

Кондратьев Савелий Олегович, 3102-Д

Модуль 1

Задание 1

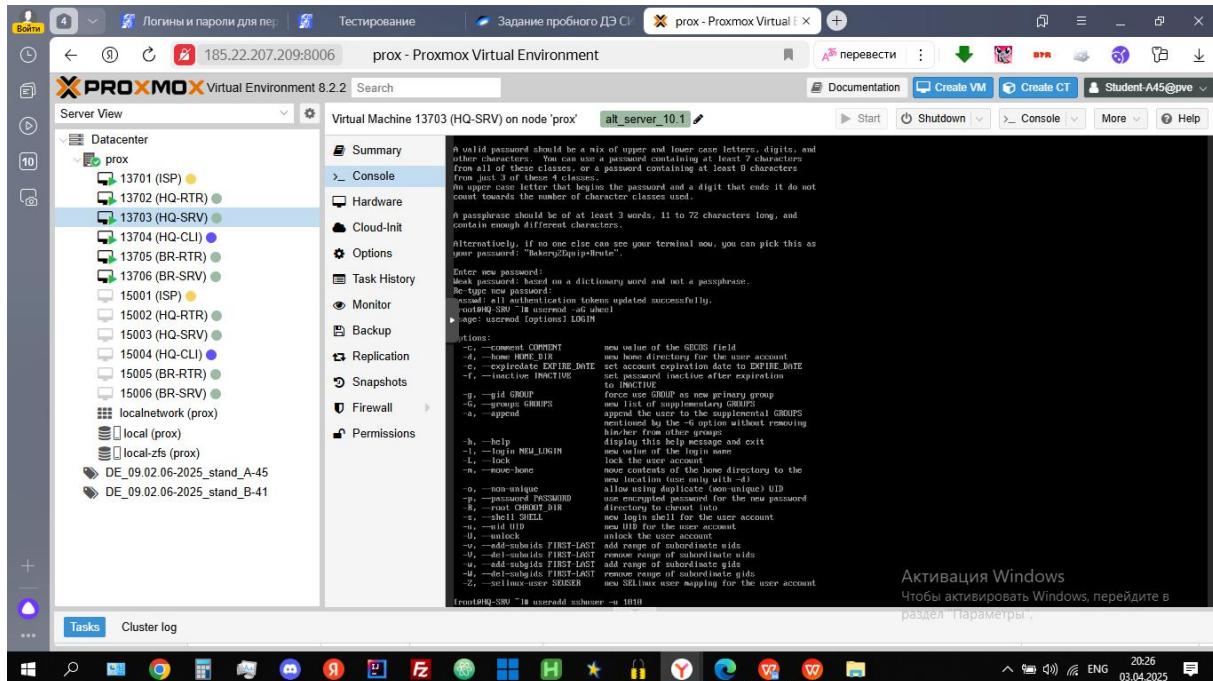
Таблица адресов

Имя устройства	IP-адрес	Шлюз по умолчанию
ISP	172.16.222.103/16 172.16.4.1/28 172.16.5.1/28	192.168.44.1
HQ-RTR	172.16.4.10/28 192.168.99.1/29 192.168.100.1/28 192.168.200.1/28 10.5.5.1/30	172.16.4.1
HQ-SRV	192.168.100.10/28	192.168.100.1
HQ-CLI	192.168.200.10/28	192.168.200.1
BR-RTR	172.16.5.10/28 192.168.0.1/28 10.5.5.2/30	172.16.5.1
BR-SRV	192.168.0.10/28	

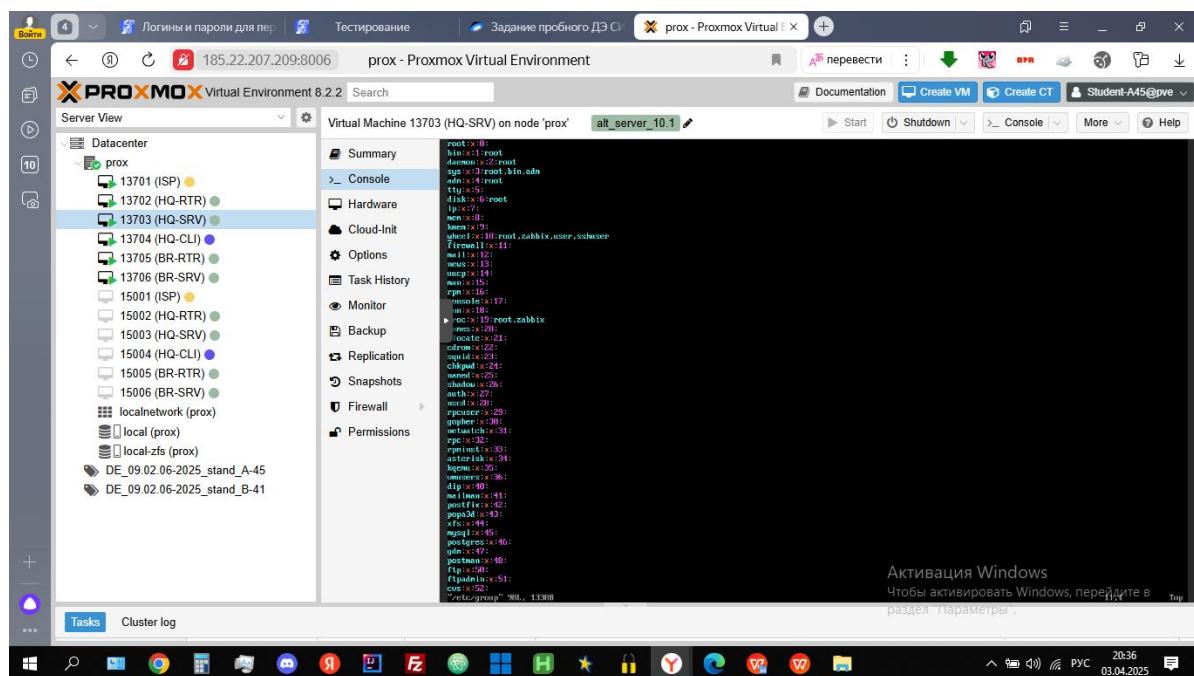
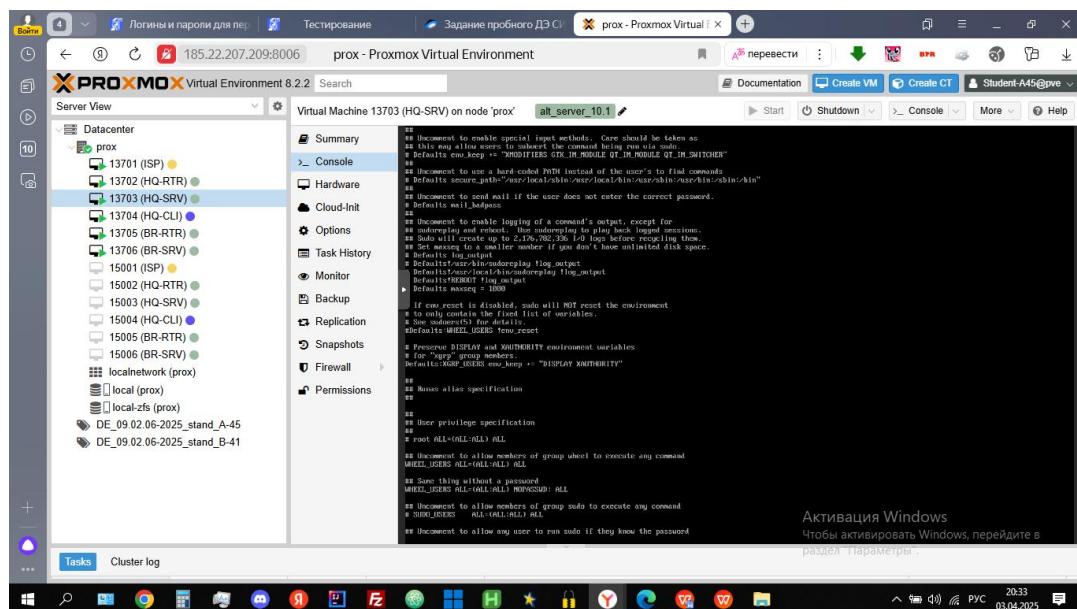
Задание 2

Задание 3

HQ-SRV:



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BR-SRV:

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The screenshots show the 'Console' tab for a virtual machine named 'alt_server_10.1' running on node 'prox'. The interface includes a sidebar with 'Server View' and a main panel with tabs for 'Summary', 'Console', 'Hardware', 'Cloud-Init', 'Options', 'Task History', 'Monitor', 'Backup', 'Replication', 'Snapshots', 'Firewall', and 'Permissions'. The 'Console' tab displays a terminal window.

