

## Отчет по лабораторной работе 12

Землянский В. ИС223

### 1. Построил сеть:

- Добавил роутер, два коммутатора и шесть ПК.
- Соединил устройства:
  - pc1, pc2, pc3 - switch1 - Router.
  - pc4, pc5, pc6 - switch2 - Router.

### 2. Назначил ip адреса компьютерам:

- Левая сеть (192.168.0.0):
  - pc1 - 192.168.0.10, шлюз 192.168.0.254.
  - pc2 - 192.168.0.11, шлюз 192.168.0.254.
  - pc3 - 192.168.0.12, шлюз 192.168.0.254.
- Правая сеть (192.168.1.0):
  - pc4 - 192.168.1.10, шлюз 192.168.1.1.
  - pc5 - 192.168.1.11, шлюз 192.168.1.1.
  - pc6 - 192.168.1.12, шлюз 192.168.1.1.

### 3. Настроил маршрутизатор:

- Включил порты и назначил IP-адреса:
  - fa0/0 - 192.168.0.254.
  - fa0/1 - 192.168.1.1.
- Проверил командой show ip interface brief — интерфейсы up up.

### 4. Проверил связь внутри сетей:

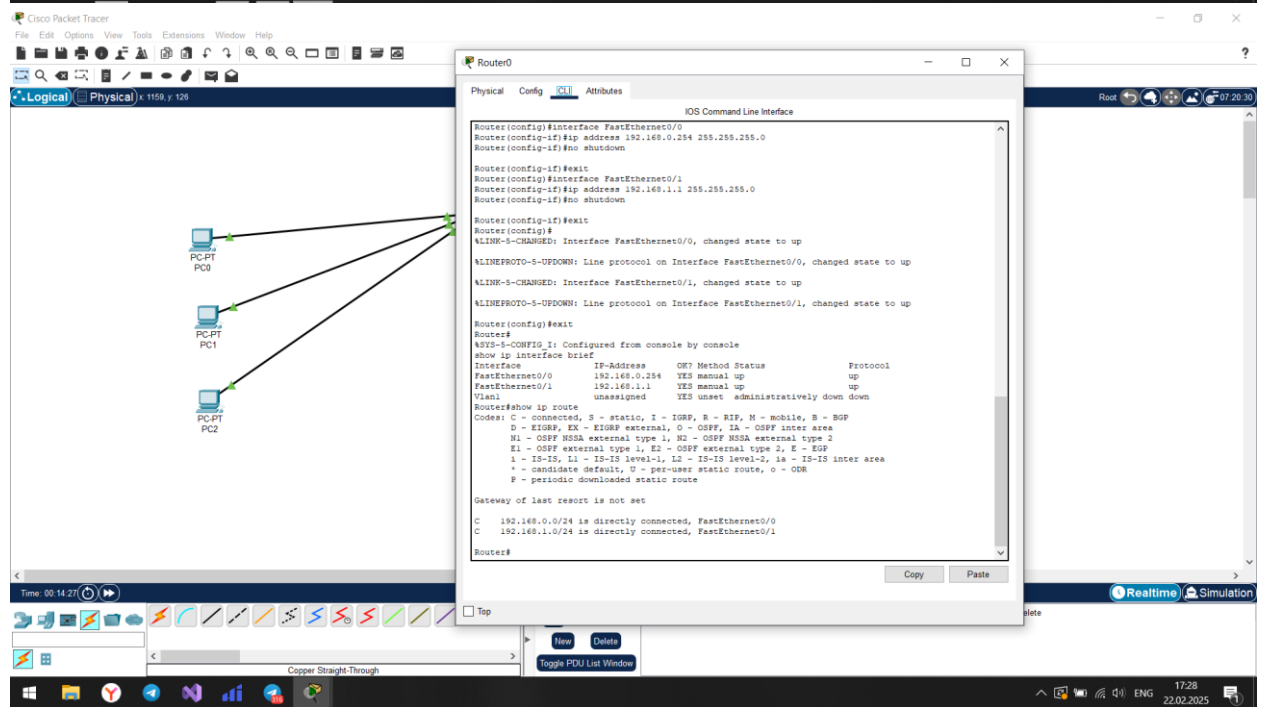
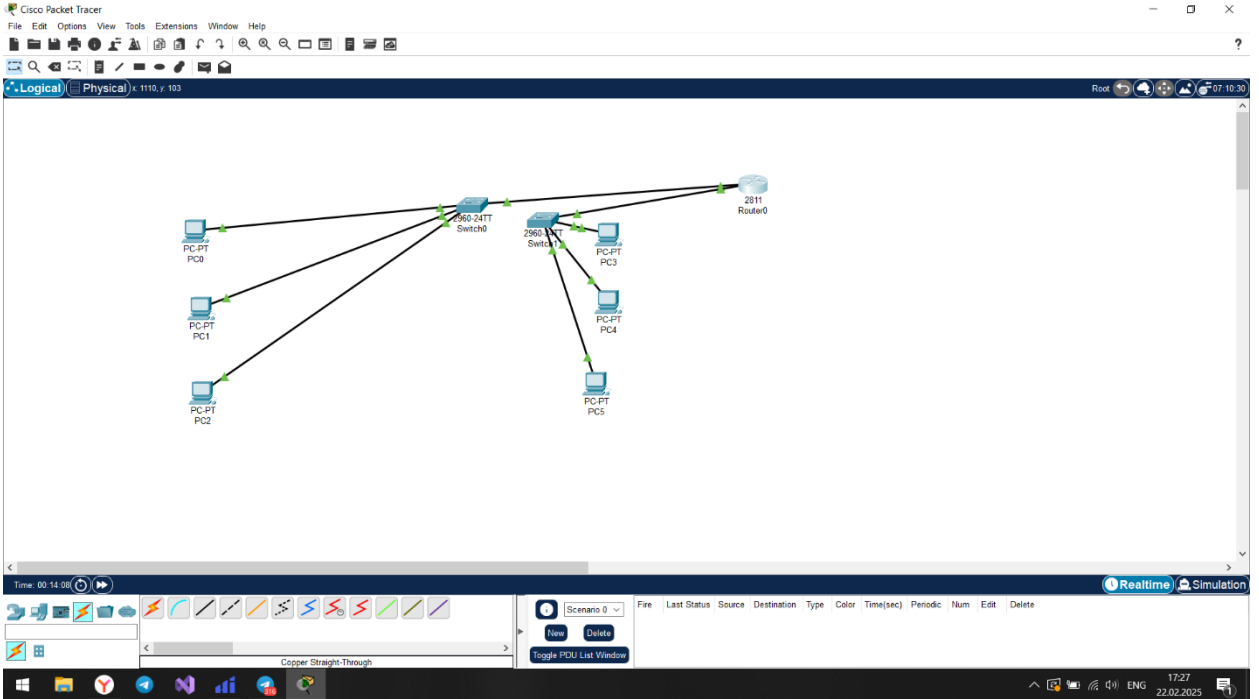
- ping 192.168.0.11 (с pc1 на pc2) - Ответ есть.
- ping 192.168.1.12 (с pc4 на pc6) - Ответ есть.

