

Development of an

E-BOOK on COMPUTER NETWORK

OBJECTIVES

- Interactive
- Creative
- Point catching
- Attractive

METHODOLOGY

- H HTML C CSS
- JS JavaScript
- K KineticJS Library
- Q jquery

ELEMENTS

- Animations
- A+ Testing Corner
- Dead words
- 123 Step-by-Step

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3. Spanning Tree Protocol (Step-by-step teaching)

STEP 1

Finding ROOT BRIDGE

A Root Bridge is elected based on its Bridge ID, comprised of two components in the original 802.1D standard:

- 16-bit Bridge priority
- 48-bit MAC address

The default priority is 32,768, and the lowest priority wins. If there is a tie in priority, the lowest MAC address is used as the tie-breaker.

You have to finish the following question before going next step. Please SELECT the root bridge by clicking the switch.

Priority: 198 / MAC: 0005.1111.2222 Priority: 32,768 / MAC: 0005.2222.3333

Switch A Switch B

Switch C Switch D

Priority: 32,768 / MAC: 0005.6666.7777 Priority: 198 / MAC: 0005.8888.9999

NEXT STEP SUBMIT

3. Spanning Tree Protocol (Step-by-step teaching)

STEP 2

Finding ROOT PORTS

The port of each switch which has the lowest root path cost to get to the Root Bridge is root port. Each switch can only have one root port. The Root Bridge cannot have a root port, as the purpose of a root port is to point to the Root Bridge. Path cost is a cumulative cost to the Root Bridge, based on the bandwidth of the links. The higher the bandwidth, the lower the path cost.

ROOT BRIDGE Switch B

1 Gbps / Cost = 4 100 Mbps / Cost = 19

Switch C Switch D

Priority: 198 / MAC: 0005.1111.2222 Priority: 32,768 / MAC: 0005.2222.3333

Priority: 32,768 / MAC: 0005.6666.7777 Priority: 198 / MAC: 0005.8888.9999

PREVIOUS STEP NEXT STEP SUBMIT UNDO

3. Spanning Tree Protocol

Broadcasting Storm Demonstration

PC1 F0/1 F0/2 F0/3 F0/4 F0/5 PC2 PC3

SWITCH 1 MAC TABLE PC1 = F0/1

SWITCH 2 MAC TABLE PC1 = F0/2

SWITCH 3 MAC TABLE PC1 = F0/2

2. CHECK POINTS on Link Layer Addressing

This is Professor King. He is asking you for the MAC address(es). Please DRAG the correct MAC address(es) and DROP on him.

Incorrect!

00-A0-CC-23-AF-4A
0C-6F-65-38-B3-20
255.255.255.0
FF-FF-FF-FF-FF-FF
00:50:7E:E4:4C:00



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