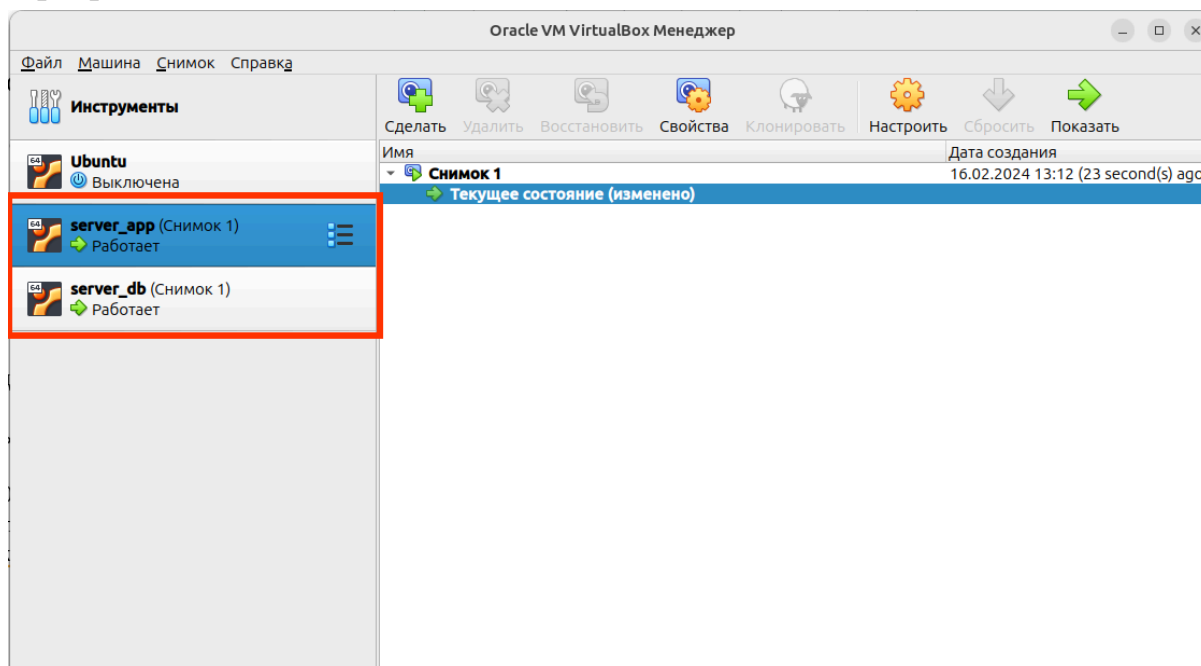


Отчет выполненной работы

Инструменты: VirtualBox, Ubuntu Server, PostgreSQL

Задание:

1) Развернул две виртуальные машины с ОС Linux. "app" и "db" сервер



- Сервер app с двумя интерфейсами

```
amingaleev@app:~$ 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
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:b6:d1:d5 brd ff:ff:ff:ff:ff:ff
    inet 192.168.0.107/24 metric 100 brd 192.168.0.255 scope global dynamic enp0s3
        valid_lft 4394sec preferred_lft 4394sec
    inet6 fe80::a00:27ff:feb6:d1d5/64 scope link
        valid_lft forever preferred_lft forever
3: enp0s8: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:0c:83:94 brd ff:ff:ff:ff:ff:ff
    inet 192.168.100.1/24 brd 192.168.100.255 scope global enp0s8
        valid_lft forever preferred_lft forever
    inet6 fe80::a00:27ff:fe0c:8394/64 scope link
        valid_lft forever preferred_lft forever
```

- Сервер db с одним интерфейсом

```

amingaleev@db:~$ 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
        valid_lft forever preferred_lft forever
2: enp0s8: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:b5:9b:39 brd ff:ff:ff:ff:ff:ff
    inet 192.168.100.2/24 brd 192.168.100.255 scope global enp0s8
        valid_lft forever preferred_lft forever
    inet6 fe80::a00:27ff:feb5:9b39/64 scope link
        valid_lft forever preferred_lft forever

```

- app и db видят друг друга по второму сетевому интерфейсу 192.168.100.0/*

```

amingaleev@app:~$ ping 192.168.100.2
PING 192.168.100.2 (192.168.100.2) 56(84) bytes of data.
64 bytes from 192.168.100.2: icmp_seq=1 ttl=64 time=0.760 ms
64 bytes from 192.168.100.2: icmp_seq=2 ttl=64 time=1.57 ms
64 bytes from 192.168.100.2: icmp_seq=3 ttl=64 time=1.59 ms
64 bytes from 192.168.100.2: icmp_seq=4 ttl=64 time=1.88 ms
64 bytes from 192.168.100.2: icmp_seq=5 ttl=64 time=1.38 ms
^C
--- 192.168.100.2 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4029ms
rtt min/avg/max/mdev = 0.760/1.437/1.880/0.374 ms

