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Curso Técnico em Redes de Computadores

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Cássio de Albuquerque

Comutação de Redes

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Configuração do SWITCH

Atividade Proposta

1.SA2 – Atividade1 – EAD A empresa Órion, terceirizada no ramo de TI, foi contratada para instalar equipamentos de redundância, nos laboratórios de treinamento dos Observatórios de Astronomia de São Paulo, e para tanto, você, técnico de redes desta empresa, foi designado para, através do panorama dado, analisar a situação e testar através do spanning-tree, os seguintes critérios: -

- Porta raiz;
- Porta Designada;
- Porta não-designada;
- Porta Desabilitada.

No cenário apresentado temos 4 Switches Multicamada .

Todos apresentam as seguintes conexões padrão:

Fa0/1 -> Fa0/2;

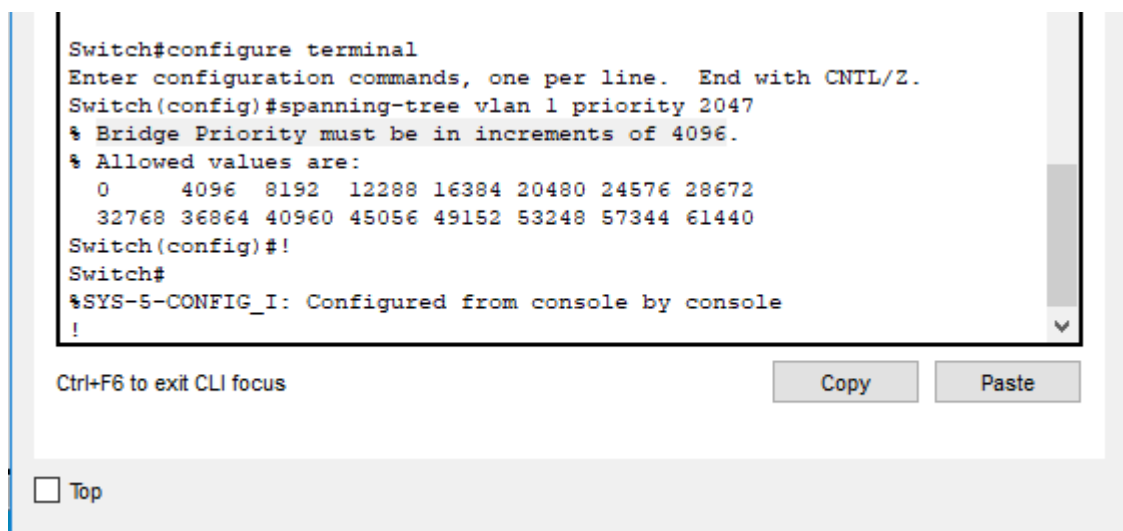
Fa0/3 -> Fa0/4;

Fa0/5 -> Fa0/6.

As próximas questões serão usadas para configurar o Switch 3.

1 - Modifique a prioridade do Switch para 2047. Salve as alterações. O que aconteceu? Quantas opções foram dadas?

Ao tentar modificar a prioridade da Bridge para 2047, o console apresenta uma mensagem erro, informando que a prioridade da ponte deve ser configurada com incrementos a partir de 4096. Após, é apresentada uma lista com 15 possíveis valores.



```
Switch#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#spanning-tree vlan 1 priority 2047
% Bridge Priority must be in increments of 4096.
% Allowed values are:
   0      4096  8192  12288  16384  20480  24576  28672
 32768  36864  40960  45056  49152  53248  57344  61440
Switch(config)#
Switch#
%SYS-5-CONFIG_I: Configured from console by console
!
```

