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Models of improved multilink reverse charging network by utilizing the bit error rate QoS attribute

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Abstract

In this paper, a modification model for single-link reverse charging of internet is formed on a multi-link wireless network. The pricing scheme also takes into account the base costs and quality of services provided by the service provider. Bit error rate (BER) was utilized as one of the well-known quality of service (QoS) attribute that can guarantee best performance for internet service provider (ISP) and users. The base price is determined as a decision variable to help ISP to maximize profit. This optimization model can be solved using the LINGO 13.0 program to gain optimal values. The computational results show that by setting costs as constants and service quality as variables, optimal results are obtained for ISPs. This can make ISP considerations in determining the base price that can benefit the ISP and according to the services provided. © 2021 Institute of Advanced Engineering and Science. All rights reserved.

Author keywords

Base price; Improved reverse charging; Multilink; Qos attribute; Quality premium; The pricing scheme

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