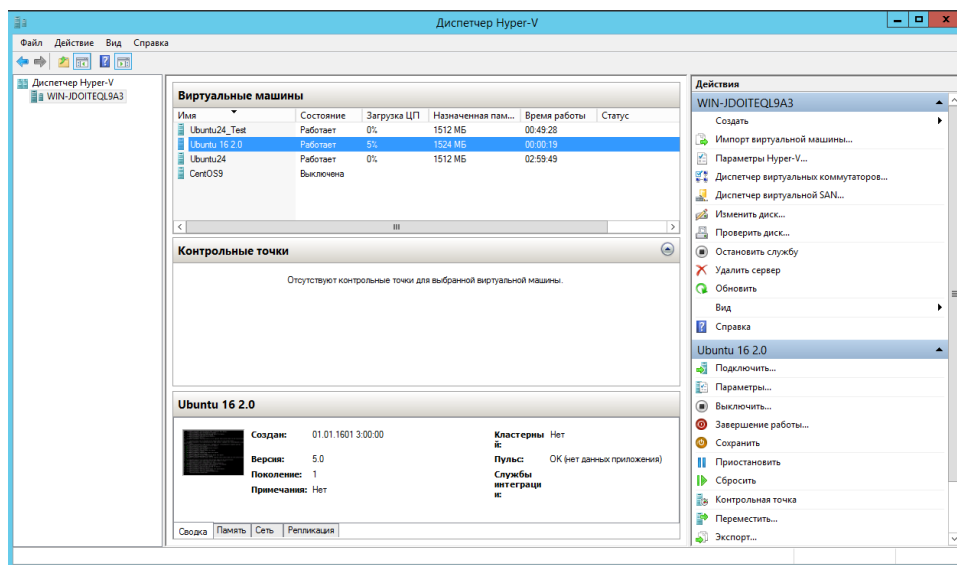


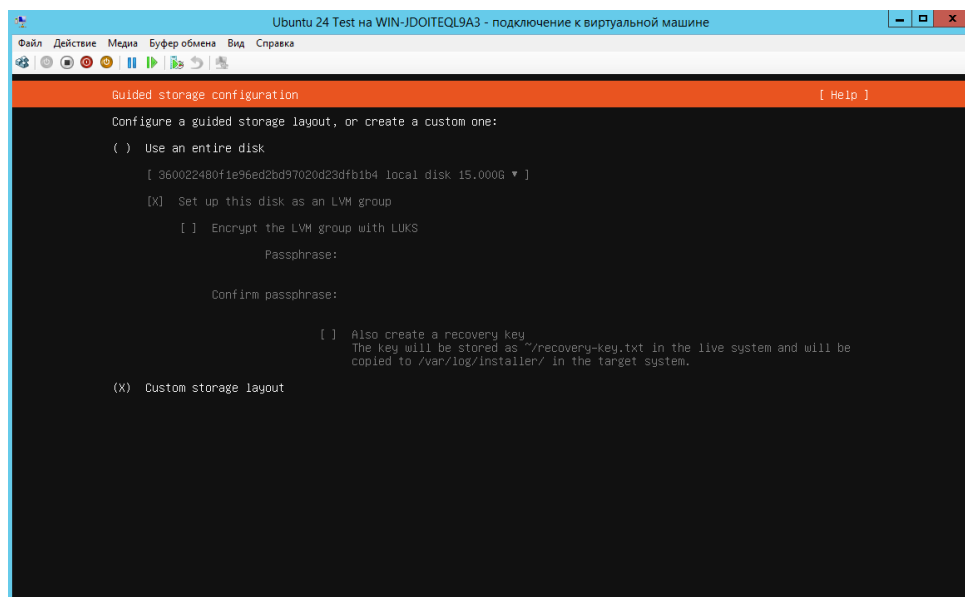
Homework_Lesson3_Report

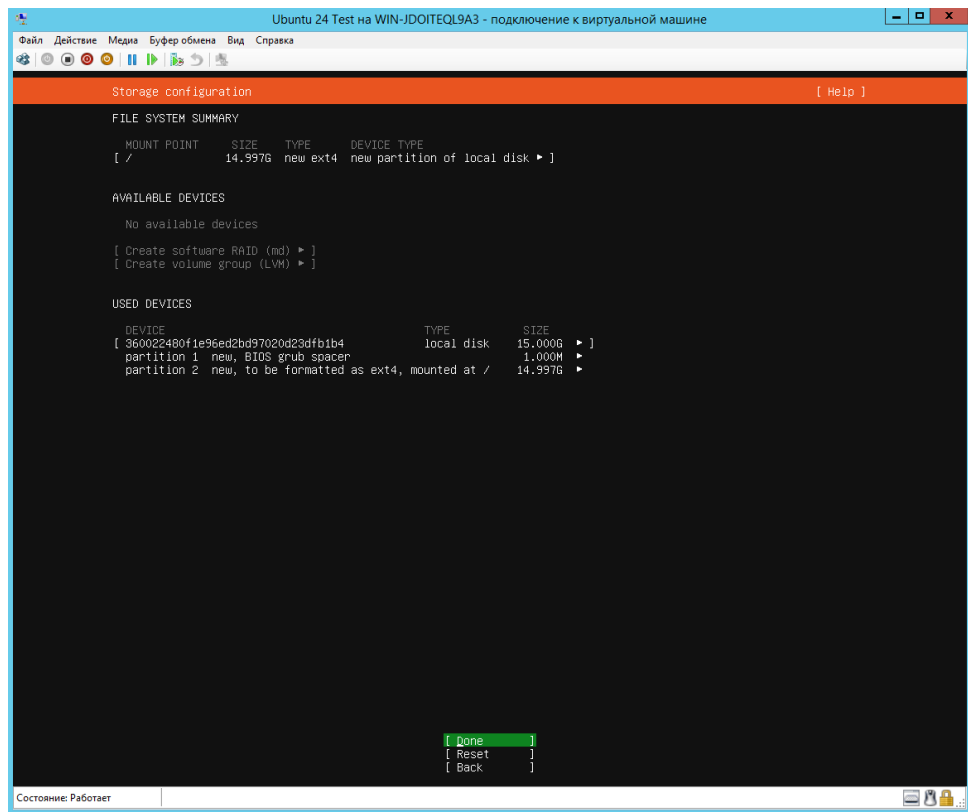
1. Создайте 2 виртуальных машины (далее - VM1, VM2. Вы можете дать любое удобное вам название). Используйте образ ubuntu 24.10
 2. Пройдите полностью все этапы установки и вручную разбейте свободное пространство на диски.
 3. Настройте SSH-соединение следующим образом: хостовая ОС -> VM1, VM1 -> хостовая ос, VM2 -> VM1, VM2 -> хостовая ОС. Запрет соединения можно осуществить любым удобным способом.
- * с помощью инструмента Hashicorp Packer создайте образы двух виртуальных машин с заранее подготовленными предустановками, описанными выше. Должно быть 2 конфига.

1. Виртуальные машины установлены.



2. В ходе установки разбиваем свободное место на диске вручную.