### 5. Проверил связь между сетями:

- ping 192.168.1.10 (с pc1 на pc4) - Ответ есть.
- ping 192.168.0.10 (с pc4 на pc1) - Ответ есть.

### 6. Проверил таблицу маршрутизации:

- show ip route - отобразились маршруты 192.168.0.0 и 192.168.1.0.



Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x 1547 y 60

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
0.000	0.000	PC4
0.001	0.001	PC0
0.002	0.002	Switch1
0.002	0.002	Switch0
0.002	0.002	Switch0
0.003	0.003	Router0
0.003	0.003	PC2
0.004	0.004	Switch0
0.005	0.005	Switch0

Reset Simulation Constant Delay Captured to: 0.008 s

Play Controls

Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, Icmp, Icmpv6, LACP, LLDP, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPv2, RIPv3, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Scenario 0

File Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete

New Delete

Toggle PDU List Window

Copper Straight-Through

Time: 00:14:46:289 PLAY CONTROLS

17:29 22.02.2025

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x 1122 y 156

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
0.000	0.000	PC4
0.001	0.001	PC0
0.002	0.002	Switch1
0.002	0.002	Switch0
0.002	0.002	Switch0
0.003	0.003	Router0
0.003	0.003	PC2
0.004	0.004	Switch0
0.004	0.004	Switch0
0.005	0.005	Switch0

Reset Simulation Constant Delay Captured to: 0.008 s

Play Controls

Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, Icmp, Icmpv6, LACP, LLDP, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPv2, RIPv3, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Scenario 0

File Last Status Source Destination Type Color Time(sec) Periodic Num Edit Delete

