

Защита лабораторной работы №6

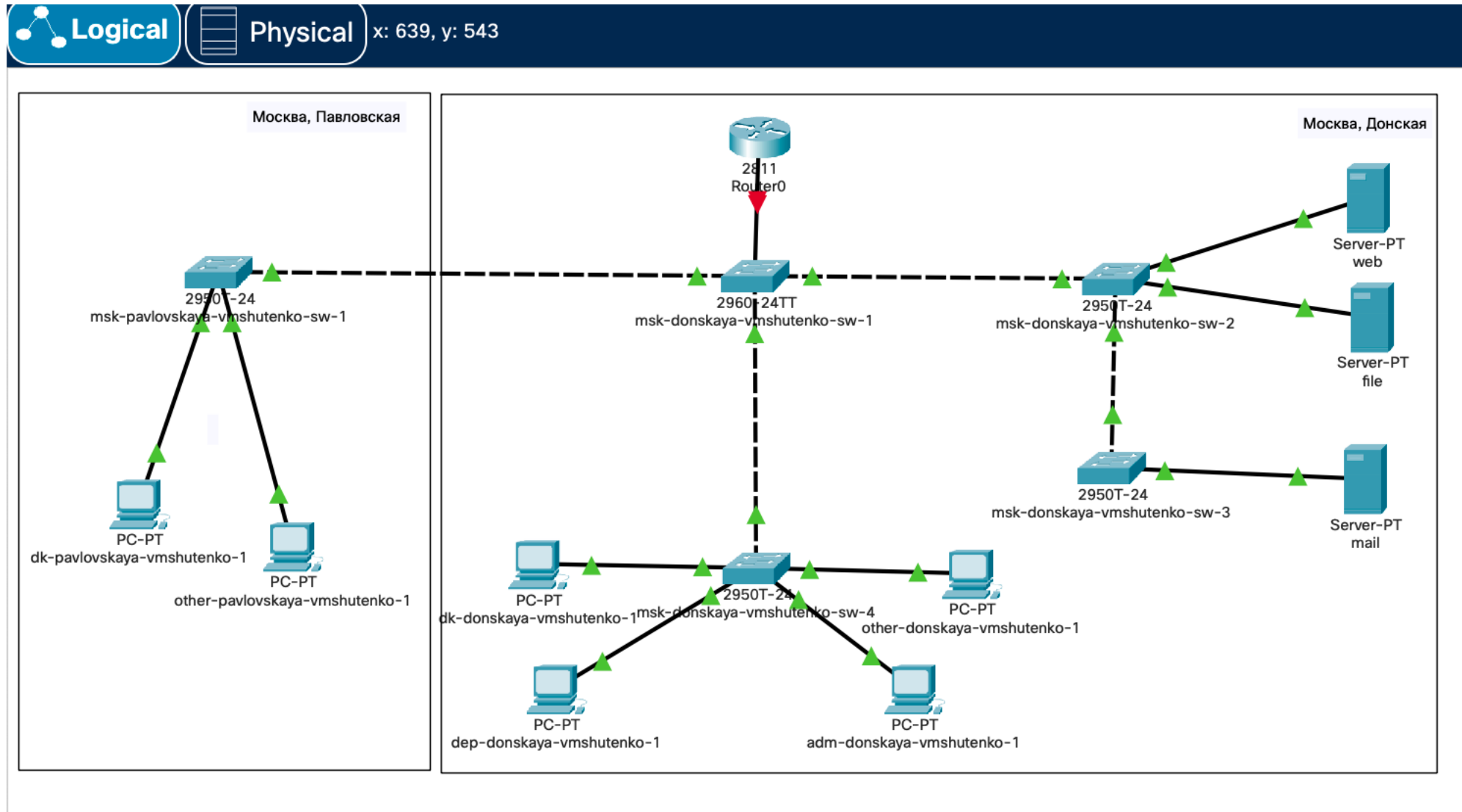
Цель лабораторной работы

- Настроить статическую маршрутизацию VLAN в сети.

