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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 !?

Permanent link:

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

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