```

```

amingaleev@db:~$ ping 192.168.100.1
PING 192.168.100.1 (192.168.100.1) 56(84) bytes of data.
64 bytes from 192.168.100.1: icmp_seq=1 ttl=64 time=0.757 ms
64 bytes from 192.168.100.1: icmp_seq=2 ttl=64 time=1.81 ms
64 bytes from 192.168.100.1: icmp_seq=3 ttl=64 time=1.55 ms
64 bytes from 192.168.100.1: icmp_seq=4 ttl=64 time=1.27 ms
64 bytes from 192.168.100.1: icmp_seq=5 ttl=64 time=1.31 ms
64 bytes from 192.168.100.1: icmp_seq=6 ttl=64 time=1.69 ms
^C
--- 192.168.100.1 ping statistics ---
6 packets transmitted, 6 received, 0% packet loss, time 5006ms
rtt min/avg/max/mdev = 0.757/1.396/1.808/0.344 ms

```

2) Docker-compose с zabbix-server и nginx в docker-compose.yml.
Данные по подключению к DB указаны в .env. Оба файла приложены.

```

amingaleev@app:/var/lib/zabbix$ ll
total 24
drwxr-xr-x  3 root root 4096 фев 16 08:34 ./
drwxr-xr-x 45 root root 4096 фев 13 15:53 ../
drwxr-xr-x  2 root root 4096 фев 13 15:54 alertscripts/
-rw-r--r--  1 root root 1671 фев 16 08:32 docker-compose.yml
-rw-----  1 root root  334 фев 16 08:06 .env

```

Zabbix сервер запускается вместе с сервером app.

```
amingaleev@app:/etc/systemd/system$ cat docker-compose.service
[Unit]
Description=Docker Compose Service
Requires=docker.service
After=docker.service

[Service]
Type=oneshot
RemainAfterExit=yes
WorkingDirectory=/var/lib/zabbix/
ExecStart=docker-compose up -d
ExecStop=docker-compose down

[Install]
WantedBy=multi-user.target
```

3) На сервере db развернул PostgreSQL

```

amingaleev@db:~$ systemctl status postgresql*
● postgresql.service - PostgreSQL RDBMS
   Loaded: loaded (/lib/systemd/system/postgresql.service; enabled; vendor pre
   Active: active (exited) since Fri 2024-02-16 08:07:24 UTC; 2h 36min ago
   Process: 1628 ExecStart=/bin/true (code=exited, status=0/SUCCESS)
   Main PID: 1628 (code=exited, status=0/SUCCESS)
      CPU: 650us

feb 16 08:07:24 db systemd[1]: Starting PostgreSQL RDBMS...
feb 16 08:07:24 db systemd[1]: Finished PostgreSQL RDBMS.

● postgresql@14-main.service - PostgreSQL Cluster 14-main
   Loaded: loaded (/lib/systemd/system/postgresql@14-main.service; enabled-runtime; v
   Active: active (running) since Fri 2024-02-16 08:07:24 UTC; 2h 36min ago
   Process: 1605 ExecStart=/usr/bin/pg_ctlcluster --skip-systemctl-redirect 14-
   Main PID: 1610 (postgres)
      Tasks: 35 (limit: 2220)
     Memory: 191.2M
        CPU: 2min 34.438s
      CGroup: /system.slice/system-postgresql.slice/postgresql@14-main.service
              └─1610 /usr/lib/postgresql/14/bin/postgres -D /var/lib/postgresql/1
                └─1612 "postgres: 14/main: checkpoint" " " " " " " " " " " " " " " " "

```

- Изменил стандартный порт на 12345

```
amingaleev@db:~$ cat /etc/postgresql/14/main/postgresql.conf | grep port
port = 12345                                # (change requires restart)
#ssl_passphrase_command_supports_reload = off
# supported by the operating system:
# supported by the operating system:
# supported by the operating system:
```

- Настроил подключение к серверу db только с сервера app

```

amingaleev@db:~$ sudo iptables -L -nv
Chain INPUT (policy DROP 24 packets, 15002 bytes)
pkts bytes target prot opt in out source destination state
629K 85M ACCEPT all -- * * 0.0.0.0/0 0.0.0.0/0 state RELATED,ESTABLISHED
3 252 ACCEPT icmp * * 0.0.0.0/0 0.0.0.0/0
373 22380 ACCEPT all -- * * 192.168.100.1 0.0.0.0/0
90 7026 ACCEPT all -- 10 * 0.0.0.0/0 0.0.0.0/0

Chain FORWARD (policy ACCEPT 0 packets, 0 bytes)
pkts bytes target prot opt in out source destination

Chain OUTPUT (policy ACCEPT 805K packets, 1529M bytes)
pkts bytes target prot opt in out source destination
amingaleev@db:~$

