Name:

University:

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Tutor:

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Traffic Statistics on the Network

Introduction

The tool in question, Riverbed Modeler Academic Edition, is vital in mastering the fundamental concepts of network configuration. The tool enables a user to study, manage and troubleshoot a real-life network infrastructure with ease. As illustrated above, after installing and following steps indicated promptly, what follows is the description of the practicality of the tool.

The implementation that is under scrutiny utilizes 16 Ethernet connections. The 16 networks cabled use the 10-baseT link hence the network speed averages at 10 Mbps. The assumptions derived base on the facts about the cables and the networking norms. However, every connection has unique attributes and that is where the tool becomes handy. For instance, the hub configuration on the network in review shows that a 0.02 seconds as the inter-arrival time for the packets. Further, forward, a constant size of 1500 bytes per packet is set. The default configurations changed to an off state of 0.00 seconds and on state 100 seconds. This sort of configuration is only ideal when the administrator can anticipate the network data flow. This sort of configuration for a hub is bound to cause congestion. The settings applied for this network and the applied changes are what determine the sort of traffic flow for this network. All the stations generate traffic at an average rate of one 100-byte packet at the interval of 4 milliseconds. The calculation show that the actual average traffic for the that each node is

100 bytes/packet \* 4 bits/byte \* 1 packet/0.004 sec = 100 Kbps.



The speed of the network is dependent on the equipment in most cases. The network at hand generates a slower flow of data due to the settings that emanate from the holdups enforced at the hub configuration. The interval and the time allocation for the packet determine the packet size threshold set.

Conclusion

The network under scrutiny has an ideal flow of traffic. However, the bottleneck of 100-byte packet every 4 milliseconds is potentially damaging for it slows down the network. The hub configurations reviewed if an ideal network is the goal intended by the organization this network designed.

Works Cited

Sang, Aimin, and San-qi Li. "A predictability analysis of network traffic."*Computer networks* 39.4 (2002): 329-345.