ABSTRACT

The need for service is fast and convenient information has a positive impact on research in the field of information technology such as virtualization . With Virtual Local Area Network (VLAN) we can divide networks using switches are manageable . To be able to connect between VLANs (inter- VLAN) can use one interface on the router . Currently IPv4 is already nearly exhausted . For it must prepare to use IPv6 addressing .

Services Voip (Voice over IP) is a real-time service , the VLAN that will be implemented should be high availability , the availability and service levels can approach 100 % . In this final project will be implemented in the Virtual Router Redundancy Protocol version3 (VRRPv3) to achieve the high availability of inter VLAN . VRRPv3 serves as the takeover of the routing task of data packets that enter the virtual router when the router is the master of the group acting as the primary router impaired performance or downtime.

From the results of measurement and analysis , in scenario 1 it can be concluded that the network InterVLAN VRRPv3 Backup Master Mode (MBM) has a better performance than InterVLAN VRRPv3 Load Sharing Mode (LSM) , because both of routers sent advertisement packets that increase network traffic. In scenario 2 can be proved that VRRPv3 were able to keep the quality of VoIP with QoS standards be met despite the failed link . In scenario 3 is also found that VRRPv3 is an efficient redundancy solution because it proved it could function as a Load Sharing Mode.

Keywords : VRRPv3, VLAN, InterVLAN, QoS, *Downtime*