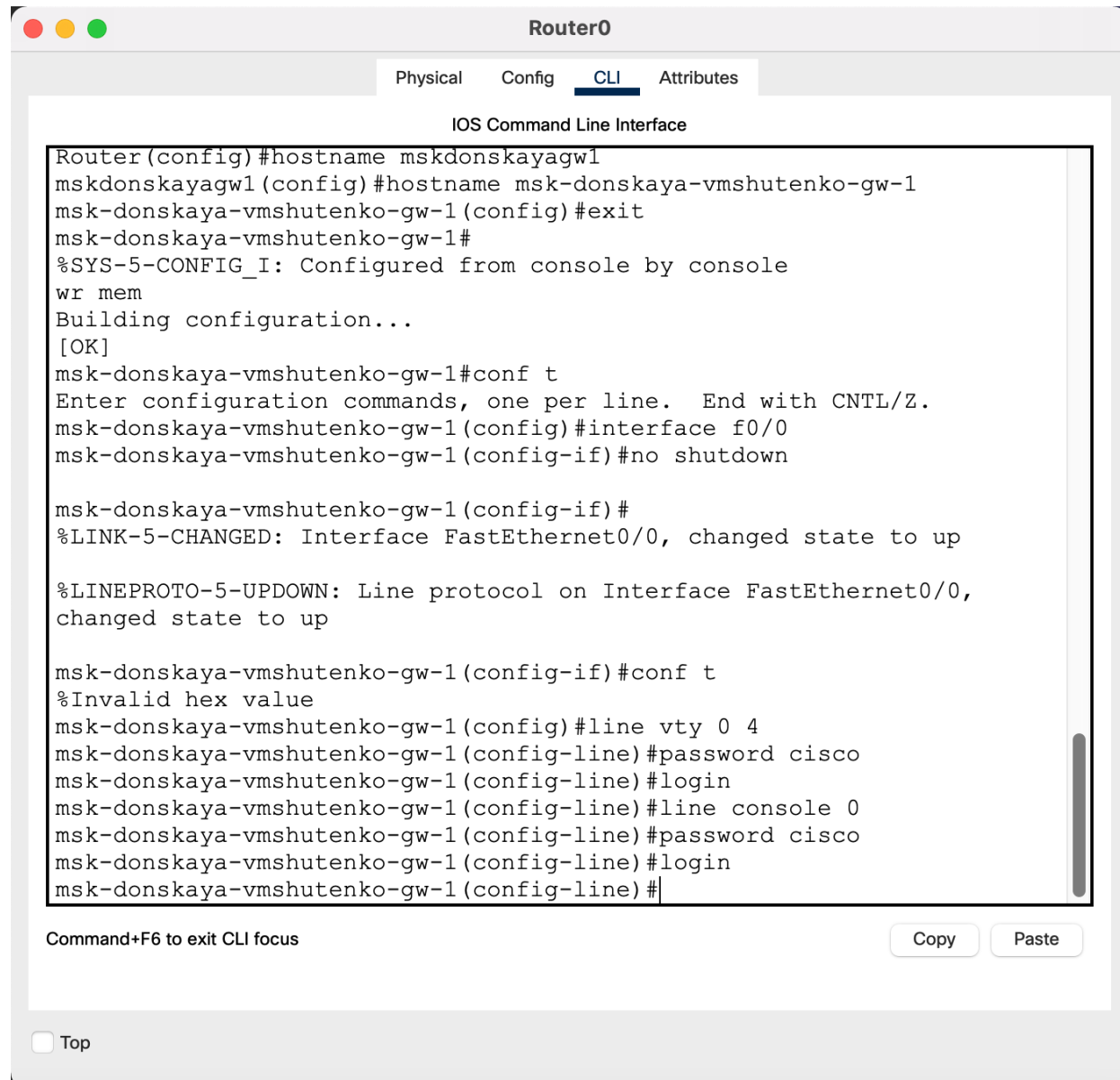
