

Защита по лабораторной работе №1

pf

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Информация

Цель

Получить навыки работы с физической рабочей областью Packet Tracer, а также учесть физические параметры сети.

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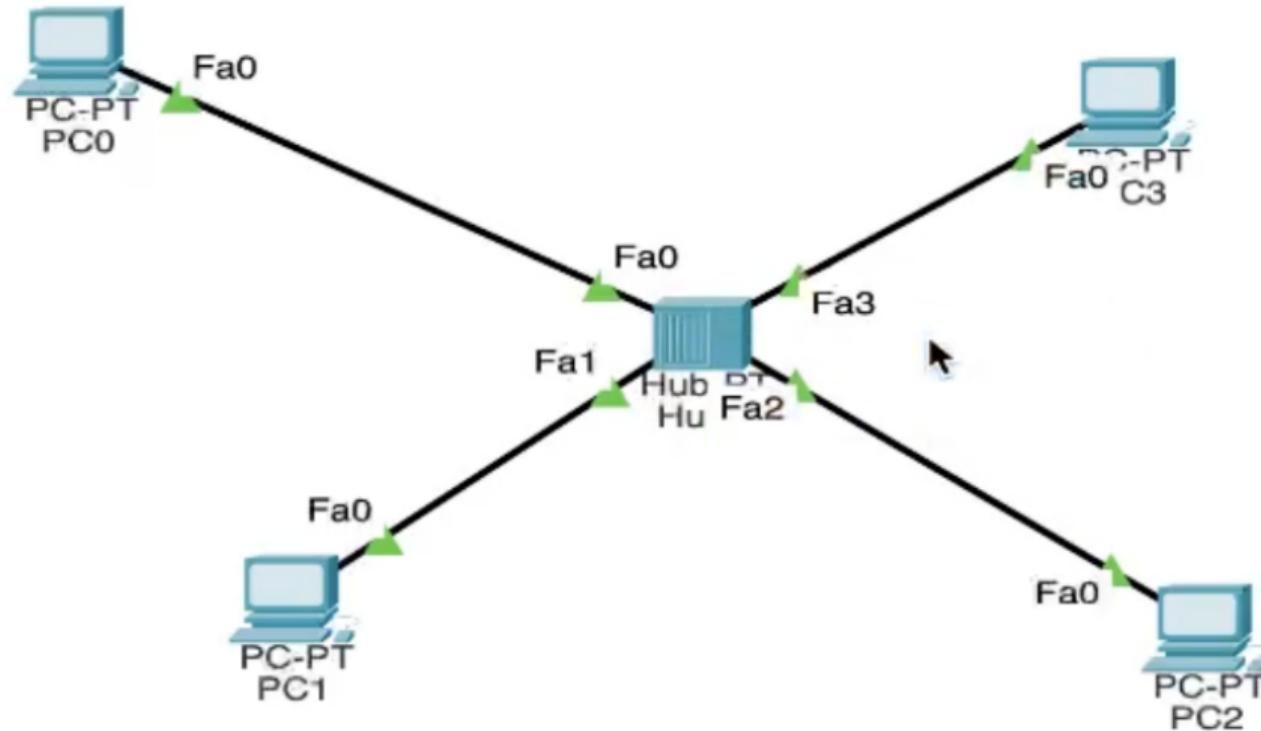
AVAILABLE LANGUAGES , English, Español, Français, Português, Український

Overview Curriculum



FREE 2 HOURS BEGINNER SELF-PACED

Строим схему с концентратором .