Screenshot 1 (Top): The terminal shows the user entering a new password:

```
root@alt-server-10.1:~# passwd: password updated successfully.
```

Screenshot 2 (Middle): The terminal shows the user confirming the password:

```
root@alt-server-10.1:~# Enter new password:
```

Screenshot 3 (Bottom): The terminal shows the user confirming the password again:

```
root@alt-server-10.1:~# Re-type new password:
```

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HQ-RTR:

The screenshot shows the Proxmox Virtual Environment 8.2.2 interface. On the left, the 'Server View' tree shows various nodes and virtual machines. The 'Virtual Machine 13702 (HQ-RTR) on node 'prox'' is selected. The right panel displays the 'Console' tab, which contains a terminal window showing the configuration of a password. The terminal output is as follows:

```
Enter new password:
Re-type new password:
Sorry, passwords do not match.
Try again.

You can now choose the new password or passphrase.

A valid password should be a mix of upper and lower case letters, digits, and other characters. You can use a password containing at least 7 characters from all of these classes, or a password containing at least 0 characters from each class. An upper case letter that begins the password and a digit that ends it do not count towards the number of character classes used.

A passphrase should be of at least 3 words, 11 to 72 characters long, and contain enough different characters.

Alternatively, if no one else can see your terminal now, you can pick this as your password: "WinterCastleOrder".
Enter new password:
Weak password: not enough different characters or classes for this length.
Re-type new password:
Sorry, passwords do not match.
password authentication token manipulation error.
password authentication token manipulation error.
password authentication token manipulation error.
password: updating all authentication tokens for user net_adm.

You can now choose the new password or passphrase.

A valid password should be a mix of upper and lower case letters, digits, and other characters. You can use a password containing at least 7 characters from all of these classes, or a password containing at least 0 characters from each class. An upper case letter that begins the password and a digit that ends it do not count towards the number of character classes used.

A passphrase should be of at least 3 words, 11 to 72 characters long, and contain enough different characters.

Alternatively, if no one else can see your terminal now, you can pick this as your password: "WinterCastleOrder".
Enter new password:
Weak password: not enough different characters or classes for this length.
Re-type new password:
Sorry, passwords do not match.
password: all authentication tokens updated successfully.
root@HQ-RTR ~_
```

Below the terminal, a message in Russian reads: 'Активация Windows' and 'Чтобы активировать Windows, перейдите в раздел "Параметры".'

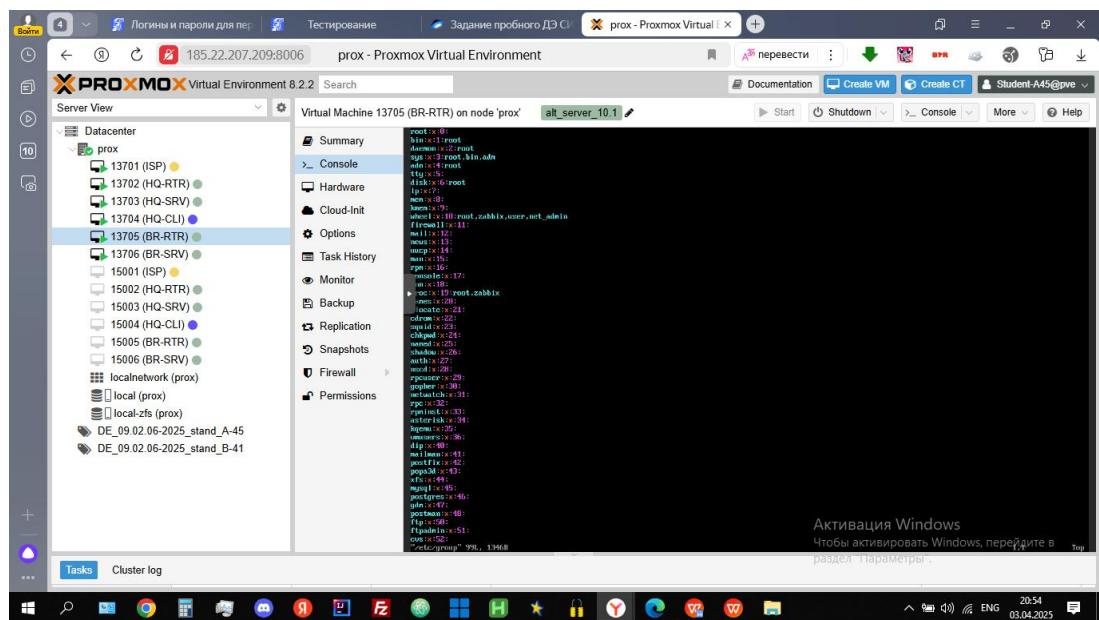
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The screenshot shows the Proxmox Virtual Environment interface. On the left, the 'Server View' tree shows various nodes and virtual machines. A terminal window is open for VM 13702 (HQ-RTR) on node 'prox'. The terminal displays a root shell with numerous processes listed. A message at the bottom right of the terminal window reads: 'Активация Windows' and 'Чтобы активировать Windows, перейдите в раздел "Параметры".'

This screenshot shows the same Proxmox interface with VM 13705 (BR-RTR) selected. The terminal window shows a series of log messages indicating the start of various services like Network Time Service, Postfix Mail Transport Agent, and Dovecot IMAP/POP3 Server. It also shows the creation of a new user 'root@BB-BT8' with a password 'TorunFoot-prune'. A message at the bottom right says: 'Активация Windows' and 'Чтобы активировать Windows, перейдите в раздел "Параметры".'

This final screenshot shows the Proxmox interface with VM 13705 selected. The terminal window displays a detailed configuration of the /etc/sudoers file. It includes sections for 'Defaults', 'User privilege specification', and 'Defaults targetpw'. A message at the bottom right of the terminal window reads: 'Активация Windows' and 'Чтобы активировать Windows, перейдите в раздел "Параметры".'

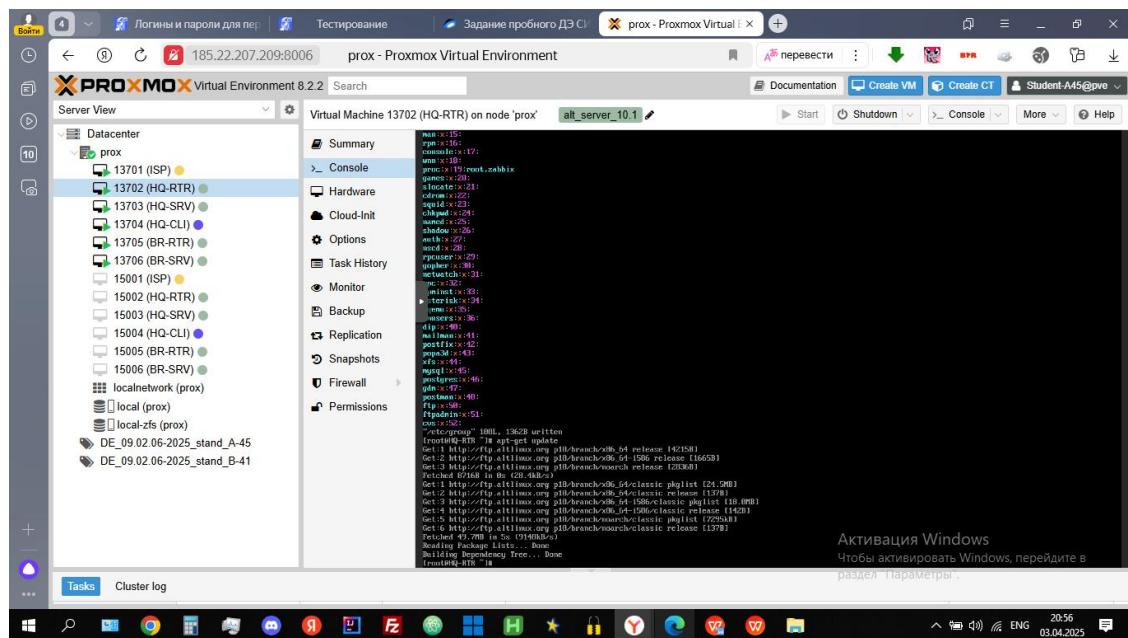
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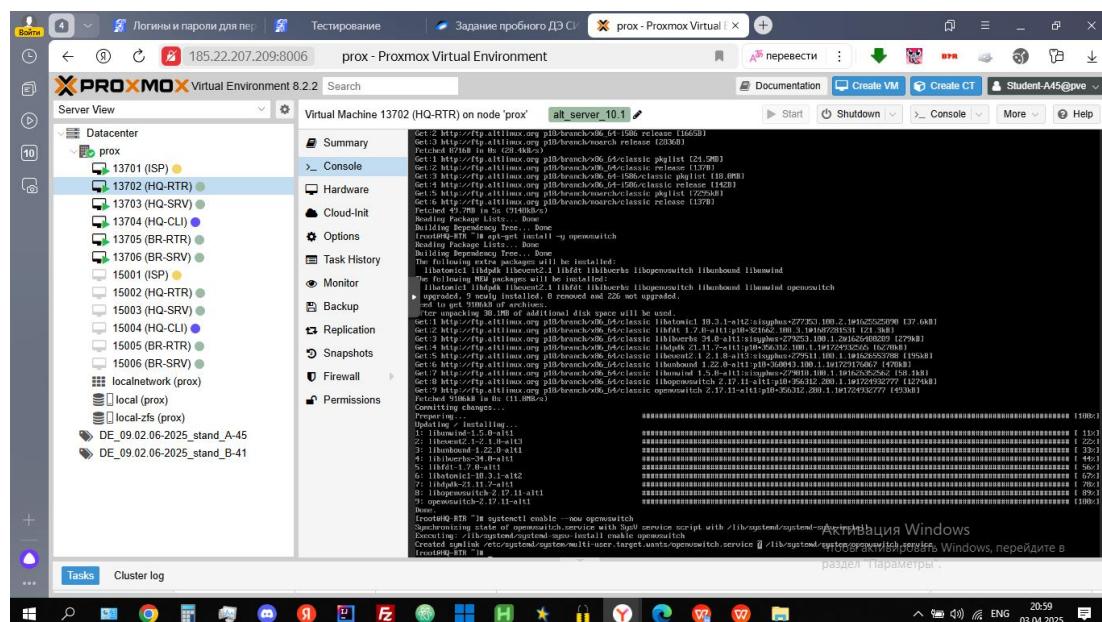
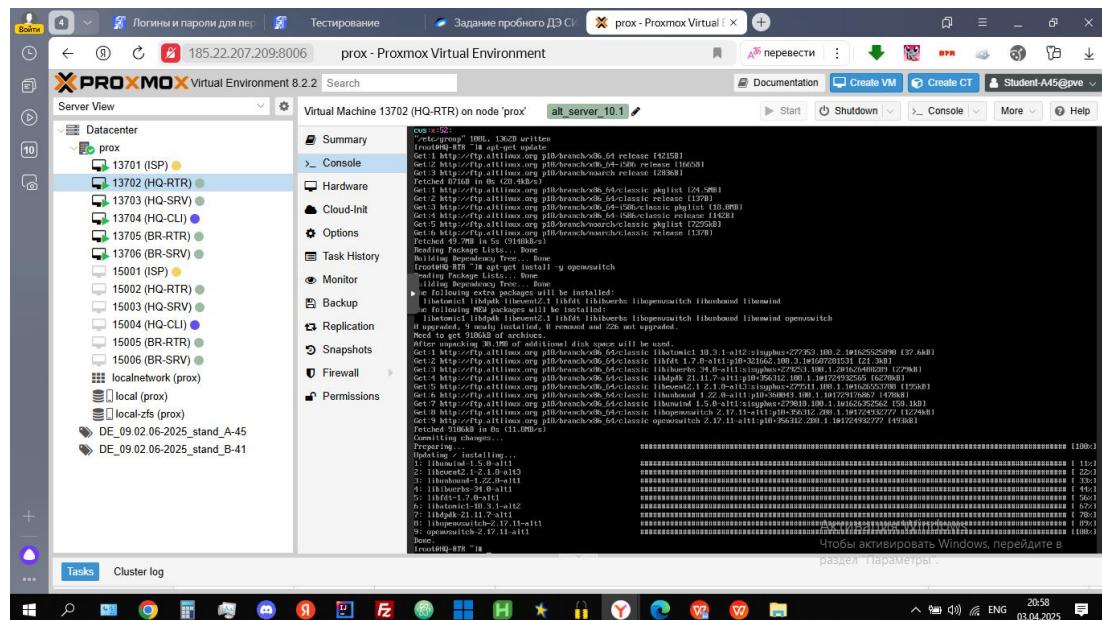
Задание 4

