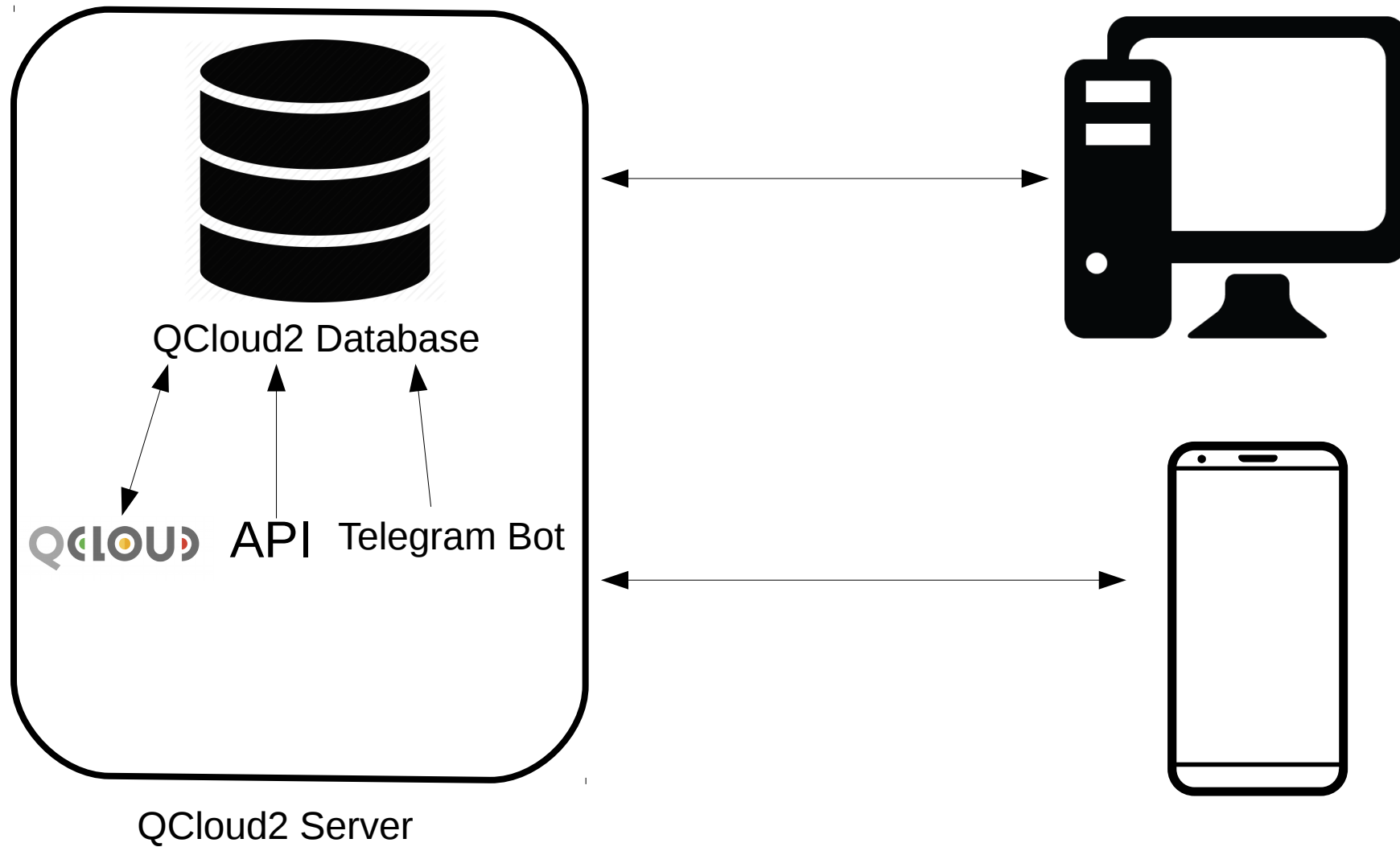




Official API V1.1 release

Basic diagram



Technology

- Python 3.4
- Anaconda
- Flask
- Flask Restful (<https://github.com/flask-restful/flask-restful>)
- Flask Restplus (<https://github.com/noirbizarre/flask-restplus>)
- Flask http_auth (<https://github.com/miguelgrinberg/Flask-HTTPAuth>)
- Flask jwt_extended (<https://flask-jwt-extended.readthedocs.io/en/latest/>)
- Postman

