Abstract

Now days, technology is growing rapidly especially in computer network. Because of this condition all the needs related with the quality of computer network increasingly and more complex. Services provided by a computer network must be have a good quality with high throughput and low delay. The quality of computer network is determined by several factors, one of which is how to choose a good path used to transmit packet to destination.

Therefore, it appeared some algorithm are applied to the router in packet delivery path determination. Several algorithm implemented in computer network are linkstate algorithm for OSPF routing protocol and distance vector for RIP routing protocol. These two algorithm will be compared and analyzed with ant colony optimization (ACO) algorithm. The comparison based on some parameters in determining the quality of computer network, the parameters is throughput, packet delay,routing overhead,packet delivery ratio and convergence time. With these comparison test is to know which algorithm more appropriate in router for path determination in small and large computer newtwork.

Every algorithm have a different characteristic, based on the study of literature linkstate and distance vector algorithm suitable in small computer network and ACO algorithm suitable for large computer network.

Keywords : OSPF, Ant, Colony, Routing, RIP