HQ-RTR:

Установка и включение службы openvswitch:

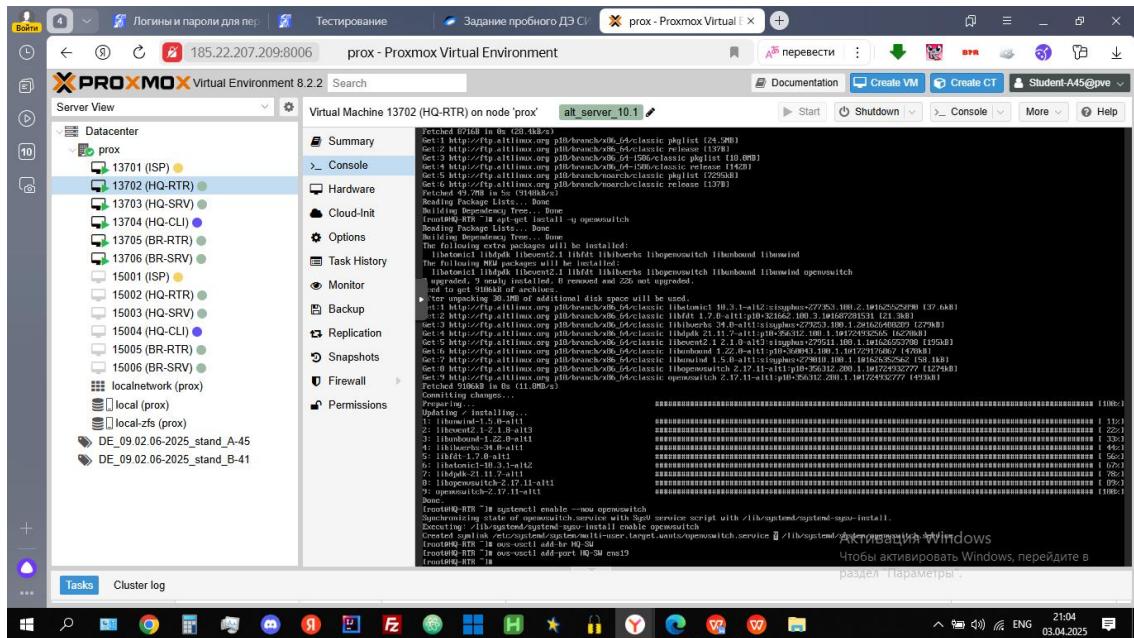


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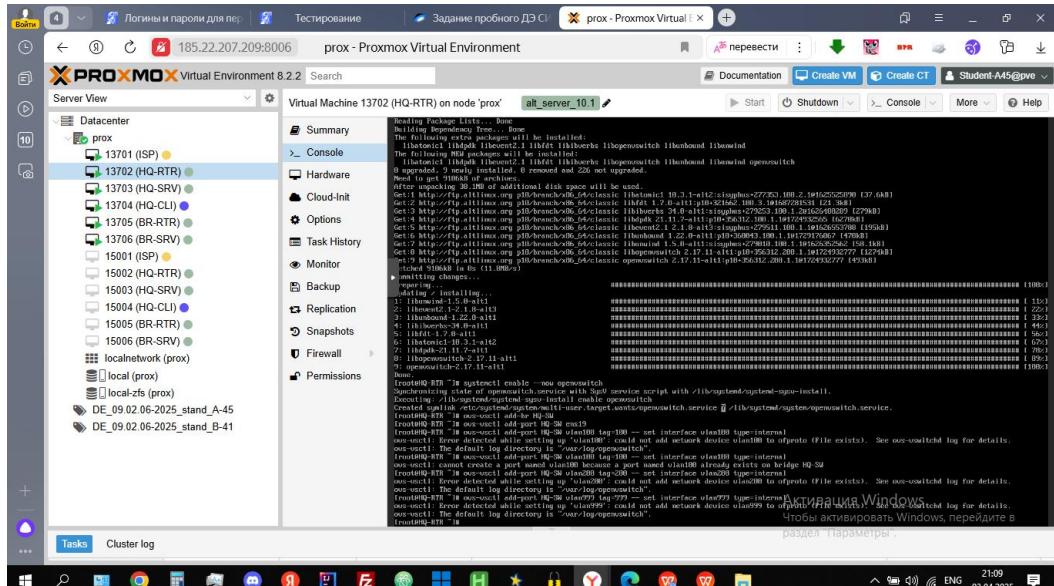


Создание моста с прикреплением к нему ens19:

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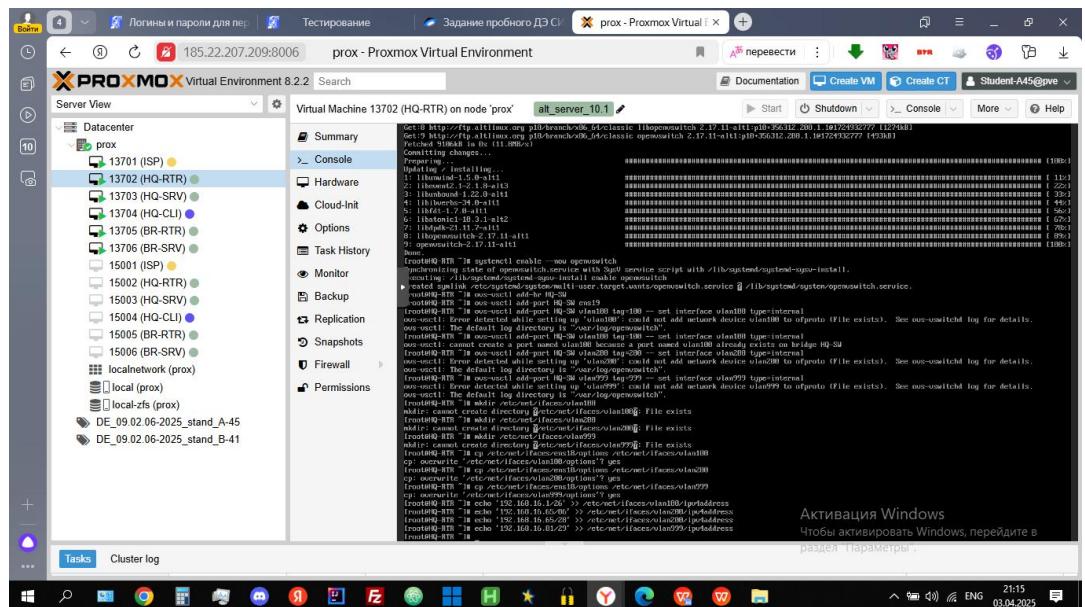


