Abstract

The reliability of data transfer is vital for commercial and enterprise applications of Wireless Sensor Networks (WSN). Likewise, mission-oriented and critical military applications of these
networks demand dependable and timely data transport. This reliability is required for in-bound data, from Internet node to sensor nodes which comprises of code updates, as well as for out-bound data from sensor nodes to base station or gateway which comprises of important data reported by sensor nodes. Although TCP is a time-tested transport layer protocol of Internet that ensures reliability, flow control and congestion control, being a heavy protocol, it is considered unsuitable for resource constrained sensor networks. As a result new transport layer protocols have been developed for these networks. Nonetheless efforts are directed towards making TCP suitable for sensor networks. This paper presents a survey of transport layer protocols and approaches to achieve reliable data communication in general wired-cum-wireless networks and particularly in WSN.

Reference

- IEEE802.15.4-standard specifications, http://ieee802.org/15/index.html

**Index Terms**

Computer Science

Wireless

**Key words**

Wireless Sensor Networks

Reliability

Transport Layer

TCP