

ABSTRAKSI

SMA Pangudi Luhur Yogyakarta telah memiliki *intranet* untuk menunjang kegiatan belajar mengajar. Infrastruktur jaringan LAN sudah tersedia sejak 5 tahun terakhir. Selama kurun waktu tersebut staf IT belum mengetahui performasi jaringan yang ada, oleh karenanya penelitian ini dilakukan untuk mengetahui seberapa baik performansi infrastruktur jaringan LAN di SMA Pangudi Luhur Yogyakarta serta memberi rekomendasi untuk pengembangan di masa yang akan datang.

Pengujian dilakukan dengan menggunakan aplikasi *iperf* untuk mengamati performansi jaringan LAN yang meliputi *throughput*, *jitter*, dan *paket loss*. Pengujian dilakukan dalam 1 VLAN dan antar VLAN. Pengujian ini diharapkan mampu membuktikan seberapa baik performansi jaringan LAN SMA Pangudi Luhur Yogyakarta. Sehingga dapat memberi rekomendasi untuk perencanaan pengembangan infrastruktur jaringan LAN di masa yang akan datang.

(Kata Kunci : LAN, VLAN, *Throughput*, *Jitter*, *Paket Loss*)

ABSTRACT

Pangudi Luhur Yogyakarta senior high school has had an intranet to support teaching and learning activities. LAN network infrastructure has been available since last 5 years. During that time IT staff do not know performasi existing network, therefore, this study was conducted to determine how well the performance in the LAN network infrastructure Pangudi Luhur Yogyakarta senior high school as well as provide recommendations on the development in the future.

Tests carried out using iperf application to observe the performance of the LAN network that includes throughput, jitter, and packet loss. Tests conducted in one VLAN and between VLANs. Testing is expected to be able to prove how good the LAN network performance Pangudi Luhur Yogyakarta senior high school. So as to give recommendation to the LAN network infrastructure development planning in the future .

(Keywords : LAN , VLAN , throughput , Jitter , Packet Loss)