## ABSTRACT

Wireless LAN had been deployed in STT Telkom with high bandwidth and fiber-optic media transmission, which is still less than optimal usage. The existing wireless LAN was rare used to support academic activity. During the time, surfing activity become majority usage of wireless LAN. With up to 100 MBps Wireless LAN network, the computer owner which is wish to access information either regional or global can freely move in hotspot area without disturbed by existence of cables. The existence of Wireless LAN network in STTTELKOM campus is potential used to improve the quality of academic activity and communication in campus.

Multimedia application through wireless LAN network was preserver for mobile-phones user with limited mobility and display. While services available are; download activity, video streaming, voice call, and video call. This services was integrated into website as an interface, having interactive appearance and easy to use.

As a result of this analysis, an information concerning optimalization of wireless LAN network in campus of STT Telkom to support multimedia service based on web. From the test result, one way delay for voice is fill on range best ITU-T standard 0-150 ms. For video streaming application, mean of actual rate above standard frame rate which is 29 Fcs. Video call application, quality is also reach good result. The quality of video, depend on quality of web cam which is used. For download data, mean of bit rate which is gotten reach up 118 Kbps.

Keyword: SIP, Multimedia, Web, Wireless LAN, Mobile Phone