Abstract

Cognitive Radio Networks (CRNs) are mainly used for path selection due to the added advantage of dynamic spectrum utilization when the frequency band is not under utilization. Path selection in multi-hop cognitive radio networks is done using dynamic spectrum allocation. We show that the overall throughput and the packet drop ratio determined by the proposed route selection strategy are better than the existing methods or strategies. The main aim behind our approach is to guarantee that the link failure is minimized and throughput is maximized. A polynomial time algorithm is designed for this problem and evaluated using Network Simulator for computation of simulation results. The results show that our proposed algorithm achieves a near optimal solution of this problem for multi-hop CRNs.
References

- http://www.isi.edu/nsnam/ns/ns-documentation

Index Terms

Computer Science  Communication

Keywords

Cognitive Radio  Dynamic Spectrum Allocation  Primary Users  Secondary Users  Spectrum Hole
Spectrum Pooling

Weighted Cumulative Expected Transmission Time (wcett)