**Installation steps for openshift 4.3 on openstack and the error with clouds.yaml and stackrc file**

## **Error on Running the installation program for openshift 4.3 on RHOSP**

$ ./openshift-install create install-config --dir=openshift\_4.3 --log-level=debug

DEBUG OpenShift Installer v4.3.5

DEBUG Built from commit 82f9a63c06956b3700a69475fbd14521e139aa1e

DEBUG Fetching Install Config...

DEBUG Loading Install Config...

DEBUG Loading SSH Key...

DEBUG Loading Base Domain...

DEBUG Loading Platform...

DEBUG Loading Cluster Name...

DEBUG Loading Base Domain...

DEBUG Loading Platform...

DEBUG Loading Pull Secret...

DEBUG Loading Platform...

DEBUG Fetching SSH Key...

DEBUG Generating SSH Key...

? SSH Public Key /home/vshakya/.ssh/id\_rsa\_2.pub

DEBUG Fetching Base Domain...

DEBUG Fetching Platform...

DEBUG Generating Platform...

? Platform openstack

? Cloud openstack

FATAL failed to fetch Install Config: failed to fetch dependency of "Install Config": failed to fetch dependency of "Base Domain": failed to generate asset "Platform": Authentication failed

## **Contents of clouds.yaml**

# This is a clouds.yaml file, which can be used by OpenStack tools as a source

# of configuration on how to connect to a cloud. If this is your only cloud,

# just put this file in ~/.config/openstack/clouds.yaml and tools like

# python-openstackclient will just work with no further config. (You will need

# to add your password to the auth section)

# If you have more than one cloud account, add the cloud entry to the clouds

# section of your existing file and you can refer to them by name with

# OS\_CLOUD=openstack or --os-cloud=openstack

clouds:

openstack:

auth:

auth\_url: https://kaizen.massopen.cloud:13000/v3

username: "vshakya@redhat.com"

project\_id: a8d8fc25302c48abab464a4cd72fe951

project\_name: "rh-coops-spring-2020"

user\_domain\_name: "Federated"

region\_name: "moc-kzn"

interface: "public"

identity\_api\_version: 3

## **Contents of the stackrc file**

#!/usr/bin/env bash

# See https://osticket.massopen.cloud/kb/faq.php?id=16

export OS\_USERNAME="vshakya@redhat.com"

export OS\_PASSWORD="" //removed password for this document

export OS\_PROJECT\_NAME="rh-coops-spring-2020"

export OS\_AUTH\_URL="https://kaizen.massopen.cloud:13000/v3"

export OS\_PROJECT\_DOMAIN\_NAME="Default"

export OS\_REGION\_NAME="moc-kzn"

export OS\_AUTH\_TYPE="v3oidcpassword"

export OS\_IDENTITY\_PROVIDER="moc"

export OS\_PROTOCOL="openid"

export OS\_CLIENT\_ID="kaizen-client"

export OS\_CLIENT\_SECRET="fac377a9-f2ba-41e7-bb7f-4064dd9f4468"

export OS\_ACCESS\_TOKEN\_ENDPOINT="https://sso.massopen.cloud/auth/realms/moc/protocol/openid-connect/token"

export OS\_DISCOVERY\_ENDPOINT="https://sso.massopen.cloud/auth/realms/moc/.well-known/openid-configuration"

export OS\_INTERFACE=public

export OS\_IDENTITY\_API\_VERSION=3

## **Steps to recreate the process**

### **Defining parameters for the installation program**

The OpenShift Container Platform installation program relies on a file called clouds.yaml. The file describes Red Hat OpenStack Platform (RHOSP) configuration parameters, including the project name, log in information, and authorization service URLs.

