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# **python-hologram-api Documentation**

***Release 0.1.5***

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Python client for <https://dashboard.hologram.io/api>.

## Installation

```
pip install python-hologram-api
```

## Documentation

- Documentation: <https://python-hologram-api.readthedocs.io>.

## Usage

`HologramClient` is the main class you should use. Most of its methods are sub-categorized based on the endpoint that the method interfaces with. For example, user account management is under *client.user*.

To use `python-hologram-api` in a project:

```
import os
from python_hologram_api.client import HologramClient

HOLOGRAM_API_KEY = os.environ.get('HOLOGRAM_API_KEY')
client = HologramClient(HOLOGRAM_API_KEY)
```

Example Usages:

```
# List Devices
resp = client.devices.list()
if resp.get('success'):
    devices = resp.get('data')
```

```
# Get a Device
device_id = 1234
resp = client.devices.get(device_id)
if resp.get('success'):
    device = resp.get('data')

# Activate SIMs
sims = ['99990000000012345678']
plan = 73
tier = 1
resp = client.cell.activate_sims(sims, plan, tier)
assert resp.get('success') is not None
```

The following submodules are available:

- Device Management
  - client.devices
  - client.cell
  - client.tags
  - client.data\_plans
- Hologram Cloud
  - client.csr
  - client.sms
  - client.cloud
  - client.spacebridge
- Account Management
  - client.user
  - client.org

## License

- Free software: MIT license



### Submodules

#### python\_hologram\_api.cellular module

Cellular Links module.

**class** `python_hologram_api.cellular.CellularLinks` (*client*)

Bases: `object`

CellularLinks class.

A Cellular Link is the association between a Device and a cellular data plan and SIM. Typically, a device has exactly one Cellular Link.

**activate\_sims** (*sims, plan, tier*)

Activate SIMs.

##### Parameters

- **sims** (*List[str]*) – array of SIM numbers to activate.
- **plan** (*int*) – Device data plan. Look up plan IDs with List Data Plans.
- **tier** (*int*) – Geographic zone. Currently the valid tiers are 1 and 2. Higher tiers incur higher costs. See pricing for details.

**Returns** the json response as a dictionary.

**Return type** dict

**change\_overage\_limit** (*link\_id, limit*)

Change Overage Limit.

##### Parameters

- **link\_id** (*int*) – Integer ID of the link to modify.

- **limit** (*int*) – Number of bytes over the plan limit to allow. Set -1 for no data limit.

**Returns** the json response as a dictionary.

**Return type** dict

**change\_plan** (*link\_id, plan, tier*)

Change Plan.

**Parameters**

- **link\_id** (*int*) – Integer ID of the link to change.
- **plan** (*int*) – Device data plan. Look up plan IDs with List Data Plans.
- **tier** (*int*) – Geographic zone. Currently the valid tiers are 1 and 2. Higher tiers incur higher costs. See pricing for details.

**Returns** the json response as a dictionary.

**Return type** dict

**get\_link** (*link\_id*)

Get Cellular Link.

**Parameters** **link\_id** (*int*) – Integer ID of the link to retrieve.

**Returns** the json response as a dictionary.

**Return type** dict

**list\_links** (*org\_id=None*)

List Cellular Links.

**Parameters** **org\_id** (*int, optional*) – Only return results for the given organization ID.

**Returns** the json response as a dictionary.

**Return type** dict

**pause\_link** (*link\_id*)

Pause Data.

**Parameters** **link\_id** (*int*) – Integer ID of the link to modify.

**Returns** the json response as a dictionary.

**Return type** dict

**unpause\_link** (*link\_id*)

Unpause Data.

**Parameters** **link\_id** (*int*) – Integer ID of the link to modify.

**Returns** the json response as a dictionary.

**Return type** dict

## python\_hologram\_api.client module

Main module.

**class** `python_hologram_api.client.HologramClient` (*api\_key, base\_url='https://dashboard.hologram.io/api/1/'*)

Bases: `object`

Hologram API Client class.

