Spanning Tree Protocol
Exercises

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Legenda and Conventions

Device identifier

Port number 1

Other ports are sequentially numbered clockwise. E.g., this is port 2

Link

Switch

Hub

Router

Server

Station
What is the outcome of the spanning tree protocol on this network?

What capacity should be used for the links?
What is the outcome of the spanning tree protocol on this network assuming that each bridge $S_{xx}$ uses as part of its bridge identifier the default bridge priority and the MAC address $03-0a-00-2b-3c-xx$?

What capacity should be used for the links?

How should the configuration be modified to optimize the resulting active topology?

What is the consequence of disabling the STP on $S_{01}$?
What is the outcome of the spanning tree protocol on this network assuming that each bridge S\textit{xx} uses as part of its bridge identifier the default bridge priority and the MAC address 03-0a-00-2b-3c-\textit{xx}?

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What capacity should be used for the links?

How should the configuration be modified to optimize the resulting active topology?
What is the outcome of the rapid spanning tree protocol on this network assuming that each bridge $S_{xx}$ uses as part of its bridge identifier the default bridge priority and the MAC address 03-0a-00-2b-3c-$xx$?

What capacity should be used for the links?

How should the configuration be modified to optimize the resulting active topology?
What is the outcome of the rapid spanning tree protocol on this network assuming that each bridge $S_{xx}$ uses as part of its bridge identifier the default bridge priority and the MAC address 03-0a-00-2b-3c-xx?

What capacity should be used for the links?

How should the configuration be modified to optimize the resulting active topology?
What is the outcome of the rapid spanning tree protocol on this network assuming that each bridge S\text{xx} uses as part of its bridge identifier the default bridge priority and the MAC address 03-0a-00-2b-3c-\text{xx}? 

What capacity should be used for the links? 
How should the configuration be modified to optimize the resulting active topology?
What is the outcome of the spanning tree protocol on this network assuming that:

- stations of different colors belong to different VLANs
- each bridge $S_{xx}$ uses as part of its bridge identifier the default bridge priority and the MAC address $03-0a-00-2b-3c-xx$?

How can the configuration be optimized?
What is the outcome of the spanning tree protocol on this network assuming that:

- stations of different colors belong to different VLANs
- each bridge S<sup>xx</sup> uses as part of its bridge identifier the default bridge priority and the MAC address 03-0a-00-2b-3c-<sup>xx</sup>?

How can the configuration be optimized?