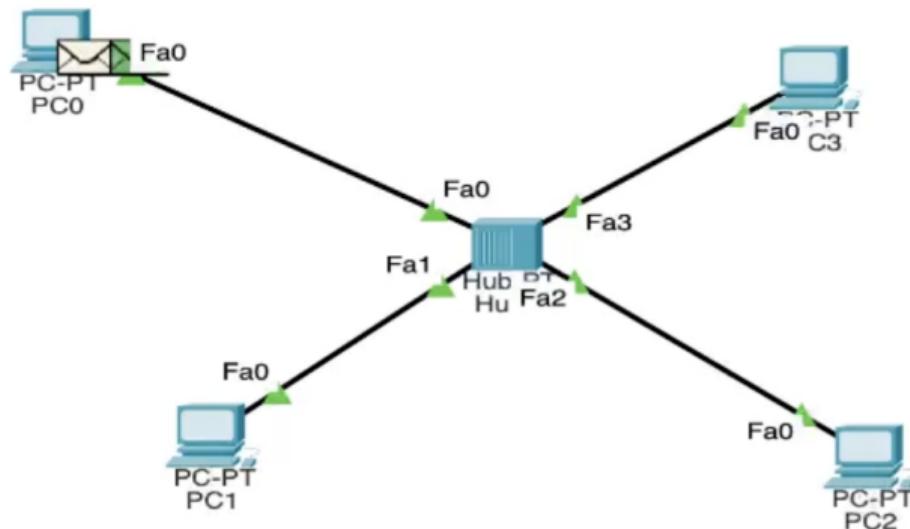


Указываем статические адреса на устройствах .

The screenshot shows a software interface for managing network interfaces on a device named 'PCO'. The left sidebar lists 'GLOBAL' and 'INTERFACE' sections, with 'FastEthernet0' selected. The main panel displays configuration details for 'FastEthernet0'. The 'Config' tab is active. Key settings include:

- Port Status:** On (checked)
- Bandwidth:** 100 Mbps (selected), 10 Mbps (unchecked), Auto (checked)
- Duplex:** Half Duplex (selected), Full Duplex (unchecked), Auto (checked)
- MAC Address:** 00D0.BA52.5B2E
- IP Configuration:** Static (selected), DHCP (unchecked)
- IPv4 Address:** 192.168.1.11
- Subnet Mask:** 255.255.255.0
- IPv6 Configuration:** Static (selected), Automatic (unchecked)
- IPv6 Address:** / (link local address: FE80::2D0:BAFF:FE52:5B2E)

Запускаем симуляцию и отправляем с PC0 на PC4 .



Event List Vis.

Event List

ACL Filter

HTTP Header

PPPoE

Reset

Play Control

Event List

Информация о PDU: уровень OSI .

OSI Model Outbound PDU Details

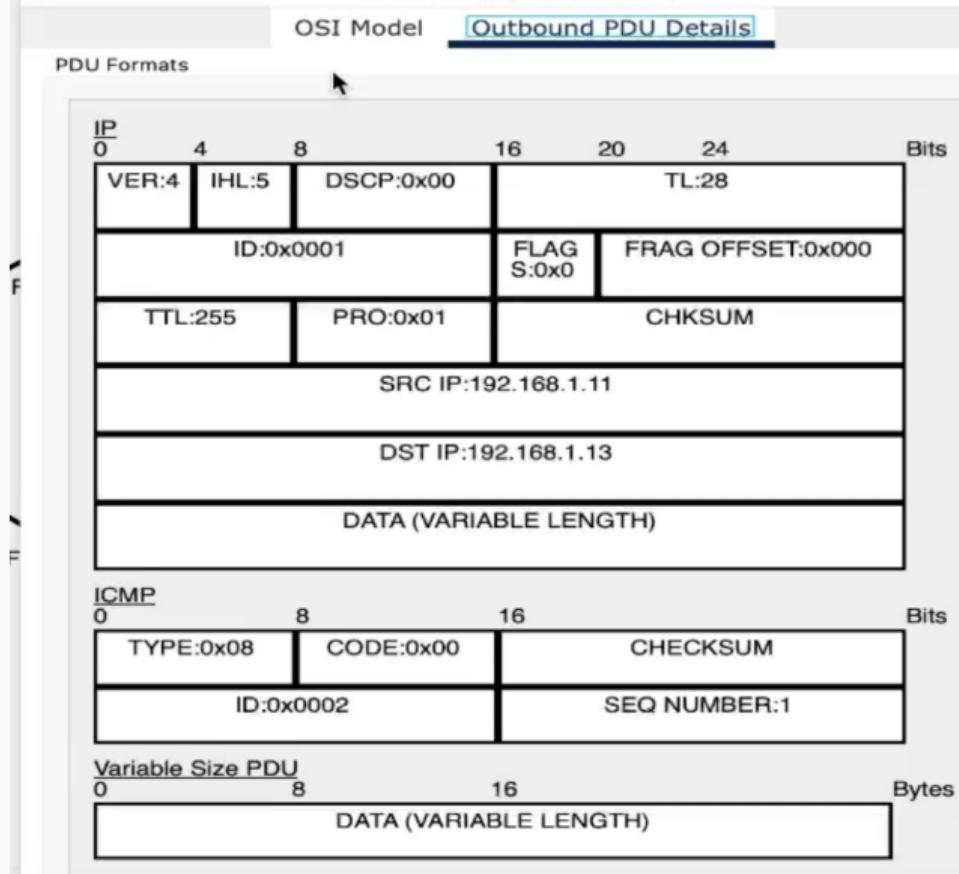
At Device: PC0
Source: PC0
Destination: PC2