Создание вланов с привязкой к ним моста:

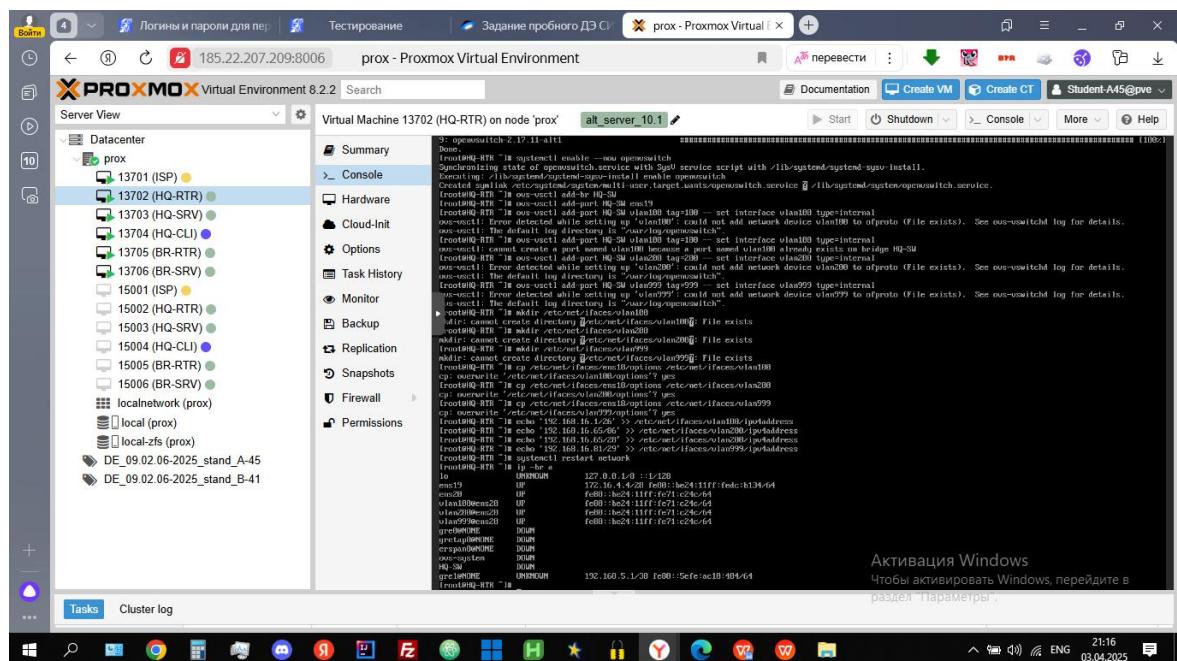


Создание папок вланов с копированием настроек ens18 и дальнейшей задачей ip:

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Перезапуск сети:



Задание 5

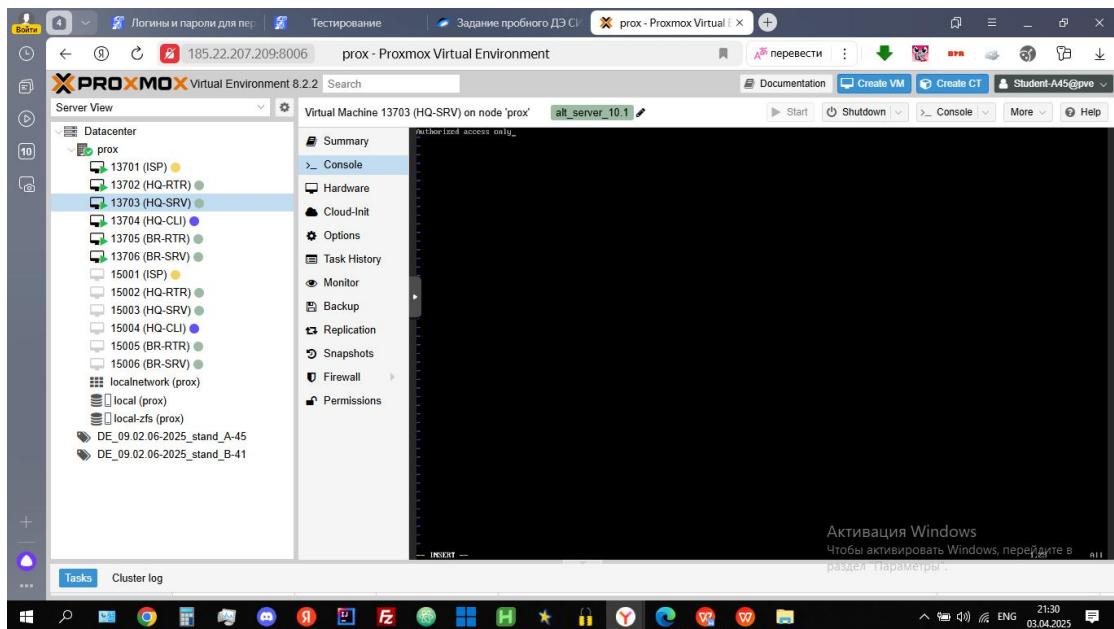
HQ-SRV: Добавление параметров по заданию

Кондратьев Савелий Олегович, 3102-Д

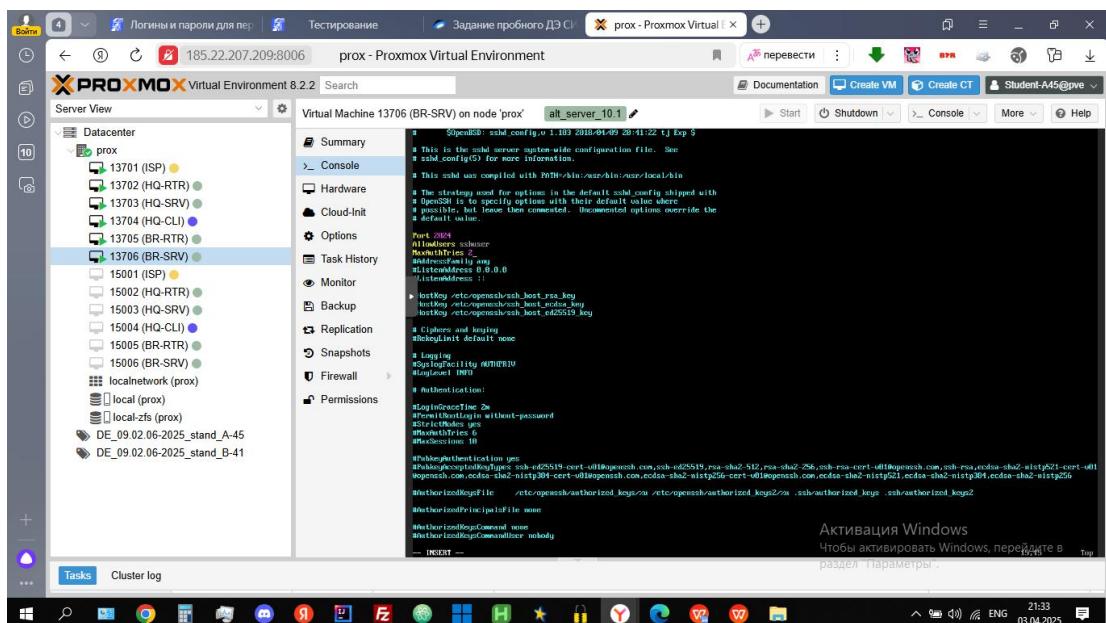
Создание баннера:

The screenshot shows the Proxmox VE interface. On the left, a tree view lists Datacenter, prox, and localnetwork (prox) sections. Under prox, several virtual machines are listed with icons: 13701 (ISP), 13702 (HQ-RTR), 13703 (HQ-SRV), 13704 (HQ-CLI), 13705 (BR-RTR), 13706 (BR-SRV), 15001 (ISP), 15002 (HQ-RTR), 15003 (HQ-SRV), 15004 (HQ-CLI), 15005 (BR-RTR), 15006 (BR-SRV). A context menu is open over VM 13703 (HQ-SRV), with options like Summary, Console, Hardware, Cloud-Init, Options, Task History, Monitor, Backup, Replication, Snapshots, Firewall, and Permissions. The 'Summary' tab is selected, displaying detailed configuration settings for the VM, including network forwarding, port mapping, and security configurations. On the right, a status bar shows the IP address 185.22.207.209:8006, the title 'prox - Proxmox Virtual Environment', and various system icons.