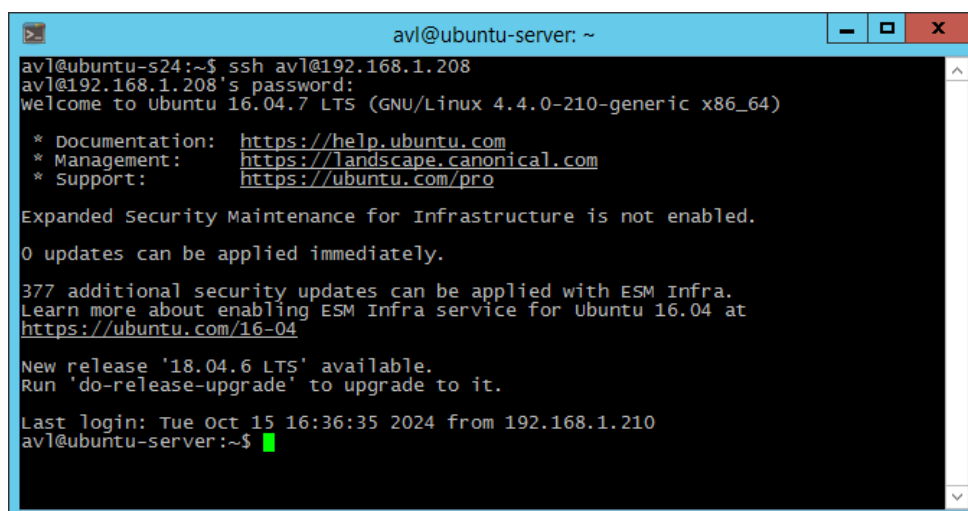




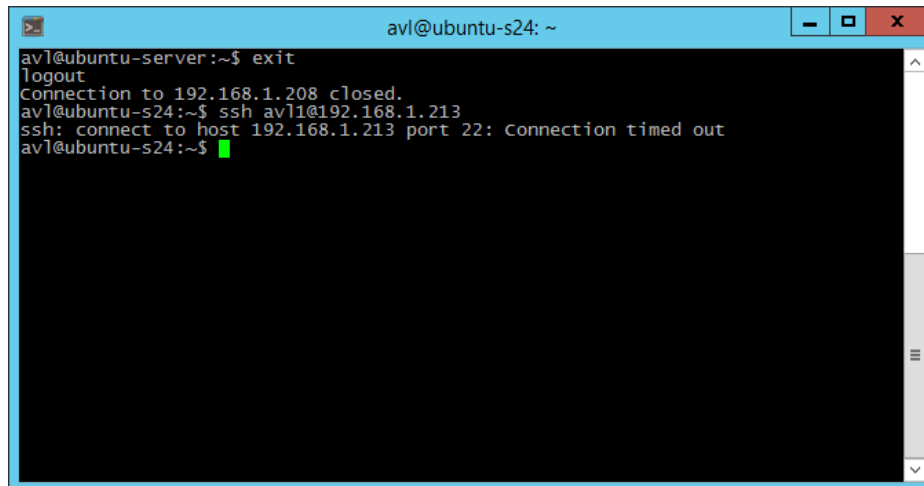
3. Запретим доступ по ssh исходя из задания. Запрет будем осуществлять через iptables. Вместо хвостовой ОС у нас будет ubuntu –s24 (VM) ip 192.168.1.210, вместо VM1 – ubuntu-server ip 192.168.1.208, вместо VM2 – ubuntu24test ip 192.168.1.213.

Подключение VM ubuntu –s24 ip 192.168.1.210

ubuntu –s24 ip 192.168.1.210 (VM) -> ubuntu-server ip 192.168.1.208 (VM1)



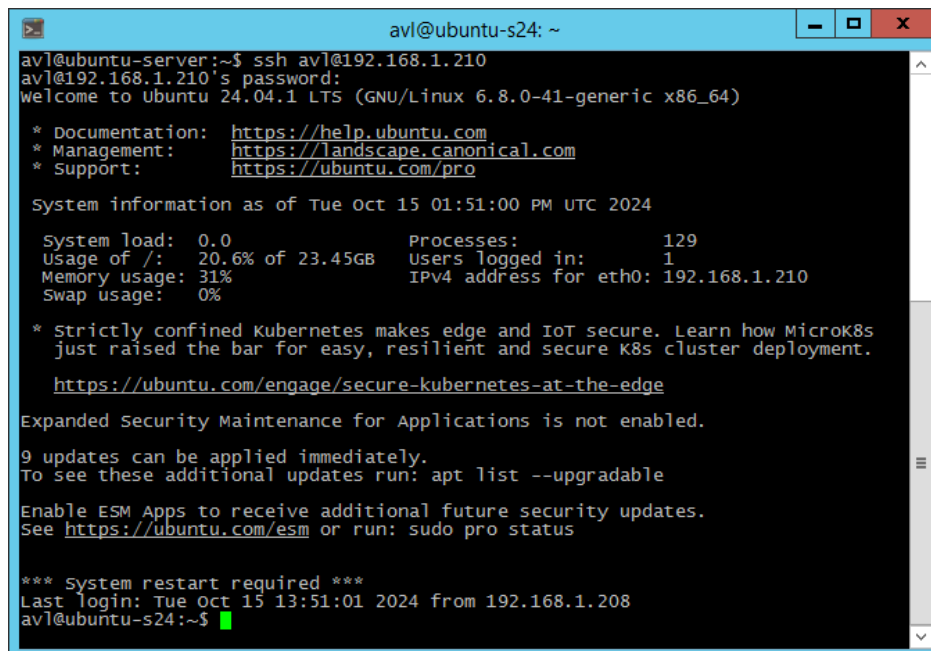
ubuntu -s24 ip 192.168.1.210 (VM) -> x ubuntu24test ip 192.168.1.213 (VM2)



```
avl@ubuntu-s24: ~
avl@ubuntu-server:~$ exit
logout
Connection to 192.168.1.208 closed.
avl@ubuntu-s24:~$ ssh avl@192.168.1.213
ssh: connect to host 192.168.1.213 port 22: Connection timed out
avl@ubuntu-s24:~$
```

