**Subject:** phantom

# This page describes the process of installing phantom as openstack instance.

Main reference: [[1]] (login required)

## Background

Phantom can be downloaded as `\*.ova` file, ready to be instantiated via vmware hypervisor. Openstack, however (at least Queens), cannot directly upload `\*.ova` to its image repository (despite the option is visible when creating a new image).

<https://docs.openstack.org/image-guide/introduction.html>

> OpenStack Compute does not currently have support for OVF packages, so you will need to extract the image file(s) from an OVF package if you wish to use it with OpenStack.

While it theory there is a `virt-v2v` tool to convert between the various formats, we were not able to successfully go through the process. W tried U16.04, U18.04, Centos7-18-05 and the command

```

#virt-v2v -i ova phantom-3.5.210.ova -of qcow2 -o local -os /home/ubuntu

```

## Openstack image creation

### Installation from the repository

We have started a clean VM based on CentOS Linux release 7.5.1804 (Core) (`/etc/centos-release`)

with ephemeral back-end ("do NOT create new volume" in horizon). Then we followed [[1]], however, adjusting the path (phantom 3.5 for centos7 server)

```

sudo yum update

sudo rpm -Uvh <https://repo.phantom.us/phantom/3.5/base/7Server/x86_64/phantom_repo-3.5.210-1.x86_64.rpm> --nodeps phantom\_setup

sudo /opt/phantom/bin/.sh install

```

### User configuration

The install script creates user `phantom`, suitable for app developments etc., however the user has no password. We have added password `phantom` to this account:

```

sudo passwd phantom

```

### Environment preparation

A python environment `phenv` is made available by the main install script. All package installation should be done as user `centos` in by calling `sudo phenv ...`.

Phantom installed from the `rpm` did not come with Openstack application.

```

[phantom@phantom35 phantom\_openstack]$ ls /opt/phantom/apps/ | grep -i open

opendnsinvestigate\_57640128-2815-4cc4-9baa-0799d1eb9692

opendnsumbrella\_5cc62f57-dbf5-4c20-88ab-f16ace3bbf0b

phantom\_opendnsinvestigate-1.2.22.tgz

phantom\_opendnsumbrella-1.2.20.tgz

```

We have installed it but that required some extra steps.

First become user `phantom` and get the app (check web repo for the link) and untar it

```

[phantom@phantom35 ~]$ curl <https://my.phantom.us/media/apps/05-04-2017-01-15-03/openstack-1.1.3.tgz> -o openstack-1.1.3.tgz

[phantom@phantom35 ~]$ tar -zxvf openstack-1.1.3.tgz

```

then try to compile it but it results in error

```

[phantom@phantom35 ]$ cd phantom\_openstack

[phantom@phantom35 phantom\_openstack]$ phenv python2.7 /opt/phantom/bin/compile\_app.pyc -i

cd'ing into ./

Compiling: ./\_\_init\_\_.py

(...)

ImportError: No module named extern

```

In order to install `extern` we need to be have `gcc` compiler, otherwise we get `configure: error: no acceptable C compiler found in $PATH` while trying to install `extern`. While it is not needed, we also upgrade `pip` and `setuptools` first:

```

sudo phenv pip install --upgrade pip

sudo phenv pip install --upgrade setuptools

sudo yum install gcc gcc-c++ make

sudo phenv pip install extern

```

We can then try to compile `openstack` app again, however we get some errors related to style of the coding.

```

[phantom@phantom35 phantom\_openstack]$ phenv python2.7 /opt/phantom/bin/compile\_app.pyc -i

cd'ing into ./

Compiling: ./\_\_init\_\_.py

Compiling: ./monotonic.py

./monotonic.py:82:80: W291 trailing whitespace

./monotonic.py:83:84: W291 trailing whitespace

```

By default, the compiler is very strict and exits. We can either manually correct all the errors (delete trailing spaces, insert newlines etc.) or turn off style checking by invoking `-d` option.

```

[phantom@phantom35 phantom\_openstack]$ phenv python2.7 /opt/phantom/bin/compile\_app.pyc -i -d

(...)

Installing app...

  Creating tarball...

  ../phantom\_openstack.tgz

  Calling installer...

  Success

Done

```

The app is now installed

```

[phantom@phantom35 ~]$ ls /opt/phantom/apps/ | grep -i open

opendnsinvestigate\_57640128-2815-4cc4-9baa-0799d1eb9692

opendnsumbrella\_5cc62f57-dbf5-4c20-88ab-f16ace3bbf0b

openstack\_ef74a66a-8d28-484f-971e-21531df3835d

phantom\_opendnsinvestigate-1.2.22.tgz

phantom\_opendnsumbrella-1.2.20.tgz

```

### Making the actual image

We powered-off the VM and used `create snaphot` function. Since we started with RAW based VM without a volume, just making a snapshot seems to work, i.e., creates a 40GB RAW in glance. The image is

```

210e7b8f-77f7-457e-b16f-6ca3b3fa7699 | phantom35-snapshot         | active

```

We also tried: make volume out of snapshot and upload to image.

```

9b136dff-86f9-4bc3-845e-a623daf5780d | phantom35-img              | active

```

Both are visible as snapshots in horizon.

We have successfully booted a VM based on `phantom35-snapshot` and check that openstack app is visible in webgui

## TODO

image has baked in public key of Piotr Zuraniewski (=access to every instance based on this image)

## References

[1]: <https://my.phantom.us/kb/65/>

[[1]] [https://my.phantom.us/kb/65](https://my.phantom.us/kb/65/)