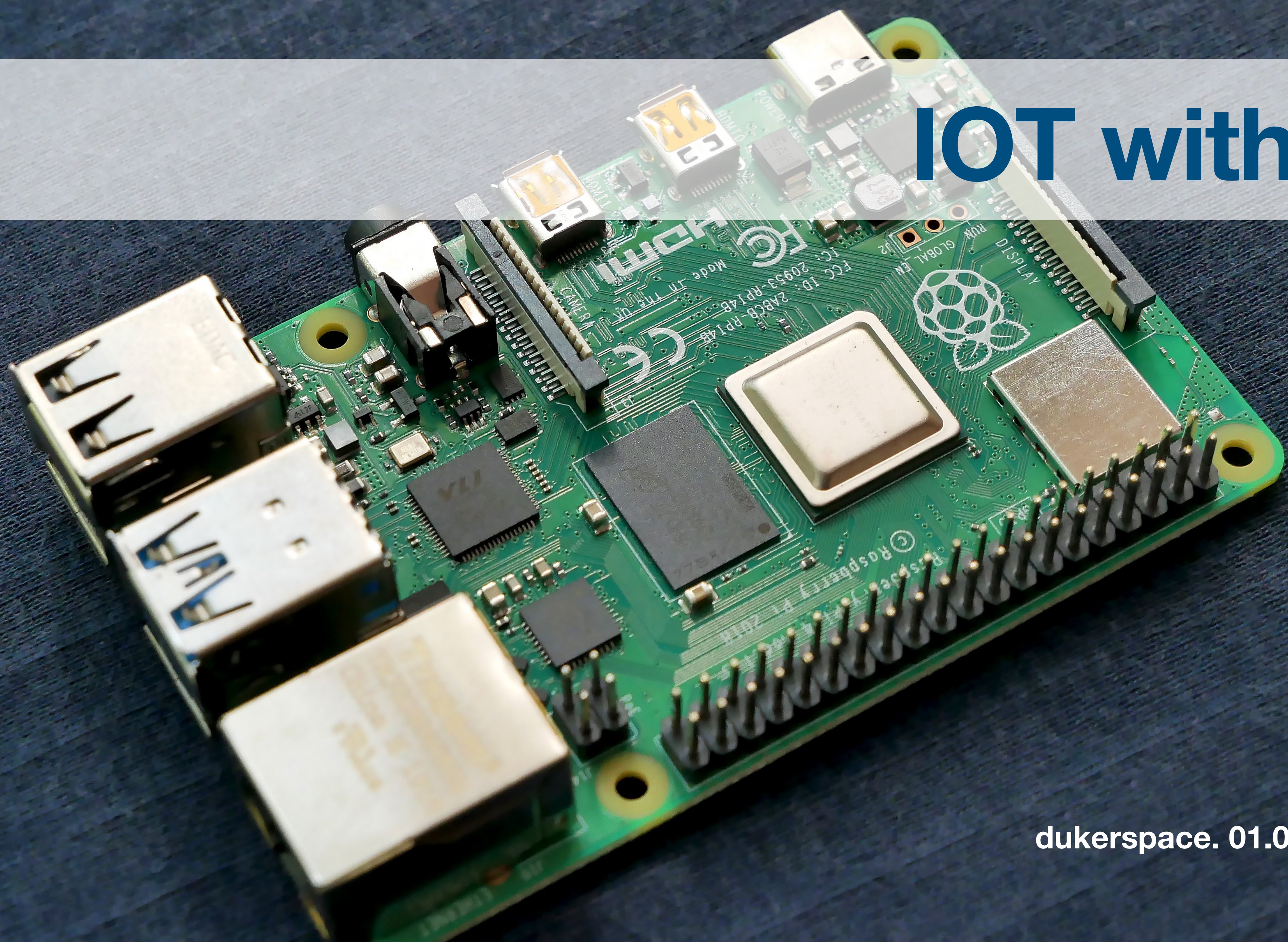


# IOT with PI



dukerspace. 01.03.2021



# Server : SSH Tunnel

Install net-tools

คำสั่งสำหรับแสดงข้อมูลสถานะการเชื่อมต่อของ Network

```
sudo apt install net-tools
```