New Delete

Toggle PDU List Window

Copper Straight-Through

Time: 00:14:46:289 PLAY CONTROLS

17:30 22.02.2025

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x 1554 y 529

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
0.000	-	-
0.000	-	-
0.001	PC4	PC4
0.001	PC0	PC0
0.002	Switch1	Switch1
0.002	Switch0	Switch0
0.002	Switch0	Switch0
0.002	Switch0	Switch0
0.003	Router0	Router0
0.003	PC2	PC2
0.004	Switch0	Switch0
0.004	Switch0	Switch0
0.005	Switch0	Switch0

Reset Simulation Constant Delay Captured to: 0.008 s

Play Controls

Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, Icmp, Icmpv6, LLDP, LLDPv6, MVRP, NTP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Scenario 0

New Delete

Toggle PDU List Window

Copper Straight-Through

Time: 00:14:46:289 PLAY CONTROLS

Windows taskbar: 17:30 22.02.2025

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x 1540 y 483

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
0.000	-	-
0.000	-	-
0.001	PC4	PC4
0.001	PC0	PC0
0.002	Switch1	Switch1
0.002	Switch0	Switch0
0.002	Switch0	Switch0
0.002	Switch0	Switch0
0.003	Router0	Router0
0.003	PC2	PC2
0.004	Switch0	Switch0
0.004	Switch0	Switch0
0.005	Switch0	Switch0

Reset Simulation Constant Delay Captured to: 0.008 s

Play Controls

If last event, capture them forward (ALT + C)

Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, Icmp, Icmpv6, LLDP, LLDPv6, MVRP, NTP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Scenario 0

