

IOT

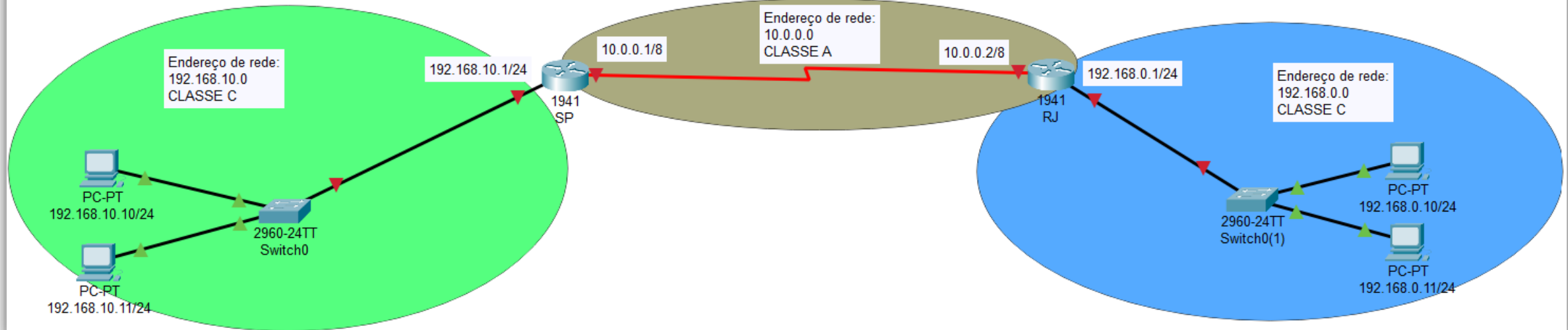
INTERNET DAS COISAS

Prof. Anderson Vanin

AULA 10 – 2 ROTEADORES – ROTA ESTÁTICA

DESENHO DA REDE – ROTEAMENTO ESTÁTICO

AQUI VAMOS CRIAR UMA ROTA ESTÁTICA COM DOIS ROTEADORES TRAFEGANDO DADOS ENTRE 3 REDES DIFERENTES



