عنوان مقاله:

Adaptive Compressed Spectrum Sensing in Wideband Cognitive Radios Systems Based on Cloud

محل انتشار:

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نویسندگان:

Hamideh Sadat Sanaei - *Department of Electrical and Computer Engineering University of Semnan*

Mahnaz Soleymani - *Department of Electrical and Computer Engineering University of Semnan*

Ali Shahzadi - *Department of Electrical and Computer Engineering University of Semnan*

خلاصه مقاله:

In this paper, a Wideband Cognitive Radio Cloud Network (WCRCN) is proposed. Under the infrastructure of WCRCN, Two-Step Compressed Spectrum Sensing Scheme (TS-CSS) can be efficiently implemented making use of the scalability and the vast storage and computing capacity of the Cloud. Compressive sensing (CS) techniques have been utilized for spectrum sensing in order to reduce the high signal acquisition costs in the wideband regime. The computational complexity of reconstruction algorithms in CS and timerequirement is still challenging .We proposed a method to solve complexity and time requirement through cloud computing. The idea is that the cloud can store the status of cognitive network, compute, reorganize, and make available the current state of cognitive networks. Simulation result shows that the proposed cognitive network model using cloud technologies reduces processing time considerably.

کلمات کلیدی:

Cognitive Networks; Cloud computing; compressed spectrum sensing; sparsity order estimation