

Практическая работа 2: Сеть с использованием концентратора Hub

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Цель работы

Настроить локальную сеть с использованием концентратора Hub, назначить статические ip-адреса, проверить соединение с помощью ping и увеличить сеть.

Ход работы

1. Подготовка оборудования

- Добавил 6 компьютеров и Hub.
- Подключить устройства с помощью медного кабеля.

2. Настройка IP-адресов

- Каждому компьютеру назначил IP-адрес 192.168.0.x где x - номер компьютера.
- Маска подсети 255.255.255.0.

3. Проверка соединения

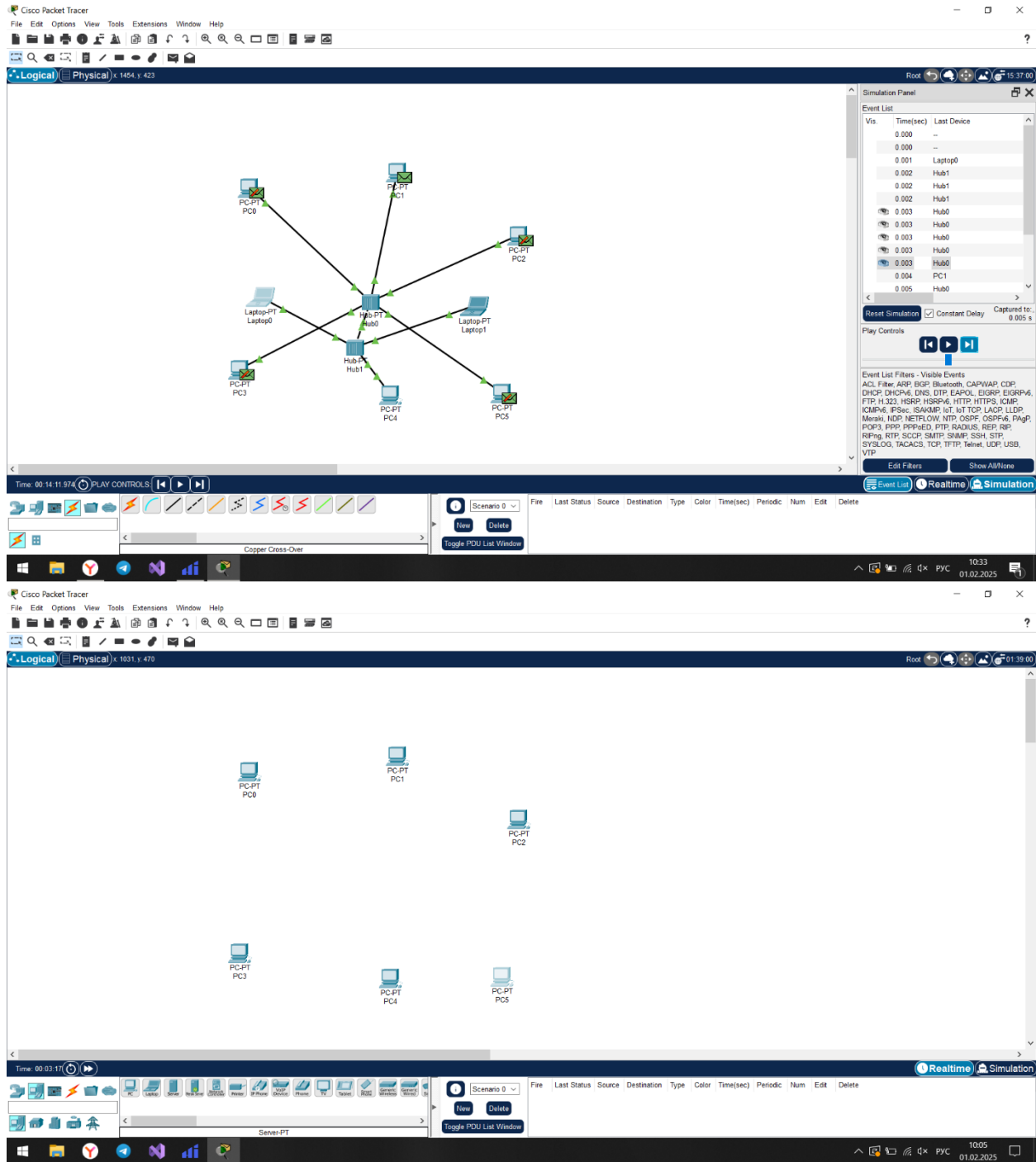
- Включил Simulation Mode, проверил передачу пакетов через Simple pdu.
- Выполнил команду ping на другой компьютер.

4. Увеличение сети

- Добавил ещё 2 ноута.
- Портов не хватило, сделал второй hub через copper crossover.
- Проверил связь через ping.

Вывод: Все данные передаются.

Скриншоты



Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical 1305 x 522

Simulation Panel

Event List

Vis.	Time(sec)	Last Device

Reset Simulation Constant Delay Captured to: (no captures)

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, RFP, RFPing, RTP, SCP, 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: 00:08:08.189 PLAY CONTROLS

10:13 01.02.2025

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical 1505 x 373

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
	0.000	
	0.000	PC0
	0.001	Hub0
	0.002	Hub0
	0.002	Hub0
	0.002	Hub0
	0.002	Hub0
	0.003	PC3
	0.004	Hub0
	0.004	Hub0
	0.004	Hub0
	0.004	Hub0

Reset Simulation Constant Delay Captured to: 0.007 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, RFP, RFPing, RTP, SCP, 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: 00:08:08.187 PLAY CONTROLS

10:14 01.02.2025

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical 1401 x 373

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
	0.000	---
	0.000	---
	0.001	PC0
	0.002	Hub0
	0.002	Hub0
	0.002	Hub0
	0.002	Hub0
	0.003	PC3
	0.004	Hub0
	0.004	Hub0
	0.004	Hub0

Reset Simulation ☒ Constant Delay Captured to: 0.007 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, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPv2, RIPv3, SCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show AllNone

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: 00:08:08.187 PLAY CONTROLS

10:14 01.02.2025

Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help

Logical Physical 1050 x 55

Simulation Panel

Event List

Vis.	Time(sec)	Last Device
	0.000	---
	0.000	---
	0.001	Laptop0
	0.002	Hub1
	0.002	Hub0
	0.003	Hub0
	0.003	Hub0
	0.003	Hub0
	0.003	Hub0
	0.003	Hub0
	0.003	Hub0
	0.004	PC1
	0.005	Hub0

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, IRT, IRT, LACP, LLDP, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPv2, RIPv3, SCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show AllNone

Scenario 0

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

New Delete

Toggle PDU List Window

Copper Crossover

Time: 00:14:11.974 PLAY CONTROLS

10:32 01.02.2025

