

Smart Spectrum Handoff for Multimedia over CRN

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Status:

Seeking R&D and/or
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Patent Pending

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Smart Spectrum Handoff for Multimedia over CRN

- Smart-Learning-Based, Quality of Service (QoS) and Quality of Experience (QoE) driven, and spectrum handoff scheme for high quality transmission over Cognitive Radio Networks (CRN)
 - Reuses any spectrum holes anytime, anywhere.
- An available channel with the best expected QoE is chosen for the spectrum handoff
 - Manages the usage behaviors in CRNs with prioritized multimedia applications.

Advantages of Smart Spectrum Handoff for Multimedia over CRN

- Minimum handoff delay is ensured
 - Mixed preemptive and non-preemptive resume priority queueing model.
- Maximizes the multimedia end-user satisfactions.
- Allows the performance of spectrum handoff to optimize in the long term
 - Utilizes the current observed CRN environment state, past experiences, and performance feedback.
- More reliable for video transmissions and other uses of multimedia applications.
- Prioritized traffic model for handoff delay estimations.

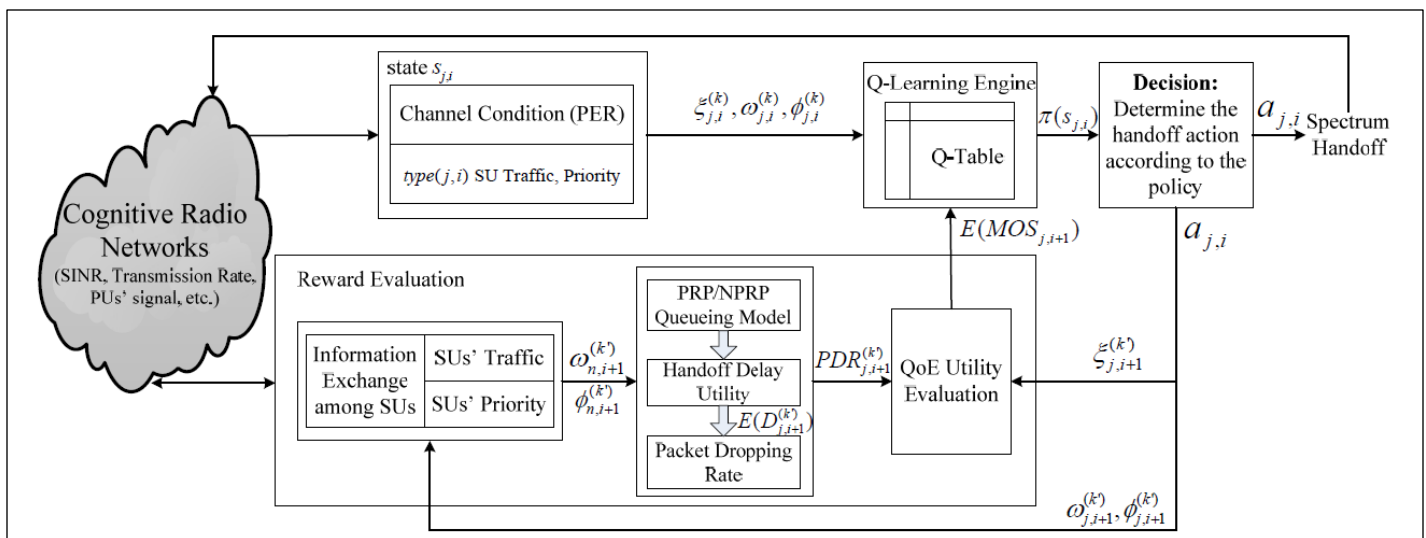


Figure 1. Representative model of the Smart Spectrum Handoff

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