

Задание

Создать VPN-сервер для серверов Yandex.Cloud.

На хосте выполняем команды и запускаем setupvpn.sh

```
root@alex:~# cat <<EOF> setupvpn.sh
> #!/bin/bash
> echo "deb http://repo.pritunl.com/stable/apt focal main" | sudo tee /etc/apt/sources.list.d/pritunl.list
> apt-key adv --keyserver hkp://keyserver.ubuntu.com --recv 7568D9BB55FF9E5287D586017AE645C0CF8E292A
> curl https://raw.githubusercontent.com/pritunl/pgp/master/pritunl_repo_pub.asc | sudo apt-key add -
> echo "deb https://repo.mongodb.org/apt/ubuntu focal/mongodb-org/5.0 multiverse" | tee /etc/apt/sources.list.d/mongodb-org-5.0.list
> wget -qO - https://www.mongodb.org/static/pgp/server-5.0.asc | sudo apt-key add -
> apt update
> apt -y install wireguard wireguard-tools
> ufw disable
> apt -y install pritunl mongodb-org
> systemctl enable mongod pritunl
> systemctl start mongod pritunl
> EOF^C
root@alex:~# |
```

Настраиваем сервер по адресу `https://<ip VM>/setup`

Обзор Google Chrome Сб, 9 июля 20:31

Pritunl x +

Не защищено | <https://51.250.93.181/#/servers>

pritudl Dashboard Users Servers Upgrade to Enterprise! Logs Settings Logout

Servers

Add Server Add Route Attach Organization

Server **server** Restart Server Stop Server Delete Server

Status	Online
Uptime	od 2h 50m 22s
Users	1/1 users online
Devices	1 devices online
Network	192.168.234.0/24
Port	10108/udp
Multiple Devices	Disabled