Кондратьев Савелий Олегович, 3102-Д

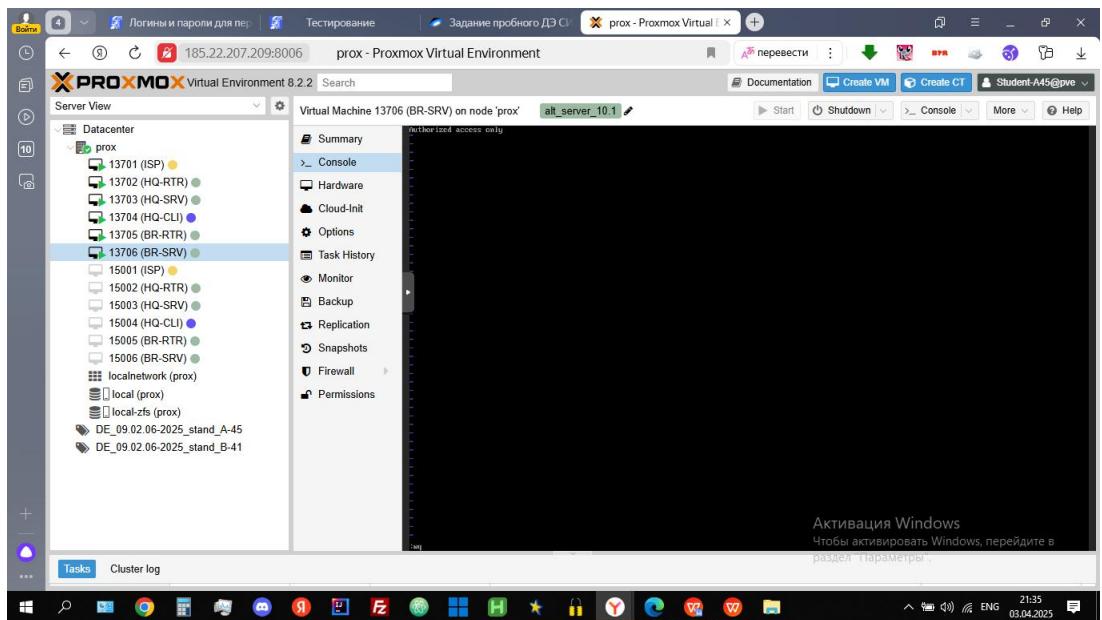
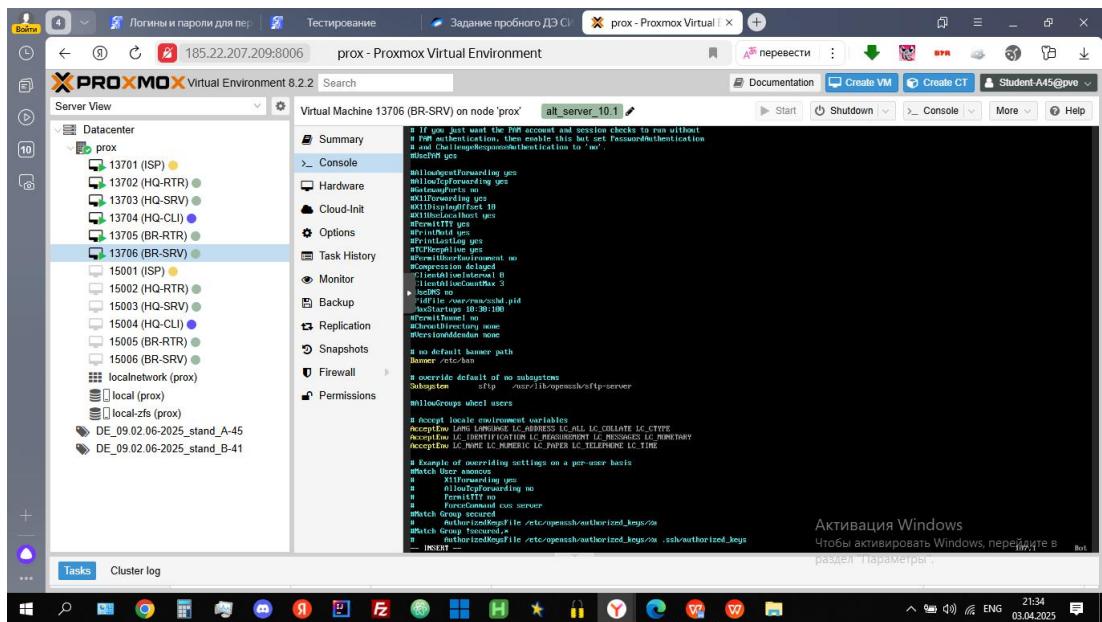


BR-SRV: Добавление параметров по заданию:



Создание баннера:

Кондратьев Савелий Олегович, 3102-Д

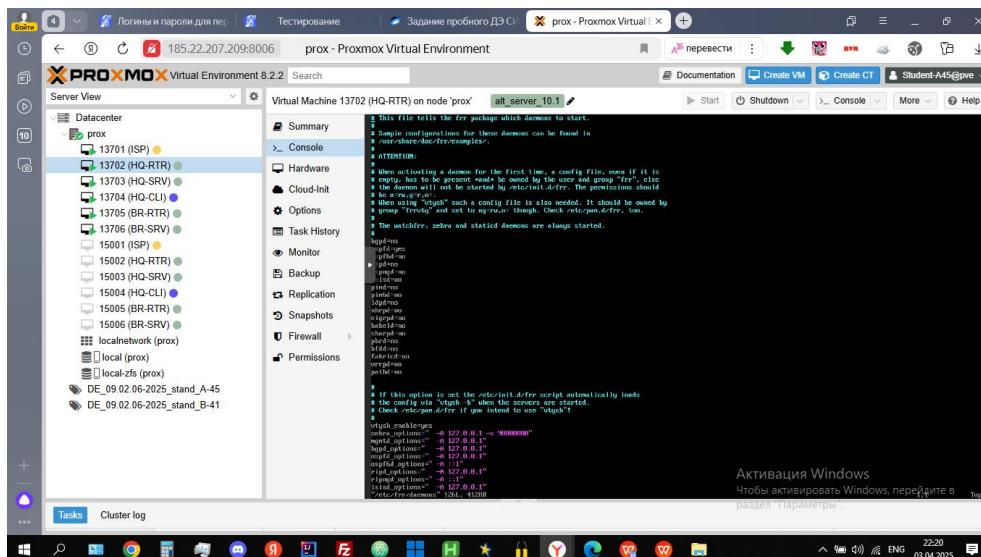
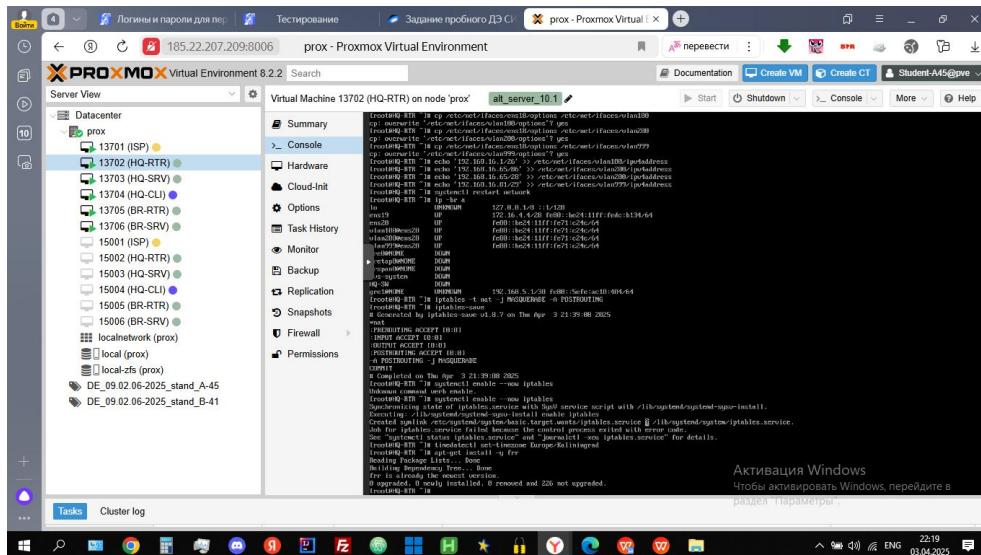