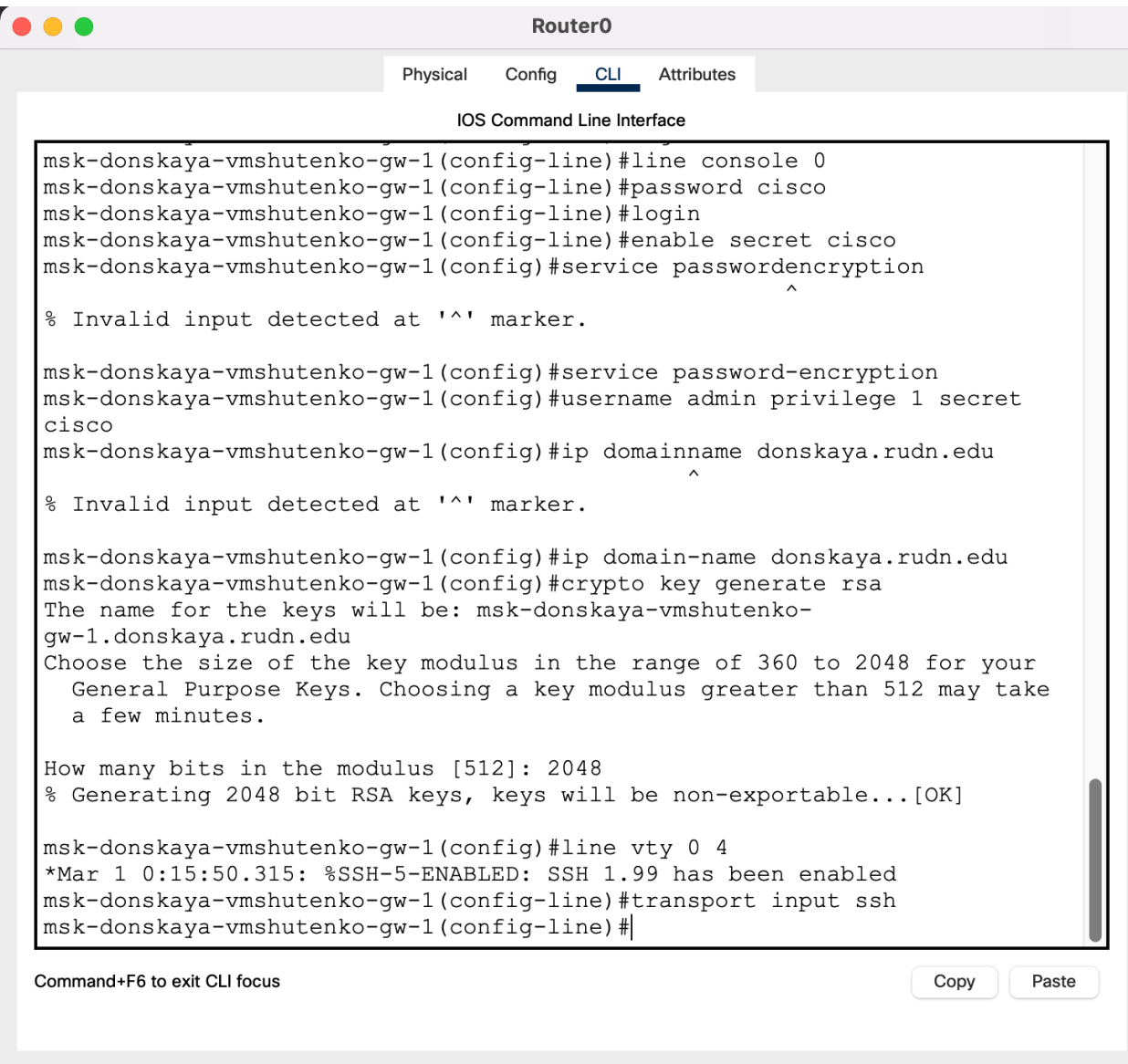
Задание лабораторной работы

