

클 라 우 드 컴 퓨 팅

Cloud Computing

Homework #9

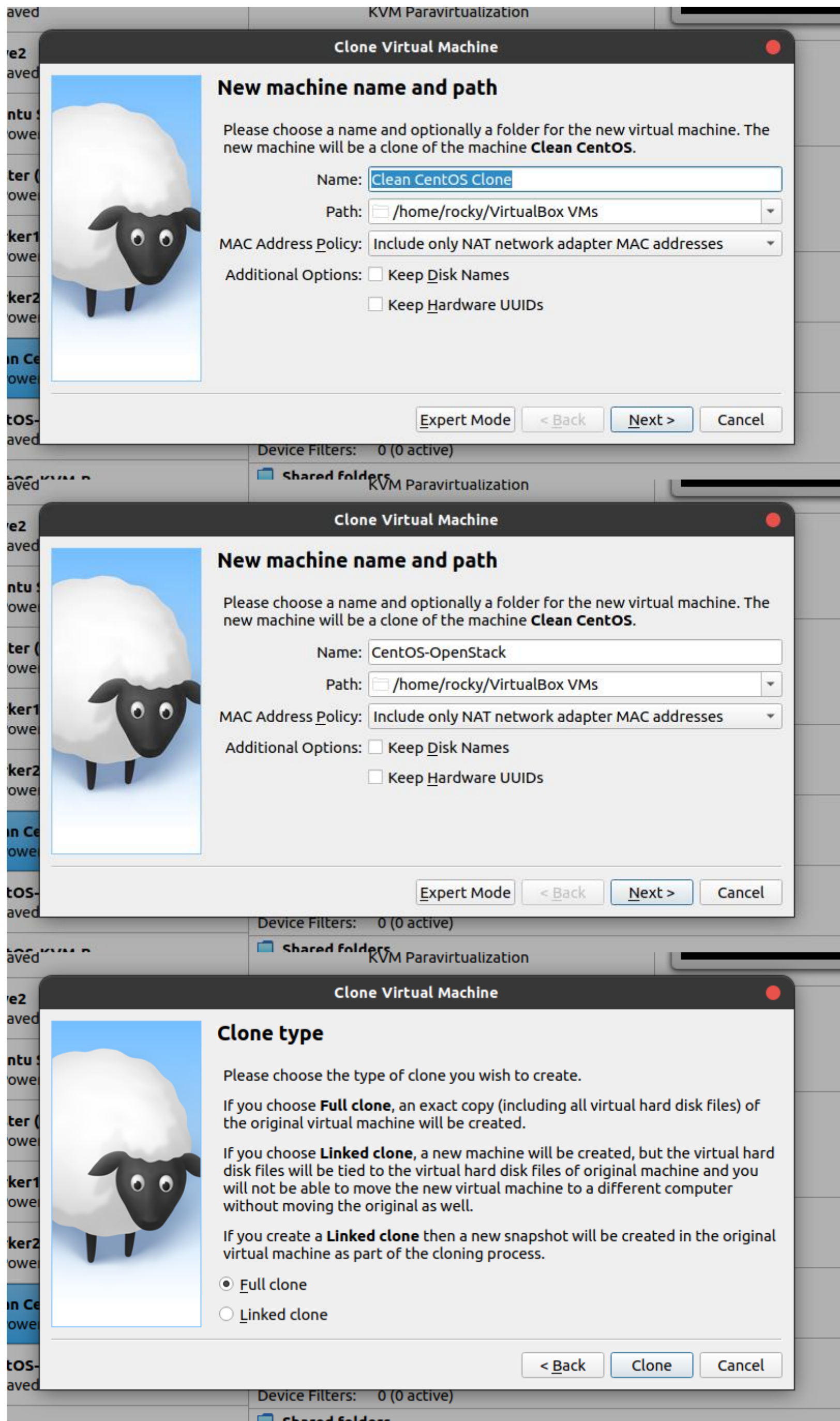


소프트웨어학과
2020039091
어록희



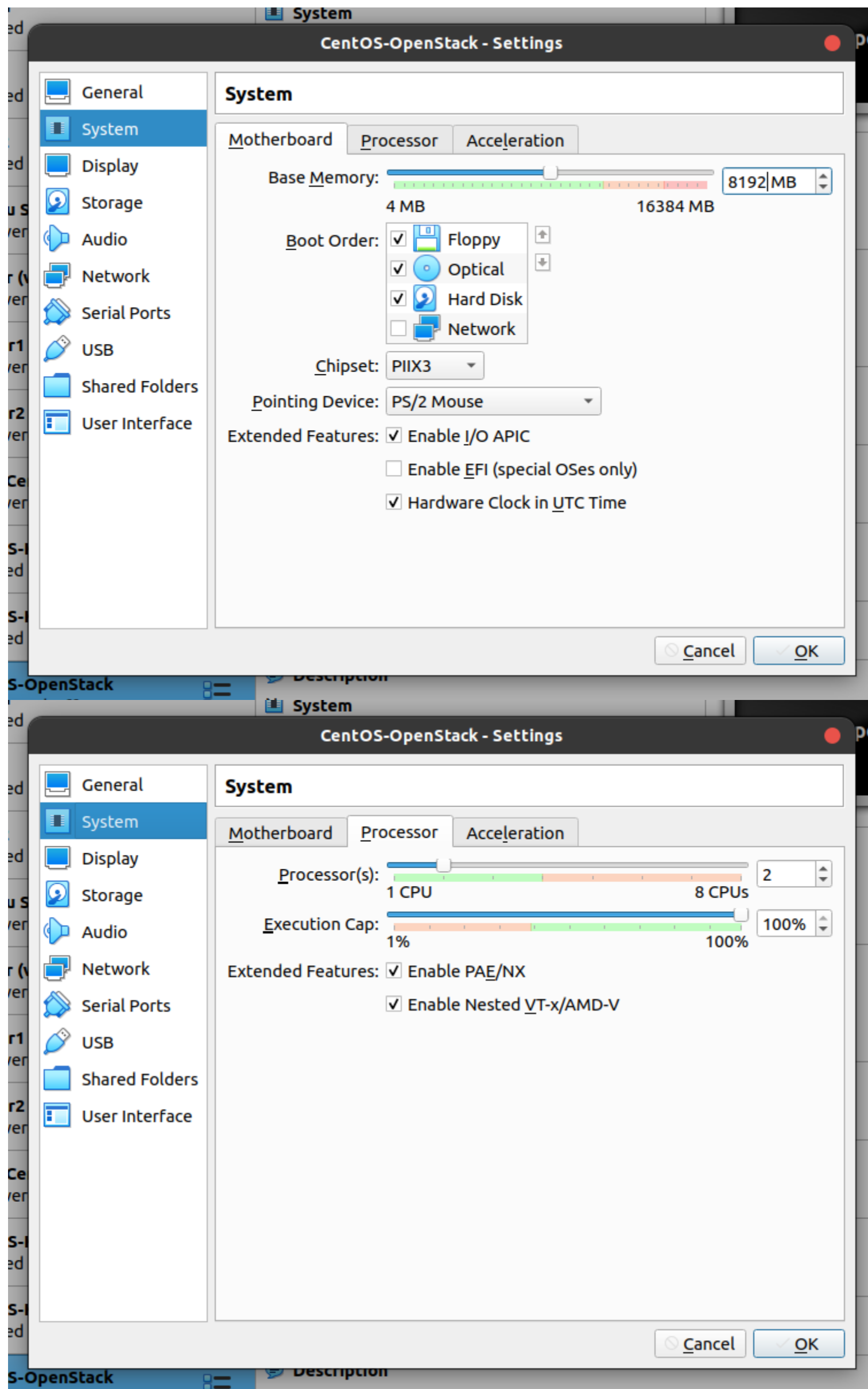
Chapter #13





가상머신 복사





복사된 가상머신 세팅

```
root@localhost:~  
rocky@Rocky-Linux:~$ ssh rockyeo-clean@192.168.56.111  
rockyeo-clean@192.168.56.111's password:  
Last login: Mon Nov 27 14:46:25 2023 from 192.168.56.1  
[rockyeo-clean@localhost ~]$ su -  
Password:  
[root@localhost ~]# hostnamectl set-hostname openstack  
[root@localhost ~]# bash  
[root@openstack ~]#  
[root@openstack ~]# cat /etc/hostname  
openstack  
[root@openstack ~]#  
  
[root@openstack ~]# systemctl disable firewalld  
Removed symlink /etc/systemd/system/multi-user.target.wants/firewalld.service.  
Removed symlink /etc/systemd/system/dbus-org.fedoraproject.FirewallD1.service.  
[root@openstack ~]# cat /etc/selinux/config | grep SELINUX=  
# SELINUX= can take one of these three values:  
SELINUX=enforcing  
[root@openstack ~]# sed -i 's/^SELINUX=enforcing$/SELINUX=disabled/' /etc/selinux/config  
[root@openstack ~]# cat /etc/selinux/config | grep SELINUX=  
# SELINUX= can take one of these three values:  
SELINUX=disabled  
[root@openstack ~]#
```

