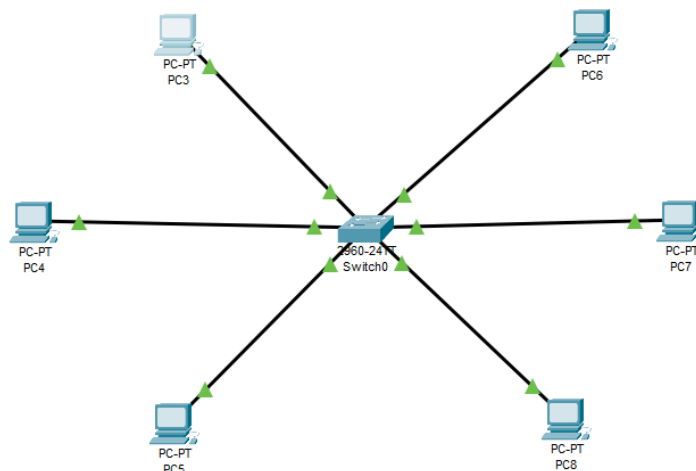
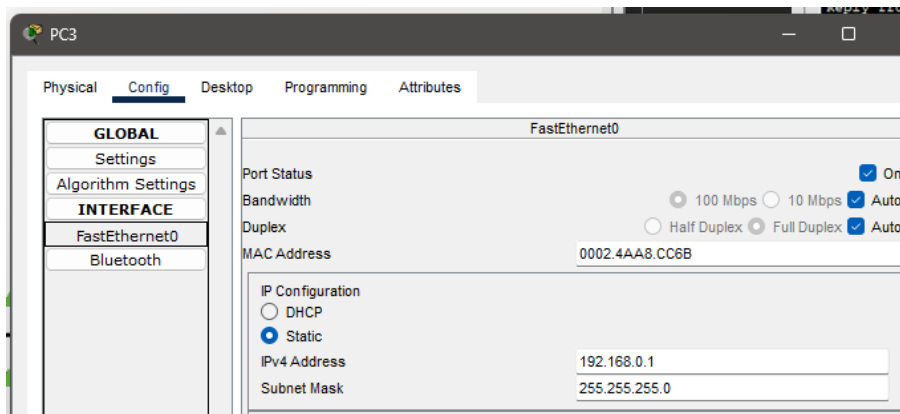
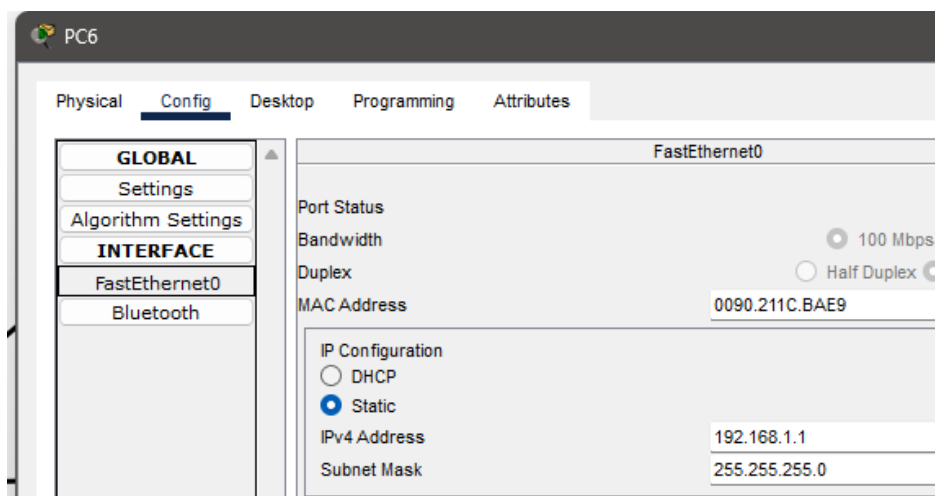