CONFIGURAÇÃO SP

ENDEREÇO DE REDE	192.168.10.0
MASCARA DE REDE	255.255.255.0
GATEWAY (GIGABIT 0/0)	192.168.10.1

ROTEADOR SP

SERIAL 0/0/0	10.0.0.1/8
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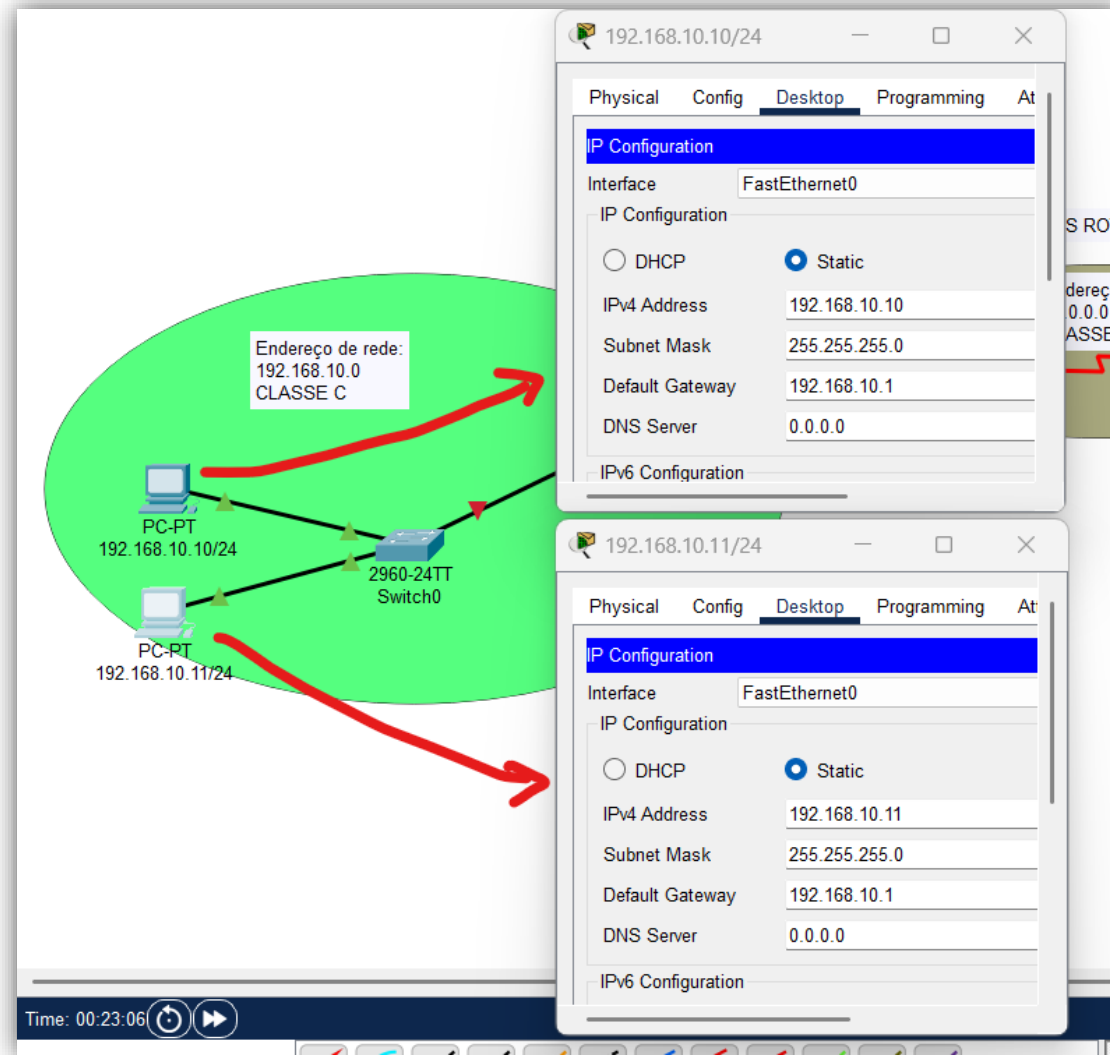
CONFIGURAÇÃO RJ

