

ABSTRACT

Voice over internet protocol (VoIP) is a technology that is used to deliver voice information through internet network by real time. By altering it into digital form and grouping into packages of data which are sent by using IP (Internet Protocol) platform, but H.323 is one of signaling protocol that is used in VoIP. It is capable to handle services of multimedia such as voice communications, video communications by real time voice at network's IP.

In this final project is designed a network of VoIP in PEMDA Ogan Ilir Sumatera Selatan by using protocol H.323 especially at Diknas Ogan Ilir. VoIP network that is designed is to connect some of computers. It will form a local area network (LAN), one of the computer will be use as a gatekeeper. In H.323 network, gatekeeper provides service of control, administrative, and management function that is needed to protect a perfection of network in both sides of users. Communications between users use NetMeeting software which is registered to the gatekeeper. After NetMeeting registered to the gatekeeper, then communication's process between PC can be done.

The result of trial design is functioned well. It is shown by the parameter of performance that have 111.67809 ms of average one way delay for end to end connection, 116.88790 ms for conference connection, 0 % of loss packet for end to end connection, 0.419 % for conference connection and 3.153883 ms of average jitter for end to end connection, 10.04721 ms for conference connection.