Interference aware channel assignment (IACA) for cognitive wireless mesh networks

Abstract:

In this paper, we present the end-to-end interference aware concept of Cognitive wireless mesh network (CWMN). CWMN is the leading upcoming technology with the advantage of cognitive radio (CR). We demonstrate that the end-to-end interference model has the ability to perform better from SINR base model. To enhance the utilization of the unused spectrum the channel selection strategy should have some awareness mechanism to avoid interference. In this paper, novel interference aware channel assignment (IACA) algorithm is proposed. The end-to-end delay, packet delivery ratio and the throughput is used to estimate the performance of the proposed algorithm. The numerical results demonstrate that the proposed algorithm is closer to the optimum resource utilization.

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