**Procedure**

1. Create the clouds.yaml file:
   * If your OpenStack distribution includes the Horizon web UI, generate a clouds.yaml file in it.  
     IMPORTANT  
     Remember to add a password to the auth field. You can also keep secrets in [a separate file](https://docs.openstack.org/os-client-config/latest/user/configuration.html#splitting-secrets) from clouds.yaml.
   * If your OpenStack distribution does not include the Horizon web UI, or you do not want to use Horizon, create the file yourself. For detailed information about clouds.yaml, see [Config files](https://docs.openstack.org/openstacksdk/latest/user/config/configuration.html#config-files) in the RHOSP documentation.

clouds:

shiftstack:

auth:

auth\_url: http://10.10.14.42:5000/v3

project\_name: shiftstack

username: shiftstack\_user

password: XXX

user\_domain\_name: Default

project\_domain\_name: Default

dev-env:

region\_name: RegionOne

auth:

username: 'devuser'

password: XXX

project\_name: 'devonly'

* + auth\_url: 'https://10.10.14.22:5001/v2.0'

1. Place the file that you generate in one of the following locations:
   * The value of the OS\_CLIENT\_CONFIG\_FILE environment variable
   * The current directory - I
   * A Unix-specific user configuration directory, for example ~/.config/openstack/clouds.yaml
   * A Unix-specific site configuration directory, for example /etc/openstack/clouds.yaml  
     The installation program searches for clouds.yaml in that order.

### **Obtaining the installation program**

Before you install OpenShift Container Platform, download the installation file on a local computer.

**Prerequisites**

* You must install the cluster from a computer that uses Linux or macOS.
* You need 500 MB of local disk space to download the installation program.

**Procedure**

1. Access the [Infrastructure Provider](https://cloud.redhat.com/openshift/install) page on the Red Hat OpenShift Cluster Manager site. If you have a Red Hat account, log in with your credentials. If you do not, create an account.
2. Navigate to the page for your installation type, download the installation program for your operating system, and place the file in the directory where you will store the installation configuration files.  
   IMPORTANT  
   The installation program creates several files on the computer that you use to install your cluster. You must keep both the installation program and the files that the installation program creates after you finish installing the cluster.
3. Extract the installation program. For example, on a computer that uses a Linux operating system, run the following command:
4. $ tar xvf <installation\_program>.tar.gz
5. From the [Pull Secret](https://cloud.redhat.com/openshift/install/pull-secret) page on the Red Hat OpenShift Cluster Manager site, download your installation pull secret as a .txt file. This pull secret allows you to authenticate with the services that are provided by the included authorities, including Quay.io, which serves the container images for OpenShift Container Platform components.

### Creating the installation configuration file

You can customize your installation of OpenShift Container Platform on OpenStack.

**Prerequisites**

* Obtain the OpenShift Container Platform installation program and the pull secret for your cluster.

**Procedure**

1. Create the install-config.yaml file.
   1. Run the following command:

$ ./openshift-install create install-config --dir=<installation\_directory> For <installation\_directory>, specify the directory name to store the files that the installation program creates.

2. At the prompts, provide the configuration details for your cloud:

* + - 1. Optional: Select an SSH key to use to access your cluster machines.  
         NOTE  
         For production OpenShift Container Platform clusters on which you want to perform installation debugging or disaster recovery on, specify an SSH key that your ssh-agent process uses.
      2. Select **openstack** as the platform to target.
      3. Specify the Red Hat OpenStack Platform (RHOSP) external network name to use for installing the cluster.
      4. Specify the Floating IP address to use for external access to the OpenShift API.
      5. Specify a RHOSP flavor with at least 16 GB RAM to use for control plane and compute nodes.
      6. Select the base domain to deploy the cluster to. All DNS records will be sub-domains of this base and will also include the cluster name.
      7. Enter a name for your cluster. The name must be 14 or fewer characters long.
      8. Paste the pull secret that you obtained from the [Pull Secret](https://cloud.redhat.com/openshift/install/pull-secret) page on the Red Hat OpenShift Cluster Manager site.
  1. Modify the install-config.yaml

### **Issues faced with new clouds.yaml**

Refer <https://osticket.massopen.cloud/kb/faq.php?id=16>

Clouds.yaml as provided in FAQs

clouds:

kaizen\_oidc:

auth:

username: "vshakya@redhat.com"

password: "Vivek@2789"

project\_name: "rh-coops-spring-2020"

identity\_provider: "moc"

protocol: "openid"

client\_id: "kaizen-client"

client\_secret: "fac377a9-f2ba-41e7-bb7f-4064dd9f4468"

access\_token\_endpoint: "https://sso.massopen.cloud/auth/realms/moc/protocol/openid-connect/token"

discovery\_endpoint: "https://sso.massopen.cloud/auth/realms/moc/.well-known/openid-configuration"

auth\_url: https://kaizen.massopen.cloud:13000/v3

project\_domain\_name: "Default"

region\_name: "moc-kzn"

interface: "public"

identity\_api\_version: 3

auth\_type: "v3oidcpassword"

Run the Installation program

./openshift-install create install-config --dir=openshift\_4.3 --log-level=debug

Error encountered

DEBUG OpenShift Installer v4.3.5

DEBUG Built from commit 82f9a63c06956b3700a69475fbd14521e139aa1e

DEBUG Fetching Install Config...

