Homework_Lesson3_OS_2

"1. Создайте 2 виртуальные машины (далее - VM1, VM2. Вы можете дать любое удобное вам название). Используйте образ ubuntu24.10

2. Пройдите полностью все этапы установки и вручную разбейте свободное пространство на диски.

Хостовая 10.10.10.36

```
sttewie@sttewie-VMware-Virtual-Platform:~$ ip a
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: ens32: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 00:50:56:9f:53:d0 brd ff:ff:ff:ff:ff:ff
    altname enp2s0
    inet 10.10.10.36/24 brd 10.10.10.255 scope global dynamic noprefixroute ens32
       valid_lft 361778sec preferred_lft 361778sec
    inet6 fe80::250:56ff:fe9f:53d0/64 scope link
       valid_lft forever preferred_lft forever
sttewie@sttewie-VMware-Virtual-Platform:~$ hostnamectl
 Static hostname: sttewie-VMware-Virtual-Platform
       Icon name: computer-vm
         Chassis: vm 🖥
      Machine ID: 295e4b079b5846c9ac33dd3bdf1beb5e
         Boot ID: b735b9b638d444858e4ee59b3ae4e993
  Virtualization: vmware
Operating System: Ubuntu 24.04.1 LTS
          Kernel: Linux 6.8.0-47-generic
    Architecture: x86-64
 Hardware Vendor: VMware, Inc.
  Hardware Model: VMware Virtual Platform
Firmware Version: 6.00
   Firmware Date: Thu 2020-11-12
    Firmware Age: 3y 11month 1w 1d
```

VM1 10.10.10.34

```
sttewie@sttewie-VMware-Virtual-Platform:~$ ip a
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: ens32: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 00:50:56:9f:06:96 brd ff:ff:ff:ff:ff:ff
    altname enp2s0
    inet 10.10.10.34/24 brd 10.10.10.255 scope global dynamic noprefixroute ens32
       valid_lft 361229sec preferred_lft 361229sec
    inet6 fe80::250:56ff:fe9f:696/64 scope link
       valid_lft forever preferred_lft forever
sttewie@sttewie-VMware-Virtual-Platform:~$ hostnamectl
 Static hostname: sttewie-VMware-Virtual-Platform
       Icon name: computer-vm
         Chassis: vm 🖥
      Machine ID: 295e4b079b5846c9ac33dd3bdf1beb5e
         Boot ID: 48f8c77145e14069acc9780261b8c5b1
  Virtualization: vmware
Operating System: Ubuntu 24.04.1 LTS
          Kernel: Linux 6.8.0-47-generic
    Architecture: x86-64
 Hardware Vendor: VMware, Inc.
  Hardware Model: VMware Virtual Platform
Firmware Version: 6.00
   Firmware Date: Thu 2020-11-12
    Firmware Age: 3y 11month 1w 1d
sttewie@sttewie-VMware-Virtual-Platform:~$
```

```
sttewie@sttewie-VMware-Virtual-Platform:~$ ip a
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: ens32: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 00:50:56:9f:87:ff brd ff:ff:ff:ff:ff:ff
    altname enp2s0
    inet 10.10.10.35/24 brd 10.10.10.255 scope global dynamic noprefixroute ens32
       valid_lft 361176sec preferred_lft 361176sec
    inet6 fe80::250:56ff:fe9f:87ff/64 scope link
       valid_lft forever preferred_lft forever
sttewie@sttewie-VMware-Virtual-Platform:~$ hostnamectl
 Static hostname: sttewie-VMware-Virtual-Platform
       Icon name: computer-vm
         Chassis: vm 🖴
      Machine ID: 295e4b079b5846c9ac33dd3bdf1beb5e
         Boot ID: 4ecf510de8e34bfbac969626ffb09367
  Virtualization: vmware
Operating System: Ubuntu 24.04.1 LTS
          Kernel: Linux 6.8.0-47-generic
    Architecture: x86-64
 Hardware Vendor: VMware, Inc.
  Hardware Model: VMware Virtual Platform
Firmware Version: 6.00
   Firmware Date: Thu 2020-11-12
    Firmware Age: 3y 11month 1w 1d
```

Диски не разбивал, потому что разворачивал, клонируя готовые vm

3. Настройте SSH-соединение следующим образом: хостовая ОС -> VM1, VM1 -> хостовая ос, VM2 -> VM1, VM2 -x> хостовая ОС. Запрет соединения можно осуществить любым удобной полиси через iptables.

