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# Secure Radio Resource Management in Cloud Computing using CRN

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**Abstract**: *Limited processing power in Cognitive Radio Networks (CRNs) creates challenges for secure radio resource management, particularly in dynamic spectrum access environments. This paper proposes a novel cloud-assisted CRN framework that addresses this limitation. By offloading spectrum sensing and allocation tasks to the cloud's vast computational resources, CR users can achieve a more secure and efficient spectrum utilization. The cloud platform prioritizes robust security protocols to safeguard spectrum information and communication, ensuring confidentiality, integrity, and user trust. This innovative approach optimizes spectrum usage, improves Quality of Service (QoS) for CR users, and strengthens the CRN's defense against unauthorized access and malicious attacks*

**Keywords**: Cognitive Radio Networks