

## SA2 ATIVIDADE 2 – VLAN / SWITCH MULTICAMADAS

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

Ao dar o comando `spanning-tree vlan 1 priority 2047`, foi informado que a prioridade da ponte deve ser em incrementos de 4096 (Bridge Priority must be in increments of 4096) e as opções dadas foram 0; 4096; 8192; 12288; 16384; 20480; 24576; 28672; 32768; 36864; 40960; 45056; 49152; 53248; 57344; 61440.

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?

Antes da alteração da prioridade para 8192:

```
Switch#sh sp
```

```
VLAN0001
```

```
Spanning tree enabled protocol ieee
```

```
Root ID Priority 32769
```

```
Address 0003.E42E.D8EE
```

```
Cost 19
```

```
Port 1(FastEthernet0/1)
```

```
Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
```

```
Bridge ID Priority 32769 (priority 32768 sys-id-ext 1)
```

```
Address 0060.2F55.7E23
```

```
Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
```

```
Aging Time 20
```

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

Após a alteração da prioridade para 8192:

```
Switch(config)#spanning-tree vlan 1 priority 8192
```

```
Switch#sh sp
```

```
VLAN0001
```

```
Spanning tree enabled protocol ieee
```

```
Root ID Priority 8193
```

```
Address 0060.2F55.7E23
```

```
This bridge is the root
```

```
Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
```

```
Bridge ID Priority 8193 (priority 8192 sys-id-ext 1)
```

```
Address 0060.2F55.7E23
```

```
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  |
| Fa0/3     | Desg LSN 19   | 128.3    | P2p  |
| Fa0/4     | Desg FWD 19   | 128.4    | P2p  |
| Fa0/5     | Desg LSN 19   | 128.5    | P2p  |
| Fa0/6     | Desg FWD 19   | 128.6    | P2p  |

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.

Após a execução do comando no spanning-tree vlan 1, não existe mais nenhuma instância de spanning-tree

```
Switch(config)#no spanning-tree vlan 1
```

```
Switch(config)#exit
```

```
Switch#
```

```
%SYS-5-CONFIG_I: Configured from console by console
```

```
Switch#sh sp
```

```
No spanning tree instance exists.
```

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

```
Switch(config)#spanning-tree vlan 1
```

```
Switch(config)#spanning-tree vlan 1 priority 32768
```

```
Switch(config)#exit
```

```
Switch#
```

```
%SYS-5-CONFIG_I: Configured from console by console
```

```
Switch#sh sp
```

```
VLAN0001
```

```
Spanning tree enabled protocol ieee
```

```
Root ID Priority 32769
```

```
Address 0003.E42E.D8EE
```

```
Cost 19
```

```
Port 1(FastEthernet0/1)
```

```
Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
```

```
Bridge ID Priority 32769 (priority 32768 sys-id-ext 1)
```

```
Address 0060.2F55.7E23
```

```
Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
```

```
Aging Time 20
```

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

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?

Antes do comando de alterar a prioridade no Switch 1:

Switch#sh sp

VLAN0001

Spanning tree enabled protocol ieee

Root ID Priority 32769

Address 0003.E42E.D8EE

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 0090.0C96.5E03

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     | Root FWD 19   | 128.2    | P2p  |
| Fa0/3     | Desg FWD 19   | 128.3    | 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  |

Após executar o comando de alterar a prioridade no Switch 1:

Switch(config)#spanning-tree vlan 1 priority 57344

Switch(config)#exit

Switch#

%SYS-5-CONFIG\_I: Configured from console by console

sh sp

VLAN0001

Spanning tree enabled protocol ieee

Root ID Priority 32769

Address 0003.E42E.D8EE

Cost 19

Port 2(FastEthernet0/2)

Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec

Bridge ID Priority 57345 (priority 57344 sys-id-ext 1)

Address 0090.0C96.5E03

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     | Root FWD 19   | 128.2    | P2p  |
| Fa0/3     | Desg FWD 19   | 128.3    | 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  |

Antes do comando de alterar a prioridade no Switch 3:

Switch(config)#do sh sp

VLAN0001

Spanning tree enabled protocol ieee

Root ID Priority 32769

Address 0003.E42E.D8EE

Cost 19

Port 1(FastEthernet0/1)

Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec

Bridge ID Priority 32769 (priority 32768 sys-id-ext 1)

Address 0060.2F55.7E23

Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec

Aging Time 20

| Interface | Role Sts Cost | Prio.Nbr | Type |
|-----------|---------------|----------|------|
| Fa0/1     | Root FWD 19   | 128.1    | P2p  |
| Fa0/2     | Desg FWD 19   | 128.2    | P2p  |

|       |             |       |     |
|-------|-------------|-------|-----|
| Fa0/3 | Altn BLK 19 | 128.3 | P2p |
| Fa0/4 | Desg FWD 19 | 128.4 | P2p |
| Fa0/5 | Altn BLK 19 | 128.5 | P2p |
| Fa0/6 | Desg FWD 19 | 128.6 | P2p |

Após executar o comando de alterar a prioridade no Switch 3:

```
Switch(config)#spanning-tree vlan 1 priority 57344
```

```
Switch(config)#do sh sp
```

```
VLAN0001
```

```
Spanning tree enabled protocol ieee
```

```
Root ID Priority 32769
```

```
Address 0003.E42E.D8EE
```

```
Cost 19
```

```
Port 1(FastEthernet0/1)
```

```
Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
```

```
Bridge ID Priority 57345 (priority 57344 sys-id-ext 1)
```

```
Address 0060.2F55.7E23
```

```
Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
```

```
Aging Time 20
```

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