

# Apache OFBiz® plugin for REST

Version release24.09

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This initial implementation helps to expose existing or new OFBiz services as REST. To facilitate this, added a new "action" attribute to service elements that helps to determine how a particular service can be accessed via REST.

# 1. Important URLs

- API <https://localhost:8443/rest>
- WADL <https://localhost:8443/rest/application.wadl>
- OpenAPI docs <https://localhost:8443/docs/swagger-ui.html>

## 2. Endpoints

Once deployed, following URLs can be accessed

- GET /rest/services
- GET /rest/services/{serviceName}?inParams=<URLEncodedJSON>
- POST /rest/services/{serviceName} (For this endpoint, the service in parameters must be part of Request Body)

### 3. Authentication

API is protected by JWT tokens, although other forms of access tokens may be supported in future. An API client must first needs to authenticate itself using Basic Auth using username and password. Username is nothing but OFBiz 'userLogin'. Token can also be generated using Swagger UI.

```
curl -X POST "https://localhost:8443/rest/auth/token" -H "accept: application/json" -H "Authorization: Basic YWRtaW46b2ZiaXo="
```

If successfully validated, generated token should be received in response

```
{
  "statusCode": 200,
  "statusDescription": "OK",
  "successMessage": "Token granted.",
  "data": {
    "access_token":
"eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzUxMiJ9.eyJ1c2VyTG9naW5JZCI6ImFkbWluIiwiaXNzIjoiaXBhY2h1
T0ZCaXoiLCJleHAiOjE1OTY3MDk4MjAsIm1hdCI6MTU5NjcwODAyMH0.9Hj4pkkeQowAMxPLrI_To0WTohxgV
R6FoViyx5HoboTACQZ4iqDyqiIBodkuCVsZw0TPT1RSAQJ0L_oSVMqBA",
    "token_type": "Bearer",
    "expires_in": "1800"
  }
}
```

Subsequent API calls must use received token using Bearer Authentication scheme as shown below

```
GET /rest/services HTTP/1.1
Authorization: Bearer
eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzUxMiJ9.eyJ1c2VyTG9naW5JZCI6ImFkbWluIiwiaXNzIjoiaXBhY2h1T
0ZCaXoiLCJleHAiOjE1OTY3MDk4MjAsIm1hdCI6MTU5NjcwODAyMH0.9Hj4pkkeQowAMxPLrI_To0WTohxgV
R6FoViyx5HoboTACQZ4iqDyqiIBodkuCVsZw0TPT1RSAQJ0L_oSVMqBA
```

## 4. Example

- List All Services (export="true" and verb = "get|post")

```
GET /rest/services HTTP/1.1
Content-Type: application/json
Authorization: Bearer
eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzUxMiJ9.eyJpc3MiOiJBCGFjaGVPRkIjpeIIsImhhdCI6MTU0NzczOTM0O
CwiZXhwIjoxNjc5Mjc1MzQ4LCJhdWQiOiJ3d3cuZXhhbXBsZS5jb20iLCJzdWIiOiJqcm9ja2V0QGV4YW1wbGU
uY29tIiwiaWVzZXJmb2dpbk1kIjoieWVzZXJmb2dpbk1kIjoieWVzZXJmb2dpbk1kIjoieWVzZXJmb2dpbk1k
GFtcGx1LmNvbSI6InVzZXJmb2dpbk1kIjoieWVzZXJmb2dpbk1kIjoieWVzZXJmb2dpbk1kIjoieWVzZXJmb2
uaXN0cmF0b3IiXX0.fwafgrgpodBJcXxNTQdZknKeWKb3sD0sQrcR2vcRw97FznD6mke79p10Tu7cqpUx7LiXu
ROUAnXEgqDice-BSg
```

Response :

```
{
  "statusCode" : 200,
  "statusDescription" : "OK",
  "successMessage" : "OK",
  "data" : [ {
    "name" : "findProductById",
    "description" : "Finds productId(s) corresponding to a product reference,
productId or a GoodIdentification idValue",
    "link" : {
      "href" : "https://localhost:8443/rest/services/findProductById",
      "rel" : "self",
      "type" : "get"
    }
  }, {
    "name" : "searchProductsByGoodIdentificationValue",
    "description" : "Search Products by Good Identification Value",
    "link" : {
      "href" :
"https://localhost:8443/rest/services/searchProductsByGoodIdentificationValue",
      "rel" : "self",
      "type" : "post"
    }
  } ]
}
```