DEBUG Loading Install Config...

DEBUG Loading SSH Key...

DEBUG Loading Base Domain...

DEBUG Loading Platform...

DEBUG Loading Cluster Name...

DEBUG Loading Base Domain...

DEBUG Loading Platform...

DEBUG Loading Pull Secret...

DEBUG Loading Platform...

DEBUG Fetching SSH Key...

DEBUG Generating SSH Key...

? SSH Public Key /home/vshakya/.ssh/id\_rsa\_2.pub

DEBUG Fetching Base Domain...

DEBUG Fetching Platform...

DEBUG Generating Platform...

? Platform openstack

? Cloud kaizen\_oidc

FATAL failed to fetch Install Config: failed to fetch dependency of "Install Config": failed to fetch dependency of "Base Domain": failed to generate asset "Platform": You must provide exactly one of DomainID or DomainName to authenticate by Username

Edit the clouds.yaml and add the “user\_domain\_name: “Federated” ”

Error encountered

DEBUG OpenShift Installer v4.3.5

DEBUG Built from commit 82f9a63c06956b3700a69475fbd14521e139aa1e

DEBUG Fetching Install Config...

DEBUG Loading Install Config...

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DEBUG Generating SSH Key...

? SSH Public Key /home/vshakya/.ssh/id\_rsa\_2.pub

DEBUG Fetching Base Domain...

DEBUG Fetching Platform...

DEBUG Generating Platform...

? Platform openstack

? Cloud kaizen\_oidc

FATAL failed to fetch Install Config: failed to fetch dependency of "Install Config": failed to fetch dependency of "Base Domain": failed to generate asset "Platform": Authentication failed

Created a new application credentials as per the FAQ’s

Clouds.yaml

clouds:

openstack:

auth:

auth\_url: https://kaizen.massopen.cloud:13000

application\_credential\_id: "35d2bf9a933040a6a5a2bd7ba44b9228"

application\_credential\_secret: "YUBAtFilQ4VEZOq0jYKVYud\_Bih-f8lc0AAugRX8OhEOFgFSed-5IA4\_XmjhTRjjXZVAoEz28jH9rle33TF07g"

region\_name: "moc-kzn"

interface: "public"

identity\_api\_version: 3

auth\_type: "v3applicationcredential"

Run the installation program:

./openshift-install create install-config --dir=openshift\_4.3 --log-level=debug

Error encountered

DEBUG OpenShift Installer v4.3.5

DEBUG Built from commit 82f9a63c06956b3700a69475fbd14521e139aa1e

DEBUG Fetching Install Config...

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DEBUG Loading Cluster Name...

DEBUG Loading Base Domain...

DEBUG Loading Platform...

DEBUG Loading Pull Secret...

DEBUG Loading Platform...

DEBUG Fetching SSH Key...

DEBUG Generating SSH Key...

? SSH Public Key /home/vshakya/.ssh/id\_rsa\_2.pub

DEBUG Fetching Base Domain...

DEBUG Fetching Platform...

DEBUG Generating Platform...

? Platform openstack

? Cloud openstack

? ExternalNetwork external

? APIFloatingIPAddress 128.31.25.53

? FlavorName m1.s2.large

FATAL failed to fetch Install Config: failed to fetch dependency of "Install Config": failed to fetch dependency of "Base Domain": failed to generate asset "Platform": You must provide a password to authenticate

## Edit clouds.yaml and add username and password

Error encountered:

DEBUG OpenShift Installer v4.3.5

DEBUG Built from commit 82f9a63c06956b3700a69475fbd14521e139aa1e

DEBUG Fetching Install Config...

DEBUG Loading Install Config...

