

## ABSTRACT

*Software Defined Wide Area Network (SDWAN) is a form of application of Software Defined Network (SDN) technology applied to Wide Area Network (WAN) networks. The application of SDN-WAN technology intends to control the movement of network lines with a large area of data packet delivery with a Software-based approach. However, connection links from internet service providers sometimes experience problems that can cause disconnection of the internet connection used, if there is only one internet link will cause each user device on the network to be unable to communicate. To solve this problem, one of the solutions is to add redundancy paths (links) that are used to increase High Availability (HA). Both links are integrated using the failover method on SD-WAN using the Virtual Router Redundancy Protocol (VRRP). The failover method divides the router into a Main Router and a Backup Router. The Main Router serves as the main connection link while the Backup Router serves as the backup connection link. Router Backup will take over the connection when the main link is interrupted. From the research that has been done, the average value of failover response time is 2 seconds for the failover process from the main router to the backup router and it takes about 0.021 seconds for the failover process from the backup router to the main router. while the average value of packet loss that occurs is 2.48% and is included in the very good category based on TIPHON standardization.*

**Keywords:** *failover, SDWAN, fortigate, VRRP, packet loss, time response failover*