Задание 6

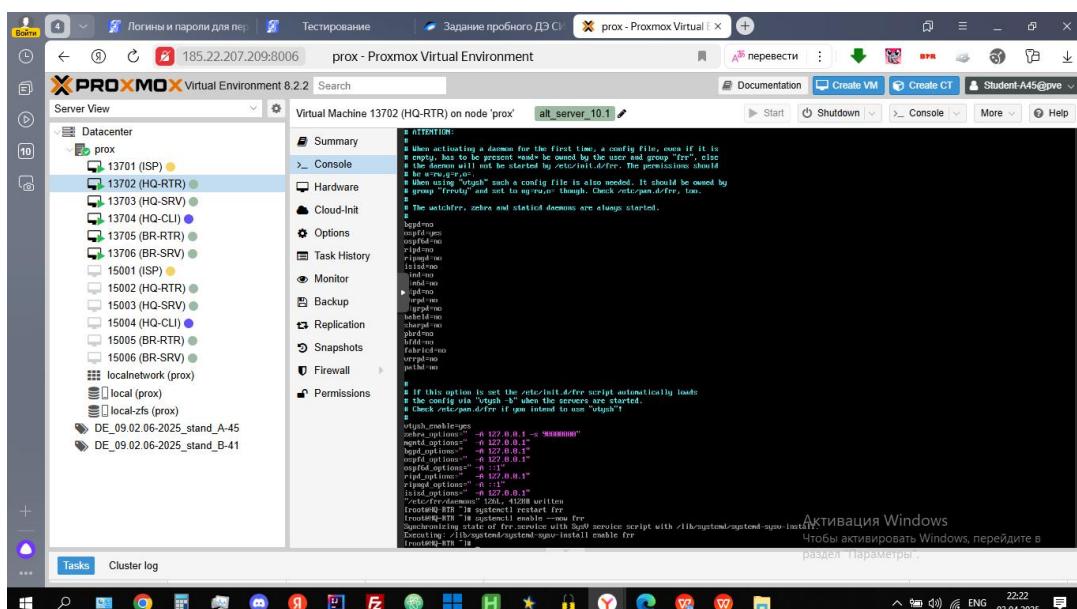
Задание 7

HQ-RTR:

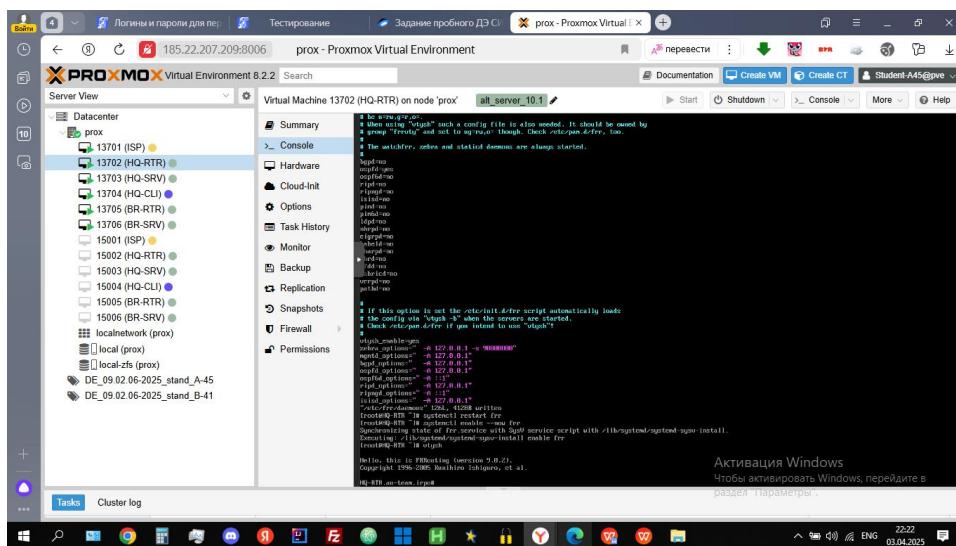
Кондратьев Савелий Олегович, 3102-Д



Перезапуск служб с её настройкой:

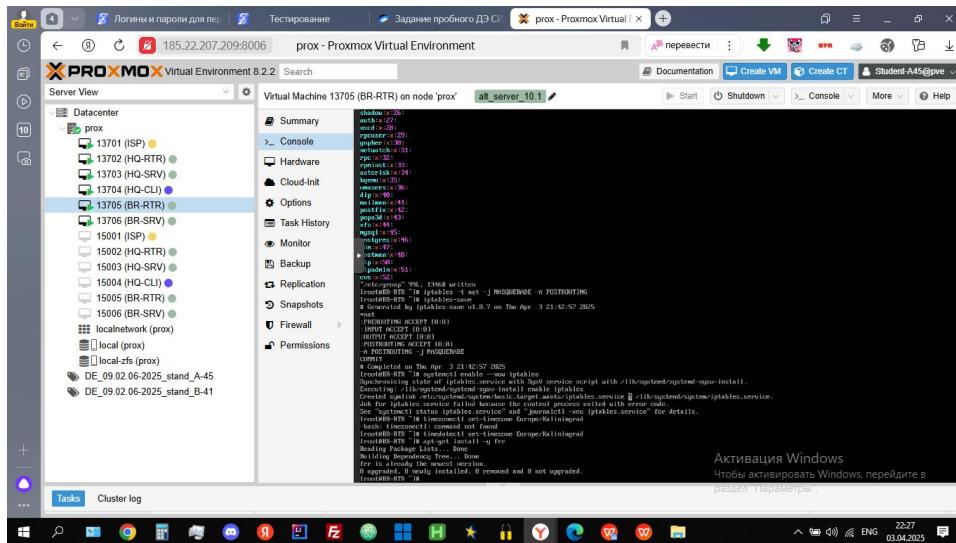


Кондратьев Савелий Олегович, 3102-Д

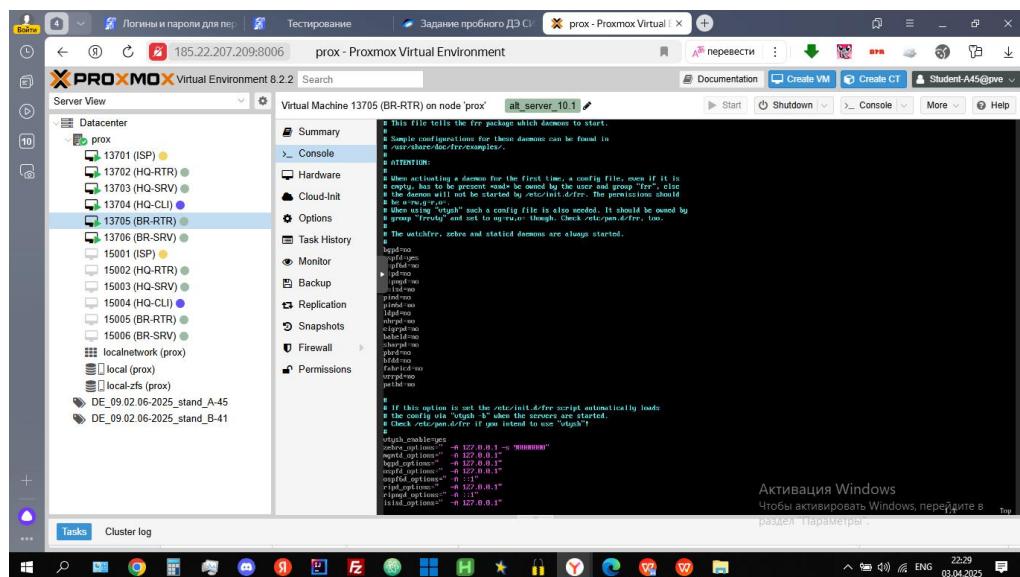


```
HQ-RTR.au-team.ipro# conf t
HQ-RTR.au-team.ipro(config)# ip forwarding
HQ-RTR.au-team.ipro(config)# route ospf
HQ-RTR.au-team.ipro(config-router)# network 192.168.16.80/30 area 0
HQ-RTR.au-team.ipro(config-router)# network 192.168.16.8-30 area 0
HQ-RTR.au-team.ipro(config-router)# network 192.168.16.8/26 area 0
HQ-RTR.au-team.ipro(config-router)# network 192.168.16.64/28 area 0
HQ-RTR.au-team.ipro(config-router)# network 192.168.16.80/29 area 0
HQ-RTR.au-team.ipro(config-router)# ex
HQ-RTR.au-team.ipro(config)# int gre1
HQ-RTR.au-team.ipro(config-if)# no ip ospf passive
HQ-RTR.au-team.ipro(config-if)# ex
HQ-RTR.au-team.ipro(config)# ex
HQ-RTR.au-team.ipro# wr
Note: this version of vtysh never writes vtysh.conf
Building Configuration...
Integrated configuration saved to /etc/frr/frr.conf
[OK]
HQ-RTR.au-team.ipro# ex
[root@HQ-RTR ~]#
```

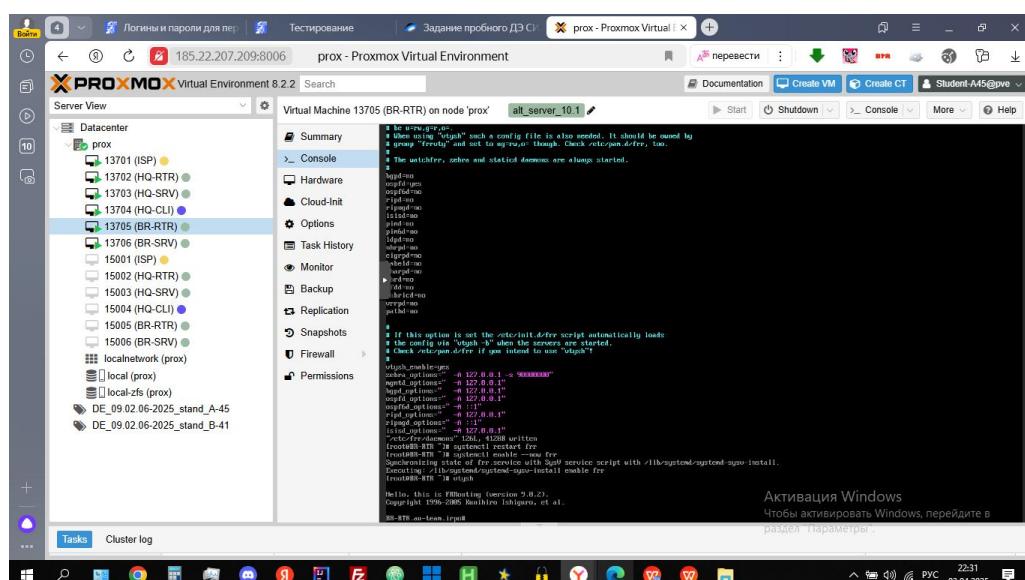
BR-RTR:



