iland Documentation

Release 1.0.1

iland Internet Solutions, Corp

Nov 15, 2018

Contents

1 iland-sdk **3**

2 Introduction **5**

3 Getting the code **7**

4 Installation **9**

5 Running Tests **11**

6 Usage **13**

7 iland **15**
7.1 iland package 15

8 Contributing **19**
8.1 Types of Contributions 19
8.2 Get Started! 20
8.3 Pull Request Guidelines 21
8.4 Tips 21

9 Credits **23**
9.1 Development Lead 23
9.2 Contributors 23

10 History **25**
10.1 1.0.0 (2018-11-15) 25
10.2 0.9.0 (2018-11-13) 25
10.3 0.7.5 (2017-06-27) 25
10.4 0.7.4 (2017-05-26) 25
10.5 0.7.3 (2017-05-18) 26
10.6 0.7.2 (2017-05-17) 26
10.7 0.7.1 (2017-02-08) 26
10.8 0.7.0 (2016-10-13) 26
10.9 0.6.0 (2016-6-28) 26
10.10 0.5.0 (2016-3-22) 26
10.11 0.4.0 (2016-3-08) 26
10.12 0.3.0 (2016-2-18) 27

10.13 0.2.0 (2016-2-09) 27
10.14 0.1.0 (2016-2-09) 27

11 Indices and tables **29**

Python Module Index **31**

Contents:

CHAPTER 1

iland-sdk

iland cloud Python SDK

- Free software: BSD License
- Documentation: https://iland-sdk.readthedocs.org.
- iland cloud v1.0 API doc: https://us-east-1.api.ilandcloud.com/doc/current/.

CHAPTER 2

Introduction

This library provides a pure Python interface for the iland cloud API version 1.0. It works with Python versions from 2.7+.

iland cloud provides Enterprise-grade IaaS and this library is intended to make it even easier for Python programmers to use.

CHAPTER 3

Getting the code

The code is hosted at https://github.com/ilanddev/python-sdk

Check out the latest development version anonymously with:

```
$ git clone https://github.com/ilanddev/python-sdk.git
$ cd python-sdk
```

CHAPTER 4

Installation

At the command line:

```
$ pip install iland-sdk
```

Or, if you have virtualenvwrapper installed:

```
$ mkvirtualenv iland-sdk
$ pip install iland-sdk
```

You can also install iland-sdk using the actual source checkout:

```
$ git clone https://github.com/ilanddev/python-sdk.git

$ cd python-sdk

$ pip install -e .
```

CHAPTER 5

Running Tests

To run the unit tests:

```
$ make test
```

To run the unit tests for all supported Python interpreters:

```
$ make test-all
```

To check your changes before submitting a pull request:

```
$ make lint
```

This package was created with Cookiecutter and the audreyr/cookiecutter-pypackage project template.

CHAPTER 6

Usage

To use iland-sdk in a project:

```
import iland
```

The API is exposed via the `iland.Api` class.

To create an instance of the `iland.Api`:

```
>>> import iland
>>> api = iland.Api(client_id=CLIENT_ID,
                    client_secret=CLIENT_SECRET,
                    username=USERNAME,
                    password=PASSWORD)
```

You can then perform GET, PUT, POST and DELETE requests against the iland cloud:

```
>>> user = api.get('/user/' + USERNAME)
>>> user.get('name'))
USERNAME

>>> user_alert_emails = {'emails': ['test@iland.com', 'test2@iland.com'],
                         'username': USERNAME}
>>> api.post('/user/' + USERNAME + '/alert-emails', user_alert_emails)
```

To use a proxy you can define a `python-requests` style proxies dictionary and set the `_proxies` attribute on the api object:

```
>>> api = iland.Api(client_id=CLIENT_ID,
                    client_secret=CLIENT_SECRET,
                    username=USERNAME,
                    password=PASSWORD)
>>> api._proxies = {'https': 'https://10.10.1.10:3128'}
>>> user = api.get('/user/' + USERNAME)
```

CHAPTER 7

iland

7.1 iland package

7.1.1 Submodules

7.1.2 iland.api module

A library that provides a Python interface to the iland cloud API.

class `iland.api.`**Api**(*client_id*, *client_secret*, *username*, *password*)

Bases: `object`

A Python interface into the iland cloud API

delete(*rpath*, *headers=None*)

Perform a DELETE request against the iland cloud API given its resource path.

iland.Api will refresh the access token if non valid.