ENDEREÇO DE REDE	192.168.0.0
MASCARA DE REDE	255.255.255.0
GATEWAY (GIGABIT 0/0)	192.168.0.1

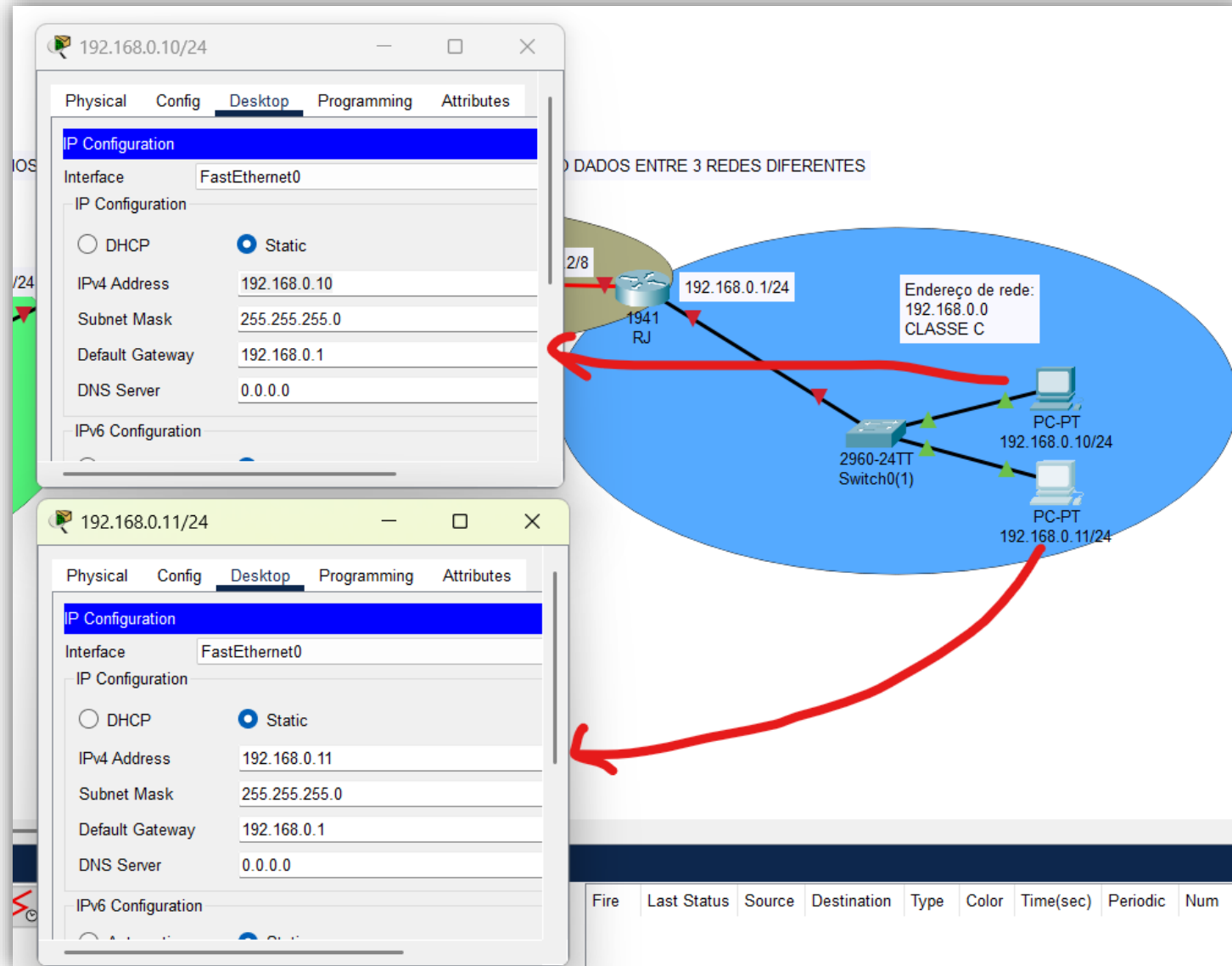
ROTEADOR RJ

SERIAL 0/0/0	10.0.0.2/8
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CONFIGURAÇÃO PC's SP



CONFIGURAÇÃO PC's RJ



CONFIGURAÇÃO ROTEADOR - SP

AQUI VAMOS CRIAR UMA

Endereço de rede:
192.168.10.0
CLASSE C

192.168.10.1/24

PC-PT
192.168.10.10/24

PC-PT
192.168.10.11/24

2960-24TT
Switch0

1941
SP

Physical Config CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

GigabitEthernet0/0

GigabitEthernet0/1

Serial0/0/0

Serial0/0/1

Serial0/1/0

Serial0/1/1

Port Status

Bandwidth 1000 Mbps 100 Mbps 10 Mbps

Duplex Half Duplex Full Duplex

MAC Address 0001.C950.2501

IP Configuration

IPv4 Address 192.168.10.1

Subnet Mask 255.255.255.0

Tx Ring Limit 10

Equivalent IOS Commands

Would you like to enter the initial configuration?

Physical Config CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

GigabitEthernet0/0

GigabitEthernet0/1

Serial0/0/0

Serial0/0/1

Global Settings

Display Name SP

Hostname SP

NVRAM Erase Save

Startup Config Load... Export...

Running Config Export... Merge...

CONFIGURAÇÃO ROTEADOR - RJ

The image illustrates the configuration of a router named 'RJ' for inter-network communication. It includes a network diagram and two screenshots of the router's configuration interface.