Hostname 변경 및 방화벽, selinux Disable




```
root@localhost:~  
[root@openstack ~]# systemctl status NetworkManager  
● NetworkManager.service - Network Manager  
   Loaded: loaded (/usr/lib/systemd/system/NetworkManager.service; enabled; vendor preset: enabled)  
   Active: active (running) since Mon 2023-11-27 14:45:35 KST; 3min 14s ago  
     Docs: man:NetworkManager(8)  
    Main PID: 690 (NetworkManager)  
     CGroup: /system.slice/NetworkManager.service  
            └─690 /usr/sbin/NetworkManager --no-daemon  
              └─817 /sbin/dhclient -d -q -sf /usr/libexec/nm-dhcp-helper -pf /var...  
              └─818 /sbin/dhclient -d -q -sf /usr/libexec/nm-dhcp-helper -pf /var...  
[root@openstack ~]# systemctl stop NetworkManager  
[root@openstack ~]#  
[root@openstack ~]# systemctl restart network  
[root@openstack ~]#
```

Hostname 변경 및 방화벽, selinux Disable

```
[root@openstack ~]# yum update  
Loaded plugins: fastestmirror  
Determining fastest mirrors  
 * base: mirror.elice.io  
 * extras: mirror.elice.io  
 * updates: mirror.elice.io  
base | 3.6 kB | 00:00  
extras | 2.9 kB | 00:00  
updates | 2.9 kB | 00:00  
[root@openstack ~]#  
[root@openstack ~]# yum list centos-release-openstack-*  
Loaded plugins: fastestmirror  
Loading mirror speeds from cached hostfile  
 * base: mirror.elice.io  
 * extras: mirror.elice.io  
 * updates: mirror.elice.io  
Available Packages  
centos-release-openstack-queens.noarch | 1-2.el7.centos | extras  
centos-release-openstack-rocky.noarch | 1-1.el7.centos | extras  
centos-release-openstack-stein.noarch | 1-1.el7.centos | extras  
centos-release-openstack-train.noarch | 1-1.el7.centos | extras  
[root@openstack ~]#  
[root@openstack ~]# yum install -y centos-release-openstack-train.noarch  
Loaded plugins: fastestmirror  
Loading mirror speeds from cached hostfile  
 * base: mirror.elice.io  
 * extras: mirror.elice.io  
 * updates: mirror.elice.io  
Resolving Dependencies  
--> Running transaction check  
--> Package centos-release-openstack-train.noarch 0:1-1.el7.centos will be installed  
--> Processing Dependency: centos-release-qemu-ev for package: centos-release-openstack-train-1-1.el7.centos.noarch  
--> Processing Dependency: centos-release-ceph-nautilus for package: centos-release-openstack-train-1-1.el7.centos.noarch  
[root@openstack ~]# yum install -y openstack-packstack
```

Yum update 후 openstack 설치

```
wered Off | Name: CentOS-OpenStack
+ root@openstack:~
[er [root@openstack ~]# packstack --help 2>&1 | head -n 1
ve Usage: packstack [options] [--help]
1 [root@openstack ~]#
ve [root@openstack ~]# packstack --gen-answer-file answer.txt
Packstack changed given value to required value /root/.ssh/id_rsa.pub
e1 Additional information:
ive * Parameter CONFIG_NEUTRON_L2_AGENT: You have chosen OVN Neutron backend. Note
e2 that this backend does not support the VPNaaS or FWaaS services. Geneve will be
ive used as the encapsulation method for tenant networks
[roo [root@openstack ~]# ls
anaconda-ks.cfg answer.txt
[roo [root@openstack ~]#
[roo [root@openstack ~]# cat answer.txt | grep HOST
CONFIG_CONTROLLER_HOST=10.0.2.15
e1 CONFIG_COMPUTE_HOSTS=10.0.2.15
ive CONFIG_NETWORK_HOSTS=10.0.2.15
CONFIG_VCENTER_HOST=
e2 CONFIG_STORAGE_HOST=10.0.2.15
ive CONFIG_SAHARA_HOST=10.0.2.15
CONFIG_AMQP_HOST=10.0.2.15
[roo CONFIG_MARIADB_HOST=10.0.2.15
[roo CONFIG_CINDER_NETAPP_HOSTNAME=
[roo CONFIG_CINDER_NETAPP_ESERIES_HOST_TYPE=linux_dm_mp
[roo # CONFIG_CINDER_NETAPP_TRANSPORT_TYPE, CONFIG_CINDER_NETAPP_HOSTNAME,
[roo # and CONFIG_CINDER_NETAPP_HOSTNAME options to create the URL used by
[roo CONFIG_CINDER_SOLIDFIRE_HOSTNAME=
[roo CONFIG_MANILA_NETAPP_SERVER_HOSTNAME=
[roo CONFIG_TEMPEST_HOST=
[roo CONFIG_REDIS_HOST=10.0.2.15
[roo [root@openstack ~]#
[roo [root@openstack ~]# cat answer.txt | grep ADMIN_USERNAME
[roo CONFIG_KEYSTONE_ADMIN_USERNAME=admin
[roo [root@openstack ~]#
[roo [root@openstack ~]# cat answer.txt | grep CONFIG_DEFAULT_PASSWORD
[roo [root@openstack ~]# cat answer.txt | grep CONFIG_DEFAULT_PASSWORD
e2 CONFIG_DEFAULT_PASSWORD=
ive [root@openstack ~]#
```

