\">Sample and Source C ode</h3>\nBluemix Server : <a href=\"https:\/\/hub.jazz.net\/git\/chethan\/parkstore-bluemix-server\"> Parkstore bluemix server</a><br/>or \/>\nBluemix Client : <a href=\"https:\/\/hub.jazz.net\/git\/chethan\/parkst ore-bluemix\">Parkstore bluemix<\/a><br \/>\nMFP Server : <a href=\"https:\/\/hub.jazz.net\/git\/chetha n\parkstore-mfp-server\">Parkstore mfp server<\a><br \/>\nMFP Client : <a href=\"https:\/\hub.jazz.n et/git/chethan/parkstore-mfp)">Parkstore mfp</a>The post <a rel=\"nofollow\" href=\"https:\/ /developer.ibm.com/mobilefirstplatform/2015\/08\/19\/try-on-bluemix-and-buy-mfp\/\">Try on Bluemix an d migrate to on-prem MobileFirst Platform</a> appeared first on <a rel=\"nofollow\" href=\"https:\/\/develo per.ibm.com\/mobilefirstplatform\">IBM MobileFirst Platform<\/a>.<\/p>",

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### Sample

The attached sample (https://github.com/MobileFirst-Platform-Developer-Center/JavaAdapters/tree/release71) includes an adapter called RSSReader to test the adapter inside an application.