# Setup PI

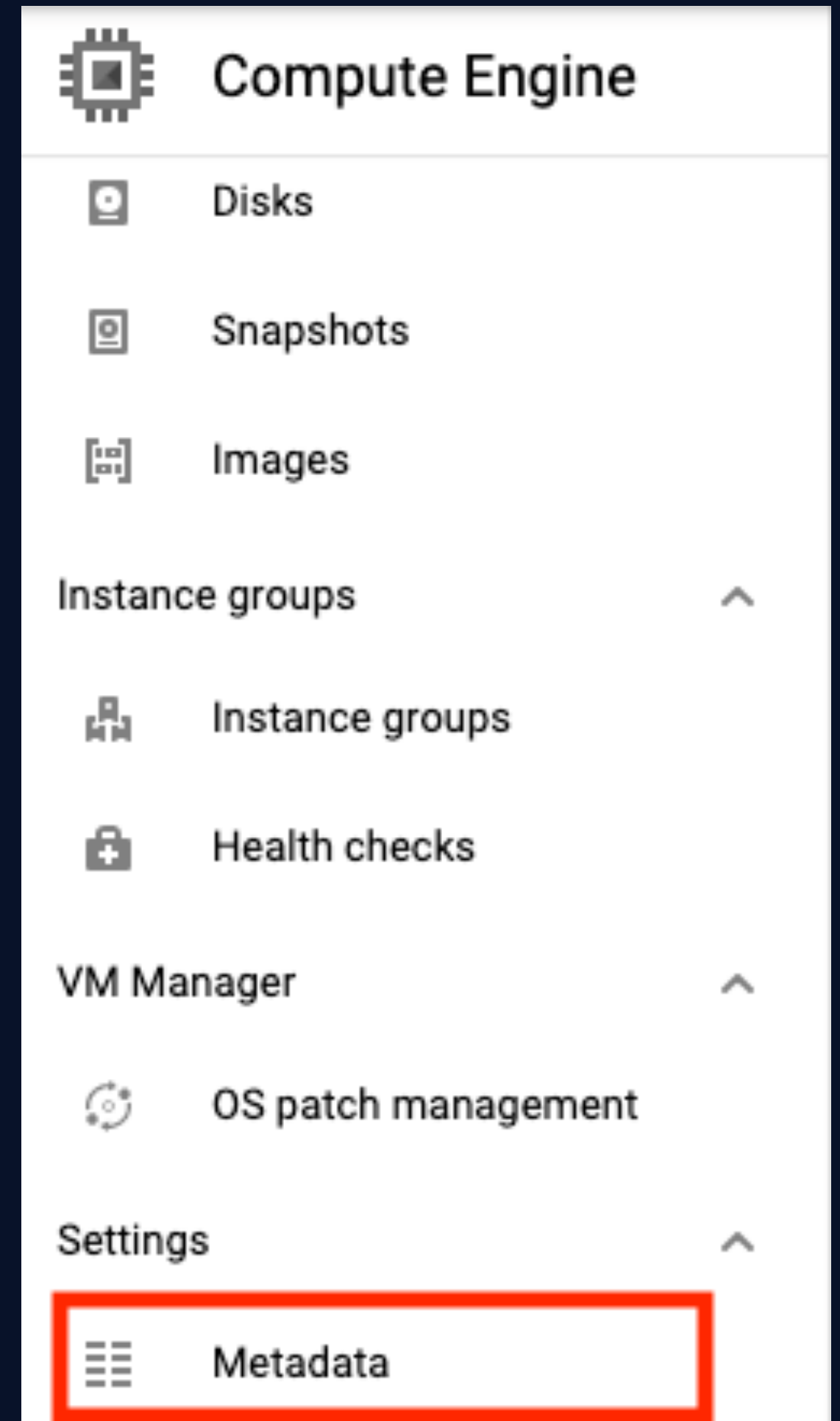
Generate RSA

```
ssh-keygen -t rsa
```

# Setup PI

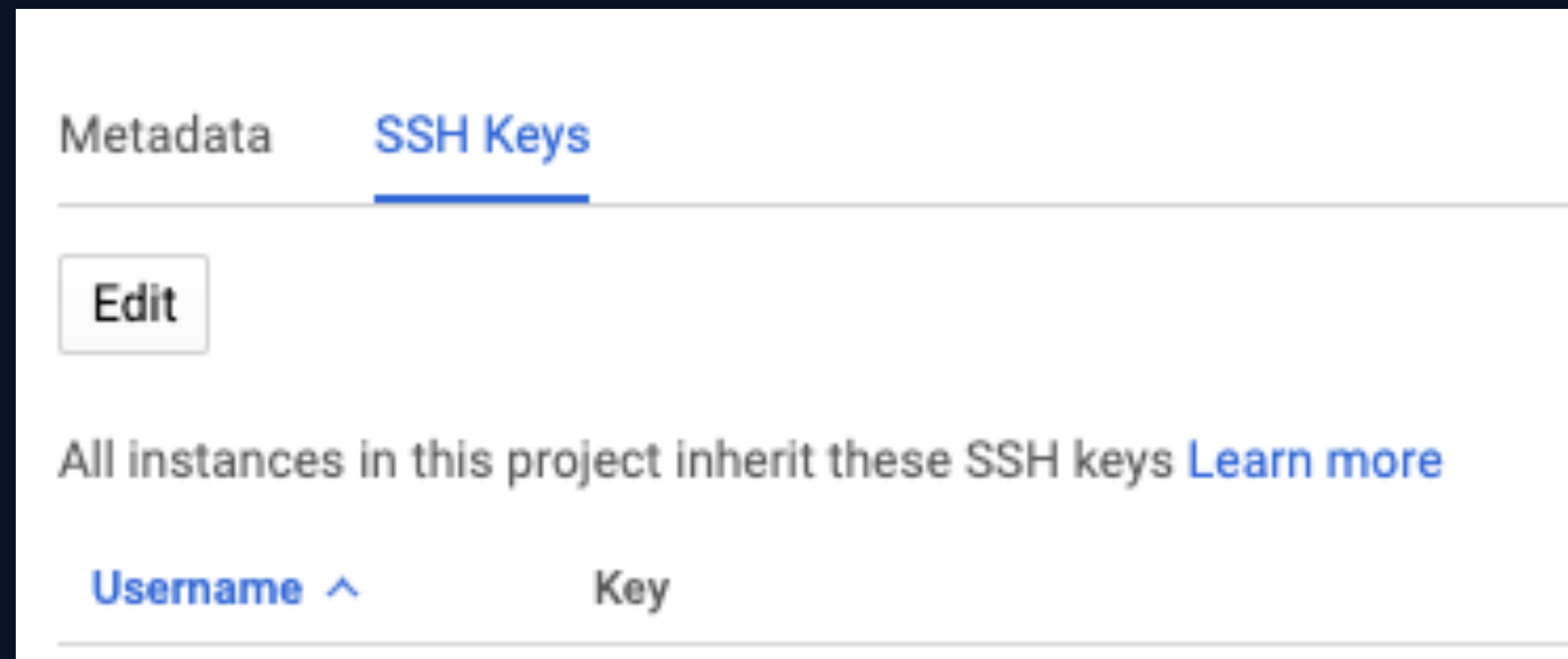
copy public key to gpc vm -> Metadata -> ssh keys

```
cat ~/.ssh/id_rsa.pub
```



# Setup PI

Click SSH Keys & click edit to copy/past public key



# Setup PI

Generate RSA

```
ssh-keygen -t rsa
```

copy public key to gpc vm -> Metadata -> ssh keys

```
cat ~/.ssh/id_rsa.pub
```

# Setup PI

```
nano ~/.ssh/config
```

Host tunnel

HostName tunnel.xxx.com

User pi

IdentityFile ~/.ssh/id\_rsa

IdentitiesOnly yes

# Setup PI

install autossh

```
sudo apt install autossh -y
```

install supervisor

```
sudo apt install supervisor -y
```



# Setup PI

Config ssh-forward.conf

/etc/supervisor/conf.d/ssh-forward.conf

Pi 1

```
autossh -M 10001 -f -N -R 10000:localhost:22 tunnel
```

Pi 2

```
autossh -M 10003 -f -N -R 10002:localhost:22 tunnel
```

Note : 1 เครื่องจะใช้ 2 port เครื่องต่อไปจึงเป็นเครื่องเลขคี่



# Setup PI

ssh-forward.conf

```
[program:ssh-forward]

process_name=%(program_name)s_%(process_num)02d

command=/usr/bin/autossh -M 10001 -N -R 10000:localhost:22 tunnel

autostart=true

autorestart=true

user=pi

numprocs=1

redirect_stderr=true

stdout_logfile=/var/log/ssh-forward.log
```



# Setup PI

test ssh login

```
ssh pi@tunnel.xxx.com
```



# Local computer

~/.ssh/config

Host tunnel

HostName tunnel.xxx.com

User <User>

IdentityFile ~/.ssh/<Key>

IdentitiesOnly yes



# Local computer

~/.ssh/config

Host tunnel

HostName tunnel.xxx.com

User montol

IdentityFile ~/.ssh/gcp\_montol

IdentitiesOnly yes

# Local computer

Open connection

```
ssh -N -L 9090:localhost:10000 montol@tunnel
```

Login local to pi

```
ssh pi@localhost -p 9090
```



# Server

Check port

```
sudo -l
```

```
netstat -tulpn | grep 10000
```

```
netstat -tulpn | grep 10001
```

# Instant Crush - Daft Punk ft. Julian Casablancas