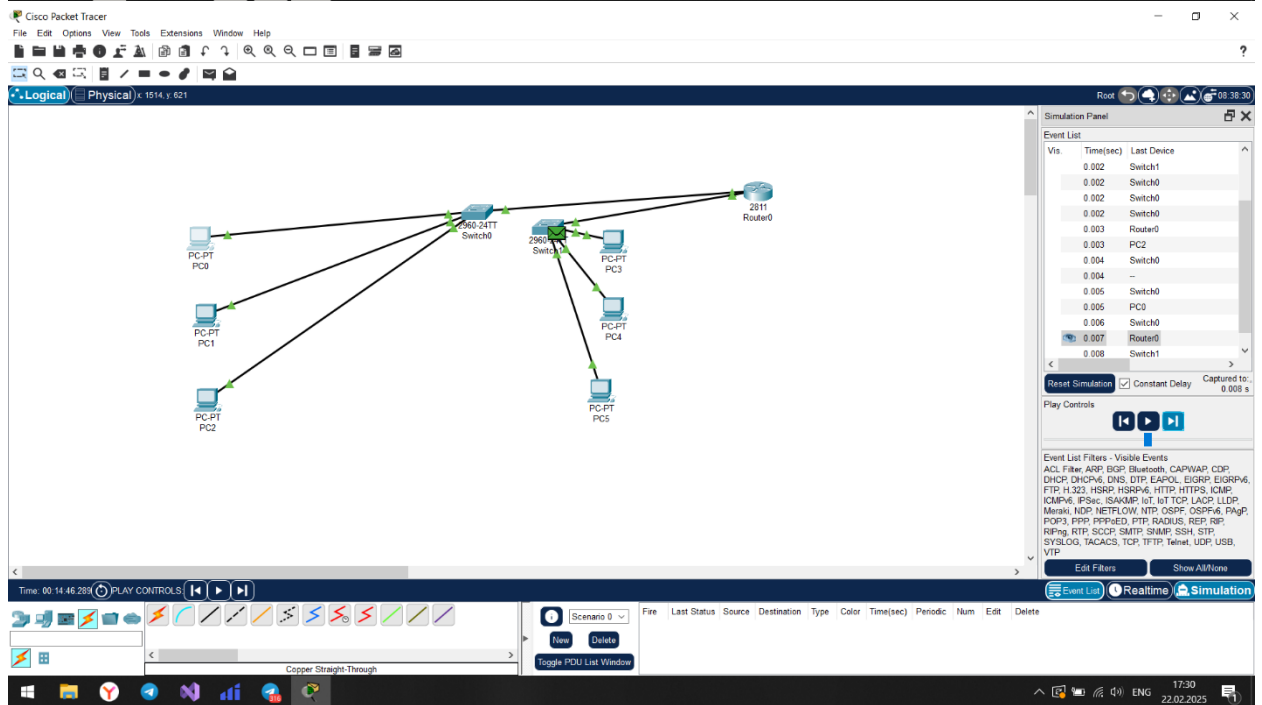
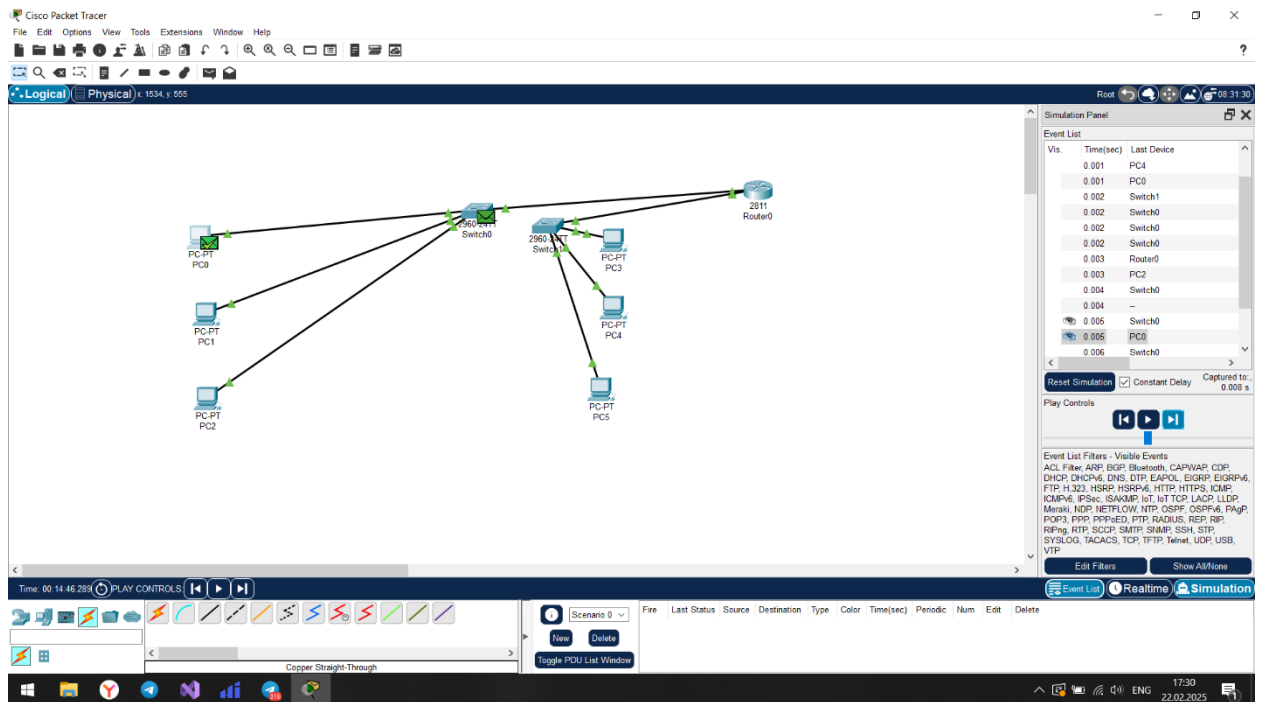
New Delete

Toggle PDU List Window

Copper Straight-Through

Time: 00:14:46:289 PLAY CONTROLS

Windows taskbar: 17:30 22.02.2025



Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x 1364 x 281

PC-PT PC0  
PC-PT PC1  
PC-PT PC2  
2950-24TT Switch0  
2950 Switch1  
PC-PT PC3  
PC-PT PC4  
PC-PT PC5  
2811 Router0

Simulation Panel

Event List

Vis	Time(sec)	Last Device
	0.002	Switch0
	0.002	Switch0
	0.002	Switch0
	0.003	Router0
	0.003	PC2
	0.004	Switch0
	0.004	-
	0.005	Switch0
	0.005	PC0
	0.006	Switch0
	0.007	Router0
	0.008	Switch1

Reset Simulation ☒ Constant Delay Captured to: 0.008 s

Play Controls

Event List Filters - Visible Events

ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPsec, ISAKMP, IRT, IRT TCP, LACP, LLDP, Meraki, NCP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPv2, RIPv3, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None

Scenario 0

New Delete

Toggle PDU List Window

Time: 00:14:46:289 PLAY CONTROLS

Copper Straight-Through

17:31 22.02.2025