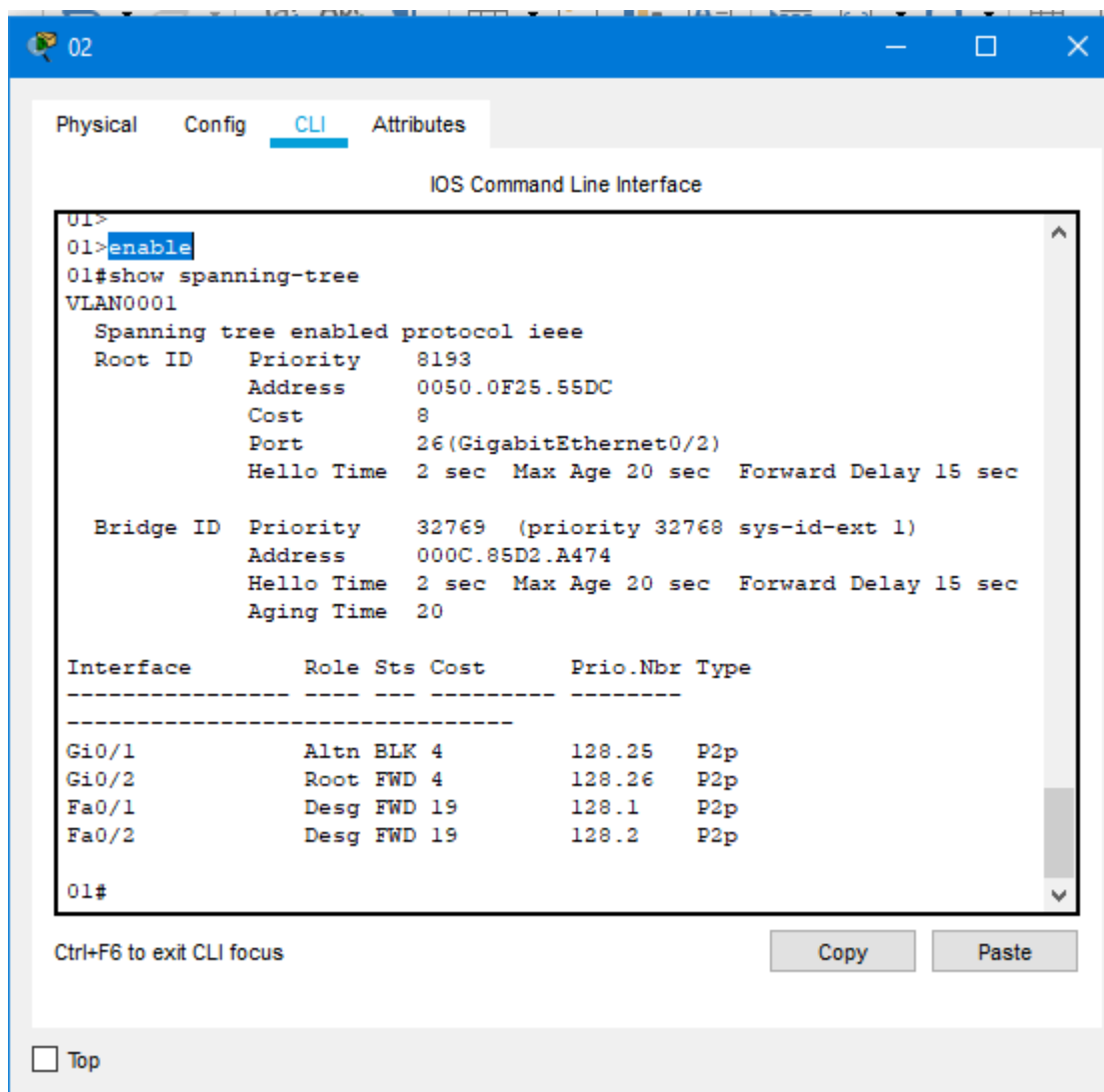
Ctrl+F6 to exit CLI focus

Copy Paste

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2 - No Switch, altere a prioridade para 8192. Salve as alterações. O que aconteceu? Printe a resposta. Quais são as portas raiz, designadas, não-designadas e desabilitadas?

