Abstract

Wireless Mesh Networks (WMN) faces the inherent problem of increased end to end delay over a multiple hop wireless link. The delay becomes more obvious as the number of hops count between the source and destination increases. Experimental results have shown two hop neighbours face starvation when there are one hop nodes within the same gateway. In this paper, it is proposed to study the effect of starvation in WMN for multimedia traffic which are governed by the end to end delay and jitter for QOS. A novel packet priority technique, Dynamic Weighted Round Robin (DWRR) is proposed to reduce the effect of starvation for multi hop nodes. The proposed technique is implemented and compared with network without packet priority techniques. Results show that the proposed technique can be used to reduce starvation in WMN.

References

- Mihail L. Sichitiu, "Wireless Mesh Networks: Opportunities and challenges";
Proceedings of the Wireless World Congress, (Palo Alto, CA), May 2005
A Packet Priority Approach to Mitigate Starvation in Wireless Mesh Network with Multimedia Traffic


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