DEBUG Loading SSH Key...

DEBUG Loading Base Domain...

DEBUG Loading Platform...

DEBUG Loading Cluster Name...

DEBUG Loading Base Domain...

DEBUG Loading Platform...

DEBUG Loading Pull Secret...

DEBUG Loading Platform...

DEBUG Fetching SSH Key...

DEBUG Generating SSH Key...

? SSH Public Key /home/vshakya/.ssh/id\_rsa\_2.pub

DEBUG Fetching Base Domain...

DEBUG Fetching Platform...

DEBUG Generating Platform...

? Platform openstack

? Cloud openstack

FATAL failed to fetch Install Config: failed to fetch dependency of "Install Config": failed to fetch dependency of "Base Domain": failed to generate asset "Platform": Authentication failed

#### **Authentication Error Resolved after Kristi created a Keystone account with user\_domain\_name as “Default”**

Use the clouds.yaml as shown below :

# This is a clouds.yaml file, which can be used by OpenStack tools as a source

# of configuration on how to connect to a cloud. If this is your only cloud,

# just put this file in ~/.config/openstack/clouds.yaml and tools like

# python-openstackclient will just work with no further config. (You will need

# to add your password to the auth section)

# If you have more than one cloud account, add the cloud entry to the clouds

# section of your existing file and you can refer to them by name with

# OS\_CLOUD=openstack or --os-cloud=openstack

clouds:

kaizen\_oidc:

auth:

username: "vshakya@redhat.com"

password: "Enteryourkeystonepasswordhere"

project\_id: a8d8fc25302c48abab464a4cd72fe951 #your projectid

project\_name: "rh-coops-spring-2020" #your project name

user\_domain\_name: "Default" #this is required or else installation program will #throw an error for the same

identity\_provider: "moc"

protocol: "openid"

client\_id: "kaizen-client"

client\_secret: "fac377a9-f2ba-41e7-bb7f-4064dd9f4468"

access\_token\_endpoint: "https://sso.massopen.cloud/auth/realms/moc/protocol/openid-connect/token"

discovery\_endpoint: "https://sso.massopen.cloud/auth/realms/moc/.well-known/openid-configuration"

auth\_url: https://kaizen.massopen.cloud:13000/v3

project\_domain\_name: "Default"

region\_name: "moc-kzn"

interface: "public"

identity\_api\_version: 3

auth\_type: "v3oidcpassword"

Run the installation program :

./openshift-install create install-config --dir=openshift\_4.3 --log-level=debug

Install\_config.yaml file :

apiVersion: v1

baseDomain: x86-openshift.osh.massopen.cloud

compute:

- hyperthreading: Enabled

name: worker

platform: {}

replicas: 3

controlPlane:

hyperthreading: Enabled

name: master

platform: {}

replicas: 3

metadata:

creationTimestamp: null

name: openshift4

networking:

clusterNetwork:

- cidr: 10.128.0.0/14

hostPrefix: 23

machineNetwork:

- cidr: 10.0.0.0/16

networkType: OpenShiftSDN

serviceNetwork:

- 172.30.0.0/16

platform:

openstack:

cloud: kaizen\_oidc

computeFlavor: m1.s2.large

externalDNS: null

externalNetwork: external

lbFloatingIP: 128.31.25.6

octaviaSupport: "1"

region: "moc-kzn" // modified

trunkSupport: "1"

publish: External

Run the create cluster script

./openshift-install create cluster --dir=openshift\_4.3 --log-level=debug

Error

ERROR Attempted to gather ClusterOperator status after installation failure: listing ClusterOperator objects: Get<https://api.kz-shift4.shift4onstack:6443/apis/config.openshift.io/v1/clusteroperators>: dial tcp: lookup api.kz-shift4.shift4onstack on 75.75.75.75:53: no such host

Cause: I think it’s because of the DNS

Refer this link https://docs.openshift.com/container-platform/4.3/installing/installing\_openstack/installing-openstack-installer-custom.html#installation-osp-accessing-api-floating\_installing-openstack-installer-custom

## **Link for original document**

-<https://access.redhat.com/documentation/en-us/openshift_container_platform/4.2/html-single/installing_on_openstack/index#installing-openstack-installer-custom>