**api\_key**  
Return api\_key.

**base\_url**  
Return base\_url.

## python\_hologram\_api.cloud\_messaging module

Cloud Messaging module.

**class** `python_hologram_api.cloud_messaging.CSRMessaging(client)`  
Bases: `object`

Cloud Services Router (CSR) class.

**list\_messages** (*device\_id=None, limit=None, org\_id=None, topic\_name=None, time\_stamp\_start=None, time\_stamp\_end=None*)  
List CSR Messages.

### Parameters

- **device\_id** (*int, optional*) – Filter for messages originating from one device.
- **limit** (*int, optional*) – Return a maximum of this many messages. Default is 25.
- **org\_id** (*int, optional*) – Filter for messages from devices belonging to this organization.
- **topic\_name** (*str, optional*) – Filter for messages with a given topic.
- **time\_stamp\_start** (*int, optional*) – Only return messages received after this time (Unix timestamp).
- **time\_stamp\_end** (*int, optional*) – Only return messages received before this time (Unix timestamp).

**Returns** the json response as a dictionary.

**Return type** dict

**send\_message** (*device\_id, data, tags=None*)  
Send a CSR Message.

### Parameters

- **device\_id** (*int*) – Device ID to associate the message to.
- **data** (*str*) – Data payload of the message.
- **tags** (*List[str], optional*) – Additional topics to associate with the message.

**Returns** the json response as a dictionary.

**Return type** dict

**class** `python_hologram_api.cloud_messaging.CloudToDeviceMessaging(client)`  
Bases: `object`

Cloud To Device Messaging.

Send a TCP or UDP message to one or more devices on the Hologram network.

**send\_message** (*device\_ids, protocol, port, data=None, base64\_data=None*)

Send a Message to a List of Devices.

Must send either data or base64data.

**Parameters**

- **device\_ids** (*List[int]*) – IDs of devices to send message.
- **protocol** (*str*) – The protocol to use: ‘TCP’ or ‘UDP’.
- **port** (*int*) – The port to use.
- **data** (*str*) – The data to send. Max length of 10k bytes.
- **base64\_data** (*str*) – The data to send, encoded in base64. Max length of 10k bytes.

**Returns** the json response as a dictionary.

**Return type** dict

**trigger\_webhook** (*device\_id, webhook\_guid, data=None, base64\_data=None*)

Send Message to a Device via Webhook.

This endpoint does not require authentication with your API key, as the webhook GUID serves as an authentication token. In order to generate a webhook URL, please visit the cloud configuration page for your device.

Must send either data or base64data.

**Parameters**

- **device\_id** (*int*) – ID of the device to send to.
- **webhook\_guid** (*str*) – generated UUID for the webhook URL.
- **data** (*str, optional*) – The data to send. Max length of 10k bytes.
- **base64\_data** (*str, optional*) – The data to send, encoded in base64. Max length of 10k bytes.

**Returns** Integer Code of responded HTTP Status, e.g. 404 or 200.

**Return type** int

**class** python\_hologram\_api.cloud\_messaging.**SMSMessaging** (*client*)

Bases: object

SMS Messaging class.

**send\_message** (*device\_id, body, from\_number=None*)

Send SMS Message.

There is no cost to send SMS messages to Hologram devices via API.

**Parameters**

- **device\_id** (*int*) – ID of the device to send to.
- **body** (*str*) – ASCII Text representation of the SMS body.
- **from\_number** (*str, optional*) – Phone number to display as the sender.

**Returns** the json response as a dictionary.

**Return type** dict

## python\_hologram\_api.constants module

Constants module.

## python\_hologram\_api.data\_plans module

Data Plans module.

```
class python_hologram_api.data_plans.DataPlans(client)
    Bases: object
```

DataPlans class.