Foi designado o Switch principal com as portas raiz Gi0/2, designadas Fa 0/1 e Fa 0/2 e não designada Gi 0/1



The screenshot shows a network switch's Command Line Interface (CLI) window. The window has tabs for Physical, Config, CLI (selected), and Attributes. The CLI window displays the following commands and output:

```
01>enable
01#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    8193
            Address     0050.0F25.55DC
            Cost        8
            Port        26(GigabitEthernet0/2)
            Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec

  Bridge ID  Priority    32769 (priority 32768 sys-id-ext 1)
            Address     000C.85D2.A474
            Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec
            Aging Time  20
```

Interface	Role	Sts	Cost	Prio.	Nbr	Type
Gi0/1	Altn	BLK	4	128.25		P2p
Gi0/2	Root	FWD	4	128.26		P2p
Fa0/1	Desg	FWD	19	128.1		P2p
Fa0/2	Desg	FWD	19	128.2		P2p

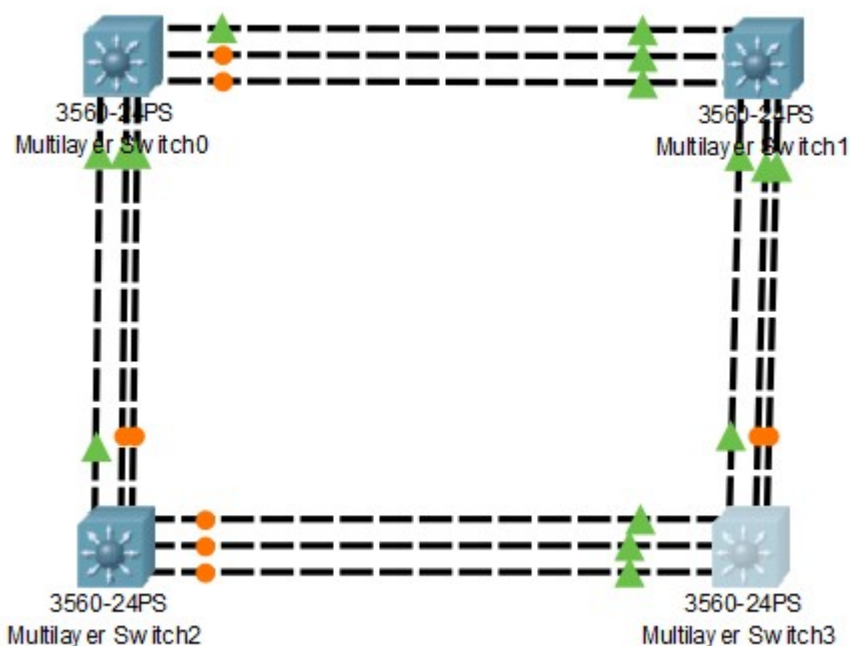
01#

Ctrl+F6 to exit CLI focus

Copy Paste

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3 - Entre no modo CLI do Switch, e execute o comando "no spanning-tree vlan 1".
Salve as alterações. O que aconteceu? Printe a resposta.
O protocolo fez a alteração do Switch raiz e as portas correspondentes.



