

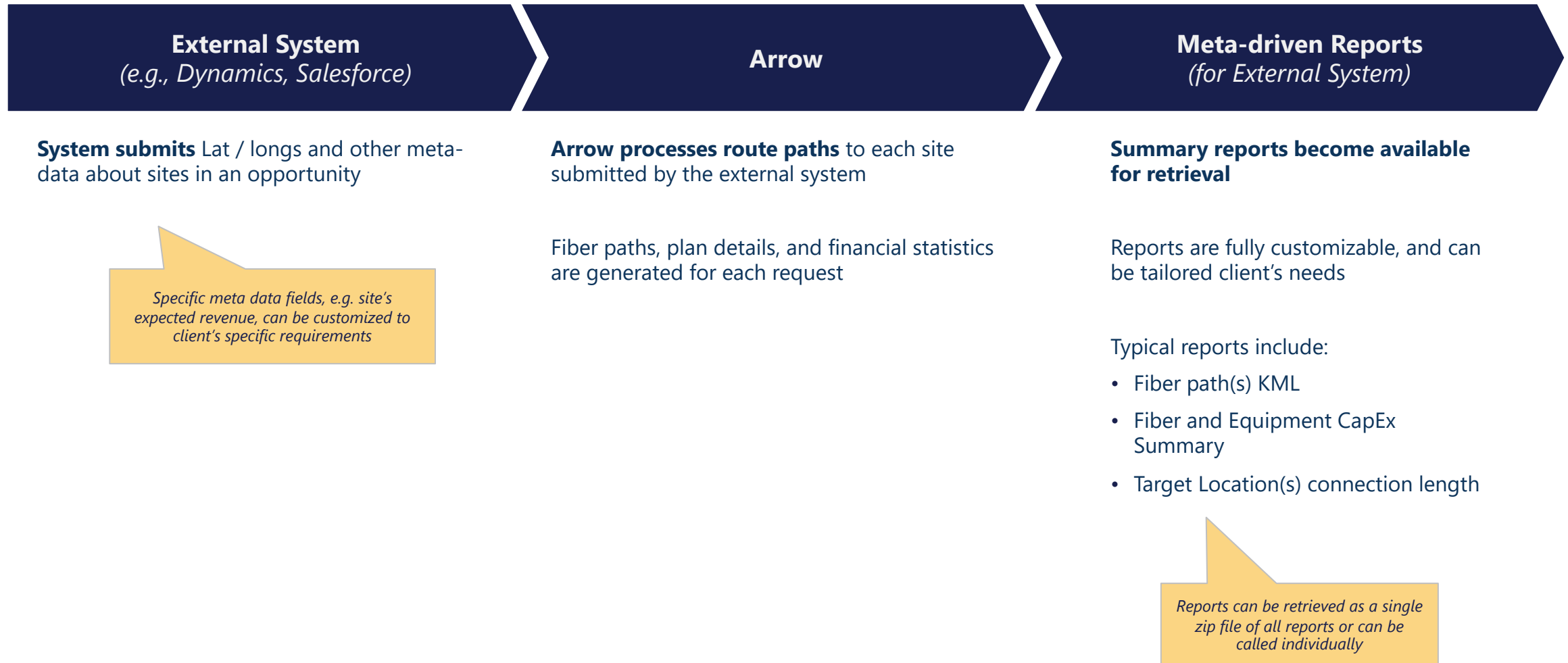
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# Arrow Platform

REST APIs



# Arrow is set up to enable automatic, machine-to-machine, plan submission and result retrieval via REST APIs or Curl Commands



# There are 4 API endpoints that can be called by external systems

1

## OAuth Authentication

- Log in and receive authentication token
- Use this token for all communication with other endpoints (e.g., submit plan)

2

## Submit Plan

- Used to submit a plan to Arrow system

3

## List of Available Reports

- Returns a list of reports and the way to call them
- Set up as a dynamic list of reports, which allows for easy addition and modification of existing reports, as needed

4

## Retrieve Individual Report

- Called to fetch individual report
- Report format can be specified (e.g., csv, json)



*Details on the following pages*

“OAuth” endpoint is used to log in and receive authentication token required to interact with all other Arrow endpoints

## 1 OAuth Authentication

### Request Command

**POST**  
**CURL**

https://<app name>.aro.altvil.com/oauth/token

Name of your Arrow instance

curl localhost:8000/oauth/token -X POST -H "Content-Type: application/x-www-form-urlencoded" -d

#### Required keys / parameters :

- username
- password
- client\_id
- client\_secret
- grant\_type

Credentials provided by Arrow team

**Example:** https://demo.aro.altvil.com/oauth/token?username=demo\_api&password=a7Z,/tL%<ta88"n&client\_id=demo&client\_secret=842G~\_YTr8kpW&grant\_type=password

curl localhost:8000/oauth/token -X POST -H "Content-Type: application/x-www-form-urlencoded" -d grant\_type=password -d client\_id=demo -d client\_secret=a7Z,/tL%<ta88"n" -d username=demo\_api -d password=password