- Call OFBiz service via GET(export="true" and verb = "get|post")

```
GET /rest/services/findProductById?inParams=%7B%22idToFind%22:%22GZ-1001%22%7D
HTTP/1.1 +
Content-Type: application/json +
Authorization: Bearer
eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzUxMiJ9.eyJpc3MiOiJBCGFjaGVPRkRpeIIsImhhdCI6MTU0NzczOTM0O
CwiZXhwIjoxNjc5Mjc1MzQ4LCJhdWQiOiJ3d3cuZXhhbXBsZS5jb20iLCJzdWIiOiJqcm9ja2V0QGV4YW1wbGU
uY29tIiwiaWVzZXJmYXN0IjoiaWVzZXJmYXN0IiwiaWF0IjoiYWRtaW4iLCJzY2x1IjpbIk1hbmFnZXIiLCJQcm9qZWN0IEFkbW
l1aXN0cmF0b3IiXX0.fwafgrgpodBJcXxNTQdZknKeWKb3sD0sQrcR2vcRw97FznD6mke79p10Tu7cqpUx7LiXu
ROUAnXEggDice-BSg
```

Response :

```
{
  "statusCode" : 200,
  "statusDescription" : "OK",
  "data" : {
    "product" : {
      "createdStamp" : "2020-06-11T15:29:58.182+0000",
      "productName" : "Nan Gizmo",
      "createdByUserLogin" : "admin",
      "productId" : "GZ-1001",
      "taxable" : "Y",
      "primaryProductCategoryId" : "101",
      "createdTxStamp" : "2020-06-11T15:29:57.523+0000",
      "lastUpdatedTxStamp" : "2020-06-11T15:29:57.523+0000",
      "isVirtual" : "N",
      "autoCreateKeywords" : "Y",
      "description" : "Indian style Nan gizmo",
      "chargeShipping" : "Y",
      "internalName" : "Nan Gizmo",
      "lastModifiedByUserLogin" : "admin",
      "lastUpdatedStamp" : "2020-06-11T15:29:58.182+0000",
      "lastModifiedDate" : "2001-05-13T06:30:00.000+0000",
      "productTypeId" : "FINISHED_GOOD",
      "createdDate" : "2001-05-13T06:30:00.000+0000",
      "isVariant" : "N"
    }
  }
}
```

- Call OFBiz Service via POST



```
POST rest/services/searchProductsByGoodIdentificationValue HTTP/1.1
Content-Type: application/json
Authorization: Bearer
eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzUxMiJ9.eyJpc3MiOiJCbGFjaGVPRkVpeIsImVhbnQCI6MTU0NzczOTM0OCwiZXhwIjoxNjc5Mjc1MzQ4LCJhdWQiOiJ3d3cuZXhhbXBsZS5jb20iLCJzdWIiOiJqcml9ja2V0QGV4YW1wbGUuY29tIiwia212ZW50YW11IjoimS9obm55Iiwia3VybWVtZSI6IlJvY2tldCI6IkVtYWlsIjoianJvY2tldEBlGfTcGxlMnVbSIsInVzZXJmb2dpbk1kIjoieYWRtaW4iLCJSb2x1IjpbIk1hbmFnZXIiLCJQcm9qZWN0IEFkbWluaXN0cmF0b3IiXX0.fwafgrgpodBJcXxNTQdZknKeWkb3sD0sQrcR2vcRw97FznD6mkE79p10Tu7cqpUx7LiXuROUAnXEgqDice-BSg
{
  "idFragment": "2644"
}
```

## Response

```
{
  "statusCode" : 200,
  "statusDescription" : "OK",
  "data" : {
    "products" : [ {
      "internalName" : "Round Gizmo",
      "productId" : "GZ-2644",
      "primaryProductCategoryId" : "101",
      "isVariant" : "N",
      "goodIdentificationTypeId" : "INVOICE_EXPORT",
      "idValue" : "GZ-2644-replaced",
      "isVirtual" : "N"
    } ]
  }
}
```