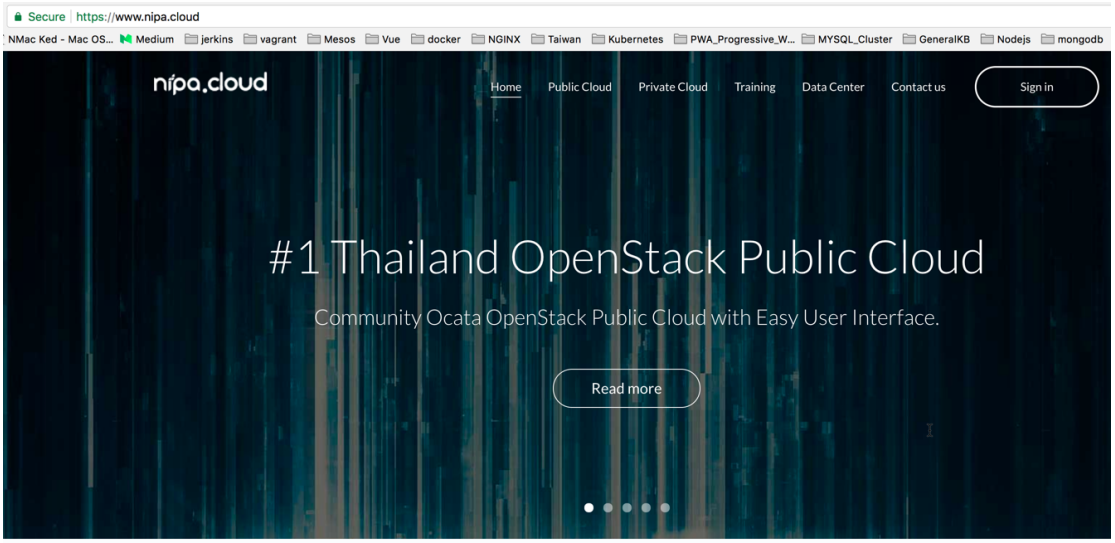
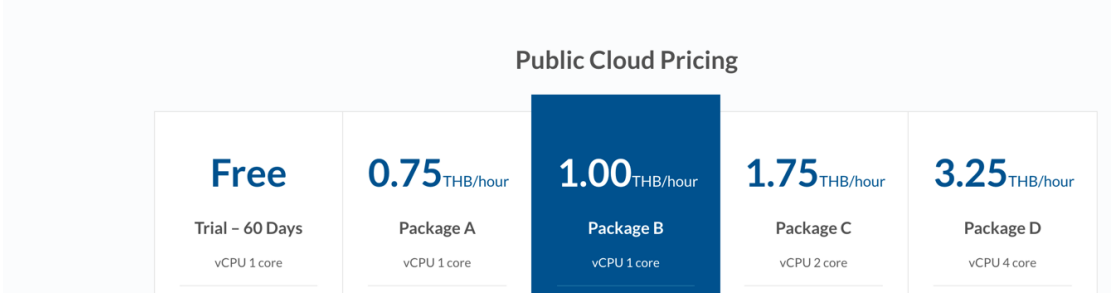
Manual

