Fetching statistics reports via the API

The API can provide a mechanism to query the reporting data. This gives a flat report in CSV format you can use in other analysis tools such as Tableau, Power BI and others.

Prerequisites

- The optional reports API functionality to be enabled for your organisation - your account manager will be happy to discuss pricing with you
- An API Key from the domain organisation or sub-organisation the reports will cover
- A basic practical knowledge of APIs and coding

Procedure

Perform a GET request to the following URL:

> https://reports.openathens.net/api/v1/**example.org**/report?type=**\<type\>**&from=**\<from\>**&to=**\<to\>**&by=**\<by\>**[&resource=**\<resource\>**][&scope=**\<scope\>**][&andBy=**\<andBy\>**][&granularity=**\<granularity\>**]

Where example.org is your OpenAthens API name and:

Parameter	Required	Accepted values	Default if omitted
type	Y	RESOURCE_USAGE (other report types will be added in the future)	
from	Y	- yyyy-MM - yyyy-MM-ddTHH:mm	yyyy-MM (default if no granularity is set)
to	Y	- yyyy-MM - yyyy-MM-ddTHH:mm	yyyy-MM (default if no granularity is set)
by	Y	- RESOURCE - GROUPS - ATTRIBUTE:\<reportable attribute's target name\> - PERMISSION_SETS	
resource	N	Specify a single resource by entityID Can not be used with `&by=RESOURCE`	All resources
scope	N	- THIS_ORGANISATION - ALL_ORGANISATIONS All includes all the sub-organisations below the authenticated user	The organisation of the authenticated user
andBy	N	- GROUPS - ATTRIBUTE:\<reportable attribute's target name\> - PERMISSION_SETS Optional. Can only be used with `&by=RESOURCE`	
granularity	N	- HOURLY - DAILY - MONTHLY If Hourly or Daily: 'from' and 'to' date format should be yyyy-MM-ddTHH:mm If Monthly: 'from' and 'to' date format can be yyyy-MM	MONTHLY

The maximum date range you can query depends on the granularity, as follows:

Granularity	Maximum date range	Example
HOURLY	7 days	`?from=2020-04-01T07:00&to=2020-04-7-06:00` Provides the week from 1 April 2020 07:00 UTC through 7 April 2020 06:00 UTC
DAILY	1 month	`?from=2020-04-01T00:00&to=2020-05-01-00:00` Provides the month from 1 April 2020 through 30 April 2020

MONTHLY	12 months	`?from=2019-04&to=2020-04` Provides the 12 months from April 2019 through March 2010

Response codes

HTTP Response Code	Description
200	The request was successful
204	No data
400	Bad request - e.g. date out of range
401	The requester does not have permission to perform this operation
404	Not found

Response payload

Since reports can take some time to run, the response is an `application/vnd.eduserv.iam.reports.task-v1+json` object containing a href to the task status. Your application will need to monitor this until the task completes (20s is a reasonable wait time to code).

Once the task is complete, the object will have a status of FINISHED and a percentComplete of 100, and a link to the report.

Example

```
Request:
GET https://reports.openathens.net/api/v1/example.org/report?type=RESOURCE_USAGE&from=2020-01&to=2020-
01&by=RESOURCE&scope=ALL_ORGANISATIONS
Authorization: OAApiKey <api-key>
Response:
HTTP/1/1 200 OK
Content-Type: application/vnd.eduserv.iam.reports.task-v1+json

{
    "percentComplete": 0,
    "status": "RUNNING",
    "links": [
        {
            "href": "https://reports.openathens.net/api/v1/example.org/task/a11b5fff-6170-38e3-b4bb-
560bee3e6985",
            "rel": "SELF",
            "type": "application/vnd.eduserv.iam.reports.task-v1+json",
            "method": "get"
        }
    ],
    "id": "a11b5fff-6170-38e3-b4bb-560bee3e6985"
}
```

When finished the response will have updated to include a link to the report

```
Request:
GET https://reports.openathens.net/api/v1/example.org/task/a11b5fff-6170-38e3-b4bb-560bee3e6985
Authorization: OAApiKey <api-key>
Response:
HTTP/1/1 200 OK
Content-Type: application/vnd.eduserv.iam.reports.task-v1+json

{
    "percentComplete": 100,
    "status": "FINISHED",
    "links": [
        {
            "href": "https://reports.openathens.net/api/v1/athens/report/a11b5fff-6170-38e3-b4bb-560bee3e6985",
            "rel": "DOWN",
            "type": "application/vnd.eduserv.iam.reports.report-v1+json",
            "method": "get"
        }
    ],
    "id": "a11b5fff-6170-38e3-b4bb-560bee3e6985"
}
```

Report format

The downloaded report will be a CSV file with the headings:

`Domain,Organisation number,Organisation name,DateTime,<by>,[<andyby>,]Count`

where:

- `Domain` is your API name (as per the request). This will be constant for the report
- `Organisation number` is the numeric identifier of the organisation (or sub-organisations where scope=ALL_ORGANISATIONS in the request). See below if you have more than one in the report.
- `DateTime` is the date/time of the record as yyyy-MM for monthly granularity, yyyy-MM-dd for daily, and yyyy-MM-ddTHH:mmZ for hourly
- `<by>` will be replaced by RESOURCE, GROUPS, PERMISSION_SETS, or ATTRIBUTE:<targetname> as per the request
- `<andBy>` (where present) will similarly be replaced by the secondary breakdown identifier
- `Count` will be the number of transfers

All organisations and sub-organisations have a numeric identifier in the system whether or not they are marked as having a unique identifier - it's just not easy to see those identifiers in the interface for the ones who don't have the unique setting. Most don't need it, and turning it on can affect access to content.

This numeric identifier is persistent and will allow you to link stats from the same sub-organisations even if their name changes.

Notes

Reports are type: `text/csv`

Daily granularity reports are inclusive of the start and end date

Querying certain dates will produce an error:

- dates before your organisation joined OpenAthens
- dates before January 2018
- dates more than 48 months in the past