



5.1.9 Packet Tracer - Investigate STP Loop Prevention Report

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ITI-Cybersecurity-Summer-2025
July 28, 2025

Questions and Answers

Question 1: What do you think this link light means?

Answer: The different (orange or amber) link light indicates that the port is in a Spanning Tree Protocol (STP) blocking state. This is done to prevent a switching loop in the network.

Question 2: What path will frames take from PC1 to PC2?

Answer: Frames will travel from PC1 to PC2 through Switch 1 (S1) to Switch 2 (S2) using the active forwarding path selected by STP.

Question 3: Why do the frames not travel through S3?

Answer: Frames do not travel through S3 because one of its trunk ports is in the blocking state. STP has determined that this path is redundant and could cause a loop, so it is disabled for data forwarding.

Question 4: Why has spanning tree placed a port in blocking state?

Answer: Spanning Tree Protocol places a port in blocking state to eliminate loops in the network. Only one active path between any two network devices is allowed; redundant links are blocked unless needed.

Question 5: What do you see happen to the status of the G0/2 port during this process?

Answer: The status of the G0/2 port transitions from blocking to listening, then learning, and finally to forwarding as STP reconverges to adapt to the topology change.

Question 6: Are any ports showing an orange link light that indicates that the port is in a spanning-tree state other than forwarding? Why or why not?

Answer: No, after the topology reconverges and STP completes, all necessary ports are in the forwarding state and the orange link light disappears. Orange appears only temporarily during the STP transition process.