```

4) Настроить Zabbix agent на обоих VM

- app

```

amingaleev@app:~$ systemctl status zabbix-agent.service
● zabbix-agent.service - Zabbix Agent
   Loaded: loaded (/lib/systemd/system/zabbix-agent.service; enabled; vendor preset: enabled)
   Active: active (running) since Fri 2024-02-16 08:37:12 UTC; 2h 27min ago
     Docs: man:zabbix_agentd
    Main PID: 661 (zabbix_agentd)
      Tasks: 7 (limit: 2221)
     Memory: 6.6M
        CPU: 14.804s
    CGroup: /system.slice/zabbix-agent.service
            └─661 /usr/sbin/zabbix_agentd --foreground
              └─698 "/usr/sbin/zabbix_agentd: collector [idle 1 sec]"
                └─699 "/usr/sbin/zabbix_agentd: listener #1 [waiting for connection]"
                  └─700 "/usr/sbin/zabbix_agentd: listener #2 [waiting for connection]"
                    └─701 "/usr/sbin/zabbix_agentd: listener #3 [waiting for connection]"
                      └─702 "/usr/sbin/zabbix_agentd: active checks #1 [idle 1 sec]"
                        └─706 "/usr/sbin/zabbix_agentd: active checks #2 [idle 1 sec]"

feb 16 08:37:12 app zabbix_agentd[661]: Starting Zabbix Agent [app]. Zabbix 5.0.17 (revision 0a4ac3dabc).
feb 16 08:37:12 app zabbix_agentd[661]: Press Ctrl+C to exit.
feb 16 08:37:12 app systemd[1]: Started Zabbix Agent.
amingaleev@app:~$

```

```

amingaleev@app:/etc/zabbix$ cat zabbix_agentd.conf | grep -E '^Server|^Host'
Server=192.168.0.107,172.25.0.11
ServerActive=192.168.0.107,172.25.0.11
Hostname=app
amingaleev@app:/etc/zabbix$

```

- db

```

amingaleev@db:~$ systemctl status zabbix-agent.service
● zabbix-agent.service - Zabbix Agent
   Loaded: loaded (/lib/systemd/system/zabbix-agent.service; enabled; vendor preset: enabled)
   Active: active (running) since Fri 2024-02-16 08:56:39 UTC; 2h 7min ago
     Docs: man:zabbix_agentd
    Main PID: 3548 (zabbix_agentd)
      Tasks: 6 (limit: 2220)
     Memory: 3.3M
        CPU: 11.255s
    CGroup: /system.slice/zabbix-agent.service
            └─3548 /usr/sbin/zabbix_agentd --foreground
              └─3549 "/usr/sbin/zabbix_agentd: collector [idle 1 sec]"
                └─3550 "/usr/sbin/zabbix_agentd: listener #1 [waiting for connection]"
                  └─3551 "/usr/sbin/zabbix_agentd: listener #2 [waiting for connection]"
                    └─3552 "/usr/sbin/zabbix_agentd: listener #3 [waiting for connection]"
                      └─3553 "/usr/sbin/zabbix_agentd: active checks #1 [idle 1 sec]"

feb 16 08:56:39 db systemd[1]: zabbix-agent.service: Deactivated successfully.
feb 16 08:56:39 db systemd[1]: Stopped Zabbix Agent.
feb 16 08:56:39 db systemd[1]: Started Zabbix Agent.
feb 16 08:56:39 db zabbix_agentd[3548]: Starting Zabbix Agent [db]. Zabbix 5.0.17 (revision 0a4ac3dabc).
feb 16 08:56:39 db zabbix_agentd[3548]: Press Ctrl+C to exit.

```

```
amingaleev@db:/etc/zabbix$ cat zabbix_agentd.conf | grep -E '^Server|^Host'
Server=192.168.100.1
ServerActive=127.0.0.1
Hostname=db
```

Результат: Хост app и db находится под мониторингом zabbix, доступны их метрики.

Hosts

<

🔍

Name

Host groups

type here to search

Select

IP

DNS

Port

Severity

☐ Not classified

☐ Warning

☐ High

☐ Information

☐ Average

☐ Disaster

Status

Any

Enabled

Disabled

Tags

And/Or

Or

tag

Contains

value

Remove

Add

Show hosts in maintenance

☒

Show suppressed problems

☐

Save as

Apply

Reset

Name	Interface	Availability	Tags	Status	Latest data	Problems	Graphs	Dashboards	Web
app	192.168.0.107:10050	ZBX	class: os target: linux	Enabled	Latest data 82	Problems	Graphs 15	Dashboards 2	Web
db	192.168.100.2:10050	ZBX	class: os target: linux	Enabled	Latest data 73	Problems	Graphs 14	Dashboards 2	Web
server app	192.168.0.107:10050	ZBX	class: os class: software target: linux ...	Enabled	Latest data 143	Problems	Graphs 26	Dashboards 4	Web
server db	192.168.100.2:10050	ZBX	class: os class: software target: linux ...	Enabled	Latest data 134	Problems	Graphs 25	Dashboards 4	Web

Displaying 4 of 4 found