The Data Plans endpoints return pricing and descriptions for the different data plans that Hologram offers. When changing the data plan for a cellular link via API, you must refer to the plan by its ID, which you can determine from these endpoints.

```
get(plan_id)
    Get a Data Plan.
```

**Parameters** **plan\_id** (*int*) – The ID of the plan to get.

**Returns** the json response as a dictionary.

**Return type** dict

```
list()
    List Data Plans.
```

**Returns** the json response as a dictionary.

**Return type** dict

## python\_hologram\_api.device\_tags module

Device Tags module.

```
class python_hologram_api.device_tags.DeviceTags(client)
    Bases: object
```

DeviceTags class.

Device tags are user-configurable categories that you can use to classify your devices. A device may be linked to more than one tag.

```
create(name)
    Create a Device Tag.
```

**Parameters** **name** (*str*) – Name for the new tag.

**Returns** the json response as a dictionary.

**Return type** dict

```
delete(tag_id)
    Delete a Device Tag.
```

**Parameters** **tag\_id** (*int*) – The ID of the tag to delete.

**Returns** the json response as a dictionary.

**Return type** dict

**link\_devices** (*tag\_id, device\_ids*)

Link a List of Devices to a Tag.

**Parameters**

- **tag\_id** (*int*) – The ID of the tag.
- **device\_ids** (*List [int]*) – List of device IDs to link to this tag.

**Returns** the json response as a dictionary.

**Return type** dict

**list** ()

List Device Tags.

**Returns** the json response as a dictionary.

**Return type** dict

**unlink\_devices** (*tag\_id, device\_ids*)

Unlink a List of Devices to a Tag.

**Parameters**

- **tag\_id** (*int*) – The ID of the tag.
- **device\_ids** (*List [int]*) – List of device IDs to unlink to this tag.

**Returns** the json response as a dictionary.

**Return type** dict

## python\_hologram\_api.devices module

Devices module.

**class** python\_hologram\_api.devices.Devices (*client*)

Bases: object

Devices class.

**get** (*device\_id*)

Get a Device.

**Parameters** **device\_id** (*int*) – The device id to get.

**Returns** the json response as a dictionary.

**Return type** dict

**list** (*org\_id=None*)

List Devices.

**Parameters** **org\_id** (*int, optional*) – Only return results for the given organization ID.

**Returns** the json response as a dictionary.

**Return type** dict

## python\_hologram\_api.organization module

Organization Account Management module.

**class** `python_hologram_api.organization.Organization` (*client*)

Bases: `object`

Organization class.

Organizations allow multiple users to share access to the same devices and billing account. See the guide for more information.

**add\_balance** (*org\_id*, *amount*)

Add Balance.

Charge the organization's configured billing source and add that amount to the account balance

**Parameters**

- **org\_id** (*int*) – The organization's unique identifier.
- **amount** (*float*) – Amount to add to current user balance.

**Returns** the json response as a dictionary.

**Return type** `dict`

**balance\_history** (*org\_id*)

Get Balance History.

Retreive a history of transactions (credits and charges).

**Parameters** **org\_id** (*int*) – The organization's unique identifier.

**Returns** the json response as a dictionary.

**Return type** `dict`

**get** (*org\_id*)

Get an Organization.

**Parameters** **org\_id** (*int*) – The organization's unique identifier.

**Returns** the json response as a dictionary.

**Return type** `dict`

**get\_balance** (*org\_id*)

Get Current Balance.

**Parameters** **org\_id** (*int*) – The organization's unique identifier.

**Returns** the json response as a dictionary.

**Return type** `dict`

**list** ()

List Organizations.

List all organizations that you are a member of. This includes the special "personal" organization tied to your user.

**Returns** the json response as a dictionary.

**Return type** `dict`

## python\_hologram\_api.spacebridge module

Spacebridge module.

**class** `python_hologram_api.spacebridge.Spacebridge` (*client*)  
Bases: `object`

Spacebridge class.

See the Spacebridge guide for details. <https://hologram.io/docs/guide/cloud/spacebridge-tunnel/>

**add\_public\_key** (*public\_key*)  
Add Public Key.

Associate an SSH key with your user. This key can then be used to tunnel to devices that you control.

