

In cognitive radio networks, unlicensed users [secondary users (SU)] need to rendezvous on licensed channels before establishing communication links. Dedicated common control channel is the simplest way to achieve rendezvous. However, due to the absolute priority of licensed users [primary users (PU)] on accessing licensed channels, a dedicated common control channel may cause the PU long-time blocking problem, and the control channel saturation problem in a high SU density environment. Channel hopping schemes have been proposed to avoid the problems mentioned above. In this paper, we introduce two quorum-based channel hopping schemes. Our schemes outperform in terms of the four metrics: maximum time to rendezvous, channel loading, degree of rendezvous, and maximum conditional time to rendezvous.