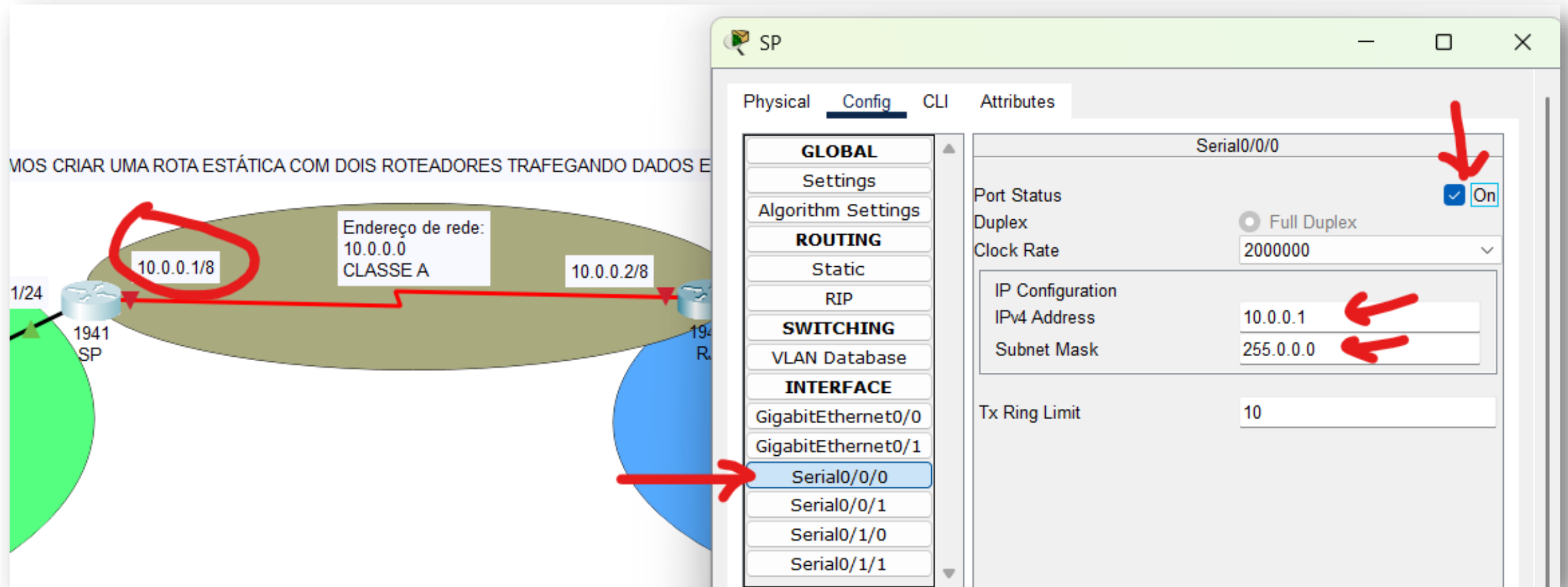
Network Diagram: A central router labeled 'RJ' is connected to a network with IP address '192.168.0.1/24'. This network is connected to a switch labeled '2960-24TT Switch0(1)', which is then connected to two PCs labeled 'PC-PT' with IP addresses '192.168.0.10/24' and '192.168.0.11/24'. A text box indicates 'Endereço de rede: 192.168.0.0 CLASSE C'. A red circle highlights the router's IP address '192.168.0.1/24'. A red arrow points from the router to the configuration interface.

Router Configuration Interface (Left Screenshot): The 'Config' tab is selected. The 'GigabitEthernet0/0' interface is highlighted in the left sidebar. The 'IP Configuration' section shows the 'IPv4 Address' set to '192.168.0.1' and the 'Subnet Mask' set to '255.255.255.0'. Red arrows point to these fields. The 'Port Status' section shows 'On' and 'Auto' for bandwidth and duplex. The 'Equivalent IOS Commands' section shows 'email to export@cisco.com.'.

Router Configuration Interface (Right Screenshot): The 'Config' tab is selected. The 'Global Settings' section is highlighted in the left sidebar. The 'Display Name' and 'Hostname' fields are both set to 'RJ'. The 'NVRAM' section shows 'Erase' and 'Save' buttons. The 'Startup Config' section shows 'Load...' and 'Export...' buttons. The 'Running Config' section shows 'Export...' and 'Merge...' buttons. Red arrows point to the 'Display Name', 'Hostname', and 'Save' buttons.

