Abstract

Cognitive Radio Network (CRN) is a next generation of wireless communication. Cognitive Radio (CR) is able to detect the unoccupied spectrum and allow to secondary users (SU) also known as cognitive users (CU) to use it. In order to improve the performance of cognitive radio network, many research has been done in routing protocols.

In this paper, the scenario of impact of packet size on two routing protocols are evaluated: i) Routing protocol with Machine Learning (ML) and ii) Routing protocol without Machine Learning (ML). While transmitting packet from sender to receiver, packet size plays an important role in the performance of network.

The above two scenario have been implemented in NS2 network simulator. This paper analyses the impact of various packet size on routing protocol in cognitive radio network. Routing protocol with and without ML approach with various packet size is compared and evaluated performance parameters like delay, dropping ratio and packet delivery ratio.
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Index Terms

Computer Science  Artificial Intelligence

Keywords

CRN routing protocol, Packet size, Routing metrics, Network Simulator (NS2).