Packstack 명령어 동작 확인
초기 세팅 확인

```
powered Off | Name: CentOS-OpenStack |
+ root@openstack:~
[root@openstack ~]# packstack --allinone
Welcome to the Packstack setup utility

The installation log file is available at: /var/tmp/packstack/20231127-151012-XF
cwOZ/openstack-setup.log

Installing:
Clean Up [ DONE ]
Discovering ip protocol version [ DONE ]
Setting up ssh keys [ DONE ]

[root@openstack ~]# ls -l
total 116
-rw----- 1 root root 1436 Nov 15 15:02 anaconda-ks.cfg
-rw----- 1 root root 51733 Nov 27 15:08 answer.txt
-rw----- 1 root root 369 Nov 27 15:18 keystone_admin
-rw----- 1 root root 314 Nov 27 15:18 keystone_demo
-rw----- 1 root root 51733 Nov 27 15:10 packstack-answers-20231127-151013.txt
[root@openstack ~]#
```

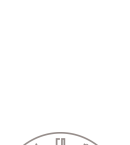
Packstack 셋업 후 생성된 파일 확인

```
[root@openstack ~]# cat keystone_admin
unset OS_SERVICE_TOKEN
export OS_USERNAME=admin
export OS_PASSWORD='b1396e67ab414087'
export OS_REGION_NAME=RegionOne
export OS_AUTH_URL=http://10.0.2.15:5000/v3
export PS1='\u@\h \W(keystone_admin)]\$ '

export OS_PROJECT_NAME=admin
export OS_USER_DOMAIN_NAME=Default
export OS_PROJECT_DOMAIN_NAME=Default
export OS_IDENTITY_API_VERSION=3
[root@openstack ~]#

[root@openstack ~]# source keystone_admin
[root@openstack ~(keystone_admin)]# openstack user list
Failed to discover available identity versions when contacting http://10.0.2.15:
5000/v3. Attempting to parse version from URL.
Unable to establish connection to http://10.0.2.15:5000/v3/auth/tokens: HTTPConn
ectionPool(host='10.0.2.15', port=5000): Max retries exceeded with url: /v3/auth
/tokens (Caused by NewConnectionError('<urllib3.connection.HTTPConnection object
at 0x7fc9e60559d0>: Failed to establish a new connection: [Errno 111] Connectio
n refused',))
[root@openstack ~(keystone_admin)]#
```

Keystone 초기 계정정보 확인 후 접속
User list를 실행해보았으나 외부연결이 되어있지 않아 연결 실패



연습문제



5. 오픈스택의 서비스들을 리스트하고 각각의 역할들에 대해서 설명하라.

Nova

컴퓨팅 리소스를 위한 전체 관리 및 액세스 톨로써 스케줄링, 생성, 삭제 처리

Neutron

OpenStack 서비스 네트워크 연결

Swift

내결함성이 뛰어난 오브젝트 스토리지 서비스

RESTful API를 사용해 구조화되지 않은 애플리케이션 저장 및 검색

Cinder

셀프 서비스 API를 통해 접근 가능한 퍼시스턴트 블록 스토리지

Keystone

OpenStack 서비스를 인증 및 권한 부여

Glance

가상 머신 디스크 이미지 저장 및 검색.