CONFIG. PLACA SERIAL SP → RJ (NO ROUTER DE SP)

MOS CRIAR UMA ROTA ESTÁTICA COM DOIS ROTEADORES TRAFEGANDO DADOS E



The image shows a network diagram on the left and a router configuration window on the right. The diagram illustrates a connection between two routers, labeled '1941 SP' and '1941 RJ'. A red line represents a static route between them, passing through a central cloud-like area. Inside this area, a box specifies 'Endereço de rede: 10.0.0.0 CLASSE A'. Two IP addresses are highlighted with red circles: '10.0.0.1/8' on the left and '10.0.0.2/8' on the right. The configuration window on the right is titled 'SP' and has tabs for 'Physical', 'Config', 'CLI', and 'Attributes'. The 'Config' tab is active, showing a sidebar with categories: 'GLOBAL' (Settings, Algorithm Settings), 'ROUTING' (Static, RIP), 'SWITCHING' (VLAN Database), and 'INTERFACE'. Under the 'INTERFACE' category, 'Serial0/0/0' is selected. The main area shows the configuration for 'Serial0/0/0'. The 'Port Status' is set to 'On' (indicated by a red arrow). The 'Duplex' is set to 'Full Duplex'. The 'Clock Rate' is set to '2000000'. The 'IP Configuration' section shows the 'IPv4 Address' set to '10.0.0.1' and the 'Subnet Mask' set to '255.0.0.0' (both indicated by red arrows). The 'Tx Ring Limit' is set to '10'.

Endereço de rede:
10.0.0.0
CLASSE A

10.0.0.1/8

10.0.0.2/8

1941 SP

1941 RJ

Serial0/0/0

Serial0/0/1

Serial0/1/0

Serial0/1/1

Serial0/0/0

Port Status ☒ On

Duplex ☐ Full Duplex

Clock Rate 2000000

IP Configuration

IPv4 Address 10.0.0.1

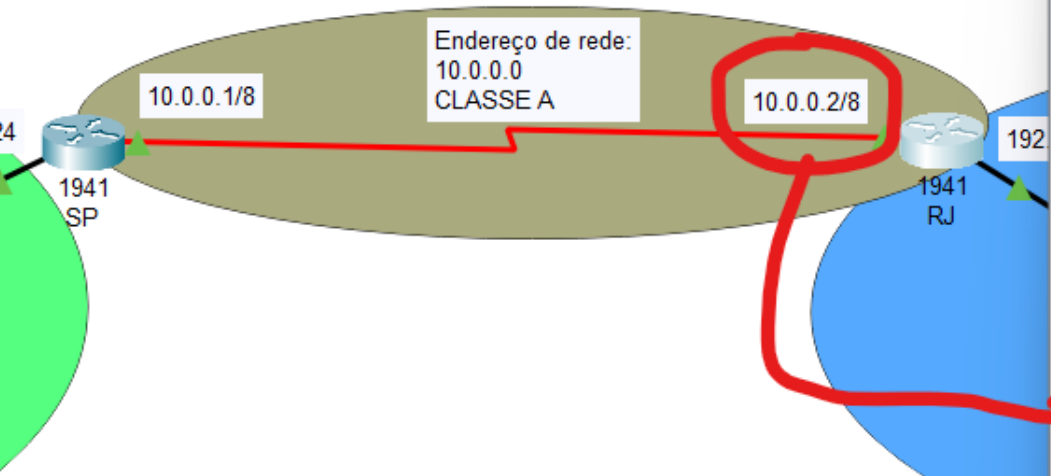
Subnet Mask 255.0.0.0

Tx Ring Limit 10

OBS.: NÃO SE ESQUEÇA DE IR PARA O MENU SETTINGS E CLICAR EM SAVE EM NVRAM

CONFIG. PLACA SERIAL RJ → SP (NO ROUTER DE RJ)

