A QoS-based Resources Reservation Mechanism for Ad Hoc Networks

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Authors:

Hassene Bouhouche
Sihem Guemara El Fatmi

Abstract

For the last several years, there has been a significant increase of interest in supporting quality of service (QoS) constraints in Mobile Ad Hoc Networks (AHNs). AHNs include mobile nodes with limited capacities and communication resources. This specificity makes existing solutions for wired networks little suitable and a broad range of novel approaches have been studied. In this paper we propose a QoS reservation mechanism for AHNs, called QSRR. The mechanism is targeted for sources requiring a bandwidth allocation. It is based on the knowledge of the bandwidth requirements of the neighbours of a node and the interfering nodes in the cover area of each node. Our proposition uses a traffic classification and requires available bandwidth estimation definition. The advantages of this proposition are shown thanks to some simulation results that are detailed in the end of this paper.
Reference


Index Terms

Computer Science Wireless Networks

Key words

QoS resources reservation mechanism
Ad Hoc networks
QSRR
bandwidth allocation