Настройка VPN

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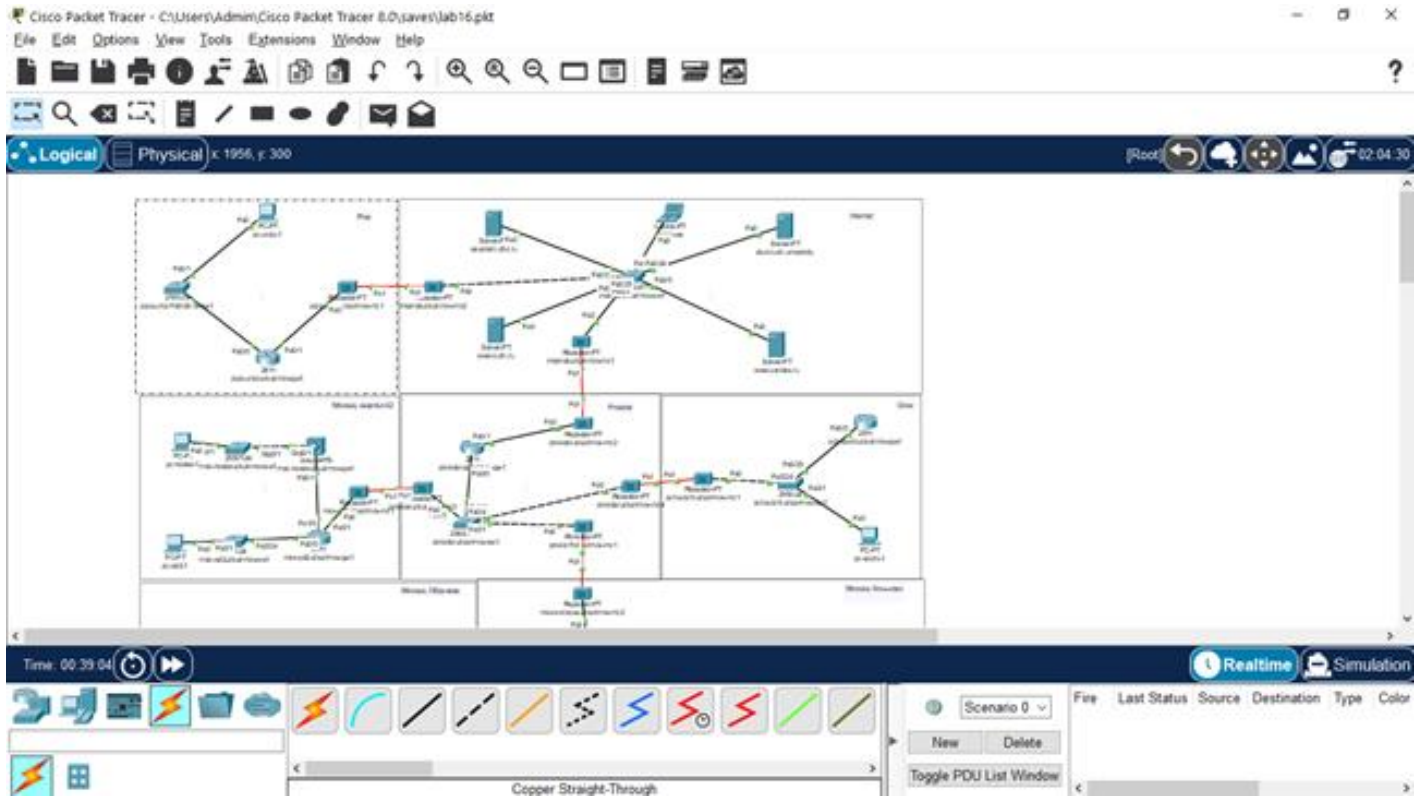
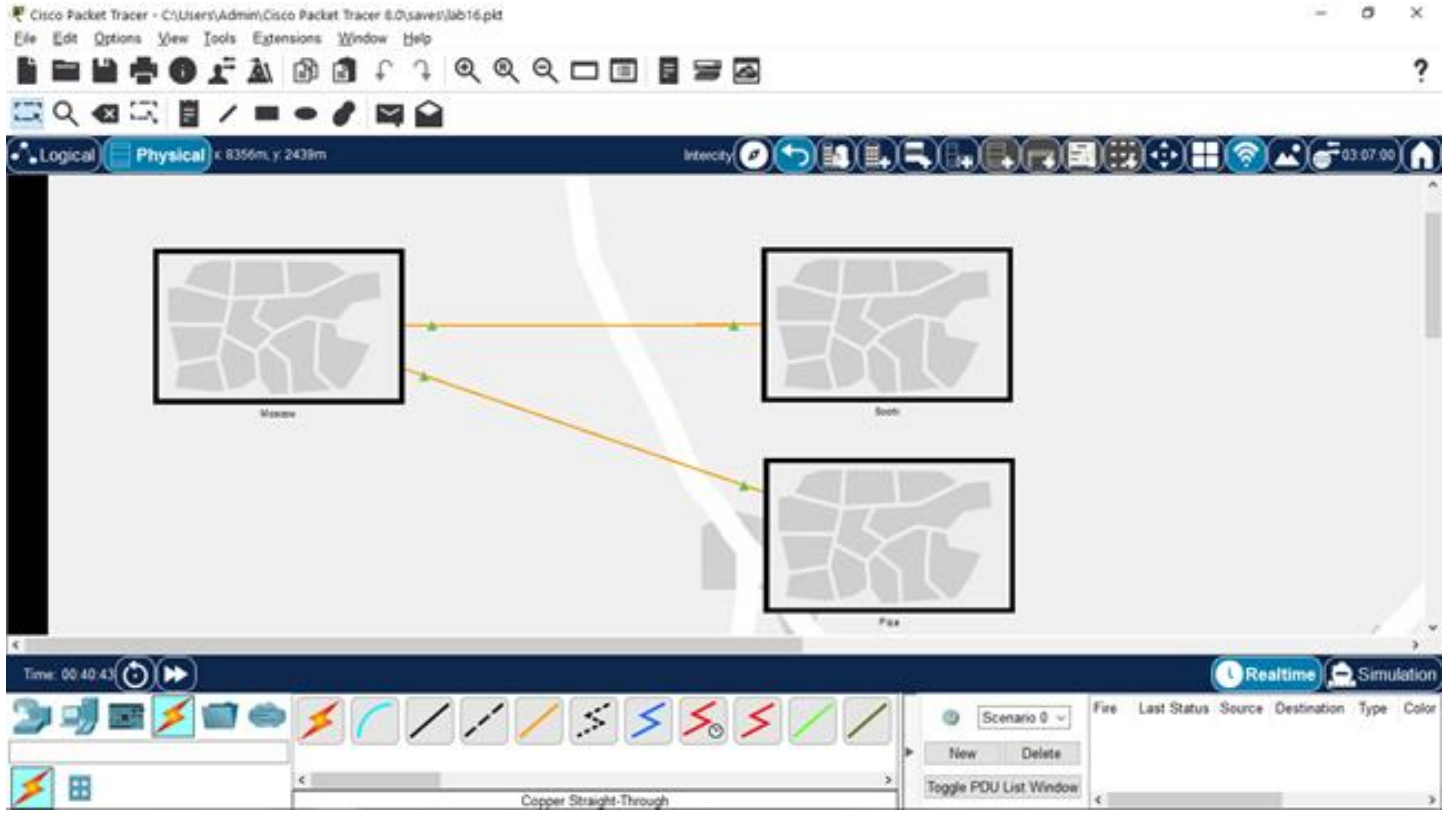
Рабочая область проекта



