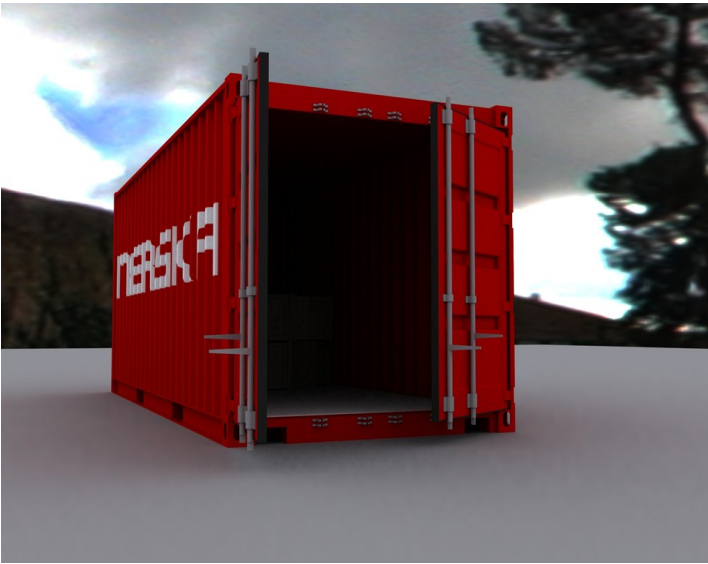


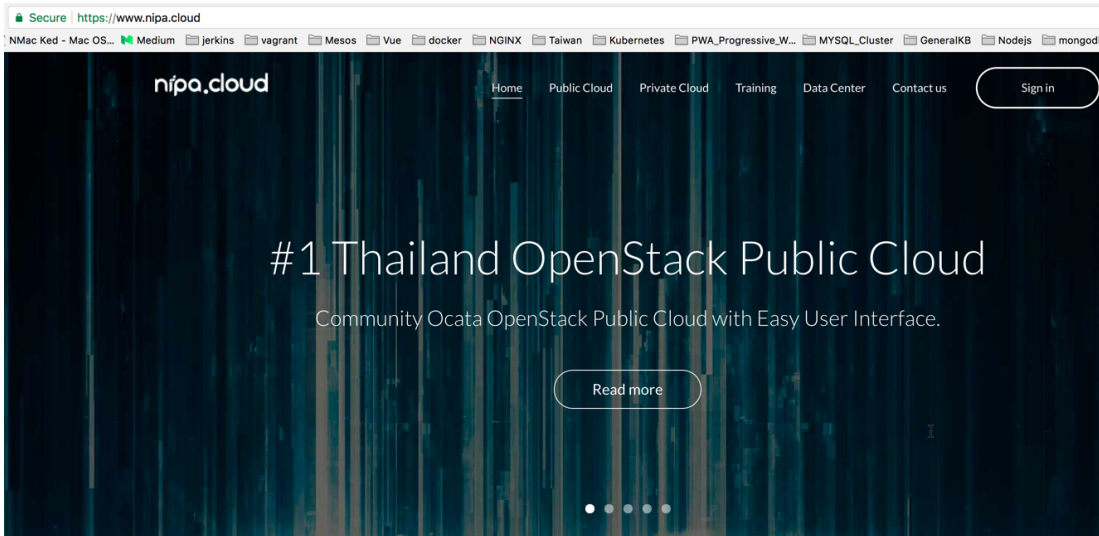
Manual



Demo Docker on NIPA Cloud

Prerequisite

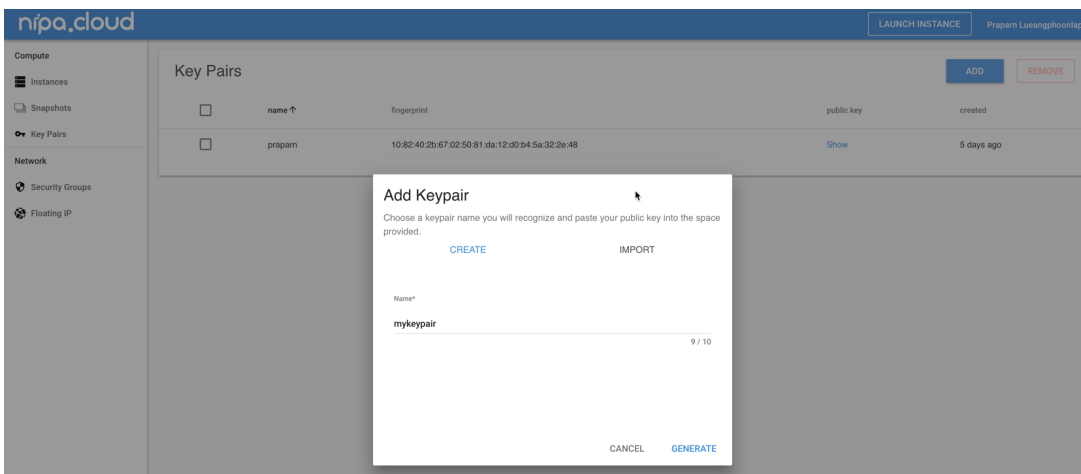
1. Create account at www.nipa.cloud (Register with Email)



Public Cloud Pricing

