Adaptive Delay Tolerant Routing Protocol (ADTRP) for Cognitive Radio Mobile Ad Hoc Networks

Abstract

A cognitive radio network (CRN) is a kind of wireless network that consists of wireless devices embedded with cognitive radios that can sense the available channels in the neighborhood and switch the communication channel, if needed. Delay tolerant routing is a challenging task in such network. Hence this paper proposes an adaptive delay tolerant routing protocol shortly termed as ADTRP for cognitive radio mobile ad hoc networks. The performance metrics such as throughput, packet delivery ratio and delay are chosen. Simulations are carried out using cognitive radio cognitive network (CRCN) simulator and the results shows that the proposed protocol ADTRP performs better in terms of improved throughput, better packet delivery ratio, decreased packet drop and reduced delay.

References


Index Terms

Computer Science

Networks
Keywords

Cognitive radio, delay, routing, channel, throughput.