- Layer 1 (физический уровень)
- Layer 2 (канальный уровень)
- Layer 3 (сетевой увровень)
- Таблицы портов и ip.

Физическая рабочая область проекта



Настройка площадки в г. Пиза

```
piza-unipi-zikarimov-gw1(config)#crypto key generate rsa
The name for the keys will be: piza-unipi-zikarimov-
gw1.unipi.edu
Choose the size of the key modulus in the range of 360 to
2048 for your
  General Purpose Keys. Choosing a key modulus greater
than 512 may take
  a few minutes.

How many bits in the modulus [512]: 2048
% Generating 2048 bit RSA keys, keys will be non-
exportable...[OK]

piza-unipi-zikarimov-gw1(config)#line vty 0 4
*Mar 1 0:5:3.756: %SSH-5-ENABLED: SSH 1.99 has been
enabled
piza-unipi-zikarimov-gw1(config-line)#transport input ssh
piza-unipi-zikarimov-gw1(config-line)#e
```

```
piza-unipi-zikarimov-gw1(config)#line vty 0 4
piza-unipi-zikarimov-gw1(config-line)#password cisco
piza-unipi-zikarimov-gw1(config-line)#login
piza-unipi-zikarimov-gw1(config-line)#exit
piza-unipi-zikarimov-gw1(config)#line console 0
piza-unipi-zikarimov-gw1(config-line)#password cisco
piza-unipi-zikarimov-gw1(config-line)#login
piza-unipi-zikarimov-gw1(config-line)#exit
piza-unipi-zikarimov-gw1(config)#enable secret cisco
piza-unipi-zikarimov-gw1(config)#service pass
piza-unipi-zikarimov-gw1(config)#service password-
encryption
piza-unipi-zikarimov-gw1(config)#username admin priv
piza-unipi-zikarimov-gw1(config)#username admin privilege
1 secret cisco
piza-unipi-zikarimov-gw1(config)#ip domain-name unipi.edu
```

Настройка интерфейсов

```
piza-unipi-zikarimov-sw1(config)#interface f0/24
piza-unipi-zikarimov-sw1(config-if)#sw
piza-unipi-zikarimov-sw1(config-if)#switchport mode trunk

piza-unipi-zikarimov-sw1(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface
FastEthernet0/24, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface
FastEthernet0/24, changed state to up

piza-unipi-zikarimov-sw1(config-if)#exit
piza-unipi-zikarimov-sw1(config)#interface f0/1
piza-unipi-zikarimov-sw1(config-if)#sw
piza-unipi-zikarimov-sw1(config-if)#switchport mode access
piza-unipi-zikarimov-sw1(config-if)#sw
piza-unipi-zikarimov-sw1(config-if)#switchport ac
piza-unipi-zikarimov-sw1(config-if)#switchport access vlan
401
% Access VLAN does not exist. Creating vlan 401
piza-unipi-zikarimov-sw1(config-if)#exit
```

```
piza-unipi-zikarimov-sw1(config)#vlan 401
piza-unipi-zikarimov-sw1(config-vlan)#name unipi-main
piza-unipi-zikarimov-sw1(config-vlan)#exit
piza-unipi-zikarimov-sw1(config)#interface vlan401
piza-unipi-zikarimov-sw1(config-if)#
%LINK-5-CHANGED: Interface Vlan401, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Vlan401,
changed state to up
exit
piza-unipi-zikarimov-sw1(config)#exit
```

Настройка VPN на основе GRE

```
msk-konkova-zikarimov-gw1(config)#interface Tunnel0

msk-konkova-zikarimov-gw1(config-if)#
%LINK-5-CHANGED: Interface Tunnel0, changed state to up
ip add
msk-konkova-zikarimov-gw1(config-if)#ip address
10.128.255.253 255.255.255.252
msk-konkova-zikarimov-gw1(config-if)#tunnel source f0/1.4
msk-konkova-zikarimov-gw1(config-if)#tunnel des
msk-konkova-zikarimov-gw1(config-if)#tunnel destination
192.0.2.20
msk-konkova-zikarimov-gw1(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Tunnel0,
changed state to up
exit
```

```
msk-konkova-zikarimov-gw1(config)#interface loopback0

msk-konkova-zikarimov-gw1(config-if)#
%LINK-5-CHANGED: Interface Loopback0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback0,
changed state to up
ip add
msk-konkova-zikarimov-gw1(config-if)#ip address
10.128.254.1 255.255.255.255
msk-konkova-zikarimov-gw1(config-if)#exit
msk-konkova-zikarimov-gw1(config)#ip route 10.128.254.5
255.255.255.255 10.128.255.254
msk-konkova-zikarimov-gw1(config)#exit
msk-konkova-zikarimov-gw1#
%SYS-5-CONFIG_I: Configured from console by console
w
```

Проверить доступность узлов