Free	0.75 ^{THB} /hour	1.00 ^{THB} /hour	1.75 ^{THB} /hour	3.25 ^{THB} /hour
Trial – 60 Days	Package A	Package B	Package C	Package D
vCPU 1 core	vCPU 1 core	vCPU 1 core	vCPU 2 core	vCPU 4 core

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
```

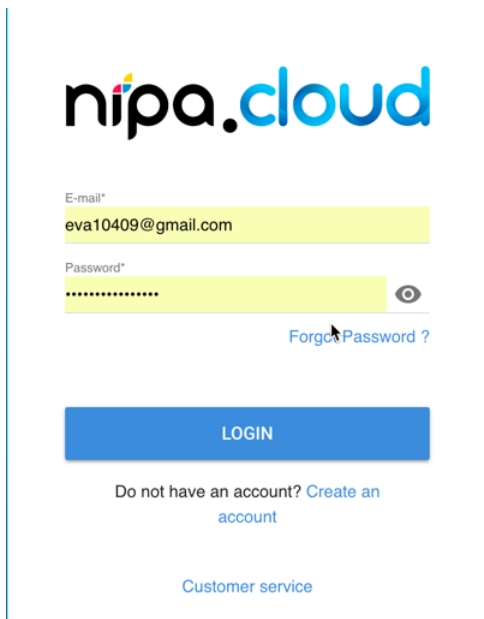
```
sudo groupadd docker
```

