Abstract

Wireless sensor network has been used in many real-time applications that require reliable and timely delivery of data. This paper presents a real-time communication protocol with data recovery at each hop level to guarantee reliability and also uses the latency of link to determine the shortest path and promises speedy delivery for wireless sensor networks. The proposed protocol provides services such as route discovery based on the reaching speed of the node, multipath forwarding using required reliability and data recovery in single hop. Simulation result shows that the proposed protocol significantly improves the effective capacity of a sensor network in terms of reliability and quickness. Moreover the protocol is highly responsive to the various error conditions experienced and adaptive to large-scale dynamic sensor networks.

References

- M. Ding, D. Chen, K. Xing and X. Cheng, "localized Fault-Tolerant Event Boundary..."

Index Terms

Computer Science Wireless
Keywords

Wireless Sensor Networks  Reliability  Quickness  Qos  Reaching Speed
Multipath forwarding

hop level recovery