- Добавить в локальную сеть маршрутизатор, провести его первоначальную настройку.
- Настроить статическую маршрутизацию VLAN.
- При выполнении работы необходимо учитывать соглашение об именовании (см. раздел 2.5).

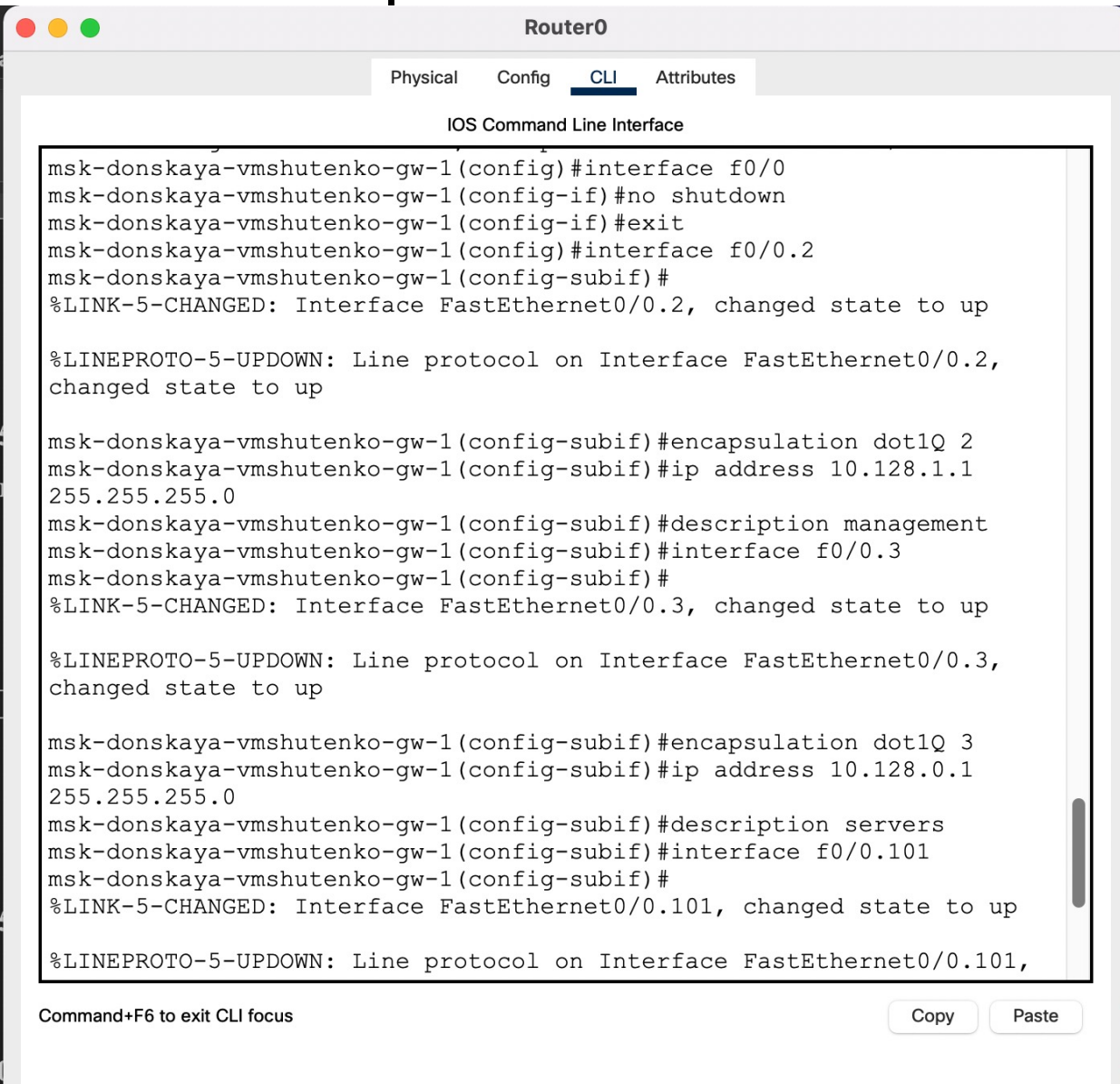
Схема сети



Настройка msk-donskaya-mvshutenko-gw-1



Настройка VLAN на msk-donskaya-gw-1



Router0

Physical Config **CLI** Attributes

IOS Command Line Interface

```
msk-donskaya-vmshutenko-gw-1(config)#interface f0/0
msk-donskaya-vmshutenko-gw-1(config-if)#no shutdown
msk-donskaya-vmshutenko-gw-1(config-if)#exit
msk-donskaya-vmshutenko-gw-1(config)#interface f0/0.2
msk-donskaya-vmshutenko-gw-1(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/0.2, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0.2,
changed state to up

msk-donskaya-vmshutenko-gw-1(config-subif)#encapsulation dot1Q 2
