

Criar a topologia Abaixo



Figura 01: Topologia de Estudo

Tabelas de endereçamento

Dispositivo	Interface	DCE/DTE	Endereço IP	Máscara de Sub-rede	Gateway Padrão
CAMPO_GRANDE	Fa0/0	-	192.168.100.1	255.255.255.0	
	S0/0/0	DCE	192.168.10.1	255.255.255.252	
CORUMBA	Fa0/0	-	192.168.50.1	255.255.255.0	
	S0/0/0	DTE	192.168.10.2	255.255.255.252	
PC - CG	ETH0	-	192.168.100.2	255.255.255.0	192.168.100.1
PC - CORUMBA	ETH0	-	192.168.50.2	255.255.255.0	192.168.50.1

Comandos básicos de configuração a serem utilizados para a configuração de um Router:

Comando	Comentários
router>ena	Entra no modo de SuperUsuário
router#	Modo de SuperUsuário
router#conf t	Entra no Modo de configuração
router(config)#hostname XXXX	Seta um nome de Host
XXXX (config)#line vty 0 4	Entra na Conf. De Senha de Telnet
XXXX (config-line)#password cisco	Seta uma Senha para Console
XXXX (config-line)#login	Ativa a senha
XXXX (config-line)#exit	Volta um nível
XXXX (config)#enable secret cisco	Seta Uma senha de SuperUsuário
XXXX (config)#line console 0	Entra no modo de Console
XXXX (config-line)#password cisco	Senha uma senha de console
XXXX (config-line)#login	Ativa a senha
XXXX (config-line)#exit	Volta um nível
XXXX (config)#service password-encryption	Criptografa todas as senhas
XXXX (config)#ctrl+Z	Sai do modo de configuração
xxxx #copy running-config startup-config	Copia as Configurações correntes para a nvram
Destination filename [startup-config]?	Define o Nome do Arquivo a ser copiado

Comandos para a visualização de dados:

Comando	Comentários
nome#show interfaces	Mostra a configuração das interfaces
nome#show running-config	Mostra as configurações armazenadas na memória RAM

Comandos para a configuração do PPP

Comando	Comentários
nome# configure terminal	Acessa o modo de configuração
nome(config)# interface serial 0/0/0	Acessa a interface serial
nome(config)# clock rate xxx	Gera a velocidade do link
nome# encapsulation ppp	Define o tipo de encapsulamento
nome# no shutdown	

Configurando o **Campo Grande**

- Configurando o básico no roteador

```
Router>ena
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname R1
R1(config)#line vty 0 4
R1(config-line)#password cisco
R1(config-line)#login
R1(config-line)#exit
R1(config)#enable secret cisco
R1(config)#line console 0
R1(config-line)#password cisco
R1(config-line)#login
R1(config-line)#exit
R1(config)#service password-encryption
R1(config)# no ip domain-lookup
```

- Configurando a interface Fastethernet

```
R1(config)#interface fastEthernet 0/0
R1(config-if)#ip address 192.168.100.1 255.255.255.0
R1(config-if)#no shutdown
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
R1(config-if)#exit
```

- Configurando a Interface Serial 0/0/0 como DCE com uma velocidade de 64 Kbps

```
R1(config)#interface serial 0/0/0
R1(config-if)#ip address 192.168.10.1 255.255.255.252
R1(config-if)#encapsulation ppp
R1(config-if)#clock rate 64000
R1(config-if)#no shutdown
R1(config-if)#exit
```

- Salvando as configurações

```
R1#copy running-config startup-config
```

Destination filename [startup-config]?
Building configuration...
[OK]
R1#

Configurando a máquina na interface LAN

Physical Config Desktop Software/Services

IP Configuration X

☐ DHCP
☒ Static

IP Address 192.168.100.2
Subnet Mask 255.255.255.0
Default Gateway 192.168.100.1
DNS Server

Configurando o **Corumba**

- Configurando o básico no roteador

```
R2>ena
R2#conf t
Enter configuration commands, one per line. End with CNTL/Z.
R2(config)#hostname R2
R2(config)#line vty 0 4
R2(config-line)#password cisco
R2(config-line)#login
R2(config-line)#exit
R2(config)#enable secret cisco
R2(config)#line console 0
R2(config-line)#password cisco
R2(config-line)#login
R2(config-line)#exit
R2(config)#service password-encryption
R2(config)# no ip domain-lookup
```

- **Configurando a interface Fastethernet**

```
R2(config)#interface fastEthernet 0/0
R2(config-if)#ip address 192.168.50.1 255.255.255.0
R2(config-if)#no shutdown
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
R1(config-if)#exit
```

