ABSTRAK

Kebutuhan akan layanan internet saat ini semakin meningkat. Hal ini ditandai dengan banyaknya masyarakat yang menggunakan layanan internet mulaidari anak-anak sampai dewasa. Dalam sistem pembelajaran online di IT Telkom Jakarta layanan internet di gunakaan untuk mengirim e-mail, mengisi daftar hadir, menghadiri kelas online, dan pelaksaan ujian berbasis online. Penggunaan layanan internet di kampus B IT Telkom jakarta terdapat dibeberapa ruangan antara lain ruang dosen, ruang kelas, perpustakaan, ruangserver dan laboratorium. Jaringan yang digunakan haruslah memiliki kualitas yang baik. Untuk dapat mengetahui kualitas jaringan yang baik atau tidak, perlu dilakukan monitoring menggunakan PRTG terhadap jaringan tersebut. Penelitian ini membahas mengenai kondisi jaringan pada saat sistem up/down pada perangkat *Switch Core* dan *Switch* lantai 4 serta kecepatan rata-rata *Bandwidth* dan jumlah *traffic* pada *Switch Core* dan *Switch* Lantai 4 Kampus B IT Telkom Jakarta. Hasil yang didapatkan dalam penelitian pemantauan jaringan ini perangkat switch core mendapat nilai rata-rata 7,51 Mbit/s dan pada switch Lantai 4 yang port nya terhubung ke beberapa ruangan yaitu ruang kuliah 402 mendapat nilai rata-rata < 0,01 Mbit/s ,Lab komputer mendapat nilai rata-rata 0,43 Mbit/s, Lab Informatika mendapat nilai rata-rata 0,32 Mbit/s, Ruang kuliah 401 mendapat nilai rata-rata 0,01 Mbit/s, ruang dosen& Kaprodi DKV mendapat nilai rata-rata 0,94 Mbit/s, Lab DKV mendapat nilai rata-rata 0,28 Mbit/s.

Kata Kunci: PRTG, *switch core, switch* lantai 4, dan *traffic*.

ABSTRACT

The need for internet services is currently increasing. This is indicated by the large number of people who use internet services ranging from children to adults. In the online learning system at IT Telkom Jakarta, internet services are used to send e-mails, fill out attendance lists, attend online classes, and administer online-based exams. The use of internet services on campus B IT Telkom Jakarta is available in several rooms including lecturer rooms, classrooms, libraries, server rooms and laboratories. The network used must be of good quality. To be able to know the quality of the network is good or not, it is necessary to monitor using PRTG on the network. This study discusses the network conditions when the system is up/down on Switch Core and Switch 4th floor devices as well as the average speed of Bandwidth and the amount of traffic on Switch Core and Switch Floor 4 Campus B IT Telkom Jakarta. The results obtained in this network monitoring study, the switch core device received an average value of 7.51 Mbit/s and on the 4th Floor switch whose ports were connected to several rooms, namely lecture hall 402, the average value was < 0.01 Mbit/s. ,The computer lab got an average score of 0.43 Mbit/s, the Informatics Lab got an average score of 0.32 Mbit/s, Lecture room 401 got an average score of 0.01 Mbit/s, the Lecturer Room & Head of DKV Study Program got a score an average of 0.94 Mbit/s, DKV Lab got an average value of 0.28 Mbit/s.

Keywords: PRTG, *switch core, switch* lantai 4, dan *traffic.*