Alabata, Gene Bert, Cuaresma, Jonalyn C., Garancho, Judy Ann S., Hermogenes, Joy Gleh B., Magallanes Cherry Ann B., Rivera, Reev P., Virgo, Icella Joy B. **"PERFORMANCES ANALYSIS OF DIFFERENT IP-BASED COMMUNICATION".** Unpublished Undergraduate Thesis: Bachelor of Science in Information Technology, Northern Iloilo Polytechnic State College, Estancia, Iloilo. March 2018.

ABSTRACT

This experimental research design was conducted on the performance analysis of two (2) IP-based telephony systems. The evaluation was based on the grade of service and voice quality. The experiments were conducted at Computer Laboratory 3, IICS Building, NIPSC Main, Estancia, Iloilo from December 5, 2017 to March 7,2018. The IP-based telephony systems for the servers were Elastix and Freepbx which are Linux-based software's and for the clients were Microsoft Windows 10 and Microsoft Windows 7 Ultimate editions. One Laptop for the server and four laptops for the clients were used for both Elastix and Freepbx. Stopwatch was used to measure the grade of service and headsets for the voice quality. An opinion scale was used to rate The gathered the voice quality. data were statistically computed using Mean. When the grade of service was clients connected to the Freepbx server were able to connect faster than the client connected to Elastix server. Elastix gained better quality of voice than the Freepbx. However, there was no significant difference in terms of grade of service and voice quality between the two (2) IP-based telephony systems.