Demo Docker on NIPA Cloud

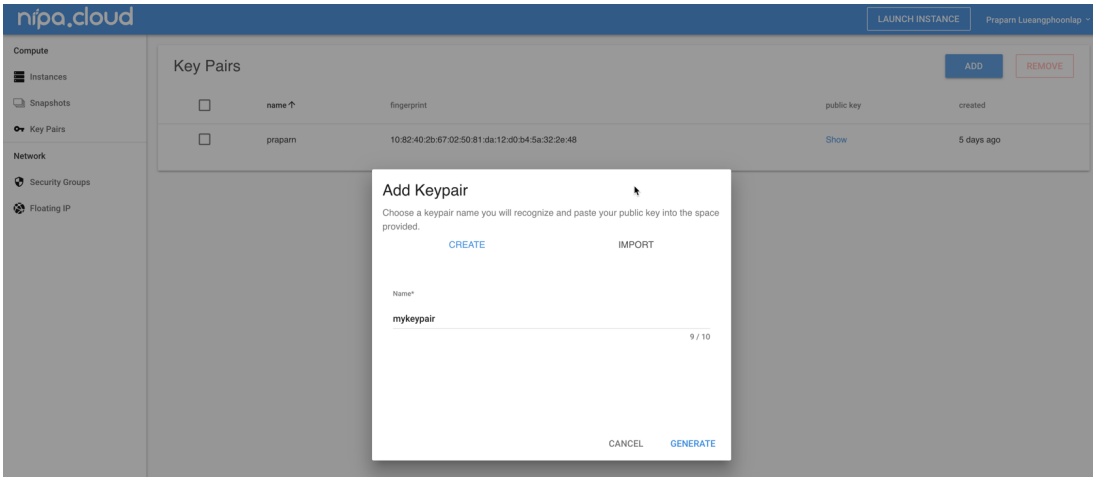
Prerequisite

1. Create account at www.nipa.cloud (Register with Email)





2. Generate ssh-key (Reference: Manual SSH-KEY) and place public key on menu "Key Pairs" ➔ Add

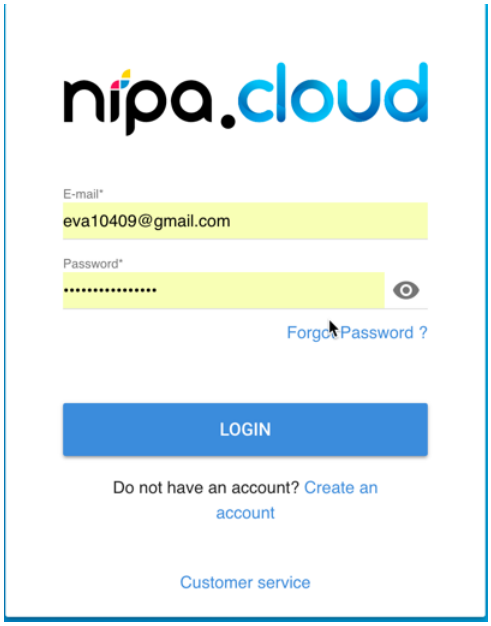


3. Write shell script for install docker-engine as content below:

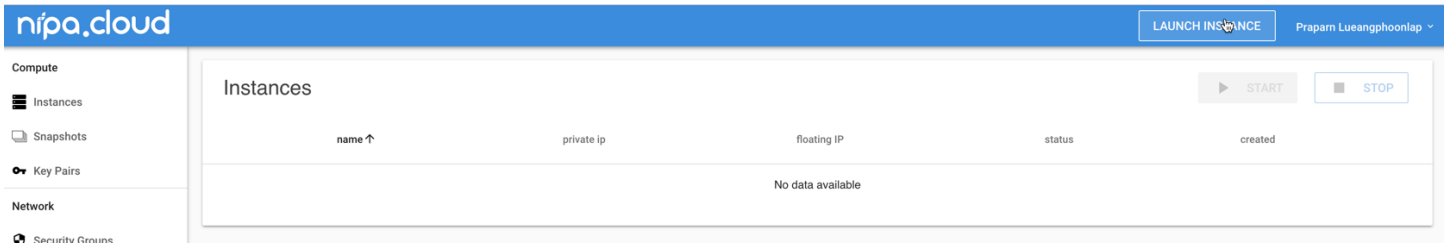
```
#Install Base docker-engine

sudo apt-get update

sudo apt-get remove docker docker-engine

sudo apt-get -y install \

   apt-transport-https \

   ca-certificates \

   curl \

   software-properties-common

curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo apt-key add  -

sudo apt-key fingerprint oEBFCD88

sudo add-apt-repository \

  "deb [arch=amd64] https://download.docker.com/linux/ubuntu \

  $(lsb_release -cs) \

  stable"

sudo apt-get update

sudo apt-get -y install docker-ce

sudo groupadd docker

sudo usermod -aG docker $USER

sudo systemctl enable docker
```