Кондратьев Савелий Олегович, 3102-Д



Перезапуск службы с её настройкой:

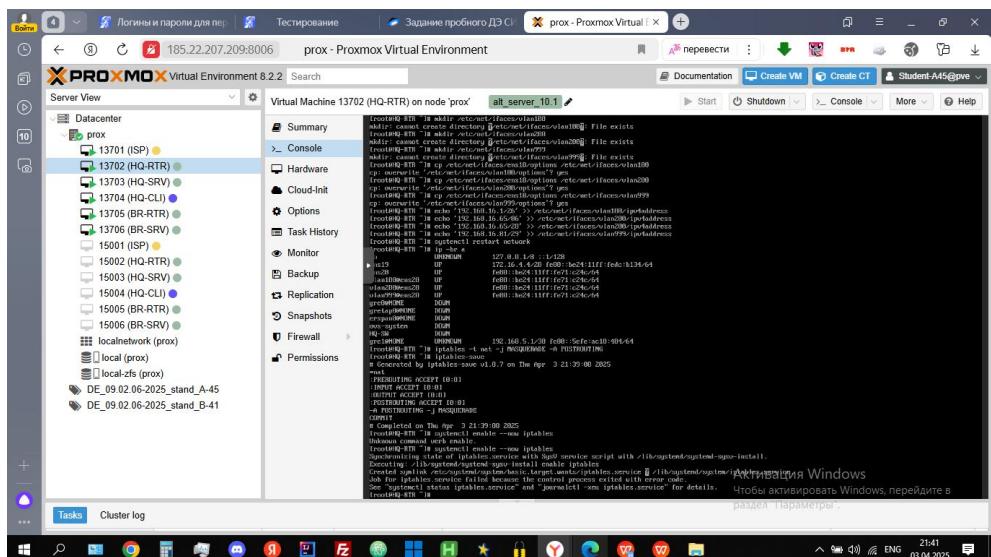
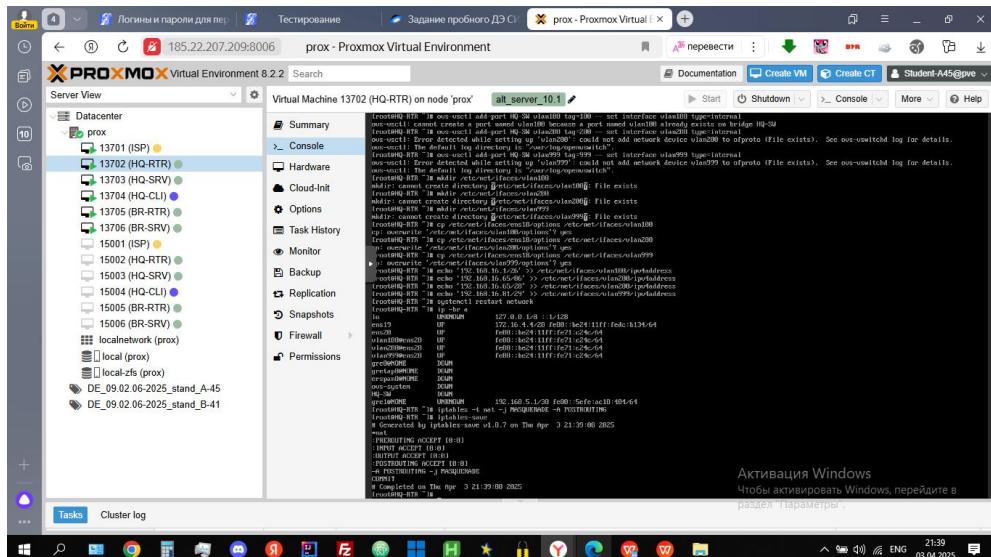


```
BR-RTR.au-team.ip# cong t
% Unknown command: cong t
BR-RTR.au-team.ip# conf t
BR-RTR.au-team.ip#(config)# ip forwarding
BR-RTR.au-team.ip#(config)# route ospf
BR-RTR.au-team.ip#(config-router)# network 192.168.16.88/30 area 0
BR-RTR.au-team.ip#(config-router)# network 192.168.16.96/27 area 0
BR-RTR.au-team.ip#(config-router)# passive-interface default
BR-RTR.au-team.ip#(config-router)# ex
BR-RTR.au-team.ip#(config)# interface gre1
BR-RTR.au-team.ip#(config-if)# no ip ospf passive
BR-RTR.au-team.ip#(config-if)# ex
BR-RTR.au-team.ip#(config)# ex
BR-RTR.au-team.ip# wr
Note: this version of vtysh never writes vtysh.conf
Building Configuration...
Integrated configuration saved to /etc/frr/frr.conf
[OK]
BR-RTR.au-team.ip# ex
[root@BR-RTR ~]#
```

