Effect of Quality Parameters in Efficient Routing Protocol – Grid FSR with Best QoS Constraints

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Abstract

Rapid advanced in information technology has made it possible to transmit the data in wireless links without the aid of any fixed infrastructure or centralized administrator. Wireless mobile ad hoc networks are self-creating, self-administering and self-organizing entities. Thus a set of self-motivated mobile wireless users is able to dynamically exchange data among themselves, even in the absence of a predetermined infrastructure and controller. In our research work, we present investigations on the behavior of the Proactive Routing Protocol FSR in the GRID by analysis of various parameters. The Performance metrics that are used to evaluate performance of the routing protocols are Packet Delivery Ratio (PDR), Network Control Overhead, Normalized Overhead, Throughput and Average End to End Delay. Experimental results reveal that FSR is more efficient in Grid FSR in all QOS constraints. FSR can be used in all Resource critical environments. Scalability in respect to QOS is effective in FSR- large area routing protocol. Grid Fisheye state routing (GFSR) consumes less bandwidth by restricting the propagation of routing control messages in paths formed by alternating gateways and neighbor heads, and allowing the gateways to selectively include routing table entries in their control messages. PDR and Throughput are 100% efficient in Simulation Evaluation with NS2.
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References

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Keywords
MANET  Network Protocols  Link State Routing (LSR)  Fish-eye State Routing Protocol (FSR)  GRID Fisheye Routing Protocol (GFSR)
QoS

NS2

Packet Delivery Ratio

Throughput

Control Overhead

Normalized Overhead

End to End Delay