

# **Toward cognitive radio resource management based on multi-agent systems for improvement of real-time application performance**

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**Mots clefs:** cognitive, radio, resource.

**Résumé:** Cognitive Radio (CR) is a promising technology that can alleviate the spectrum shortage problem by enabling unlicensed users equipped with CRs to coexist with incumbent users in licensed spectrum bands while causing no interference to incumbent communications. In this paper, we propose a new approach which uses CR for improving real-time application performance related to only one cognitive radio mobile terminal (CRMT). We also present a synthesis of research relating to dynamic spectrum allocation and sharing in the context of CR networks using multi-agent systems. In our future work, we will seek to improve real-time application performance related to many CRMT.