| In Layers | Out Layers |
|-----------|---|
| Layer7 | Layer7 |
| Layer6 | Layer6 |
| Layer5 | Layer5 |
| Layer4 | Layer4 |
| Layer3 | Layer 3: IP Header Src. IP: 192.168.1.11, Dest. IP: 192.168.1.13 ICMP Message Type 8 |
| Layer2 | Layer 2: |
| Layer1 | Layer1 |

1. The Ping process starts the next ping request.
2. The Ping process creates an ICMP Echo Request message and sends it to the lower process.
3. The source IP address is not specified. The device sets it to the port's IP address.
4. The device sets TTL in the packet header.
5. The destination IP address is in the same subnet. The device sets the next-hop to destination.

Challenge Me << Previous Layer Next Layer >>

Информация о PDU: форматы пакетов .



What is the device decision in this layer?

- Encapsulate
- Queue
- Drop

1. The ARP process constructs a request for the target IP address.
2. The device encapsulates the PDU into an Ethernet frame.

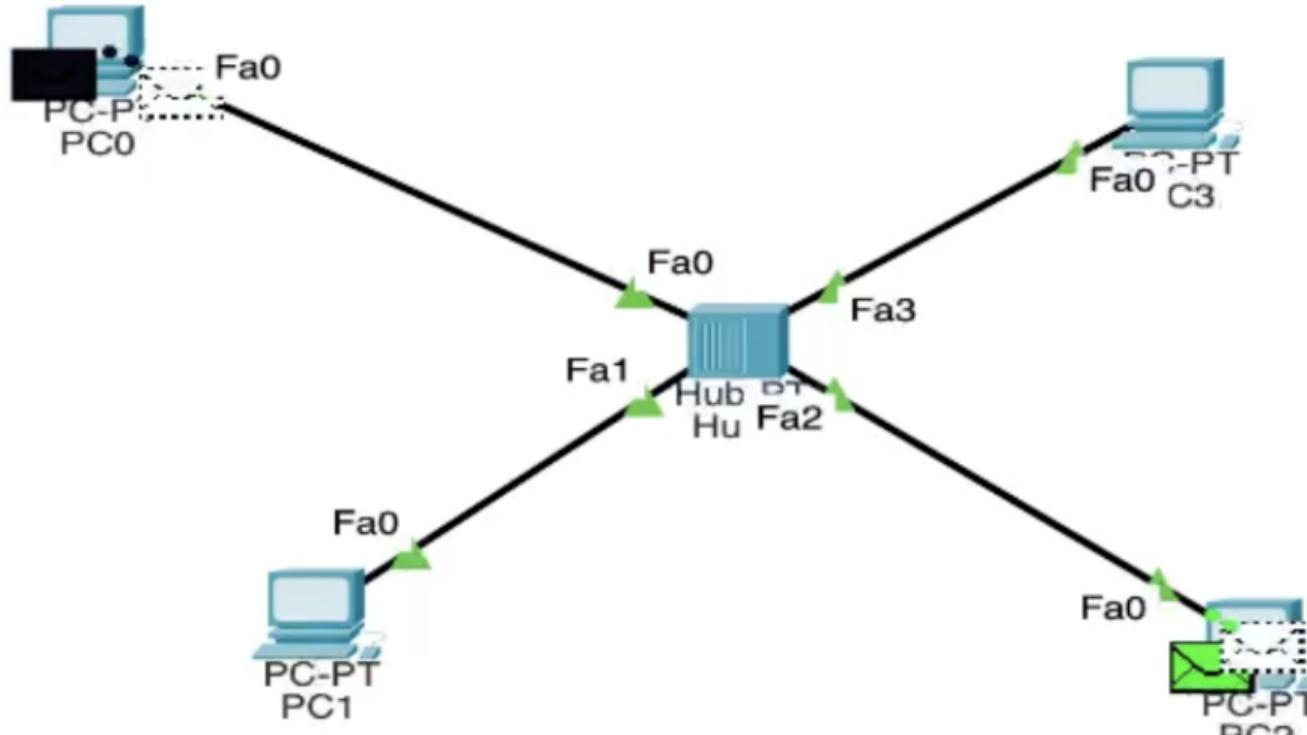
Challenge Me

Hint

<< Previous Layer

Next Layer >>

Отправляем с двух сторон пакеты .



Отслеживаем пакеты .

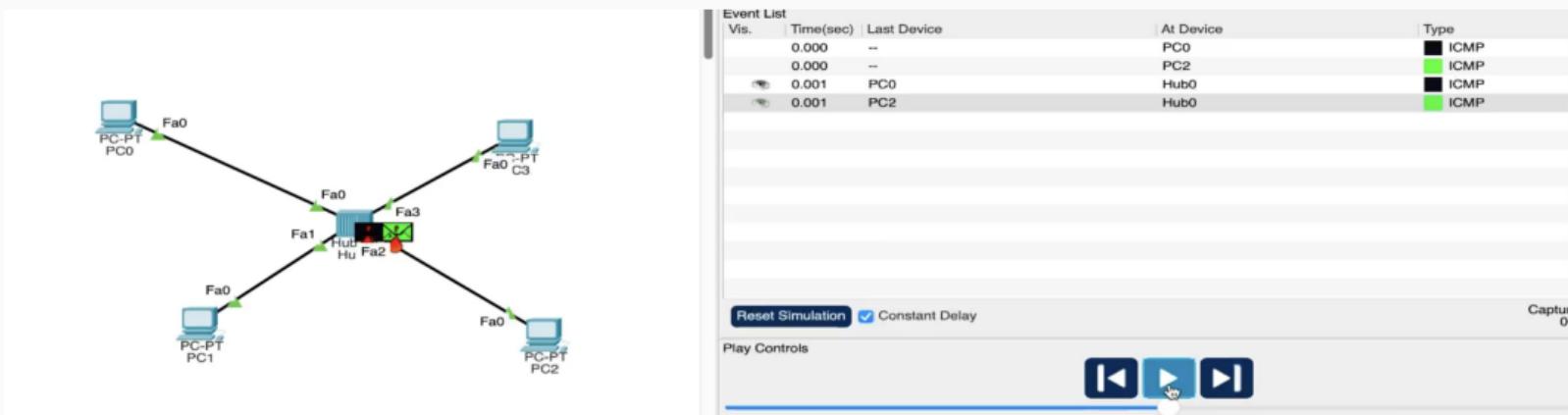


Рис. 9: такими командами

Размещаем коммутатор .

