

IMPLEMENTATION AND ANALYSIS VOIP PERFORMANCE USING G.711, GSM, ILBC, AND SPEEX CODEC IN LOCAL AREA NETWORK

Nowadays, computer network has become an integral part in the world of telecommunication. Many companies use computer networks to communicate and exchange data with affiliates, partners, and companies with employees who are currently in the field. In the past, companies using leased lines or frame relay circuits channel-based to connect the central office to the branch office there. It is not efficient and flexible anymore this time considering the costs to be incurred are quite expensive to rent a leased line channel. Voice over Internet Protocol (VoIP) is the right solution to solve those problems. Codec also influence the quality of VoIP implementation.

This final task discuss the implementation of VoIP with various audio codec, e.g G.711, GSM, iLBC, and Speex. Next implementation that discuss is adding user and background traffic.

The results in this final task is the quality of all VoIP QoS parameter still include in ITU-T standard and has good quality, adding 6 user and background traffic until 95 Mbps not influence the QoS significantly.

KEYWORDS : VOIP, QoS, G.711, GSM, iLBC, Speex