OS CRIAR UMA ROTA ESTÁTICA COM DOIS ROTEADORES TRAFEGANDO DADOS ENTRE 3 P



Endereço de rede:
10.0.0.0
CLASSE A

10.0.0.1/8

10.0.0.2/8

1941 SP

1941 RJ

Serial0/0/0

Port Status ☒ On

Duplex ☐ Full Duplex

Clock Rate 1200

IP Configuration

IPv4 Address 10.0.0.2

Subnet Mask 255.0.0.0

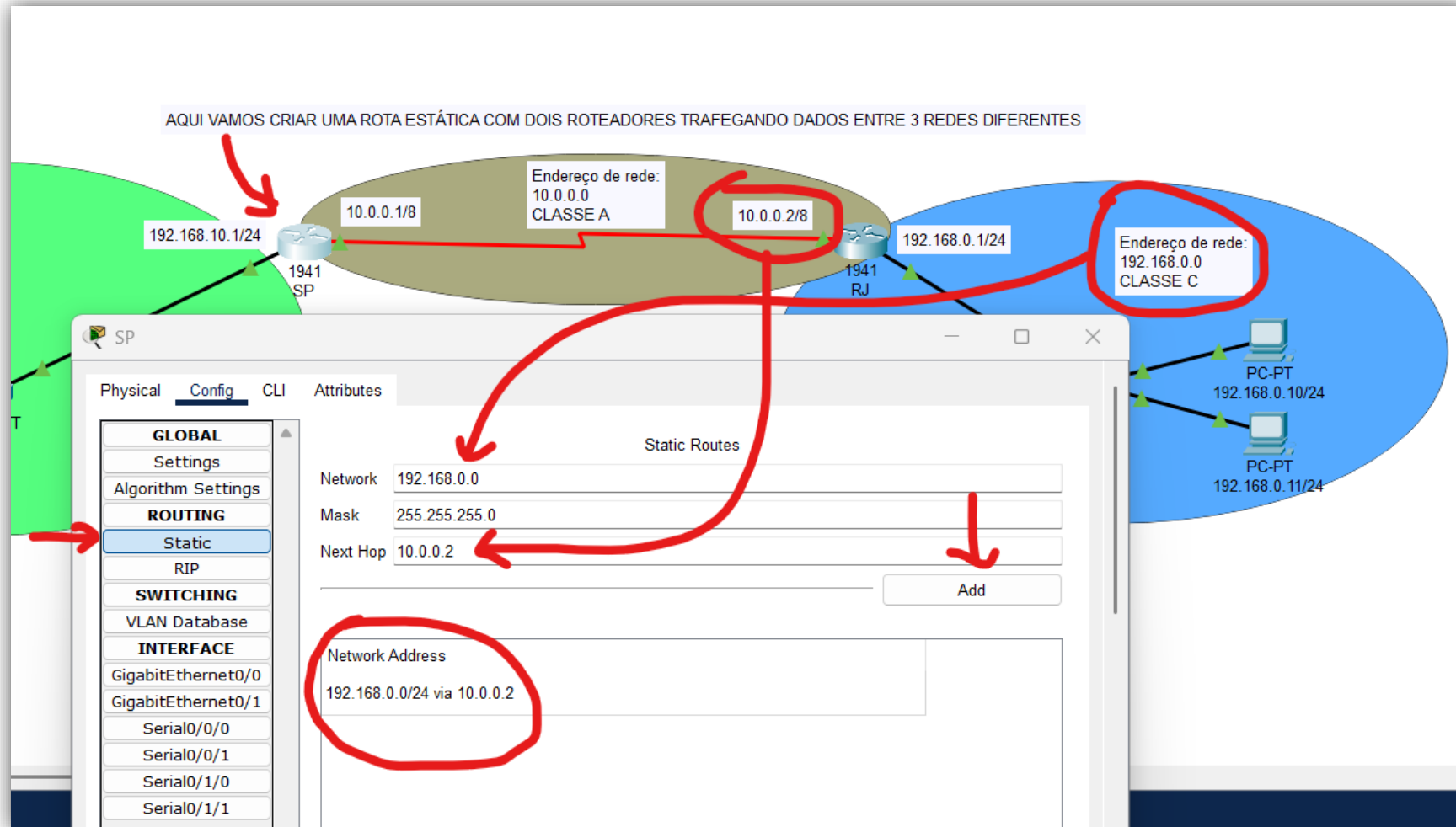
Tx Ring Limit 10

Equivalent IOS Commands

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface  
GigabitEthernet0/0, changed state to up
```

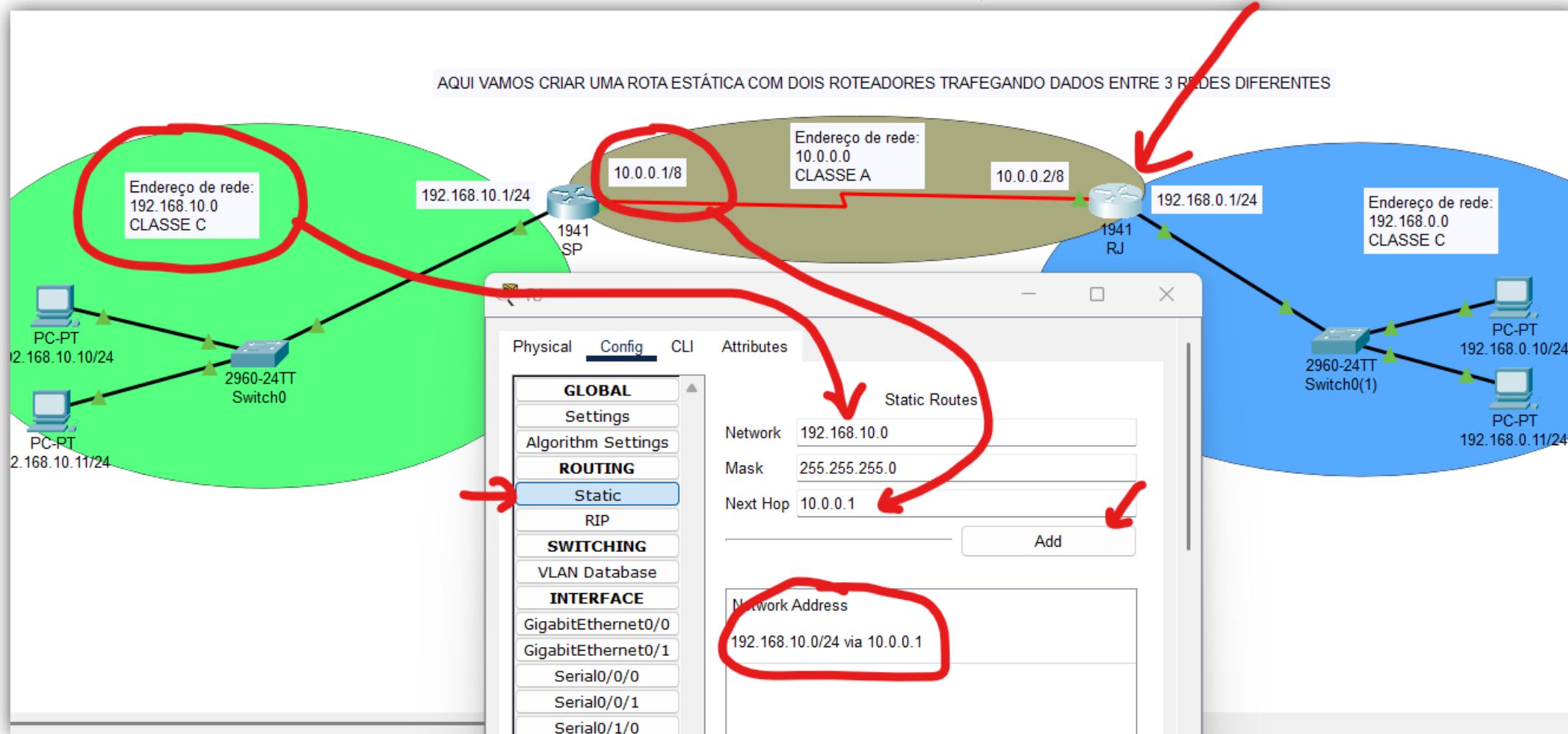
OBS.: NÃO SE ESQUEÇA DE IR PARA O MENU SETTINGS E CLICAR EM SAVE EM NVRAM

CONFIG. ROTA ESTÁTICA SP → RJ (NO ROUTER DE SP)