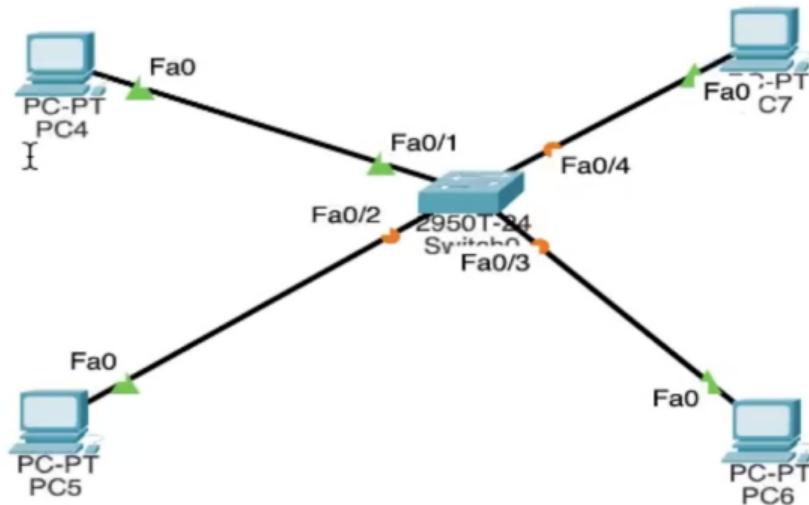


Рис. 10: такими командами

Запустив пакеты замечаем разницу в передаче .

The screenshot shows a software interface for managing network configurations. The title bar indicates the device is 'PC4'. The main menu has tabs: Physical, Config (which is selected), Desktop, Programming, and Attributes. On the left, there's a sidebar with sections for GLOBAL (Settings, Algorithm Settings) and INTERFACE (FastEthernet0, Bluetooth). The main panel displays configuration for 'FastEthernet0'.

FastEthernet0

Port Status: On (checkbox checked)

Bandwidth: 100 Mbps (radio button selected), 10 Mbps (radio button unselected), Auto (checkbox checked)

Duplex: Half Duplex (radio button unselected), Full Duplex (radio button selected), Auto (checkbox checked)

MAC Address: 00E0.A3EC.359D

IP Configuration: Static (radio button selected), DHCP (radio button unselected)

IPv4 Address: 192.168.1.21

Subnet Mask: 255.255.255.0

IPv6 Configuration: Automatic (radio button unselected), Static (radio button selected)

IPv6 Address: / (link-local address field)

Link Local Address: FE80::2E0:A3FF:FECC:359D

Рассматриваем пакеты .

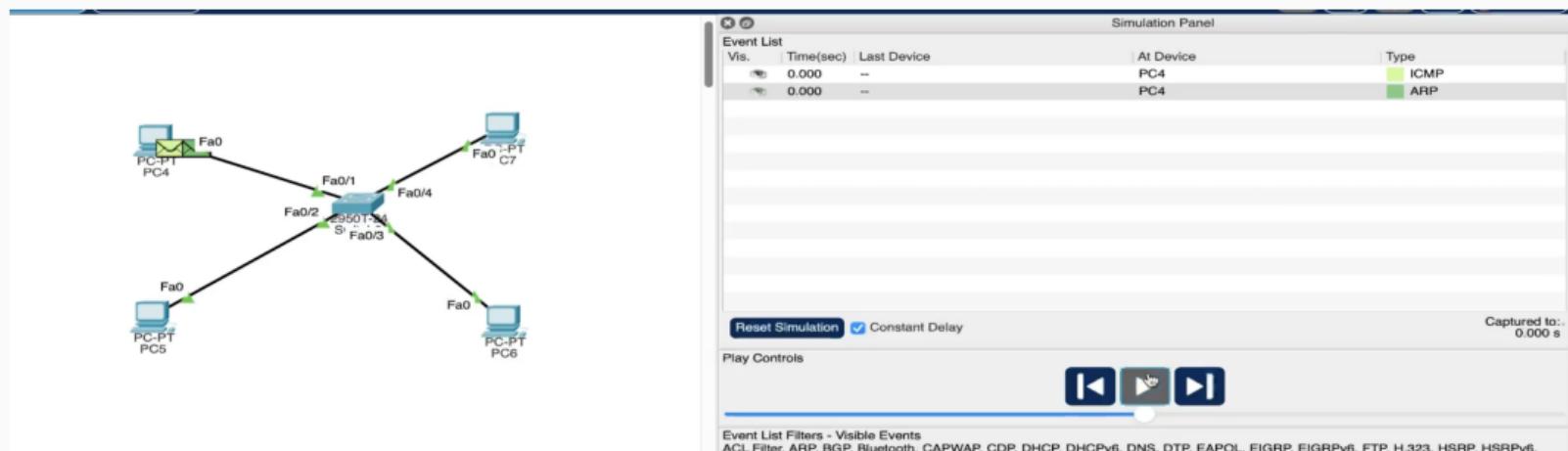


Рис. 12: такими командами

Соединяем наши схемы .

