ABSTRACT

The development of technology is getting faster every day so that everything is already using digital technology. In this digital era, digital village innovations have emerged, such as administrative services at the Adisara village hall have been digitized including population, finance and so on. In supporting the digitalized administrative service program, good network access is needed. Therefore, the purpose of this research is to use VLAN technology when building its network infrastructure. VLAN (Virtual Local Area Network) is a network where a PC (personal computer) allows to be in a geographical location to communicate with each other as in a LAN. VLAN technology breaks down a large network into smaller parts. In designing the VLAN network in this study using the OSPF routing protocol. In this research, the scenarios used are infrastructure design and QoS (Quality Of Service) parameter testing. Only delay, throughput, and packet loss will be tested using the wireshark application. Parameter testing is done by streaming video on the server computer.

Keywords: Digital village, Network Infrastructure, VLAN