Parameters

- **rpath** – the resource path as a Python builtin String object
- **headers** – an optional dictionary of http headers to send with the request

Raises ApiException: API requests returns an error

Raises UnauthorizedException: credentials / grants invalids

Returns a JSON Object or a list of JSON Objects.

get(*rpath*, *headers=None*)

Perform a GET request against the iland cloud API given its resource path.

iland.Api will refresh the access token if non valid.

Parameters

- **rpath** – the resource path as a Python builtin String object

- **headers** – an optional dictionary of http headers to send with the request

Raises ApiException: API requests returns an error

Raises UnauthorizedException: credentials / grants invalids

Returns a JSON Object or a list of JSON Objects.

get_access_token()

Returns the access token in use for this session.

This method is exposed in case you are interested in managing the token life cycle yourself. *iland.Api* will refresh the token on your behalf while performing queries.

Raises UnauthorizedException: credentials / grants invalids

Returns JSON Object containing the actual access token

login()

Requests an access token.

This method is exposed in case you are interested in managing the token life cycle yourself. *iland.Api* will refresh the token on your behalf while performing queries.

Raises UnauthorizedException: credentials / grants invalids

Returns JSON Object containing the actual access token

post(*rpath*, *form_data=None*, *headers=None*)

Perform a POST request against the iland cloud API given its resource path.

iland.Api will refresh the access token if non valid.

Parameters

- **rpath** – the resource path as a Python builtin String object
- **form_data** – a Python builtin dict object
- **headers** – an optional dictionary of http headers to send with the request

Raises ApiException: API requests returns an error

Raises UnauthorizedException: credentials / grants invalids

Returns a JSON Object or a list of JSON Objects.

put(*rpath*, *form_data=None*, *headers=None*)

Perform a PUT request against the iland cloud API given its resource path.

iland.Api will refresh the access token if non valid.

Parameters

- **rpath** – the resource path as a Python builtin String object
- **form_data** – a Python builtin dict object
- **headers** – an optional dictionary of http headers to send with the request

Raises ApiException: API requests returns an error

Raises UnauthorizedException: credentials / grants invalids

Returns a JSON Object or a list of JSON Objects.

refresh_access_token()

Refresh token if token is not valid: None or expired.

This method is exposed in case you are interested in managing the token life cycle yourself. *iland.Api* will refresh the token on your behalf while performing queries.

Raises UnauthorizedException: credentials / grants invalids

Returns JSON Object containing the actual access token

7.1.3 iland.constant module

A library that provides constants for the *iland.Api* object.

iland.constant.**ACCESS_URL = 'https://console.ilandcloud.com/auth/realms/iland-core/protoco**

Access token URL.

iland.constant.**BASE_URL = 'https://api.ilandcloud.com/v1'**

Base URL to the iland cloud API.

7.1.4 iland.exception module

A library that provides custom exceptions for the *iland.Api* module.

exception iland.exception.**ApiException**

Bases: exceptions.Exception

Base class for *iland.Api* errors.

detail_message

Returns the third argument used to construct this error.

error

Returns the first argument used to construct this error.

message

Returns the second argument used to construct this error.

exception iland.exception.**UnauthorizedException**

Bases: *iland.exception.ApiException*

Unauthorized *iland.Api* exception.

7.1.5 iland.log module

A library that provides a custom logger for the *iland.Api* object.

iland.log.**LOG = <logging.Logger object>**

A custom Python logging logger for the *iland.Api* object.

7.1.6 Module contents

A module that provides a Python interface to the iland cloud API.

CHAPTER 8

Contributing

Contributions are welcome, and they are greatly appreciated! Every little bit helps, and credit will always be given.

You can contribute in many ways:

8.1 Types of Contributions

8.1.1 Report Bugs

Report bugs at https://github.com/ilanddev/python-sdk/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.

8.1.2 Fix Bugs

Look through the GitHub issues for bugs. Anything tagged with "bug" is open to whoever wants to implement it.

8.1.3 Implement Features

Look through the GitHub issues for features. Anything tagged with "feature" is open to whoever wants to implement it.

8.1.4 Write Documentation

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

8.1.5 Submit Feedback

The best way to send feedback is to file an issue at https://github.com/ilanddev/python-sdk/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 :)

8.2 Get Started!

Ready to contribute? Here's how to set up *python-sdk* for local development.

1. Fork the *python-sdk* repo on GitHub.
2. Clone your fork locally:

```
$ git clone https://github.com/ilanddev/python-sdk.git
```

3. Install your local copy into a virtualenv. Assuming you have virtualenvwrapper installed, this is how you set up your fork for local development:

```
$ mkvirtualenv python-sdk
$ cd python-sdk/
$ python setup.py develop
```

4. Create a branch for local development:

```
$ git checkout -b name-of-your-bugfix-or-feature
```

   Now you can make your changes locally.