Хостовая ->VM1

```
sttewie@sttewie-VMware-Virtual-Platform:~$ ip a
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: ens32: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 00:50:56:9f:53:d0 brd ff:ff:ff:ff:ff:ff
    altname enp2s0
    inet 10.10.10.36/24 brd 10.10.10.255 scope global dynamic noprefixroute ens32
       valid_lft 358588sec preferred_lft 358588sec
    inet6 fe80::250:56ff:fe9f:53d0/64 scope link
       valid_lft forever preferred_lft forever
sttewie@sttewie-VMware-Virtual-Platform:~$ ssh sttewie@10.10.10.34
sttewie@10.10.10.34's password:
Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 6.8.0-47-generic x86_64)

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

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

8 additional security updates can be applied with ESM Apps.
Learn more about enabling ESM Apps service at https://ubuntu.com/esm

Last login: Mon Oct 21 15:40:23 2024 from 10.10.10.36
sttewie@sttewie-VMware-Virtual-Platform:~$
```

VM1 -> Хост

```
sttewie@sttewie-VMware-Virtual-Platform:~$ ip a
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: ens32: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 00:50:56:9f:06:96 brd ff:ff:ff:ff:ff:ff
    altname enp2s0
    inet 10.10.10.34/24 brd 10.10.10.255 scope global dynamic noprefixroute ens32
       valid_lft 355412sec preferred_lft 355412sec
    inet6 fe80::250:56ff:fe9f:696/64 scope link
       valid_lft forever preferred_lft forever
sttewie@sttewie-VMware-Virtual-Platform:~$ ssh sttewie@10.10.10.36
sttewie@10.10.10.36's password:
Permission denied, please try again.
sttewie@10.10.10.36's password:
Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 6.8.0-47-generic x86_64)

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

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

8 additional security updates can be applied with ESM Apps.
Learn more about enabling ESM Apps service at https://ubuntu.com/esm

Last login: Mon Oct 21 15:44:55 2024 from 10.10.10.34
```

VM2 -> VM1

```
connection to 10.10.10.34 closed.
sttewie@sttewie-VMware-Virtual-Platform:~$ ip a
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: ens32: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 00:50:56:9f:87:ff brd ff:ff:ff:ff:ff:ff
    altname enp2s0
    inet 10.10.10.35/24 brd 10.10.10.255 scope global dynamic noprefixroute ens32
       valid_lft 355270sec preferred_lft 355270sec
    inet6 fe80::250:56ff:fe9f:87ff/64 scope link
       valid_lft forever preferred_lft forever
sttewie@sttewie-VMware-Virtual-Platform:~$ ssh sttewie@10.10.10.34
sttewie@10.10.10.34's password:
Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 6.8.0-47-generic x86_64)

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

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

8 additional security updates can be applied with ESM Apps.
Learn more about enabling ESM Apps service at https://ubuntu.com/esm

Last login: Mon Oct 21 15:47:31 2024 from 10.10.10.35
sttewie@sttewie-VMware-Virtual-Platform:~$
```

VM2 -x> хостовая

Запретил все входящие от VM2

```
root@sttewie-VMware-Virtual-Platform:/home/sttewie# iptables -A INPUT -s 10.10.10.35 -j DROP
root@sttewie-VMware-Virtual-Platform:/home/sttewie# iptables -L
Chain INPUT (policy ACCEPT)
target     prot opt source               destination
DROP       all  --  10.10.10.35          anywhere

Chain FORWARD (policy ACCEPT)
target     prot opt source               destination

Chain OUTPUT (policy ACCEPT)
target     prot opt source               destination
root@sttewie-VMware-Virtual-Platform:/home/sttewie#
```

```
sttewie@sttewie-VMware-Virtual-Platform:~$ ssh sttewie@10.10.10.36




















ssh: connect to host 10.10.10.36 port 22: Connection timed out
```

Заблокировать только ssh можно было командой
```
iptables -A INPUT -p tcp --dport ssh -s 10.10.10.35 -j DROP
```

* с помощью инструмента Hashicorp Packer создайте образы двух виртуальных машин с заранее подготовленными предустановками, описанными выше. Должно быть 2 конфига."