Multilayer Switch0

Physical Config **CLI** Attributes

IOS Command Line Interface

```
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority      8193
            Address      00E0.A383.0325
            Cost         19
            Port         2 (FastEthernet0/2)
            Hello Time   2 sec  Max Age 20 sec  Forward Delay 15 sec

  Bridge ID  Priority      32769 (priority 32768 sys-id-ext 1)
            Address      0001.C740.0C89
            Hello Time   2 sec  Max Age 20 sec  Forward Delay 15 sec
            Aging Time   20

Interface   Role Sts Cost      Prio.Nbr Type
-----
Fa0/1       Desg FWD 19       128.1     P2p
Fa0/3       Desg FWD 19       128.3     P2p
Fa0/2       Root FWD 19       128.2     P2p
Fa0/4       Altn BLK 19       128.4     P2p
Fa0/5       Desg FWD 19       128.5     P2p
Fa0/6       Altn BLK 19       128.6     P2p

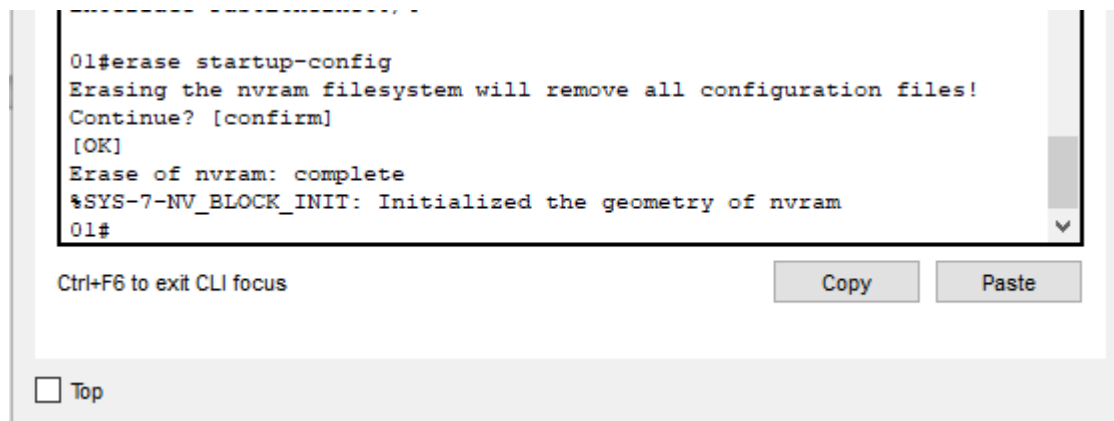
Switch#
```

Ctrl+F6 to exit CLI focus

Copy Paste

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4 - Coloque o Switch no padrão através dos comandos. Salve as alterações. O que aconteceu? Printe a resposta

A screenshot of a network switch's command-line interface (CLI) window. The window has a title bar and a scrollable text area. The text area contains the following text: 'Ol#erase startup-config', 'Erasing the nvram filesystem will remove all configuration files!', 'Continue? [confirm]', '[OK]', 'Erase of nvram: complete', '%SYS-7-NV_BLOCK_INIT: Initialized the geometry of nvram', and 'Ol#'. Below the text area, there is a status bar with the text 'Ctrl+F6 to exit CLI focus' on the left, and two buttons labeled 'Copy' and 'Paste' on the right. At the bottom left of the window, there is a checkbox labeled 'Top' which is currently unchecked.