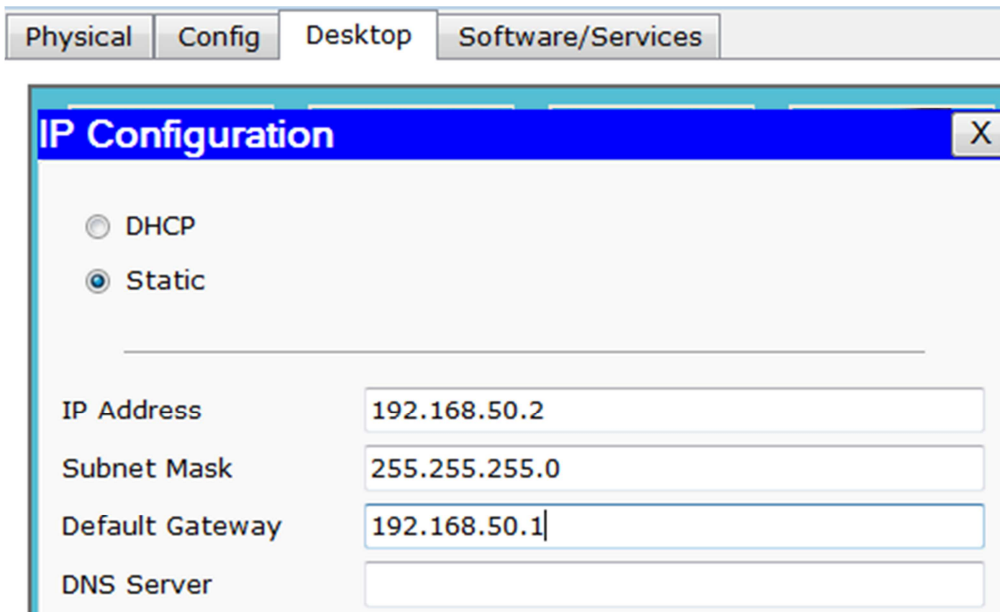
- **Configurando a interface Serial 0/0/0**

```
R2(config)#interface serial 0/0/0
R2(config-if)#ip address 192.168.10.2 255.255.255.252
R2(config-if)#encapsulation ppp
R2(config-if)#no shutdown
R2(config-if)#ctrl^Z
```

- **Salvando as configurações**

```
R2#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
R2#
```

Configurando o end. IP da máquina de Corumbá



Physical Config Desktop Software/Services

IP Configuration [X]

☐ DHCP
☒ Static

IP Address: 192.168.50.2
Subnet Mask: 255.255.255.0
Default Gateway: 192.168.50.1
DNS Server:

Testando

Do Computador de Campo Grande para o computador de Corumbá

```
PC>ping 192.168.50.2

Pinging 192.168.50.2 with 32 bytes of data:

Reply from 192.168.100.1: Destination host unreachable.
Reply from 192.168.100.1: Destination host unreachable.
Reply from 192.168.100.1: Destination host unreachable.
Reply from 192.168.100.1: Destination host unreachable.

Ping statistics for 192.168.50.2:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

Do Computador de Corumbá para o computador de Campo Grande

```
PC>ping 192.168.100.2

Pinging 192.168.100.2 with 32 bytes of data:

Reply from 192.168.50.1: Destination host unreachable.
Reply from 192.168.50.1: Destination host unreachable.
Reply from 192.168.50.1: Destination host unreachable.
Reply from 192.168.50.1: Destination host unreachable.
```

Configurar as tabelas de roteamento dos roteadores

- Configurando a tabela de roteamento do Roteador Campo Grande

```
R1#conf t
R1(config)#ip route 192.168.50.0 255.255.255.0 192.168.10.2
R1(config)#exit~
R1#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
R2#
```

- Configurando a tabela de roteamento do Roteador Corumbá

```
R2#conf t
R2(config)#ip route 192.168.100.0 255.255.255.0 192.168.10.1
R2(config)#exit
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/0/0, changed state to up
Exit
R2#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
R2#
```


Realizadas estas alterações os computadores irão conseguir se comunicar entre si

Do Computador de Campo Grande para o computador de Corumbá

```
PC>ping 192.168.50.2

Pinging 192.168.50.2 with 32 bytes of data:

Reply from 192.168.50.2: bytes=32 time=156ms TTL=126
Reply from 192.168.50.2: bytes=32 time=141ms TTL=126
Reply from 192.168.50.2: bytes=32 time=141ms TTL=126
Reply from 192.168.50.2: bytes=32 time=156ms TTL=126

Ping statistics for 192.168.50.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 141ms, Maximum = 156ms, Average = 148ms
```

Do Computador de Corumbá para o computador de Campo Grande

```
PC>ping 192.168.100.2

Pinging 192.168.100.2 with 32 bytes of data:

Reply from 192.168.100.2: bytes=32 time=156ms TTL=126
Reply from 192.168.100.2: bytes=32 time=125ms TTL=126
Reply from 192.168.100.2: bytes=32 time=125ms TTL=126
Reply from 192.168.100.2: bytes=32 time=143ms TTL=126

Ping statistics for 192.168.100.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 125ms, Maximum = 156ms, Average = 137ms
```