

ABSTRACT

The stability and reliability of the network, is an absolute requirement for telecommunications networks. Bonding interface is one of the techniques that can facilitate the network to serve the services that require stability and reliability of the network.

Bonding Interface system combines the two interfaces into a virtual link which is characterized by the use of a single IP address. If a frame is sent from the sender to the recipient of the delivery process, but on one of those links is down, then the links that still connect will be able to keep a connection and sending the frame remains a work in progress, the system is called link redundancy. To monitor the condition of the links are in a State of connected or disconnected, use a mechanism called link-monitoring. Link monitoring that used in this final project is a Media Independent Interface (MII). The testing is done by implementing the network Bonding Interface for use of video streaming , VoIP, and file transfer. The analysis is by using a failover test parameters, downtime and QoS parameters, delay, jitter, and throughput. Then the results will be compared to a network that does not use a Bonding Interface, i.e. a network that is only associated with using a single link.

Based on testing is Bonding Interface system can do redundancy mechanism when one of the link is down to another link that still connecting, and the services still work normally. Bonding Interface also make a network stable if compared with the network that only associated with using a single link. This characterized from the value of jitter that has smaller than the network with a single link.

Keywords: Bonding Interface, Link Redundancy, Link Monitoring