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Improved incentive pricing-based quasi-linear utility function of wireless networks

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Abstract

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Abstract

The model of the incentive pricing scheme-based quasi-linear utility function in wireless network was designed. Previous research seldom focusses on user's satisfaction while using network. Therefore, the model is then attempted to be set up that is derived from the modification of bundling and models of reverse charging and maintain the quality of service to users by utilizing quasi-linear utility function. The pricing schemes then are applied to local data server traffic. The model used is known as mathematical programming problem that can be solved by LINGO 13.0 program as optimization tool to get the optimal solution. The optimal results show that the improved incentive pricing can achieve better solution compared to original reverse charging where the models will be obtained in flat fee, usage-based, and two-part tariff strategies for homogeneous consumers. © 2021 Institute of Advanced Engineering and Science. All rights reserved.

Author keywords

Bundle pricing; Incentive pricing; Optimal value; QoS attribute; Quasi-linear; Wireless network

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