TP 1 Compte rendu Fabien Mauhourat

Architecture et configuration réseau :

Configuration des interfaces réseau :

- enp1s0 → nat
- br0 → bridge nat

```
sudo ip link add name br0 type bridge
sudo ip addr add 172.18.10.254/24 dev br0
sudo ip link set up dev br0
sudo iptables -t nat -A POSTROUTING -o enp1s0 -j MASQUERADE

sudo bash -c 'echo "net.ipv4.ip_forward=1" >> /etc/sysctl.conf'

sudo lxc-create -n debian-tp1 -t download -- -d debian -a amd64 -r buster
sudo lxc-create -n centos-tp1 -t download -- -d centos -a amd64 -r 7
sudo lxc-create -n alpine-tp1 -t download -- -d alpine -a amd64 -r 3.10

echo -e "lxc.net.0.type=veth\nlxc.net.0.link=br0\nlxc.net.0.flags=up\
nlxc.net.0.ipv4.address=172.18.10.10/24\nlxc.net.0.ipv4.gateway=172.18.10.254" >> /var/
lib/lxc/debian-tp1/config

echo -e "lxc.net.0.type=veth\nlxc.net.0.link=br0\nlxc.net.0.flags=up\
nlxc.net.0.ipv4.address=172.18.10.11/24\nlxc.net.0.ipv4.gateway=172.18.10.254" >> /var/
lib/lxc/alpine-tp1/config

echo -e "lxc.net.0.type=veth\nlxc.net.0.link=br0\nlxc.net.0.flags=up\
nlxc.net.0.ipv4.address=172.18.10.12/24\nlxc.net.0.ipv4.gateway=172.18.10.254" >> /var/
lib/lxc/centos-tp1/config

echo "nameserver 8.8.8.8" > /etc/resolv.conf

vi /etc/network/interfaces :
iface eth0 inet static
        address 172.18.10.11/24
        gateway 172.18.10.254

vi /etc/network/interfaces : (pour alpine)
auto eth0
```

```
iface eth0 inet static
        address 172.18.10.11
        netmask 255.255.255.0
        gateway 172.18.10.254
```

Création d'utilisateur et configuration des accès

Ajout de l’utilisateur :

```
adduser superv
adduser -s /bin/ash superv
passwd superv
```

Configuration de sudo :

```
whereis reboot
```

```
apt install sudo/yum install sudo/apk add sudo
```

```
vim /etc/sudoers :
superv  ALL=(root) /sbin/reboot
```

```
sudo -lU superv
```

Configuration de SSH sur debian :

```
apt install openssh-server openssh-client
```

```
ssh-keygen -t rsa -b 4096
ssh-copy-id superv@172.18.10.12 -i ./ssh/id_rsa.pub
```

```
vim /etc/ssh/sshd_config
AllowUsers superv
PermitRootLogin no
```

Configuration de SSH sur l’alpine :

```
apk add openssh
rc-update add sshd
```

```
vim /etc/ssh/sshd_config
AllowUsers superv@172.18.10.10
```

Configuration de SSH sur centos :

yum install openssh-server openssh-clients

vim /etc/ssh/sshd_config
AllowUsers superv@172.18.10.10
PasswordAuthentication no
PubkeyAuthentication yes

Commande de contrôle d'exécution

Commandes

Adresse IP :
ip a | grep ".*inet.*eth0" | sed 's/^[|\t]*//' | cut -d' ' -f 2
ip a | awk '/.*inet.*eth0/ {print $2}'

Espace disque :
df -h --total -x devtmpfs -x tmpfs | awk '/^total/ {print $4}'

Charge CPU :
vmstat | awk 'NR==3 {printf "%d%s\n",100-$15,"%"}'

Collecte distante

cat <<EOF > cmd.sh
#!/bin/bash

ssh -i /home/superv/.ssh/id_rsa superv@172.18.10.12 "source /etc/profile;ip a" | awk '/.*inet.*eth0/ {printf "%s%s\n","Adresse IP : ",$2}'

ssh -i /home/superv/.ssh/id_rsa superv@172.18.10.12 "df -h --total -x devtmpfs -x tmpfs" | awk '/^total/ {printf "%s%s\n","Disque : ",$4}'

ssh -i /home/superv/.ssh/id_rsa superv@172.18.10.12 "vmstat" | awk 'NR==3 {printf "%s %d%s\n","CPU : ",100-$15,"%"}'
EOF

chmod +x cmd.sh
.cmd.sh >> /tmp/tp

Exécution des commandes

apt install cron
crontab -e -u superv
*/5 * * * * /home/superv/cmd.sh >> /tmp/tp

Répertoire réseau partage

Sur debian :

apt install samba
mkdir /home/superv/Partage

vim /etc/samba/smb.conf :
[partage]
path = /home/superv/Partage
read only = no
browseable = yes
writeable = yes
valid users = superv

smbpasswd -a superv
smbpasswd -e superv

Sur centos et alpine :

yum install cifs-utils/apk add cifs-utils
mkdir /home/superv/Partage

Manuel :
mount -t cifs //172.18.10.10/partage /home/superv/Partage/ -o
user=superv,password=password,uid=1000,gid=1000

Automatique :
vim /home/superv/auth :
username=utilisateur
password=mot_de_passe

vim /etc/fstab :

//172.18.10.10/partage /home/superv/Partage/ cifs
credentials=/home/superv/auth,uid=1000,gid=1000 0 0

mount -a → pour monter le partage