Подключение VM1 ubuntu-server ip 192.168.1.208

ubuntu-server ip 192.168.1.208 (VM1) -> ubuntu -s24 ip 192.168.1.210 (VM)



```
avl@ubuntu-s24: ~
avl@ubuntu-server:~$ ssh avl@192.168.1.210
avl@192.168.1.210's password:
Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 6.8.0-41-generic x86_64)

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

System information as of Tue Oct 15 01:51:00 PM UTC 2024

System load:  0.0               Processes:    129
Usage of /:   20.6% of 23.45GB   Users logged in: 1
Memory usage: 31%              IPv4 address for eth0: 192.168.1.210
Swap usage:   0%

 * Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s
   just raised the bar for easy, resilient and secure K8s cluster deployment.
   https://ubuntu.com/engage/secure-kubernetes-at-the-edge

Expanded Security Maintenance for Applications is not enabled.

9 updates can be applied immediately.
To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

*** System restart required ***
Last login: Tue Oct 15 13:51:01 2024 from 192.168.1.208
avl@ubuntu-s24:~$
```

ubuntu-server ip 192.168.1.208 (VM1) -> ~~x~~ ubuntu24test ip 192.168.1.213 (VM2)

```
av1@192.168.1.208
av1@ubuntu-server:~$ ssh av1@192.168.1.213
ssh: connect to host 192.168.1.213 port 22: Connection timed out
av1@ubuntu-server:~$
```

Подключение VM1 ubuntu-server ip 192.168.1.208

ubuntu24test ip 192.168.1.213 (VM2) -> ubuntu -s24 ip 192.168.1.210 (VM)

```
av1@ubuntu-server: ~
av1@ubuntu-server:~$ exit
logout
Connection to 192.168.1.208 closed.
av1@ubuntu24test:~$ ssh av1@192.168.1.208
av1@192.168.1.208's password:
Welcome to Ubuntu 16.04.7 LTS (GNU/Linux 4.4.0-210-generic x86_64)

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

Expanded Security Maintenance for Infrastructure is not enabled.
0 updates can be applied immediately.

377 additional security updates can be applied with ESM Infra.
Learn more about enabling ESM Infra service for Ubuntu 16.04 at
https://ubuntu.com/16-04

New release '18.04.6 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Last login: Tue Oct 15 17:19:11 2024 from 192.168.1.213
av1@ubuntu-server:~$
```

ubuntu24test ip 192.168.1.213 (VM2) -> ubuntu-server ip 192.168.1.208 (VM1)

```
av1@ubuntu-s24: ~
av1@ubuntu24test:~$ ssh av1@192.168.1.210
av1@192.168.1.210's password:
Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 6.8.0-41-generic x86_64)

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

System information as of Tue Oct 15 02:21:03 PM UTC 2024

System load:  0.0               Processes:    130
Usage of /:   20.6% of 23.45GB  Users logged in: 1
Memory usage: 31%              IPv4 address for eth0: 192.168.1.210
Swap usage:   0%

 * Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s
   just raised the bar for easy, resilient and secure K8s cluster deployment.
   https://ubuntu.com/engage/secure-kubernetes-at-the-edge

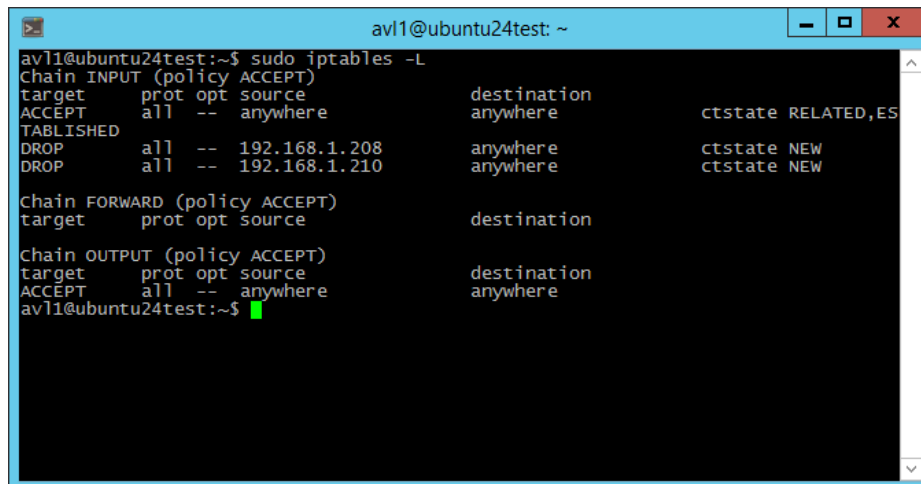
Expanded Security Maintenance for Applications is not enabled.
9 updates can be applied immediately.
To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

*** System restart required ***
Last login: Tue Oct 15 14:21:04 2024 from 192.168.1.213
av1@ubuntu-s24:~$
```

