Algorithm for Enhancing the QoS of Video Traffic over Wireless Mesh Networks

Title: Algorithm for Enhancing the QoS of Video Traffic over Wireless Mesh Networks

Author(s): Moh, ANA (Moh, Abdul Nasser A.); Abdullah, RM (Abullah, Radhwan Mohamed); Abualkishik, AZ (Abualkishik, Abedallah Zaid); Ali, BB (Ali, Borhanuddin Bin Moh); Alwan, AA (Alwan, Ali A.)

Source: INTERNATIONAL JOURNAL OF ADVANCED COMPUTER SCIENCE AND APPLICATIONS Volume: 10 Issue: 4 Pages: 451-456 Published: APR 2019

Abstract: One of the major issues in a wireless mesh networks (WMNs) which needs to be solved is the lack of a viable protocol for medium access control (MAC). In fact, the main concern is to expand the application of limited wireless resources while simultaneously retaining the quality of service (QoS) of all types of traffic. In particular, the video service for real-time variable bit rate (rt-VBR). As such, this study attempts to enhance QoS with regard to packet loss, average delay, and throughput by controlling the transmitted video packets. The packet loss and average delay of QoS for video traffic can be controlled.

Results of simulation show that Optimum Dynamic Reservation-Time Division Multiplexing Access (ODR-TDMA) has achieved excellent utilization of resource that improvised the QoS meant for video packets. This study has also proven the adequacy of the proposed algorithm to minimize packet delay and packet loss, in addition to enhancing throughput in comparison to those reported in previous studies.

Accession Number: WOS:000467916400057

Language: English

Document Type: Article

Author Keywords: Wireless Mesh Networks (WMNs); Medium Access Control (MAC); Quality of Service (QoS); video traffic

KeyWords Plus: MAC PROTOCOL; ACCESS


Reprint Address: Moh, ANA (reprint author), Univ Putra Malaysia, Fac Engn, Dept Comp & Commun Syst Engn, Serdang 43400, Selangor, Malaysia.

Publisher: SCIENCE & INFORMATION SAI ORGANIZATION LTD

Publisher Address: 19 BOLLING RD, BRADFORD, WEST YORKSHIRE, 00000, ENGLAND

Web of Science Categories: Computer Science, Theory & Methods

Research Areas: Computer Science

IDS Number: HY12P

ISSN: 2156-107X

eISSN: 2156-5570

29-char Source Abbrev.: INT J ADV COMPUT SC


Source Item Page Count: 6

Output Date: 2019-07-31