Create Instance

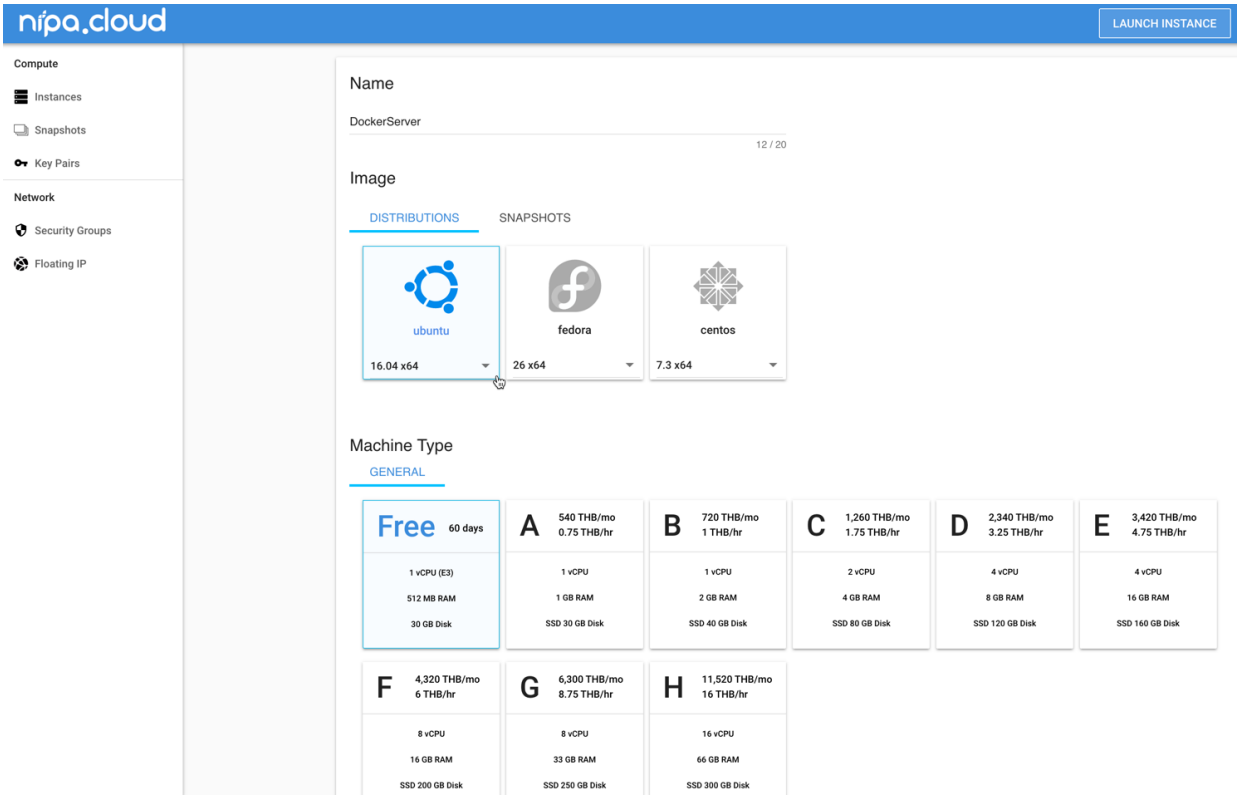
1. Login on nipa cloud with url https://portal.nipa.cloud/



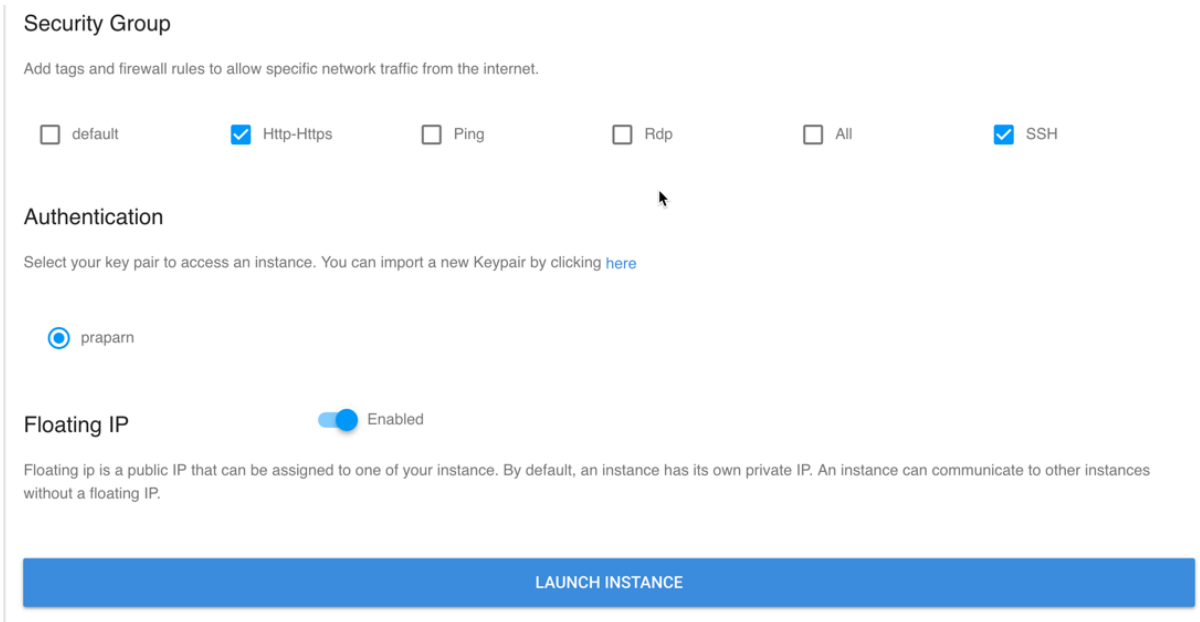
2. Click "LAUNCH INSTANCE" for create new server