Authentication

- API auth via JWT (**J**SON **W**eb **T**oken)
- Duration of 15 minutes from the request
- Same QCloud2 credentials

POST `http://qcloud2.crg.eu:5001/login`

Request Payload:

username: QCloud2 user email

password: QCloud2 user password

- All the requests requires the token
- Look auth.json

Get files

```
GET http://qccloud2.crg.eu:5001/files
```

- Get your labsystems files
- JSON response
- Multiple filters
- The file data is **NOT** included with this request

start_date	Time window start date
end_date	Time window end date
sample_type	Sample type to retrieve, where qc01 is BSA, qc02 is HeLa and qc03 is C4L isotopologues mix
checksum	File checksum
labsystem_name	Labsystem name...yeah
file_name	Filename

Get files examples request (1)

Retrieve all Lumos 1 QC03 files between 2019-04-01 and 2019-09-01 with one request.

All filters are optional and combinable as the user wants.

Request

```
curl --location --request GET
```

```
"http://qcloud2.crg.eu:5001/files?  
start_date=2019-04-01&end_date=2019-09-  
01&sample_type=qc03&labssystem_name=Lumos1"
```

Get files examples response (1)

Look responseFile1.json

Get files examples request (2)

Retrieve the file with checksum:
f544aad13713f0afb771e9f5ad056393.

The request with the checksum parameter only returns one file.

Request

```
curl --location --request GET
```

```
"http://127.0.0.1:5001/files?checksum  
=f544aad13713f0afb771e9f5ad056393"
```

Get files examples response (2)

Look responseFile2.json

Get data

GET `http://qccloud2.crg.eu:5001/data`

- Get your data
- JSON response

checksum	[Required] File checksum
accession	Parameter CV
context_source_name	Context source name

Get data examples request (1)

Retrieve all data from file with checksum
08cf4287487bf0e768983abe7811c881.

All filters are optional and combinable as the user wants.

Request

```
curl --location --request GET
```

```
"qcloud2.crg.eu:5001/data?  
checksum=08cf4287487bf0e768983abe7811c881"
```

Get data examples response (1)

Look responseData1.json

Get data examples request (2)

Retrieve only LVN peak area data from file with checksum 08cf4287487bf0e768983abe7811c881.

Request

```
curl --location --request POST
```

```
"qcloud2.crg.eu:5001/data?  
checksum=08cf4287487bf0e768983abe7811c881&a  
ccession=QC:1001844&context_source_name=LVN  
ELTEFAK"
```

Get data examples response (2)

Look responseData2.json

WhoAmI request

```
GET http://qcloud2.crg.eu:5001/whoami
```

- Retrieve your node data, including your labsystems.
- Retrieve your QCloud2 personal information.
- No parameters.
- JSON response.
- Look whoami.json

Request

```
curl --location --request GET
```

```
"qcloud2.crg.eu:5001/whoami"
```


Status request

```
GET http://qcloud2.crg.eu:5001/status
```

- Retrieve your lab systems status, just like QCloud2 traffic light
- No parameters.
- JSON response.
- Look status.json

Request

```
curl --location --request GET  
"qcloud2.crg.eu:5001/status"
```

General annotations request

```
GET http://qcloud2.crg.eu:5001/general_annotations
```

- Retrieve all QCloud2 general annotations
- Date filters
- JSON response.
- Look `general_annotations.json`

Request

```
curl --location --request GET
```

```
"qcloud2.crg.eu:5001/general_annotations"
```

Request with date filters

```
curl --location --request GET
```

```
"qcloud2.crg.eu:5001/general_annotations?start_date=2019-01-09  
09:27:00&end_date=2019-03-09 09:27:00"
```

start_date	Time window start date
end_date	Time window end date

FAQs

Why the URL is <http://qcloud2.crg.eu:5001> and not something like <https://api.qcloud2.crg.eu>?

Why JWT auth instead of just the QCloud2 credentials?

Why the data request is separated from the files request?

What about server security?

Can any user get data from any node?

Why the C4L endpoints are in a different API?

Any API documentation page?

Why is the presentation over and no meme has yet come out?



ONE DOES NOT SIMPLY

**END A PRESENTATION WITHOUT
A MEME**

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