Abstract

This work presents the incorporating of congestion control on the integrated routing protocol of the opportunistic networks. Pre-emptive congestion control strategies were incorporated into the integrated routing protocol. Results showed that the duplication avoidance improved the integrated routing protocol because it reduced the packet loss and improved the delivery probability. Duplication avoidance reduced the packet loss by 58% and improved the delivery probability by 4% at the end of the simulation time when compared with the delivery probability and packet loss of the integrated routing protocol without congestion control. The use of acknowledgement, buffer size advertisement, data centric method reduced the packet loss by 2.5%, 57% and 57% respectively but did not improve on the delivery probability significantly.

References

Congestion Control Strategies on Integrated Routing Protocol for the Opportunistic Network: A Comparative Study and Performance Analysis

Index Terms

Computer Science  Communications

Keywords

Prophet routing protocol  epidemic routing protocol and integrated routing protocol.