msk-donskaya-vmshutenko-gw-1(config-subif)#ip address 10.128.1.1
255.255.255.0
msk-donskaya-vmshutenko-gw-1(config-subif)#description management
msk-donskaya-vmshutenko-gw-1(config-subif)#interface f0/0.3
msk-donskaya-vmshutenko-gw-1(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/0.3, changed state to up

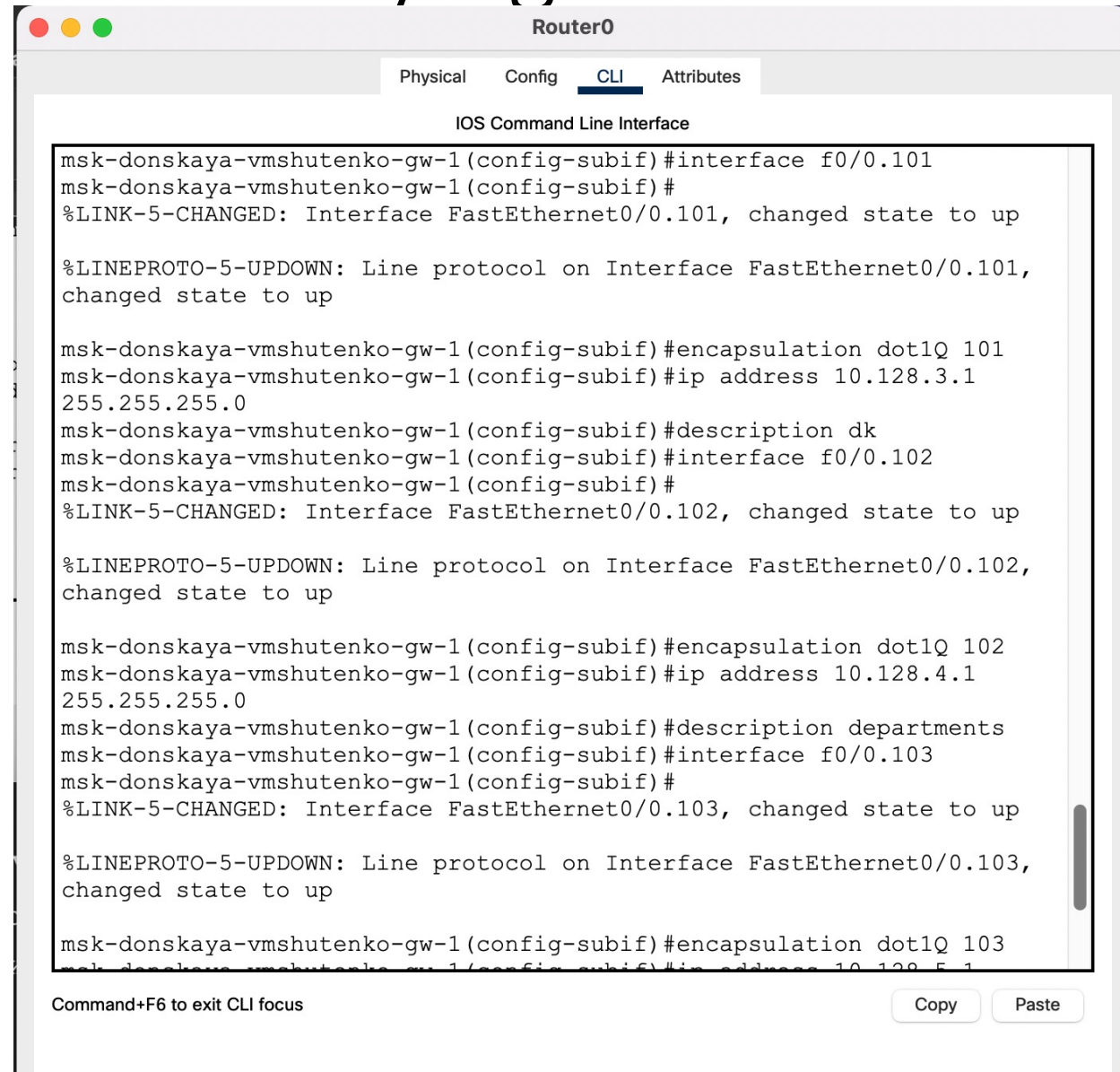
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0.3,
changed state to up

msk-donskaya-vmshutenko-gw-1(config-subif)#encapsulation dot1Q 3
msk-donskaya-vmshutenko-gw-1(config-subif)#ip address 10.128.0.1
255.255.255.0
msk-donskaya-vmshutenko-gw-1(config-subif)#description servers
msk-donskaya-vmshutenko-gw-1(config-subif)#interface f0/0.101
msk-donskaya-vmshutenko-gw-1(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/0.101, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0.101,
```

