

Lab 1 - Hubs vs Switches

Observation Questions:

1. In which scenario is there greater page loading delay? Explain why.

- In the Hub-Scenario, the page loading delay is greater. This is due to the hub's constant broadcast of bits. While a switch only send packages/frames when it needs to. Also, a switch is in a closed circuit loop. This means that upon entering the switch, the packages/frames know exactly where to go. Opposite to the Hub, where it broadcast to every node upon a change by one node.

2. Are there any worthwhile differences in any of the other statistics that were collected?

Explain why one would expect differences or identical results.

- When checking the packets send/receive, we can see a noticeable differences.

The switch's packets per second was, on average, more than the hub's packets per second. This is related to the "page loading delay" statistic, because the switch is in a closed circuit. Thus enabling it to send more packets in a direct path. Also the hub operates on layer 1, which is the physical layer, which means it doesn't have any intelligent to it. While a switch can operate on layer 2, data layer, which offers some intelligent to the switch.