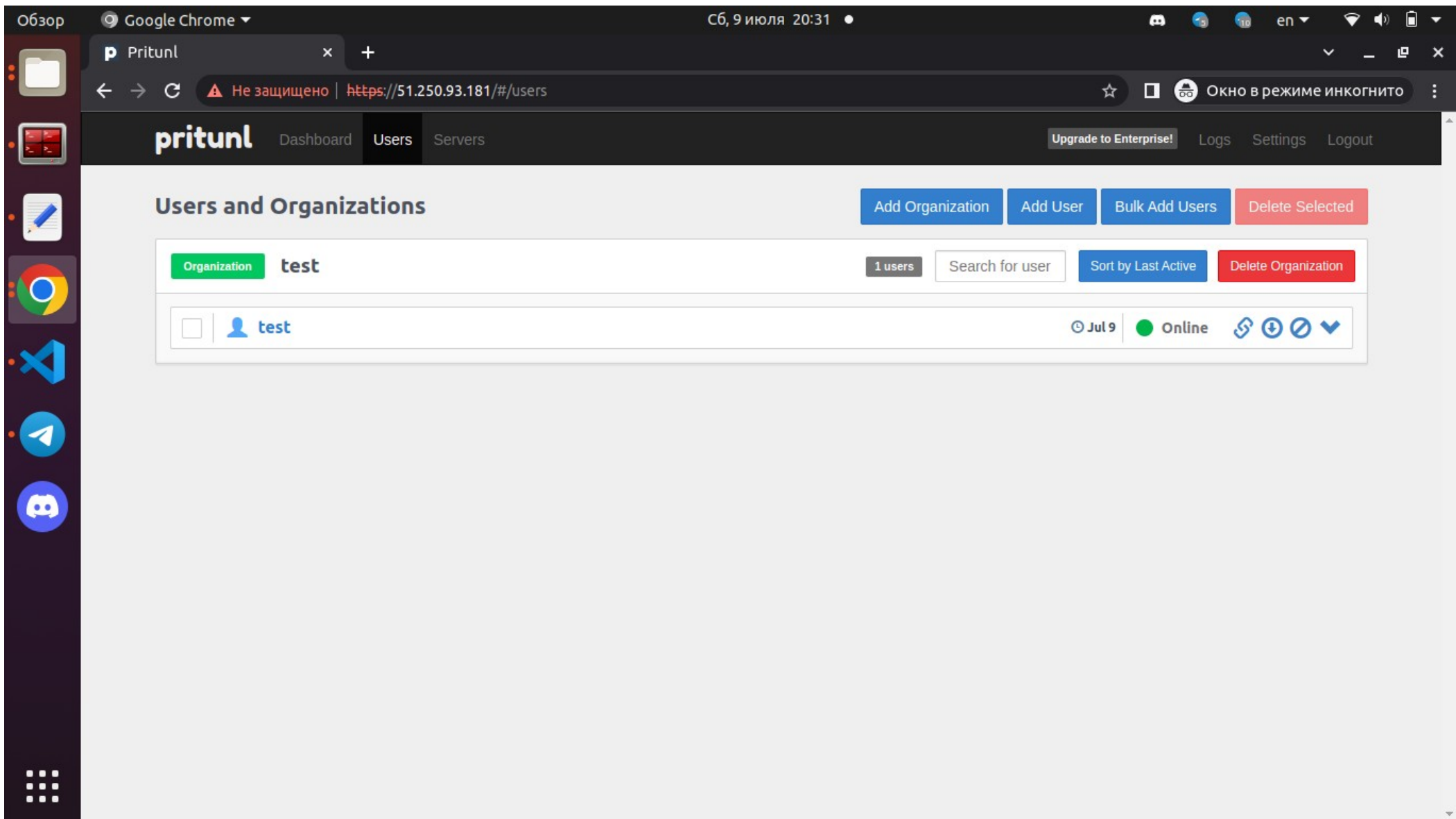
Server Output Bandwidth Graphs

```
129 [caln-plains-4621] Sat Jul 9 17:27:03 2022 188.170.82.119:51633 peer info: UV_ID=03c20929130f41f9ba7111492a39e70b
130 [caln-plains-4621] Sat Jul 9 17:27:03 2022 188.170.82.119:51633 peer info: UV_NAME=caln-waves-3622
131 [caln-plains-4621] Sat Jul 9 17:27:03 2022 188.170.82.119:51633 [62c9921675f65ba55183706e] Peer Connection Initiated with [AF_INET6]::ffff:188.170.82.119:51633
132 [caln-plains-4621] 2022-07-09 17:27:05 ERROR User auth failed "Challenge pin"
133 [caln-plains-4621] 2022-07-09 17:27:05 COM> SUCCESS: client-auth command succeeded
134 [caln-plains-4621] Sat Jul 9 17:28:30 2022 188.170.82.119:34821 peer info: IV_VER=2.4.7
135 [caln-plains-4621] Sat Jul 9 17:28:30 2022 188.170.82.119:34821 peer info: IV_PLAT=linux
136 [caln-plains-4621] Sat Jul 9 17:28:30 2022 188.170.82.119:34821 peer info: IV_PROTO=2
137 [caln-plains-4621] Sat Jul 9 17:28:30 2022 188.170.82.119:34821 peer info: IV_NCP=2
138 [caln-plains-4621] Sat Jul 9 17:28:30 2022 188.170.82.119:34821 peer info: IV_LZ4=1
139 [caln-plains-4621] Sat Jul 9 17:28:30 2022 188.170.82.119:34821 peer info: IV_LZ4v2=1
140 [caln-plains-4621] Sat Jul 9 17:28:30 2022 188.170.82.119:34821 peer info: IV_LZO=1
141 [caln-plains-4621] Sat Jul 9 17:28:30 2022 188.170.82.119:34821 peer info: IV_COMP_STUB=1
142 [caln-plains-4621] Sat Jul 9 17:28:30 2022 188.170.82.119:34821 peer info: IV_COMP_STUBv2=1
143 [caln-plains-4621] Sat Jul 9 17:28:30 2022 188.170.82.119:34821 peer info: IV_TCPNL=1
144 [caln-plains-4621] Sat Jul 9 17:28:30 2022 188.170.82.119:34821 peer info: IV_HWADDR=28:11:a8:66:bd:1d
145 [caln-plains-4621] Sat Jul 9 17:28:30 2022 188.170.82.119:34821 peer info: IV_SSL=OpenSSL 1.1.1f 31_Mar_2020
146 [caln-plains-4621] Sat Jul 9 17:28:30 2022 188.170.82.119:34821 peer info: UV_ID=03c20929130f41f9ba7111492a39e70b
147 [caln-plains-4621] Sat Jul 9 17:28:30 2022 188.170.82.119:34821 peer info: UV_NAME=caln-waves-3622
148 [caln-plains-4621] Sat Jul 9 17:28:30 2022 188.170.82.119:34821 [62c9921675f65ba55183706e] Peer Connection Initiated with [AF_INET6]::ffff:188.170.82.119:34821
149 [caln-plains-4621] Sat Jul 9 17:28:39 2022 188.170.82.119:34821 COM> SUCCESS: client-auth command succeeded
150 [caln-plains-4621] 2022-07-09 17:28:39 COM> SUCCESS: client-auth command succeeded
151 [caln-plains-4621] Sat Jul 9 17:28:39 2022 62c9921675f65ba55183706e/188.170.82.119:34821 MULTI_sva: pool returned IPv4=192.168.234.2, IPv6=(Not enabled)
152 [caln-plains-4621] 2022-07-09 17:28:39 User connected user_id=62c9921675f65ba55183706e
153
```