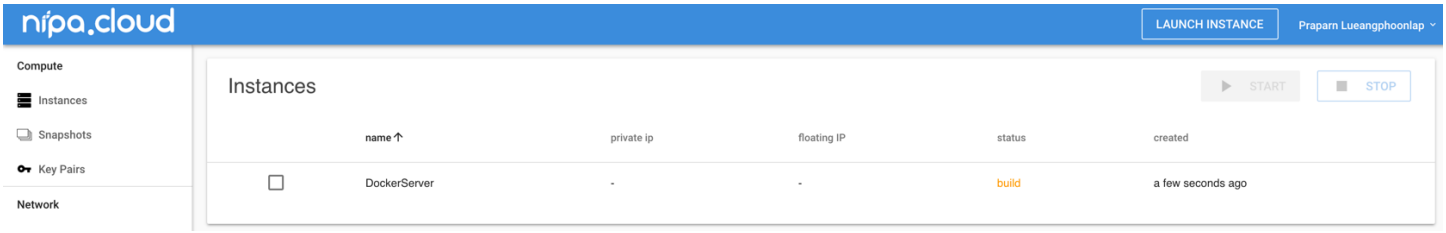
3. Input Name: “DockerServer”, Select Image Ubuntu 16.04 x64 and Machine Type: Free

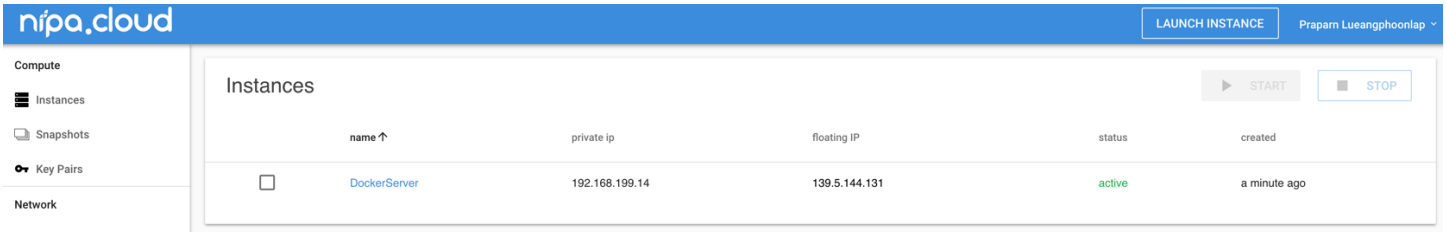


4. Select security group with “Http-Https”,”SSH”, Authentication (Your Key Name) and Floating IP (Public IP) with “Enabled” and “LAUNCH INSTANCE”



5. Wait until DockerServer is finished and show private ip,floating IP (public ip): Remark: please record public ip address





6. SCP source file to setup from local machine to cloud by command: scp –i ~/.ssh/<your private key> * nc-user@<public ip>