## Практическая работа 12 – настройка передачи данных между сетями на маршрутизаторе

### 1. Создаем сеть



### 2. Настраиваем две локальные сети справа и слева.



### 3. Пингуем в одну сеть и в другую.

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 192.168.0.2

Pinging 192.168.0.2 with 32 bytes of data:

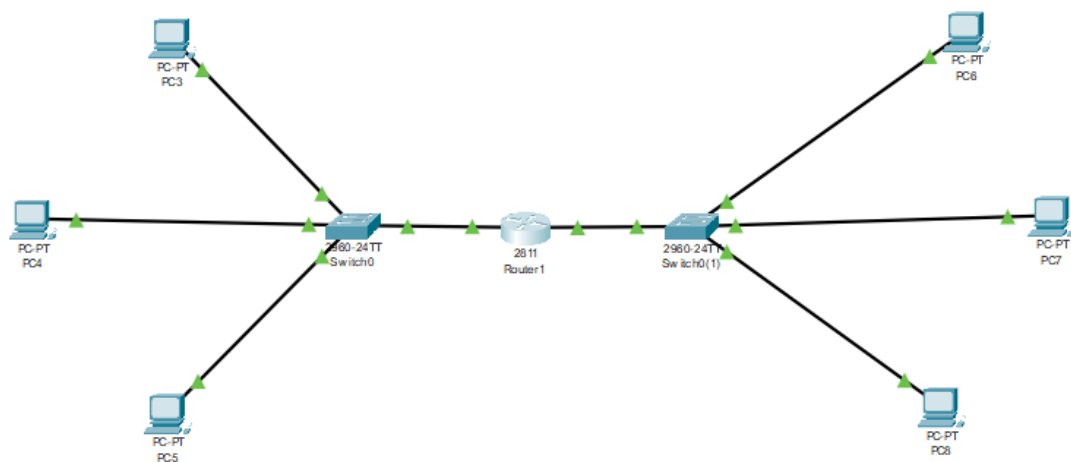
Reply from 192.168.0.2: bytes=32 time<1ms TTL=128
Reply from 192.168.0.2: bytes=32 time<1ms TTL=128
Reply from 192.168.0.2: bytes=32 time<1ms TTL=128
Reply from 192.168.0.2: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

При отправке пакетов из одной сети в другую они не доходят. Для связи двух подсетей требуется маршрутизатор.

