A Probabilistic Study of Spectrum Mobility: Time Relationship Model of Spectrum Handoff

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Abstract
Spectrum utilization is very poor in the present schemes of frequency allocation. Spectrum is not completely used on the terrestrial level. Spectrum assets become high priced on some of the business frequency channels. Discussion and focus are primarily on the policies of spectrum management and dynamic spectrum access (DSA) technology yet, spectrum handoff and spectrum mobility are the new challenges in cognitive radio. Very few research works have been carried out in these fields till now. In this paper methods are carried out on spectrum mobility or spectrum handoff along with the probability models relating to the spectrum holes and behaviour of the secondary user. We are proposing a time relationship model in handoff process. Studies are also being carried out on the performance and effect of spectrum mobility along with the duration of service of secondary user and probability of spectrum handoff. Lastly, output results are obtained considering the theoretical values and terrestrial environments.

References


Index Terms

Computer Science

Wireless And Communications

Keywords

Cognitive Radio; Spectrum Handoff; Spectrum Mobility; Departure Rate