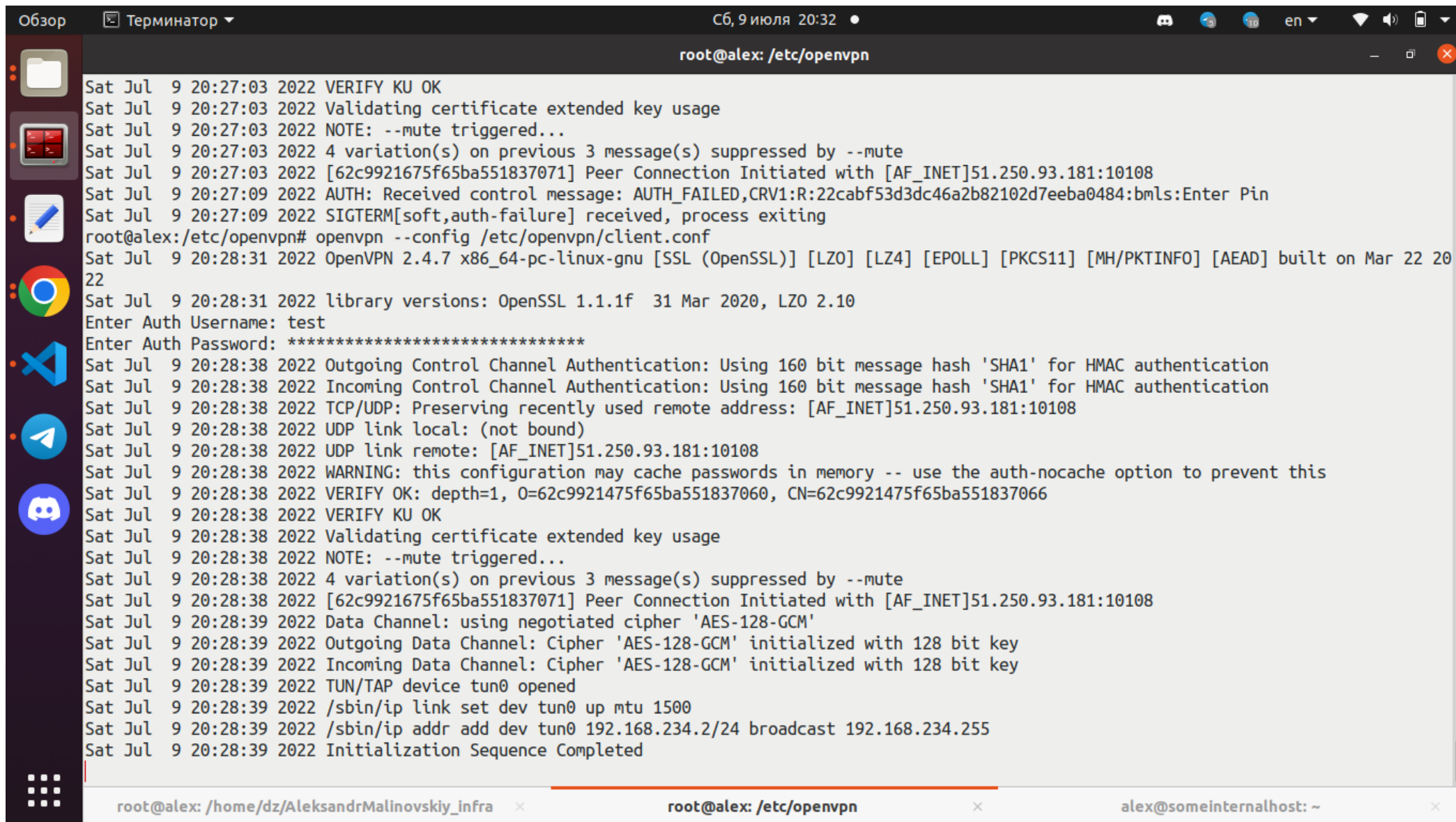
0.0.0.0/0 Remove Route

192.168.234.0/24 Virtual Network Remove Route

test Detach Organization



Подключаемся к серверу



The screenshot shows a terminal window titled "Терминатор" (Terminator) with a dark theme. The window displays the process of connecting to a server using OpenVPN. The logs show the client's IP (51.250.93.181) and the server's IP (192.168.234.2). The connection is successful, and the data channel is established using AES-128-GCM cipher. The terminal also shows the user's input of "test" for the username and a password for authentication. The window title bar indicates the current directory is "/etc/openvpn".

```
Sat Jul 9 20:27:03 2022 VERIFY KU OK
Sat Jul 9 20:27:03 2022 Validating certificate extended key usage
Sat Jul 9 20:27:03 2022 NOTE: --mute triggered...
Sat Jul 9 20:27:03 2022 4 variation(s) on previous 3 message(s) suppressed by --mute
Sat Jul 9 20:27:03 2022 [62c9921675f65ba551837071] Peer Connection Initiated with [AF_INET]51.250.93.181:10108
Sat Jul 9 20:27:09 2022 AUTH: Received control message: AUTH_FAILED,CRV1:R:22cabf53d3dc46a2b82102d7eeba0484:bmls:Enter Pin
Sat Jul 9 20:27:09 2022 SIGTERM[soft,auth-failure] received, process exiting
root@alex:/etc/openvpn# openvpn --config /etc/openvpn/client.conf
Sat Jul 9 20:28:31 2022 OpenVPN 2.4.7 x86_64-pc-linux-gnu [SSL (OpenSSL)] [LZO] [LZ4] [EPOLL] [PKCS11] [MH/PKTINFO] [AEAD] built on Mar 22 20
22
Sat Jul 9 20:28:31 2022 library versions: OpenSSL 1.1.1f 31 Mar 2020, LZO 2.10
Enter Auth Username: test
Enter Auth Password: *****