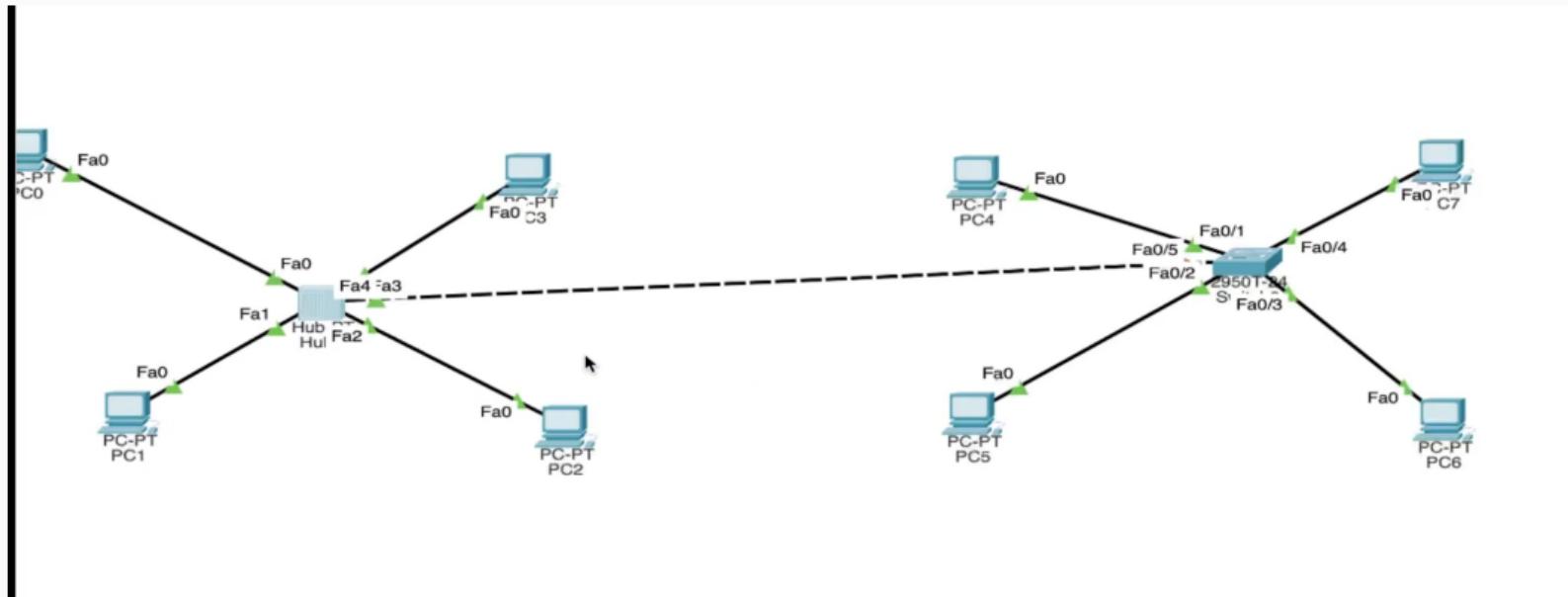