### 4. Модифицируем сеть, добавляем роутер.



## 5. Настраиваем интерфейсы на наши сети.

Router1

Physical **Config** CLI Attributes

**GLOBAL**

- Settings
- Algorithm Settings

**ROUTING**

- Static
- RIP

**SWITCHING**

- VLAN Database

**INTERFACE**

- FastEthernet0/0
- FastEthernet0/1

**FastEthernet0/0**

Port Status ☒ On

Bandwidth ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 0001.C935.D501

IP Configuration

IPv4 Address 192.168.0.254

Subnet Mask 255.255.255.0

Tx Ring Limit 10

Router1

Physical **Config** CLI Attributes

**GLOBAL**

- Settings
- Algorithm Settings

**ROUTING**

- Static
- RIP

**SWITCHING**

- VLAN Database

**INTERFACE**

- FastEthernet0/0
- FastEthernet0/1

**FastEthernet0/1**

Port Status ☒ On

Bandwidth ☒ 100 Mbps ☐ 10 Mbps ☒ Auto

Duplex ☐ Half Duplex ☒ Full Duplex ☒ Auto

MAC Address 0001.C935.D502

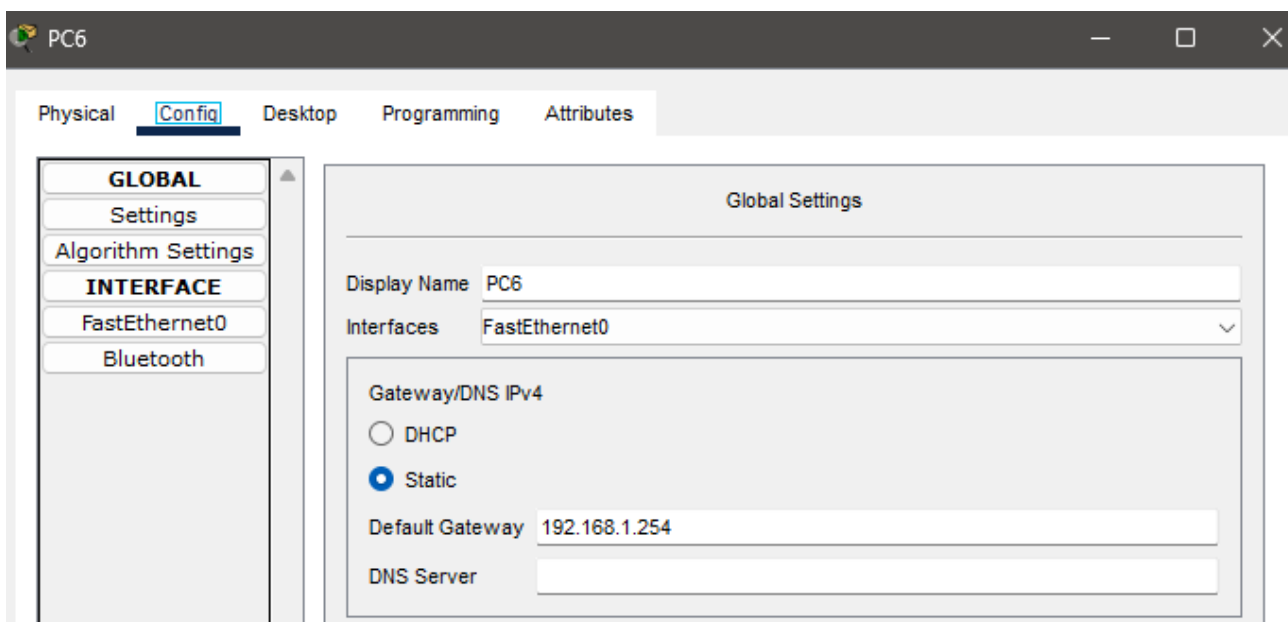
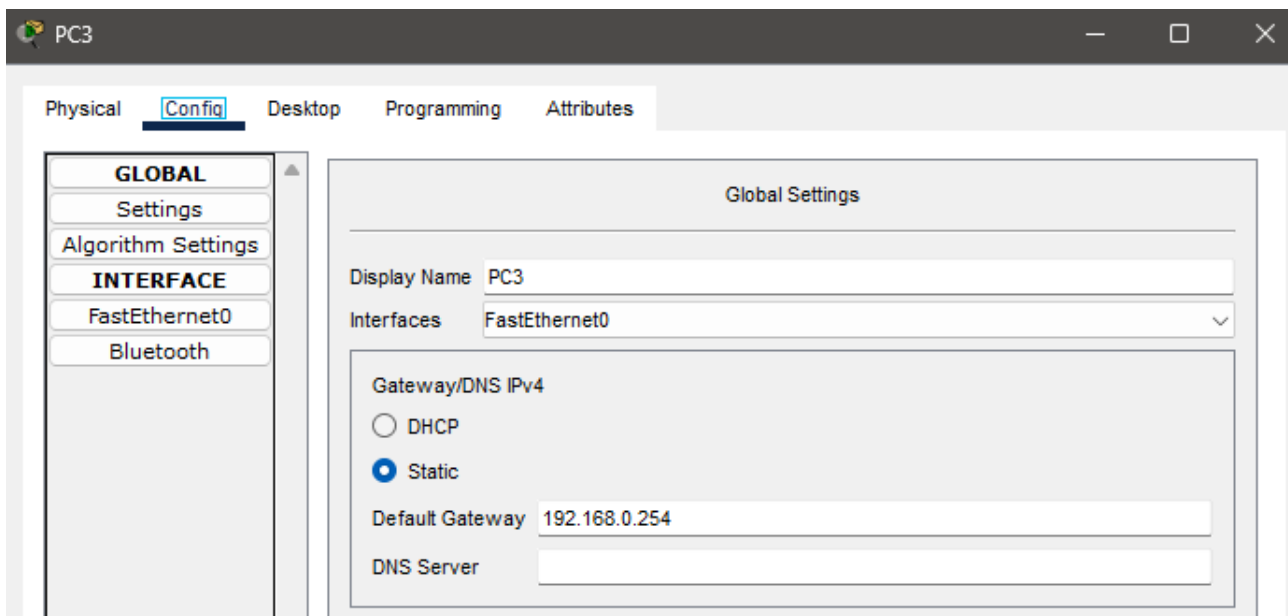
IP Configuration