Sat Jul 9 20:28:38 2022 Outgoing Control Channel Authentication: Using 160 bit message hash 'SHA1' for HMAC authentication
Sat Jul 9 20:28:38 2022 Incoming Control Channel Authentication: Using 160 bit message hash 'SHA1' for HMAC authentication
Sat Jul 9 20:28:38 2022 TCP/UDP: Preserving recently used remote address: [AF_INET]51.250.93.181:10108
Sat Jul 9 20:28:38 2022 UDP link local: (not bound)
Sat Jul 9 20:28:38 2022 UDP link remote: [AF_INET]51.250.93.181:10108
Sat Jul 9 20:28:38 2022 WARNING: this configuration may cache passwords in memory -- use the auth-nocache option to prevent this
Sat Jul 9 20:28:38 2022 VERIFY OK: depth=1, O=62c9921475f65ba551837060, CN=62c9921475f65ba551837066
Sat Jul 9 20:28:38 2022 VERIFY KU OK
Sat Jul 9 20:28:38 2022 Validating certificate extended key usage
Sat Jul 9 20:28:38 2022 NOTE: --mute triggered...
Sat Jul 9 20:28:38 2022 4 variation(s) on previous 3 message(s) suppressed by --mute
Sat Jul 9 20:28:38 2022 [62c9921675f65ba551837071] Peer Connection Initiated with [AF_INET]51.250.93.181:10108
Sat Jul 9 20:28:39 2022 Data Channel: using negotiated cipher 'AES-128-GCM'
Sat Jul 9 20:28:39 2022 Outgoing Data Channel: Cipher 'AES-128-GCM' initialized with 128 bit key
Sat Jul 9 20:28:39 2022 Incoming Data Channel: Cipher 'AES-128-GCM' initialized with 128 bit key
Sat Jul 9 20:28:39 2022 TUN/TAP device tun0 opened
Sat Jul 9 20:28:39 2022 /sbin/ip link set dev tun0 up mtu 1500
Sat Jul 9 20:28:39 2022 /sbin/ip addr add dev tun0 192.168.234.2/24 broadcast 192.168.234.255
Sat Jul 9 20:28:39 2022 Initialization Sequence Completed
```

root@alex: /home/dz/AleksandrMalinovskiy_infra x root@alex: /etc/openvpn x alex@someinternalhost: ~ x