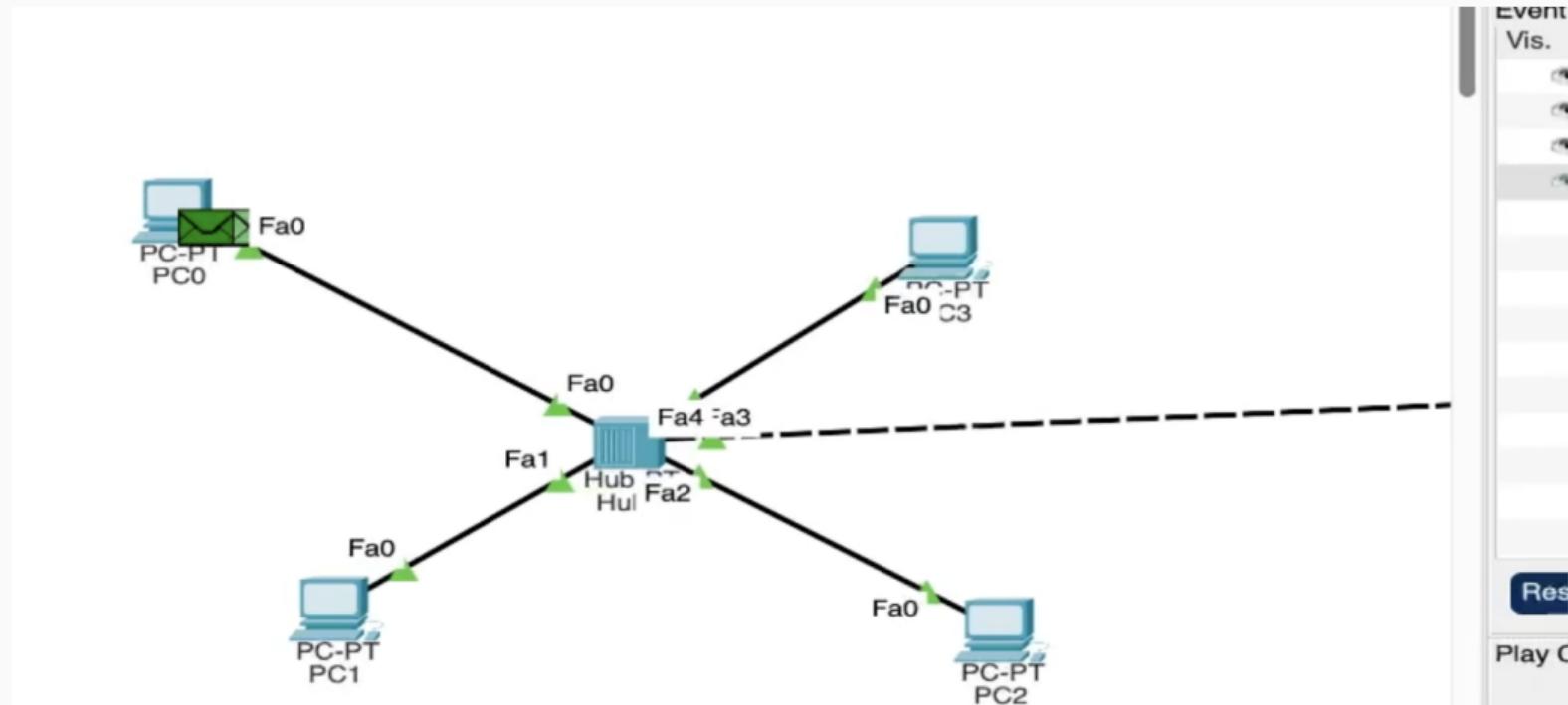