```
sudo usermod -aG docker $USER
```

```
sudo systemctl enable docker
```

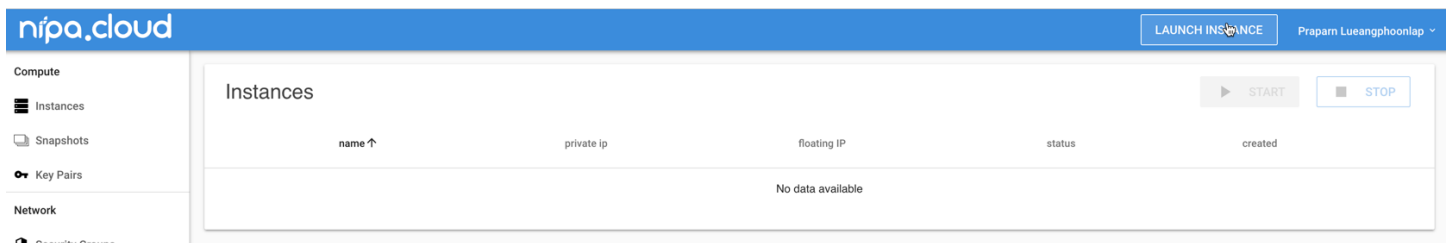
Create Instance

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



The login form for nipa.cloud features the company logo at the top. Below it are two input fields: 'E-mail*' containing 'eva10409@gmail.com' and 'Password*' with masked characters. A 'Forgot Password ?' link is positioned to the right of the password field. A blue 'LOGIN' button is centered below the inputs. At the bottom, there is a link to 'Create an account' for new users and a 'Customer service' link.

2. Click "LAUNCH INSTANCE" for create new server



The dashboard shows the 'Instances' section under the 'Compute' category in the left sidebar. The main area has a header with 'Instances', 'START', and 'STOP' buttons. Below is a table with columns for 'name', 'private ip', 'floating IP', 'status', and 'created'. The table is currently empty, displaying 'No data available'.

name	private ip	floating IP	status	created
No data available				

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

nipa.cloud

LAUNCH INSTANCE

Compute

Instances

Snapshots

Key Pairs

Network

Security Groups

Floating IP

Name

DockerServer

12 / 20

Image

DISTRIBUTIONS

SNAPSHOTS

ubuntu

16.04 x64

fedora

26 x64

centos

7.3 x64

Machine Type

GENERAL

Free

60 days

1 vCPU (E3)

512 MB RAM

30 GB Disk

A

540 THB/mo
0.75 THB/hr

1 vCPU

1 GB RAM

SSD 30 GB Disk

B

720 THB/mo
1 THB/hr

1 vCPU

2 GB RAM

SSD 40 GB Disk

C

1,260 THB/mo
1.75 THB/hr

2 vCPU

4 GB RAM

SSD 80 GB Disk

D

2,340 THB/mo
3.25 THB/hr

4 vCPU

8 GB RAM

SSD 120 GB Disk

E

3,420 THB/mo
4.75 THB/hr

4 vCPU

16 GB RAM

SSD 160 GB Disk

F

4,320 THB/mo
6 THB/hr

8 vCPU

16 GB RAM

SSD 200 GB Disk

G

6,300 THB/mo
8.75 THB/hr

8 vCPU

33 GB RAM

SSD 250 GB Disk

H

11,520 THB/mo
16 THB/hr

16 vCPU

66 GB RAM

SSD 300 GB Disk

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

Security Group

Add tags and firewall rules to allow specific network traffic from the internet.

☐ default

☒ Http-Https

☐ Ping

☐ Rdp

☐ All

☒ SSH

Authentication

Select your key pair to access an instance. You can import a new Keypair by clicking [here](#)

☒ praparn

Floating IP

☒ Enabled

Floating ip is a public IP that can be assigned to one of your instance. By default, an instance has its own private IP. An instance can communicate to other instances without a floating IP.

LAUNCH INSTANCE

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

	name ↑	private ip	floating IP	status	created
<input type="checkbox"/>	DockerServer	-	-	build	a few seconds ago

	name ↑	private ip	floating IP	status	created
<input type="checkbox"/>	DockerServer	192.168.199.14	139.5.144.131	active	a minute ago

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

```
praparns-MacBook-Pro% scp -i ~/.ssh/google_compute_engine * nc-user@139.5.144.131:/home/nc-user
Enter passphrase for key '/Users/praparnlueangphoonlap/.ssh/google_compute_engine':
Manual_SSH-KEY.pdf                                100% 1504KB   5.3MB/s   00:00
initialsetup_docker.sh                            100% 646      98.7KB/s   00:00
instruction_Setup.txt                              100% 12KB     1.3MB/s   00:00
praparns-MacBook-Pro% 
```

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

```
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 ***
nc-user@dockerserver:~$ 
```

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
nc-user@dockerserver:~$
```

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)

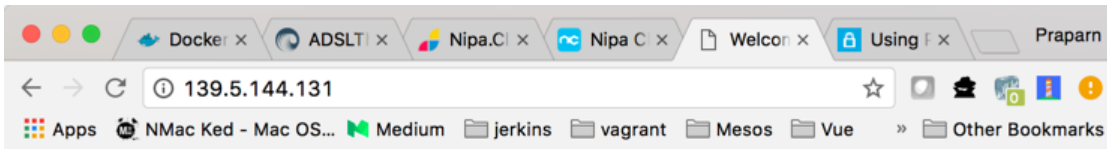
 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

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



Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.

```
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