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

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