Рис. 13: такими командами

Отправляем пакет от устройства левой схемы на устройство правой .



Добавляем маршрутизатор .

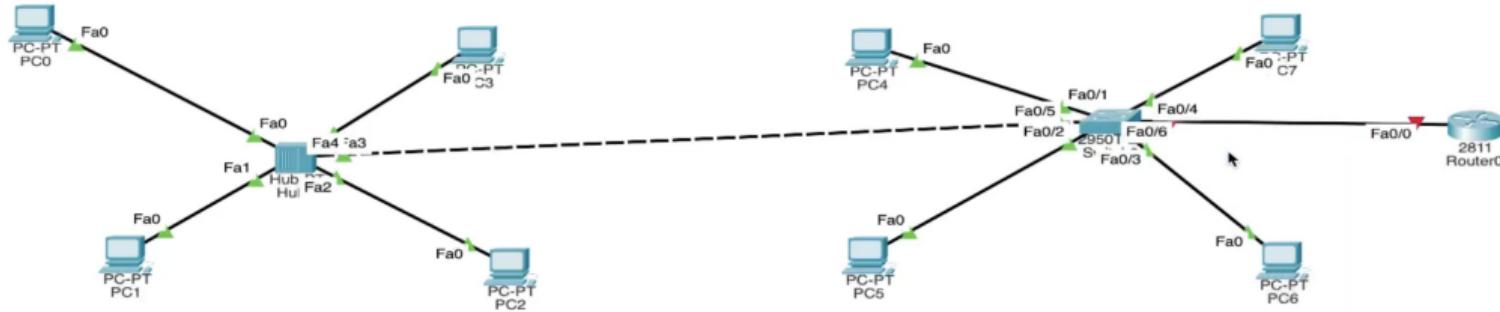


Рис. 15: такими командами

Прописываем статический адрес .