Command+F6 to exit CLI focus

Copy Paste



Router0

Physical Config **CLI** Attributes

IOS Command Line Interface

```
msk-donskaya-vmshutenko-gw-1(config-subif)#interface f0/0.101
msk-donskaya-vmshutenko-gw-1(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/0.101, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0.101,
changed state to up

msk-donskaya-vmshutenko-gw-1(config-subif)#encapsulation dot1Q 101
msk-donskaya-vmshutenko-gw-1(config-subif)#ip address 10.128.3.1
255.255.255.0
msk-donskaya-vmshutenko-gw-1(config-subif)#description dk
msk-donskaya-vmshutenko-gw-1(config-subif)#interface f0/0.102
msk-donskaya-vmshutenko-gw-1(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/0.102, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0.102,
changed state to up

msk-donskaya-vmshutenko-gw-1(config-subif)#encapsulation dot1Q 102
msk-donskaya-vmshutenko-gw-1(config-subif)#ip address 10.128.4.1
255.255.255.0
msk-donskaya-vmshutenko-gw-1(config-subif)#description departments
msk-donskaya-vmshutenko-gw-1(config-subif)#interface f0/0.103
msk-donskaya-vmshutenko-gw-1(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/0.103, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0.103,
changed state to up

msk-donskaya-vmshutenko-gw-1(config-subif)#encapsulation dot1Q 103
```

Command+F6 to exit CLI focus

Copy Paste

Ping

dk-donskaya-vmshutenko-1

Physical Config Desktop Programming Attributes

Command Prompt

```
C:\>ipconfig

FastEthernet0 Connection:(default port)

    Connection-specific DNS Suffix...:
    Link-local IPv6 Address . . . . .: FE80::201:97FF:FE01:DC14
    IPv6 Address . . . . .: ::
    IPv4 Address . . . . .: 10.128.3.201
    Subnet Mask . . . . .: 255.255.255.0
    Default Gateway . . . . .: ::
                                10.128.3.1
```

Bluetooth Connection:

```
    Connection-specific DNS Suffix...:
    Link-local IPv6 Address . . . . .: ::
    IPv6 Address . . . . .: ::
    IPv4 Address . . . . .: 0.0.0.0
    Subnet Mask . . . . .: 0.0.0.0
    Default Gateway . . . . .: ::
                                0.0.0.0
```

```
C:\>ping 10.128.3.202
```

Pinging 10.128.3.202 with 32 bytes of data:

```
Reply from 10.128.3.202: bytes=32 time=18ms TTL=128
Reply from 10.128.3.202: bytes=32 time<1ms TTL=128
Reply from 10.128.3.202: bytes=32 time<1ms TTL=128
Reply from 10.128.3.202: bytes=32 time=1ms TTL=128
```

Ping statistics for 10.128.3.202:

dk-donskaya-vmshutenko-1

Physical Config Desktop Programming Attributes

Command Prompt

```
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 18ms, Average = 4ms
```

```
C:\>ping 10.128.4.201
```

Pinging 10.128.4.201 with 32 bytes of data:

Request timed out.

```
Reply from 10.128.4.201: bytes=32 time<1ms TTL=127
Reply from 10.128.4.201: bytes=32 time<1ms TTL=127
Reply from 10.128.4.201: bytes=32 time<1ms TTL=127
```

Ping statistics for 10.128.4.201:

```
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

```
C:\>ping 10.128.4.201
```

Pinging 10.128.4.201 with 32 bytes of data:

```
Reply from 10.128.4.201: bytes=32 time<1ms TTL=127
Reply from 10.128.4.201: bytes=32 time<1ms TTL=127
Reply from 10.128.4.201: bytes=32 time<1ms TTL=127
Reply from 10.128.4.201: bytes=32 time<1ms TTL=127
```

Ping statistics for 10.128.4.201:

```
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

```
C:\>
```

☐ Top

☐ Top

Симуляция

Logical Physical x: 1150, y: 538

Time: 02:17:07.501 PLAY CONTROLS: [Previous] [Play] [Next]

Cisco Packet Tracer File Edit Options View Tools Extensions Window Help

Cisco Packet Tracer - /Users/shutenkovika/work/2021-2022/админ

Logical Physical x: 1188, y: 494

Time: 02:18:42.137 PLAY CONTROLS: [Previous] [Play] [Next]

Итоги выполнения работы

- Я добавила в локальную сеть маршрутизатор и провела его первоначальную настройку.
- Настроила статическую маршрутизацию VLAN.
- При выполнении работы учитывала соглашение об именовании (см. раздел 2.5).

Вывод

- Я настроила статическую маршрутизацию VLAN в сети.