

Отчет по лабораторной работе 13

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1. Построил сеть:

Добавил два маршрутизатора, два коммутатора, четыре ПК и сервер.

Соединил устройства:

- pc0, pc1 - switch0 - router0.
- pc2, server0 - switch1 - router1.
- router0 - router1.

2. Назначил IP адреса компьютерам и серверу:

Левая сеть (192.168.0.0):

- pc0 - 192.168.0.10, шлюз 192.168.0.3.
- pc1 - 192.168.0.11, шлюз 192.168.0.3.

Правая сеть (192.168.1.0):

- pc2 - 192.168.1.10, шлюз 192.168.1.3.
- server0 - 192.168.1.2, шлюз 192.168.1.3.

3. Настроил маршрутизаторы:

router0:

- fa0/0 - 192.168.0.3.
- fa0/1 - 192.168.3.1.

router1:

- fa0/0 - 192.168.1.3.
- fa0/1 - 192.168.3.2.

Проверил show ip interface brief - интерфейсы up up.

4. Настроил маршруты по умолчанию:

На router0:

```
ip route 0.0.0.0 0.0.0.0 192.168.3.2
```

На router1:

```
ip route 0.0.0.0 0.0.0.0 192.168.3.1
```

5. Проверил связь внутри сетей:

- ping 192.168.0.11 (с pc0 на pc1) - ответ есть.
- ping 192.168.1.2 (с pc2 на server0) - ответ есть.

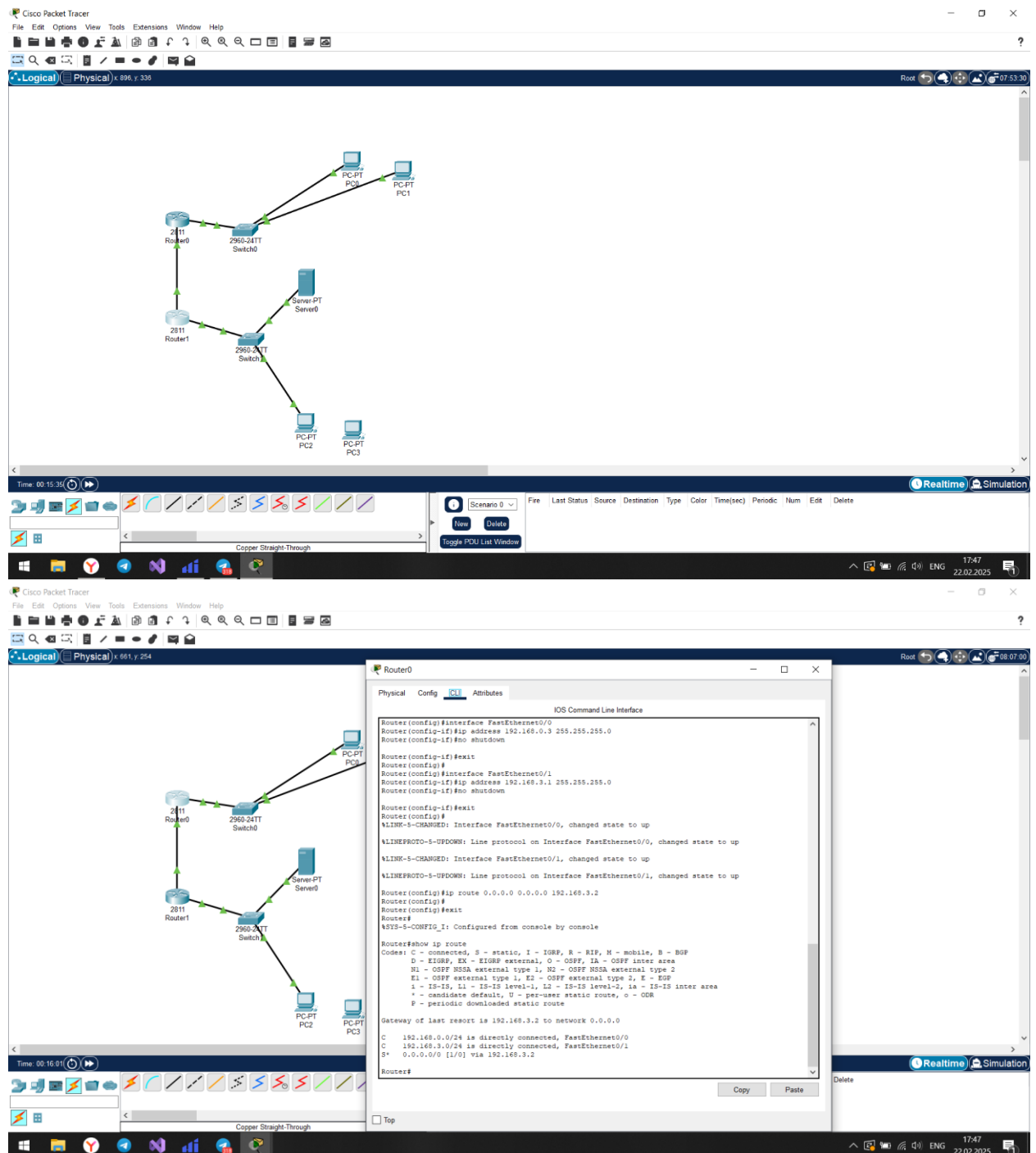
6. Проверил связь между сетями:

