

How to get an All-In-One Icehouse OpenStack installation in 10 steps

Makhlouf Hadji & Flavien Quesnel

IRT SystemX

8 Avenue de la Vauve, 91120, Palaiseau, France

This tutorial shows how to install OpenStack Icehouse modules (**Nova, Keystone, Glance, Cinder, Horizon and Swift**) in one server.

We will use the different scripts referenced in :

<https://github.com/StackGeek/openstackgeek/tree/master/icehouse>

All of these scripts are summarized in one script which improves and accelerates the installation and configuration.

A. Pre-requisites:

- VirtualBox (can be found here: <https://www.virtualbox.org/wiki/Downloads>)
- A VirtualBox VM running Ubuntu 14.04.1 LTS Desktop (downloadable here: <http://www.ubuntu.com/download/desktop>); the VM should have at least 2-3 GB of RAM and 20 GB of disk
- All the manipulations are done with the “root user” in Ubuntu

B. Installation Steps:

1. *Get the installation and configuration scripts:*

```
apt-get install git
```

```
git clone https://github.com/fquesnel/openstackgeek.git
```

```
cd openstackgeek/icehouse
```

```
git checkout fix_and_swift
```

2. *Run the installation script:*

```
./openstack_all_in_one.sh
```

3. *Go to the main repository:*

```
cd openstackgeek/icehouse
```

```
./stackrc
```

4. *Create network services on your VMs:*

```
mysql --defaults-extra-file=/etc/mysql/debian.cnf -e "select * from networks\G" nova
```

5. *Install VLAN Bridge packages:*

```
apt-get install vlan ifenslave
```

6. *Activate VLAN mode:*

```
modprobe 8021q
```

7. *Create a network for the VMs:*

```
nova network-create private --bridge br100 --multi-host T \  
--dns1 8.8.8.8 --gateway 172.16.0.1 --fixed-range-v4 172.16.0.0/24
```

All-In-One OpenStack Installation

8. *Create a pool of network addresses:*

```
nova-manage floating create --pool=nova --ip_range=192.168.100.100/28
```

9. *Check that the pool is available:*

```
nova-manage floating list
```

10. *Your OpenStack Installation is now ready. Check in your web browser:*

```
127.0.0.1/horizon
```

C. **Recommendations:**

- We recommend you to check the content of the script “./openstack_all_in_one.sh” to personalize the installation and configuration, especially regarding the Horizon and MySQL passwords, and the Swift and Cinder modules (by default, the disk space allocated to Cinder and Swift is 5 GB).
- To connect to OpenStack Horizon for the first time, you can get the admin password in “keystone.conf”:

```
gedit /etc/keystone/keystone.conf
```

Contact Us:

- makhlouf.hadji@irt-systemx.fr
- flavien.quesnel@irt-systemx.fr