**Parameters** `public_key` (*str*) – SSH public key.

**Returns** the json response as a dictionary.

**Return type** `dict`

**disable\_key** (*tunnel\_key\_id*)  
Disable a Key.

**Parameters** `tunnel_key_id` (*int*) – ID of the tunnel key to disable.

**Returns** the json response as a dictionary.

**Return type** `dict`

**enable\_key** (*tunnel\_key\_id*)  
Enable a Key.

**Parameters** `tunnel_key_id` (*int*) – ID of the tunnel key to enable.

**Returns** the json response as a dictionary.

**Return type** `dict`

**list\_public\_keys** (*with\_disabled=False*)  
List Public Keys.

**Parameters** `withdisabled` (*bool*, *optional*) – Set to True to include disabled keys.

**Returns** the json response as a dictionary.

**Return type** `dict`

## python\_hologram\_api.user module

User Account Management module.

**class** `python_hologram_api.user.User` (*client*)  
Bases: `object`

User class.

Requests to the user account balance endpoints are equivalent to calling the organization account balance endpoints with the personal organization.



**add\_balance** (*amount*)

Add Balance.

Charge the user's configured billing source and add that amount to your account balance.

**Parameters** **amount** (*float*) – Amount to add to current user balance.

**Returns** the json response as a dictionary.

**Return type** dict

**balance\_history** ()

Get Balance History.

Retrieve a history of transactions (credits and charges).

**Returns** the json response as a dictionary.

**Return type** dict

**get\_balance** ()

Get Current Balance.

**Returns** the json response as a dictionary.

**Return type** dict

**get\_info** ()

Get Current User.

**Returns** the json response as a dictionary.

**Return type** dict

## Module contents

Top-level package for python-hologram-api.



Contributions are welcome, and they are greatly appreciated! Every little bit helps, and credit will always be given. You can contribute in many ways:

### Types of Contributions

#### Report Bugs

Report bugs at [https://github.com/vicyap/python\\_hologram\\_api/issues](https://github.com/vicyap/python_hologram_api/issues).

If you are reporting a bug, please include:

- Your operating system name and version.
- Any details about your local setup that might be helpful in troubleshooting.
- Detailed steps to reproduce the bug.

#### Fix Bugs

Look through the GitHub issues for bugs. Anything tagged with “bug” and “help wanted” is open to whoever wants to implement it.

#### Implement Features

Look through the GitHub issues for features. Anything tagged with “enhancement” and “help wanted” is open to whoever wants to implement it.

## Write Documentation

python-hologram-api could always use more documentation, whether as part of the official python-hologram-api docs, in docstrings, or even on the web in blog posts, articles, and such.

## Submit Feedback

The best way to send feedback is to file an issue at [https://github.com/vicyap/python\\_hologram\\_api/issues](https://github.com/vicyap/python_hologram_api/issues).

If you are proposing a feature:

- Explain in detail how it would work.
- Keep the scope as narrow as possible, to make it easier to implement.
- Remember that this is a volunteer-driven project, and that contributions are welcome :)

## Getting Started

Clone the repo and run:

```
make setup
```

If that does not work for you, you can also install the requirements with pip:

```
pip install -r requirements_dev.txt
```

## Running Tests

Tests are run with `tox`.

<https://tox.readthedocs.io/en/latest/>

#### 0.1.5 (2017-10-27)

- Update README formatting/highlighting

#### 0.1.4 (2017-10-23)

- Add `python_hologram_api.rst` to documentation

#### 0.1.3 (2017-10-23)

- Update documentation

#### 0.1.2 (2017-10-23)

- First release on PyPI.
- Implemented a Python wrapper for <https://hologram.io/docs/reference/cloud/http/>

#### 0.1.1 (2017-10-23)

- Travis Errors

## 0.1.0 (2017-10-20)

- Mistakes were made.

## CHAPTER 5

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