- ping 192.168.1.10 (с pc0 на pc2) - ответ есть.
- ping 192.168.0.10 (с pc2 на pc0) - ответ есть.

7. Проверил таблицу маршрутизации:

Смотреть на скринах!

Скринь:



Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical 454 / 426

Router1

Physical Config CLI Attributes

IOS Command Line Interface

Enter configuration commands, one per line. End with CNTL/Z.

```
Router(config)#interface FastEthernet0/0
Router(config-if)#ip address 192.168.1.3 255.255.255.0
Router(config-if)#no shutdown

Router(config-if)#exit
Router(config)#
Router(config)#interface FastEthernet0/1
Router(config-if)#ip address 192.168.3.2 255.255.255.0
Router(config-if)#no shutdown

Router(config-if)#exit
Router(config)#
VLINE-5-CHANGED: Interface FastEthernet0/0, changed state to up
VLINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
VLINE-5-CHANGED: Interface FastEthernet0/1, changed state to up
VLINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

Router(config)#ip route 0.0.0.0 0.0.0.0 192.168.3.1
Router(config)#exit
Router#
#S35-S-CONFIG_I Configured from console by console
show ip route

Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       I - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, Ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is 192.168.3.1 to network 0.0.0.0

C    192.168.1.0/24 is directly connected, FastEthernet0/0
C    192.168.3.0/24 is directly connected, FastEthernet0/1
S*   0.0.0.0/0 [1/0] via 192.168.3.1

Router#
```

Copy Paste

Realtime Simulation

17:47 22.02.2025

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical 446 / 356

Simulation Panel

Event List

Vis	Time(sec)	Last Device
0.000	--	
0.000	--	

Reset Simulation Constant Delay Captured to: 0.000 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, LACP, LLDP, MVRP, 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

New Delete

Toggle PDU List Window

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

17:48 22.02.2025

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x 1021 y 617

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
0.000	-	-
0.000	-	-
0.001	0.001	PC0
0.001	0.001	PC2

Reset Simulation Constant Delay Captured to: 0.001 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

New Delete

Toggle PDU List Window

Time: 00:16:41.445 PLAY CONTROLS

Copper Straight-Through

17:49 22.02.2025

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x 1021 y 492

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
0.000	-	-
0.000	-	-
0.001	0.001	PC0
0.001	0.001	PC2
0.002	0.002	Switch0
0.002	0.002	Switch1
0.003	0.003	Router0
0.003	0.003	Router1

Reset Simulation Constant Delay Captured to: 0.003 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