7. SSH to server by command: ssh -i !/.ssh/<your private key> nc-user@<putlic ip address>

8. Change shell script for grant execute by command chmod +x *.sh

9. Install docker engine by command: ./initialsetup_docker.sh

```
nc-user@dockerserver:~$ ./initialsetup_docker.sh
sudo: unable to resolve host dockerserver
Hit:1 http://th.archive.ubuntu.com/ubuntu xenial InRelease
Hit:2 http://th.archive.ubuntu.com/ubuntu xenial-updates InRelease
Hit:3 http://th.archive.ubuntu.com/ubuntu xenial-backports InRelease
Get:4 http://security.ubuntu.com/ubuntu xenial-security InRelease [102 kB]
Fetched 102 kB in 1s (82.5 kB/s)
Reading package lists... Done
sudo: unable to resolve host dockerserver
Reading package lists... Done
Building dependency tree
Reading state information... Done
Package 'docker-engine' is not installed, so not removed
Package 'docker' is not installed, so not removed
0 upgraded, 0 newly installed, 0 to remove and 4 not upgraded.
sudo: unable to resolve host dockerserver
Reading package lists... Done
Building dependency tree
Reading state information... Done
ca-certificates is already the newest version (20160104ubuntu1).
apt-transport-https is already the newest version (1.2.24).
curl is already the newest version (7.47.0-1ubuntu2.2).
software-properties-common is already the newest version (0.96.20.7).
0 upgraded, 0 newly installed, 0 to remove and 4 not upgraded.
sudo: unable to resolve host dockerserver
```

```
Selecting previously unselected package aufs-tools.
(Reading database ... 81783 files and directories currently installed.)
Preparing to unpack .../aufs-tools_1%3a3.2+20130722-1.1ubuntu1_amd64.deb ...
Unpacking aufs-tools (1:3.2+20130722-1.1ubuntu1) ...
Selecting previously unselected package cgroupfs-mount.
Preparing to unpack .../cgroupfs-mount_1.2_all.deb ...
Unpacking cgroupfs-mount (1.2) ...
Selecting previously unselected package libltdl7:amd64.
Preparing to unpack .../libltdl7_2.4.6-0.1_amd64.deb ...
Unpacking libltdl7:amd64 (2.4.6-0.1) ...
Selecting previously unselected package docker-ce.
Preparing to unpack .../docker-ce_17.06.1~ce-0~ubuntu_amd64.deb ...
Unpacking docker-ce (17.06.1~ce-0~ubuntu) ...
Processing triggers for libc-bin (2.23-0ubuntu9) ...
Processing triggers for man-db (2.7.5-1) ...
Processing triggers for ureadahead (0.100.0-19) ...
Processing triggers for systemd (229-4ubuntu19) ...
Setting up aufs-tools (1:3.2+20130722-1.1ubuntu1) ...
Setting up cgroupfs-mount (1.2) ...
Setting up libltdl7:amd64 (2.4.6-0.1) ...
Setting up docker-ce (17.06.1~ce-0~ubuntu) ...
Processing triggers for libc-bin (2.23-0ubuntu9) ...
Processing triggers for systemd (229-4ubuntu19) ...
Processing triggers for ureadahead (0.100.0-19) ...
sudo: unable to resolve host dockerserver
groupadd: group 'docker' already exists
sudo: unable to resolve host dockerserver
sudo: unable to resolve host dockerserver
Synchronizing state of docker.service with SysV init with /lib/systemd/systemd-sysv-install...
Executing /lib/systemd/systemd-sysv-install enable docker
```

10. Log Off/Log On for effective docker command and test deploy nginx container by command: docker run -dt --name nginxtest -p 80:80 labdocker/nginx:latest

```
praparns-MacBook-Pro% ssh -i ~/.ssh/google_compute_engine nc-user@139.5.144.131
Enter passphrase for key '/Users/praparnlueangphoonlap/.ssh/google_compute_engine':
Welcome to Ubuntu 16.04.3 LTS (GNU/Linux 4.4.0-91-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/advantage

  Get cloud support with Ubuntu Advantage Cloud Guest:
    http://www.ubuntu.com/business/services/cloud

4 packages can be updated.
0 updates are security updates.


*** System restart required ***
Last login: Wed Aug 23 16:28:27 2017 from 58.10.246.60
nc-user@dockerserver:~$ docker run -dt --name nginxtest -p 80:80 labdocker/nginx:latest
Unable to find image 'labdocker/nginx:latest' locally
latest: Pulling from labdocker/nginx
c52e3ed763ff: Pull complete
83271047cb67: Pull complete
44ab71f31eec: Pull complete
Digest: sha256:e9ed646434d72b6d0832a8fa9e330ef992a2e69806389b0f945af7a1c19ac66c
Status: Downloaded newer image for labdocker/nginx:latest
378619bd18fc85531d6a207cc9d0303f99d8fa8ed2a8f1349fa631daa6ab1167
nc-user@dockerserver:~$ docker ps
CONTAINER ID        IMAGE                   COMMAND                  CREATED             STATUS              PORTS               NAMES
378619bd18fc        labdocker/nginx:latest   "nginx -c /etc/ngi..."   2 seconds ago       Up 1 second         0.0.0.0:80->80/tcp   nginxtest
nc-user@dockerserver:~$
```

11. Open browser / curl for test access


```
nc-user@dockerserver:~$ curl http://139.5.144.131/
<!DOCTYPE html>
<html>
<head>
<title>Welcome to nginx!</title>
<style>
    body {
        width: 35em;
        margin: 0 auto;
        font-family: Tahoma, Verdana, Arial, sans-serif;
    }
</style>
</head>
<body>
<h1>Welcome to nginx!</h1>
<p>If you see this page, the nginx web server is successfully installed and
working. Further configuration is required.</p>

<p>For online documentation and support please refer to
<a href="http://nginx.org/">nginx.org</a>.<br/>
Commercial support is available at
<a href="http://nginx.com/">nginx.com</a>.</p>

<p><em>Thank you for using nginx.</em></p>
</body>
</html>
nc-user@dockerserver:~$
```

12. Stop container by command: docker stop nginx
13. Shutdown DockerServer by command: sudo shutdown –h now