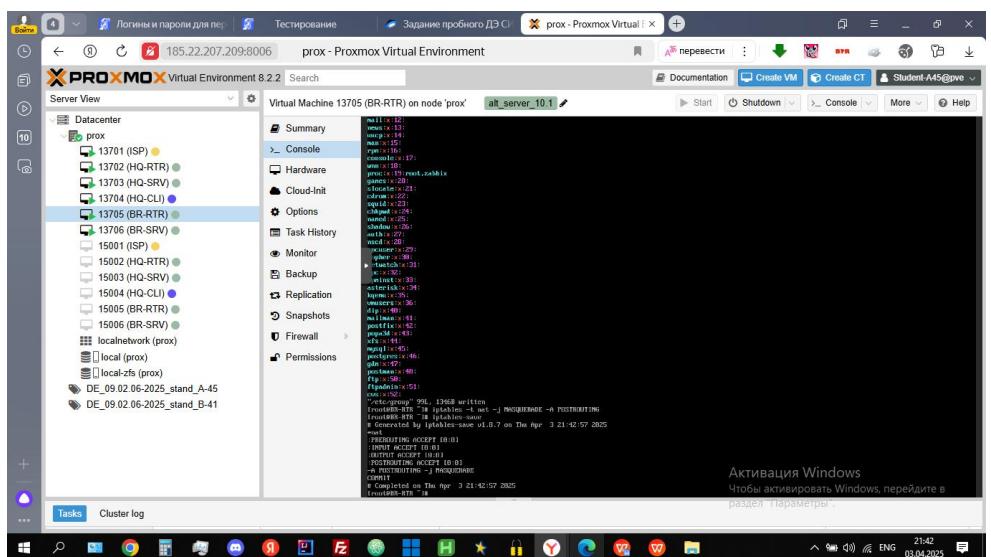
Задание 8

HQ-RTR: Настройка динамического адреса

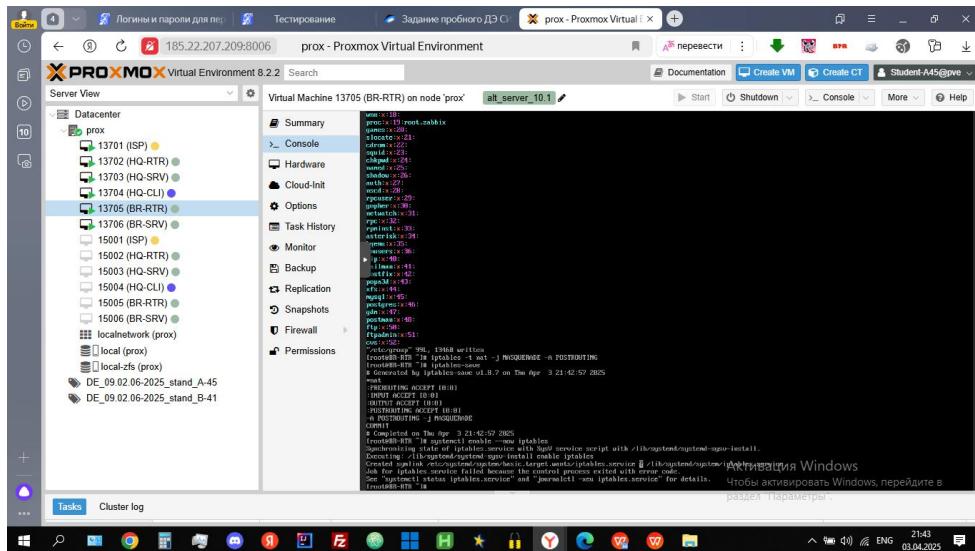
Кондратьев Савелий Олегович, 3102-Д



BR-RTR: Настройка динамического адреса



Кондратьев Савелий Олегович, 3102-Д

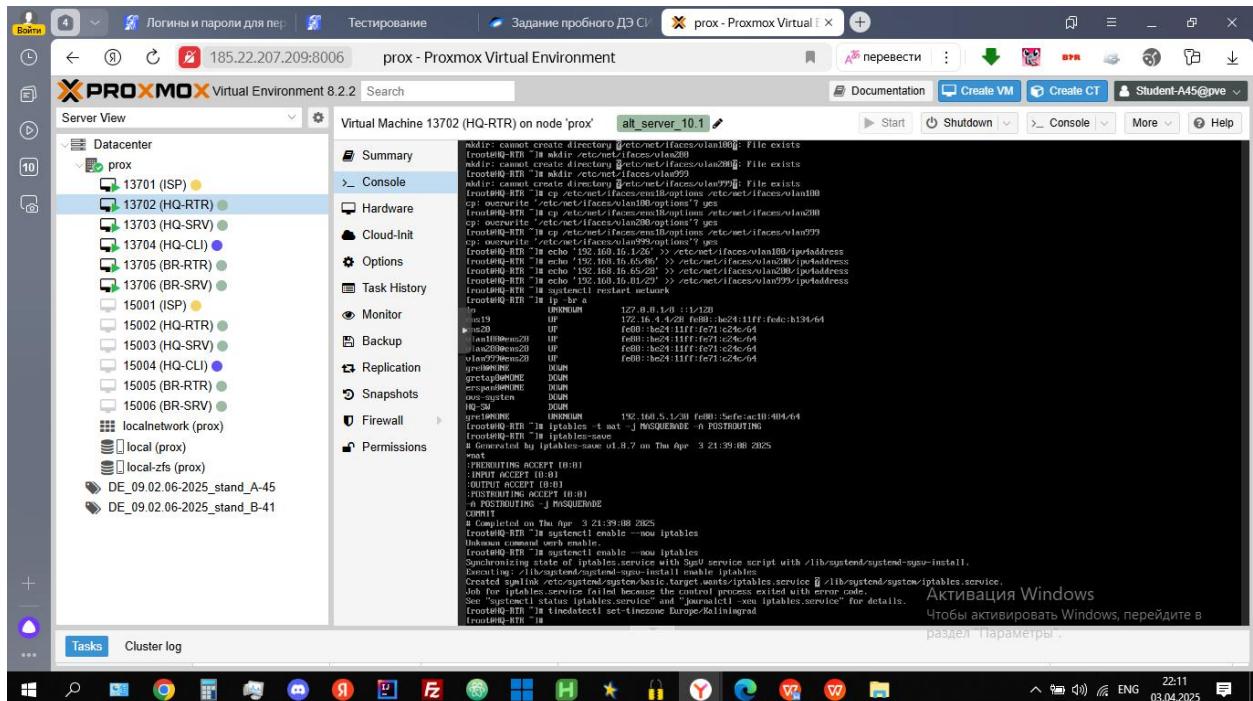


Задание 9

Задание 10

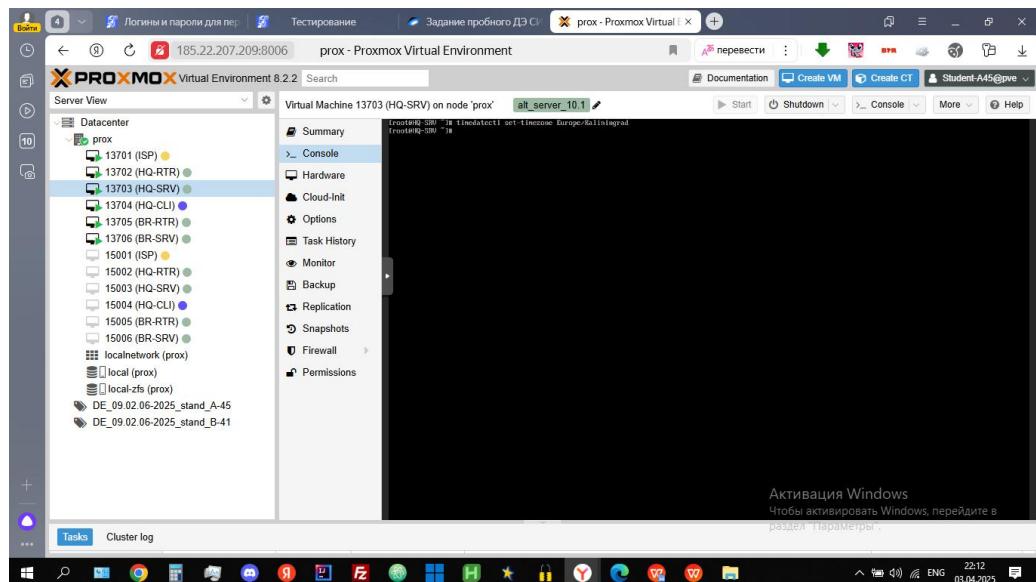
Задание 11

HQ-RTR:

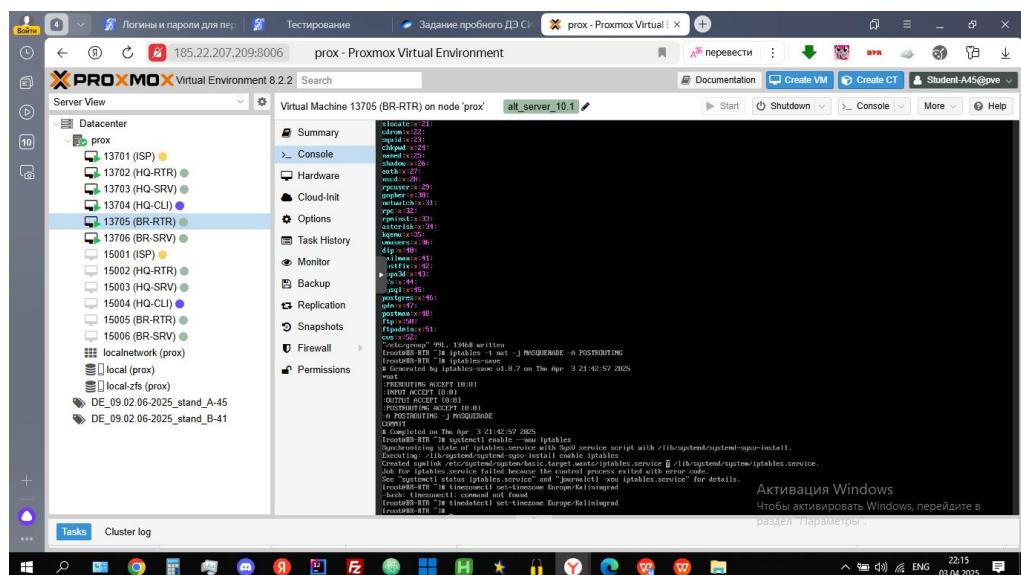


HQ-SRV:

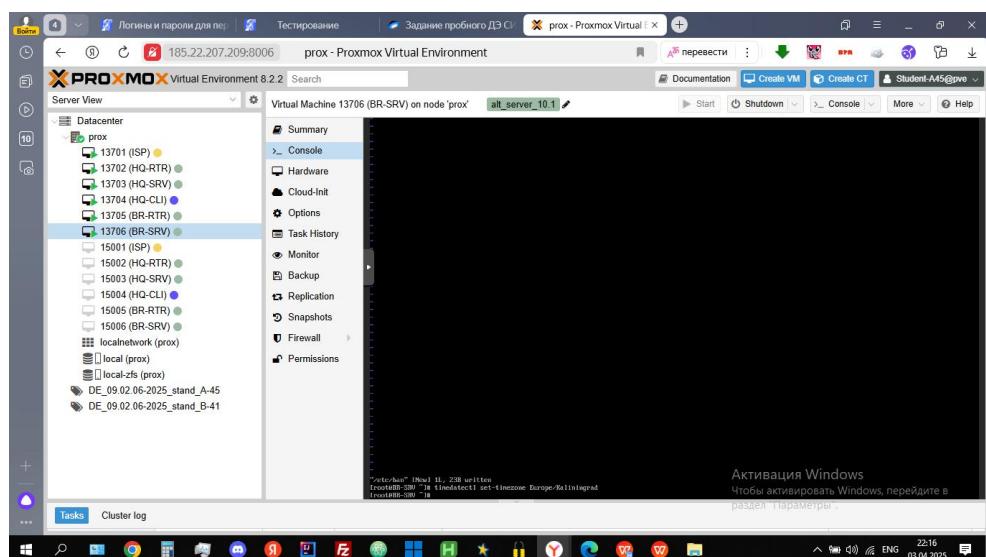
Кондратьев Савелий Олегович, 3102-Д



BR-RTR:



BR-SRV:



Модуль 2

Задание 1

Задание 2

Задание 3

Задание 4

Задание 5

Задание 6

Задание 7

Задание 8

Задание 9