New Delete

Toggle PDU List Window

Time: 00:16:41.447 PLAY CONTROLS

Copper Straight-Through

17:49 22.02.2025

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x 1540 y 411

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
0.000	-	-
0.000	-	-
0.001	PC0	PC0
0.001	PC2	PC2
0.002	Switch0	Switch0
0.002	Switch1	Switch1
0.003	Router0	Router0
0.003	Router1	Router1

Reset Simulation Constant Delay Captured to: 0.003 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, 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

New Delete

Toggle PDU List Window

Time: 00:16:41.447 PLAY CONTROLS

Copper Straight-Through

17:49 22.02.2025

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x 1540 y 372

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
0.000	-	-
0.000	-	-
0.001	PC0	PC0
0.001	PC2	PC2
0.002	Switch0	Switch0
0.002	Switch1	Switch1
0.003	Router0	Router0
0.003	Router1	Router1
0.004	Router0	Router0

Reset Simulation Constant Delay Captured to: 0.004 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, 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

New Delete

Toggle PDU List Window

Time: 00:16:41.449 PLAY CONTROLS

Copper Straight-Through

17:49 22.02.2025

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 378, y: 437

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
0.000	-	-
0.000	-	-
0.001	PC0	PC0
0.001	PC2	PC2
0.002	Switch0	Switch0
0.002	Switch1	Switch1
0.003	Router0	Router0
0.003	Router1	Router1
0.004	Router1	Router1
0.004	Router0	Router0
0.005	Switch1	Switch1
0.005	Switch0	Switch0

Reset Simulation Constant Delay Captured to: 0.005 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, L2TP, 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

New Delete

Toggle PDU List Window

Time: 00:16:41.449 PLAY CONTROLS

Copper Straight-Through

17:49 22.02.2025

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x: 1240, y: 483

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
0.001	PC0	PC0
0.001	PC2	PC2
0.002	Switch0	Switch0
0.002	Switch1	Switch1
0.003	Router0	Router0
0.003	Router1	Router1
0.004	Router1	Router1
0.004	Router0	Router0
0.005	Switch1	Switch1
0.005	Switch0	Switch0
0.006	PC2	PC2
0.006	PC0	PC0
0.007	Switch1	Switch1

Reset Simulation Constant Delay Captured to: 0.010 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, L2TP, 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

New Delete

Toggle PDU List Window

Time: 00:16:41.454 PLAY CONTROLS

Copper Straight-Through

17:50 22.02.2025

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x 1010, y 440

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
	0.002	Switch0
	0.002	Switch1
	0.003	Router0
	0.003	Router1
	0.004	Router1
	0.004	Router0
	0.005	Switch1
	0.005	Switch0
	0.006	PC2
	0.006	PC0
	0.007	Switch1
	0.007	Switch0
	0.008	Router1

Reset Simulation Constant Delay Captured to: 0.010 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, iST, IOT, 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: 00:16:41.454 PLAY CONTROLS

Windows taskbar: 17:50 22.02.2025

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x 1010, y 490

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
	0.005	Switch1
	0.005	Switch0
	0.006	PC2
	0.006	PC0
	0.007	Switch1
	0.007	Switch0
	0.008	Router1
	0.008	Router0
	0.009	Router0
	0.009	Router1
	0.010	Switch0
	0.010	Switch1

Reset Simulation Constant Delay Captured to: 0.010 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, iST, IOT, 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: 00:16:41.454 PLAY CONTROLS

Windows taskbar: 17:50 22.02.2025

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical x 1315, y 411

Router0 2960-24TT Switch0 PC-PT PC0 PC-PT PC1

Router1 2960-24TT Switch0 Server-PT Server0 PC-PT PC2 PC-PT PC3

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
	0.005	Switch1
	0.005	Switch0
	0.006	PC2
	0.006	PC0
	0.007	Switch1
	0.007	Switch0
	0.008	Router1
	0.008	Router0
	0.009	Router0
	0.010	Switch0
	0.010	Switch1

Reset Simulation Constant Delay Captured to: 0.010 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, iST, iST 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: 00:16:41.454 PLAY CONTROLS

Copper Straight-Through

17:50 22.02.2025