

Using the Cloud SDK

This document gives a quick introduction to using the Openstack Python client to discover and consume compute resources.

Before beginning, get an account as described in the [Introduction](#)

Installation

From a suitable host (this was done on linux.cs.uchicago.edu), create your environment.

```
$ python3 -m venv cloudsdk
$ source cloudsdk/bin/activate
$ pip3 install openstacksdk
$ python -m openstack version
```

Configuration

Obtain your configuration from the [Web Interface](#). The preceding link is for authenticated and authorized users only. Please read [Intro](#) for access. After logging in to the web interface at <https://overcloud.cs.uchicago.edu>, click the menu on the left side, Project→API Access. On the right side of the top of the page, click "Download Openstack RC File"→"Openstack clouds.yaml file".

Save the clouds.yaml file to the current working directory, or see the [Upstream Docs](#) about config file search order:

```
USER_CONFIG_DIR
  Linux: ~/.config/openstack
  OSX: ~/Library/Application Support/openstack
  Windows: C:\Users\USERNAME\AppData\Local\OpenStack\openstack
SITE_CONFIG_DIR
  Linux: /etc/openstack
  OSX: /Library/Application Support/openstack
  Windows: C:\ProgramData\OpenStack\openstack
```

Sample Configuration File

```
clouds:
  openstack:
    auth:
      auth_url: https://overcloud.cs.uchicago.edu:5000
      username: "CNetID"
      password: "sekret"
      project_id: YOUR PROJECT UUID
```

```
project_name: "CNetID"  
user_domain_name: "CS_LDAP"  
region_name: "RegionOne"  
interface: "public"  
identity_api_version: 3
```

Testing and Usage

Ensure you can load the python module

```
python -m openstack version
```

Check your configuration

```
python -m openstack.config.loader
```

Check the exact error if one is displayed. For example, if you see

```
keystoneauth1.exceptions.auth_plugins.MissingRequiredOptions: Auth plugin  
requires parameters which were not given: auth_url
```

You have failed to provide a configuration file. This is different from a syntax error, but not so different from a permission problem, for example.

From:

<https://howto.cs.uchicago.edu/> - **How do I?**

Permanent link:

<https://howto.cs.uchicago.edu/cloud:recipe:coding?rev=1589464238>

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