Router5

Physical Config CLI Attributes

GLOBAL

- Settings
- Algorithm Settings

ROUTING

- Static
- RIP

INTERFACE

- FastEthernet0/0
- FastEthernet0/1

FastEthernet0/0

Port Status On

Bandwidth 100 Mbps 10 Mbps Auto

Duplex Half Duplex Full Duplex Auto

MAC Address 0090.21C1.0601

IP Configuration

IPv4 Address 192.168.1.254

Subnet Mask 255.255.255.0

Tx Ring Limit 10

This screenshot shows the configuration interface for Router5. The left sidebar lists navigation options: GLOBAL (Settings, Algorithm Settings), ROUTING (Static, RIP), and INTERFACE (FastEthernet0/0, FastEthernet0/1). The main panel is titled 'FastEthernet0/0' and displays configuration for this interface. Under 'IP Configuration', the 'IPv4 Address' is set to 192.168.1.254 and the 'Subnet Mask' is 255.255.255.0. Other visible settings include Port Status (On), Bandwidth (100 Mbps, Auto selected), Duplex (Half Duplex, Auto selected), MAC Address (0090.21C1.0601), and Tx Ring Limit (10).

Устанавливаем тоггл в On на открытие портов .

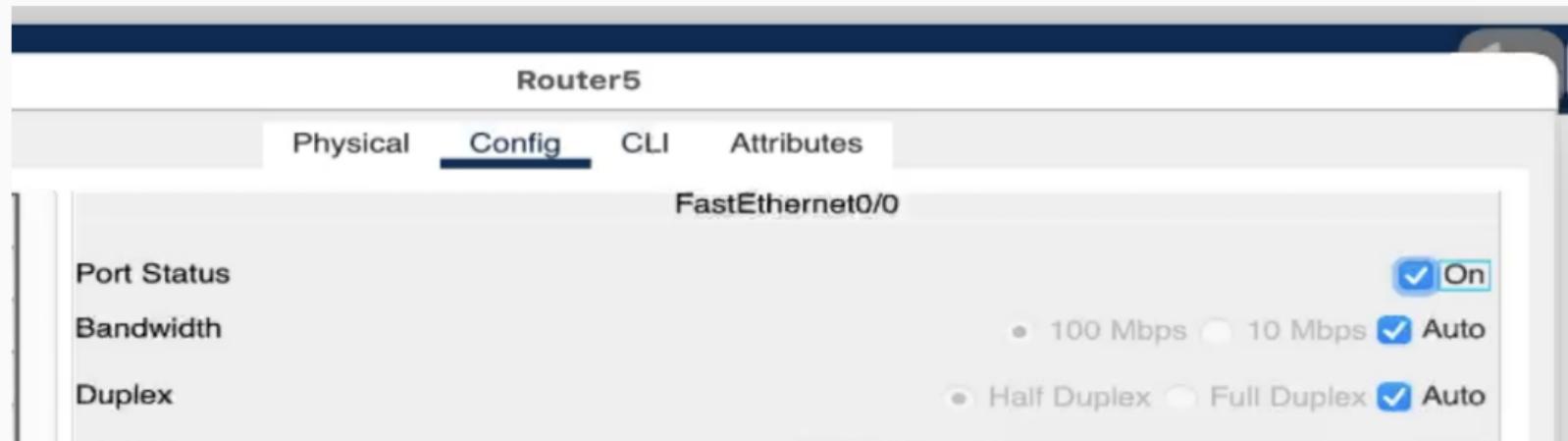


Рис. 17: такими командами

Спасибо за внимание.