5. When you're done making changes, check that your changes pass flake8 and the tests, including testing other Python versions with tox:

```
$ make lint
$ make test
$ make test-all
```

   To get flake8 and tox, just pip install them into your virtualenv.

6. Commit your changes and push your branch to GitHub:

```
$ git add .
$ git commit -m "Your detailed description of your changes."
$ git push origin name-of-your-bugfix-or-feature
```

7. Submit a pull request through the GitHub website.

8.3 Pull Request Guidelines

Before you submit a pull request, check that it meets these guidelines:

1. The pull request should include tests.
2. If the pull request adds functionality, the docs should be updated. Put your new functionality into a function with a docstring, and add the feature to the list in README.rst.
3. The pull request should work for Python 2.7, 3.4 and 3.5, and for PyPy. Check https://travis-ci.org/ilanddev/python-sdk/pull_requests and make sure that the tests pass for all supported Python versions.

8.4 Tips

To run a subset of tests:

```
$ python -m unittest tests.test_iland
```

CHAPTER 9

Credits

9.1 Development Lead

- Julien Anguenot <julien@anguenot.org>

9.2 Contributors

- Cory Wright <corywright@gmail.com>

CHAPTER 10

History

10.1 1.0.0 (2018-11-15)

- Support for iland API v1.0
- Update outdated dependencies

10.2 0.9.0 (2018-11-13)

- iland API v0.9

10.3 0.7.5 (2017-06-27)

- Force iland API v0.8.
- Update dev requirements.
- Dependencies definition shared with *setup.py*
- Add support for passing additional headers with api requests.

10.4 0.7.4 (2017-05-26)

- Use a *requests.Session* object for all api calls
- Remove *base_url*, *access_token_url*, and *verify_ssl* from Api constructor

10.5 0.7.3 (2017-05-18)

- Fix internal use of *REFRESH_URL* when overriding *access_token_url* at constructor time.

10.6 0.7.2 (2017-05-17)

- optional *access_url_token Api* constructor param allowing one to override token exchange URL.
- update dependencies.
- lower required version of *requests* module from *==2.14.2* to *>=2.2.1*.

10.7 0.7.1 (2017-02-08)

- update outdated dependencies
- drop Python 3.3 support "just like everybody"
- update token exchange endpoint. We keeping BBB for old client implementations

10.8 0.7.0 (2016-10-13)

- update token exchange endpoint. We keeping BBB for old client implementations
- update requests lib
- update dev dependencies
- promote to stable

10.9 0.6.0 (2016-6-28)

- update dependencies
- default resource path update

10.10 0.5.0 (2016-3-22)

- promote to beta status
- extra *verify_ssl Api* constructor to allow one to not verify endpoints SSL

10.11 0.4.0 (2016-3-08)

- support 204 no content HTTP return code
- fix naming of _validate_token method
- update Sphynx dependency

- full unit tests coverage
- fix return on POST, PUT and DELETE operations
- fix use of custom BASE API URL

10.12 0.3.0 (2016-2-18)

- implement exceptions handling
- docstrings and documentation
- Housekeeping and refactoring
- Better CI setup
- Sphynx doc and readthedocs.org publishing.

10.13 0.2.0 (2016-2-09)

- Minor fixes.

10.14 0.1.0 (2016-2-09)

- First release on PyPI.

CHAPTER 11

Indices and tables

- genindex
- modindex
- search

Python Module Index

i

iland, 17
iland.api, 15
iland.constant, 17
iland.exception, 17
iland.log, 17

Index

A

ACCESS_URL (in module iland.constant), 17
Api (class in iland.api), 15
ApiException, 17

B

BASE_URL (in module iland.constant), 17

D

delete() (iland.api.Api method), 15
detail_message (iland.exception.ApiException attribute), 17

E

error (iland.exception.ApiException attribute), 17

G

get() (iland.api.Api method), 15
get_access_token() (iland.api.Api method), 16

I

iland (module), 17
iland.api (module), 15
iland.constant (module), 17
iland.exception (module), 17
iland.log (module), 17

L

LOG (in module iland.log), 17
login() (iland.api.Api method), 16

M

message (iland.exception.ApiException attribute), 17

P

post() (iland.api.Api method), 16
put() (iland.api.Api method), 16

R

refresh_access_token() (iland.api.Api method), 16

U

UnauthorizedException, 17