По итогу у нас с машины ubuntu –s24 ip 192.168.1.210 (VM) и ubuntu-server ip 192.168.1.208 (VM1) не проходит соединение на ubuntu24test ip 192.168.1.213 (VM2). Все остальные соединения и соединение в обратную сторону проходят.

ubuntu24test ip 192.168.1.213 VM2 iptables

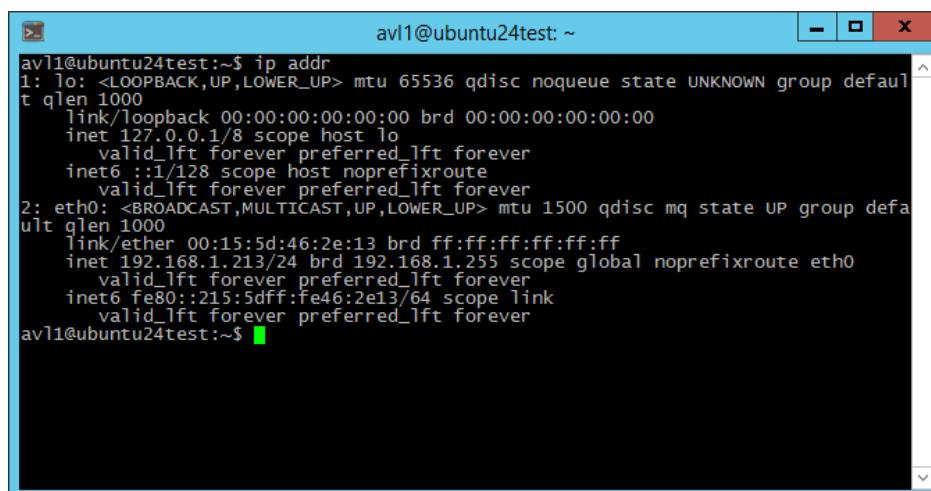


```
av11@ubuntu24test: ~
av11@ubuntu24test:~$ sudo iptables -L
Chain INPUT (policy ACCEPT)
target     prot opt source                destination          ctstate RELATED,ESTABLISHED
ACCEPT     all  --  anywhere              anywhere             ctstate NEW
DROP       all  --  192.168.1.208         anywhere             ctstate NEW
DROP       all  --  192.168.1.210         anywhere             ctstate NEW

Chain FORWARD (policy ACCEPT)
target     prot opt source                destination

Chain OUTPUT (policy ACCEPT)
target     prot opt source                destination
ACCEPT     all  --  anywhere              anywhere
```

ubuntu24test ip 192.168.1.213 VM2 network settings



```
av11@ubuntu24test: ~
av11@ubuntu24test:~$ ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host noprefixroute
        valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc mq state UP group default qlen 1000
    link/ether 00:15:5d:46:2e:13 brd ff:ff:ff:ff:ff:ff
    inet 192.168.1.213/24 brd 192.168.1.255 scope global noprefixroute eth0
        valid_lft forever preferred_lft forever
    inet6 fe80::215:5dff:fe46:2e13/64 scope link
        valid_lft forever preferred_lft forever
```

К заданию со звездочкой вернусь позднее. Сейчас хотелось бы разобраться с остальными заданиями по домашке.