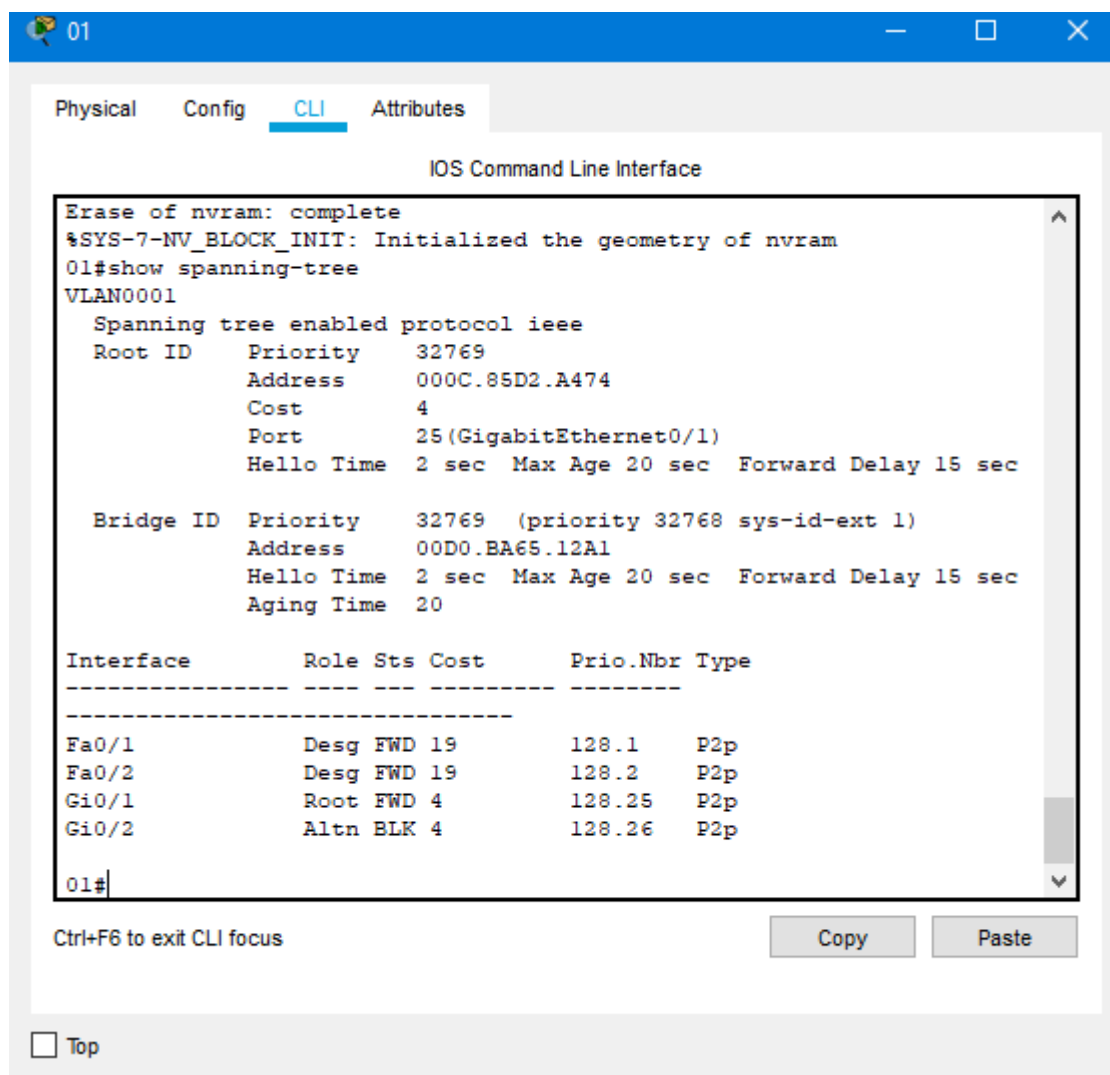
```
Ol#erase startup-config
Erasing the nvram filesystem will remove all configuration files!
Continue? [confirm]
[OK]
Erase of nvram: complete
%SYS-7-NV_BLOCK_INIT: Initialized the geometry of nvram
Ol#
```

Ctrl+F6 to exit CLI focus

Copy Paste

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5- Entre no modo CLI nos Switches 1 e 3 e configure as penúltimas prioridades. 5- Após executar o descrito acima, salve as alterações. O que aconteceu? Printe a resposta. Quais são as portas raiz, designadas, não-designadas e desabilitadas?



The screenshot shows a network switch's CLI interface. The command `show spanning-tree` has been executed for VLAN0001, displaying the following information:

```
Erase of nvram: complete
%SYS-7-NV_BLOCK_INIT: Initialized the geometry of nvram
01#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
            Address    000C.85D2.A474
            Cost        4
            Port        25 (GigabitEthernet0/1)
            Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec

  Bridge ID  Priority    32769 (priority 32768 sys-id-ext 1)
            Address    00D0.BA65.12A1
            Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec
            Aging Time  20
```

Interface	Role	Sts	Cost	Prio.Nbr	Type
Fa0/1	Desg	FWD	19	128.1	P2p
Fa0/2	Desg	FWD	19	128.2	P2p
Gi0/1	Root	FWD	4	128.25	P2p
Gi0/2	Altn	BLK	4	128.26	P2p

The CLI prompt is `01#`. Below the output, there is a note: "Ctrl+F6 to exit CLI focus" and buttons for "Copy" and "Paste".