### JSON Response

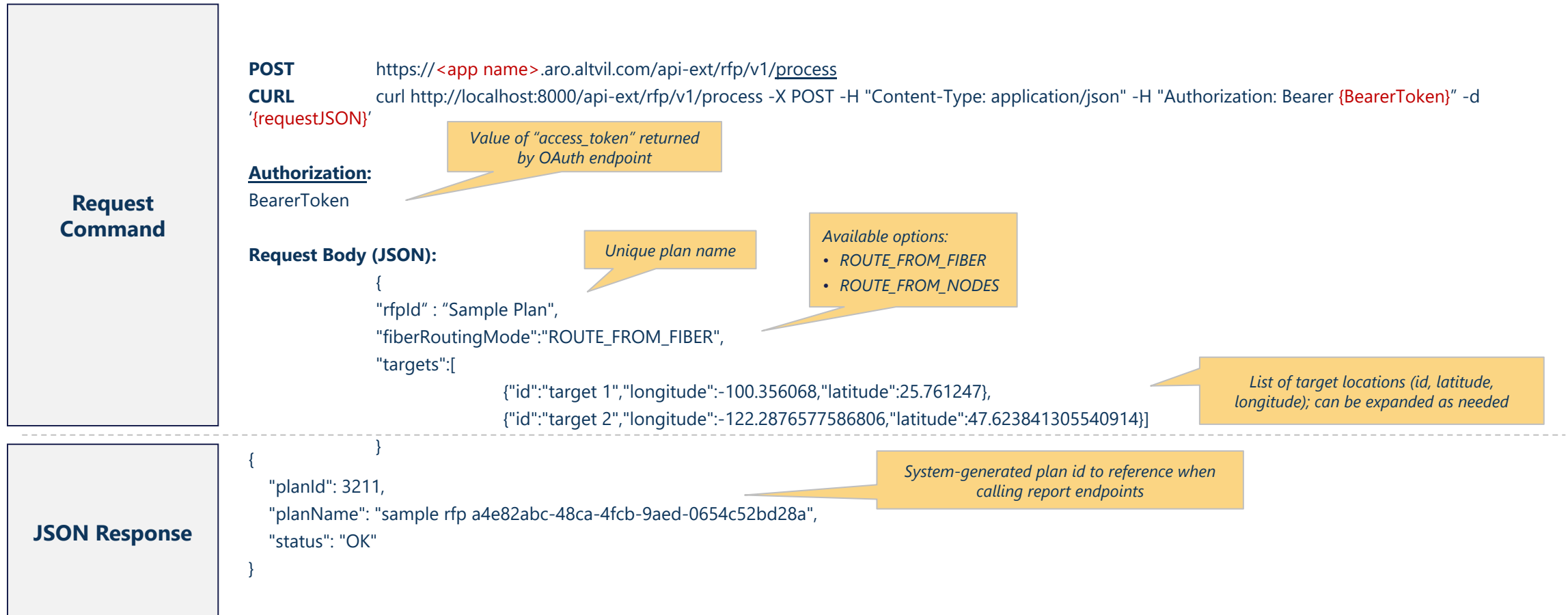
```
{
  "access_token": "eyJ...ig4",
  "token_type": "bearer",
  "refresh_token": "eyJ...n9M",
  "expires_in": 43199,
  "scope": "openid read",
  "jti": "0dc13440-50ea-40df-82f8-7fe498a39d6d"
}
```

"access\_token" value is needed to authenticate with other endpoints

Token is valid for 12 hrs., and can be refreshed using "refresh\_token" (grant\_type=refresh\_token in POST command)