IPv4 Address 192.168.1.254

Subnet Mask 255.255.255.0

Tx Ring Limit 10

## 6. Устанавливаем шлюз на устройствах



## 7. Пингуем компьютеры из роутера

```
Type escape sequence to abort.  
Sending 5, 100-byte ICMP Echos to 192.168.0.0, timeout is 2 seconds:  
  
Reply to request 0 from 192.168.0.1, 0 ms  
Reply to request 0 from 192.168.0.2, 0 ms  
Reply to request 0 from 192.168.0.3, 0 ms  
Reply to request 1 from 192.168.0.1, 0 ms  
Reply to request 1 from 192.168.0.2, 0 ms  
Reply to request 1 from 192.168.0.3, 0 ms  
Reply to request 2 from 192.168.0.1, 0 ms  
Reply to request 2 from 192.168.0.2, 0 ms  
Reply to request 2 from 192.168.0.3, 0 ms  
Reply to request 3 from 192.168.0.1, 0 ms  
Reply to request 3 from 192.168.0.2, 0 ms  
Reply to request 3 from 192.168.0.3, 0 ms  
Reply to request 4 from 192.168.0.1, 0 ms  
Reply to request 4 from 192.168.0.2, 0 ms  
Reply to request 4 from 192.168.0.3, 0 ms  
  
Router#ping 192.168.1.0  
  
Type escape sequence to abort.  
Sending 5, 100-byte ICMP Echos to 192.168.1.0, timeout is 2 seconds:  
  
Reply to request 0 from 192.168.1.1, 0 ms  
Reply to request 0 from 192.168.1.2, 0 ms  
Reply to request 0 from 192.168.1.3, 0 ms  
Reply to request 1 from 192.168.1.1, 0 ms  
Reply to request 1 from 192.168.1.2, 0 ms  
Reply to request 1 from 192.168.1.3, 0 ms  
Reply to request 2 from 192.168.1.1, 0 ms  
Reply to request 2 from 192.168.1.2, 0 ms  
Reply to request 2 from 192.168.1.3, 0 ms  
Reply to request 3 from 192.168.1.1, 0 ms  
Reply to request 3 from 192.168.1.2, 0 ms  
Reply to request 3 from 192.168.1.3, 0 ms  
Reply to request 4 from 192.168.1.1, 0 ms  
Reply to request 4 from 192.168.1.2, 0 ms  
Reply to request 4 from 192.168.1.3, 0 ms
```

## 8. Делаем пинг из одной сети в другую

```
C:\>ping 192.168.1.1  
  
Pinging 192.168.1.1 with 32 bytes of data:  
  
Reply from 192.168.1.1: bytes=32 time<1ms TTL=127  
Reply from 192.168.1.1: bytes=32 time<1ms TTL=127  
Reply from 192.168.1.1: bytes=32 time<1ms TTL=127  
Reply from 192.168.1.1: bytes=32 time=2ms TTL=127  
  
Ping statistics for 192.168.1.1:  
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),  
Approximate round trip times in milli-seconds:  
    Minimum = 0ms, Maximum = 2ms, Average = 0ms  
  
C:\>
```