OBS.: NÃO SE ESQUEÇA DE IR PARA O MENU SETTINGS E CLICAR EM SAVE EM NVRAM

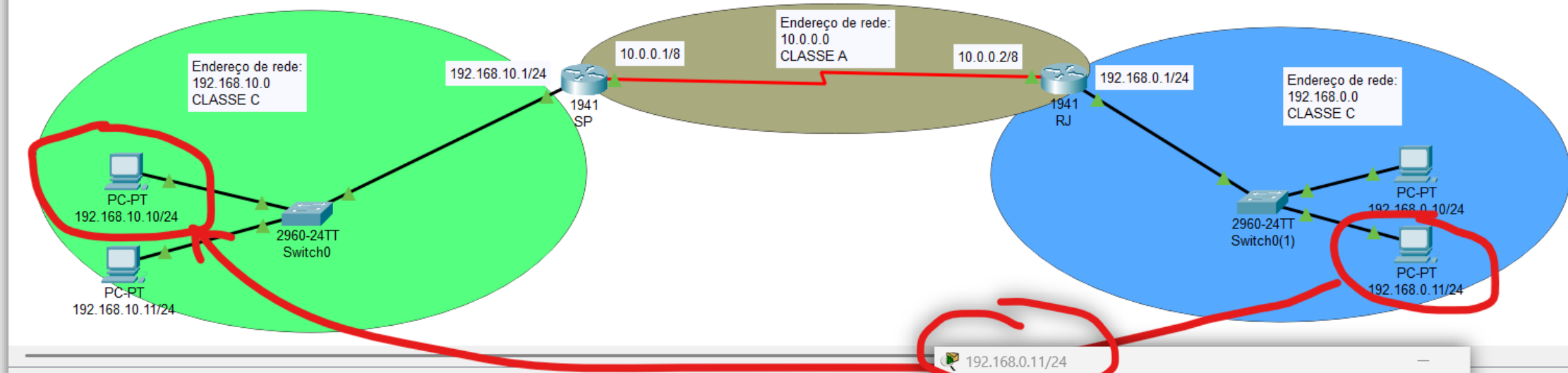
CONFIG. ROTA ESTÁTICA RJ → SP (NO ROUTER DE RJ)



OBS.: NÃO SE ESQUEÇA DE IR PARA O MENU SETTINGS E CLICAR EM SAVE EM NVRAM

Realize os testes entre as redes com PING e TRACERT

AQUI VAMOS CRIAR UMA ROTA ESTÁTICA COM DOIS ROTEADORES TRAFEGANDO DADOS ENTRE 3 REDES DIFERENTES



PDU List Window

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	192.168.10.10/24	192.168.0.10/24	ICMP		0.000	N	0	(edit)	
	Successful	192.168.0.11/24	192.168.10.10/24	ICMP		0.000	N	1	(edit)	

192.168.0.11/24

Physical Config Desktop Programming Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.10.10

Pinging 192.168.10.10 with 32 bytes of data:

Reply from 192.168.10.10: bytes=32 time=13ms TTL=126
Reply from 192.168.10.10: bytes=32 time=1ms TTL=126
Reply from 192.168.10.10: bytes=32 time=1ms TTL=126
Reply from 192.168.10.10: bytes=32 time=8ms TTL=126

Ping statistics for 192.168.10.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 13ms, Average = 5ms

C:\>
```

Realize os testes entre as redes com PING e TRACERT

AQUI VAMOS CRIAR UMA ROTA ESTÁTICA COM DOIS ROTEADORES TRAFEGANDO DADOS ENTRE 3 REDES DIFERENTES