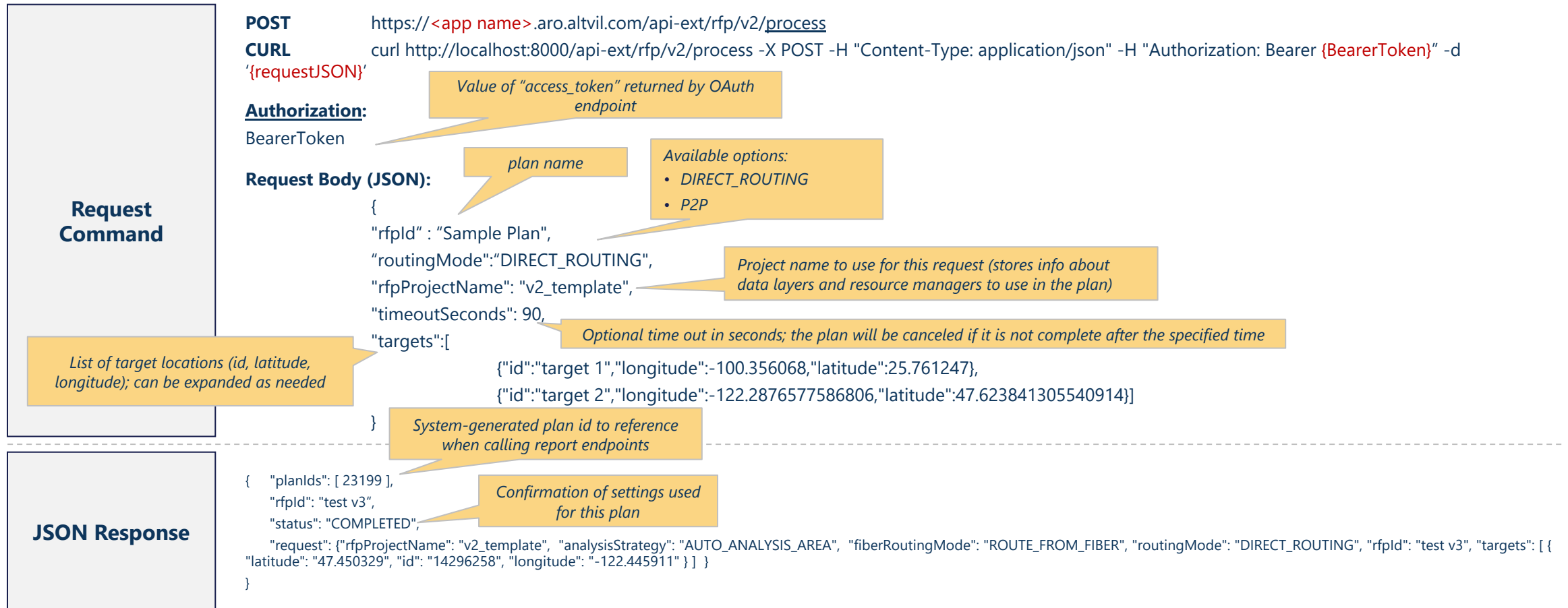
# "Process" v1 endpoint is used to define and submit basic RFP plan to Arrow

## 2 Submit RFP v1 Plan



# "Process" v2 endpoint is used to define and submit Direct Routing-type plans to Arrow

## 2 Submit RFP v2 Plan



# "Report-definition" endpoint returns a dynamic list of available reports and the way to call them

## 3 List of Available Reports

Request Command

JSON Response

**GET** <https://<app name>.aro.altvil.com/api-ext/rfp/v1/report-definition>

**CURL** `curl http://localhost:8000/api-ext/rfp/v1/report-definition -X GET -H "Authorization: Bearer {BearerToken}"`

**Authorization:**  
BearerToken

Value of "access\_token" returned by OAuth endpoint

```
[ {
  "reportData": {
    "id": 31,
    "reportType": "RFP",
    "name": "rfp_output",
    "displayName": "RFP Output",
    "media_types": [
      "csv",
      "json",
      "xls"
    ]
  },
  "href": "/api-ext/rfp/v1/{planId}/report/31.{mediaType}"
},
{
  "reportData": {
    "id": 34,
    "reportType": "RFP",
    "name": "RFP_KML",
    "displayName": "RFP KML",
    "media_types": [
      "kml"
    ]
  },
  "href": "/api-ext/rfp/v1/{planId}/report/34.{mediaType}"
} ]
```

Report id to reference when retrieving individual reports

Report name

List of available download file formats / media types

URL to retrieve report:  
{planId} = unique plan id from "Submit Plan" endpoint's response body  
{mediaType} = eligible report file format, specific to the report

"Report" endpoint is used to fetch individual reports, once the plan is processed

#### 4 Retrieve Individual Reports

<b>Request Command</b>	<div><div><b>GET</b></div><div><b>CURL</b></div><div><b>Authorization:</b></div><div><b>Variables:</b></div><div><b>Example:</b></div></div> <div><div>https://&lt;app name&gt;.aro.altvil.com/api-ext/rfp/v1/{planId}/report/{id}.{mediaType}</div><div>curl http://localhost:8000/api-ext/rfp/v1/{planId}/report/{id}.{mediaType} -X GET -H "Authorization: Bearer {BearerToken}"</div><div>BearerToken</div><div><div>Value of "access_token" returned by OAuth endpoint</div><div><ul style="list-style-type: none"><li>{planId} – Unique report id provided in plan submission response</li><li>{id} – id identifying specific report, from report-definition endpoint response</li><li>{mediaType} – file extension code from list of available media types associated with given report</li></ul></div><div>https://demo.aro.altvil.com/api-ext/rfp/v1/3211/report/31.csv</div></div></div>
<b>Response</b>	<div><div>"location_id","link_status","length_meters","segment_guid","segment_name","fiber_source"</div><div>"target 2","not connected","0.0","NA","NA",""</div><div>"target 1","connected","4675.427178876296","NA","NA","Red Alestra"</div></div> <div><div>Response data structure / layout depends on the media type selected for the report, e.g. csv</div></div>



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## Customer Success Team:

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**Learn more at:** <https://www.altmansolon.com/products/network-planning-arrow/arrowguide/>