

Distributed Channel Access, Relay
Selection and Time Assignment for
QoE-Aware Relay Networks

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ABSTRACT

- In this paper, we tackle the comprehensive problem jointing channel access, relay selection and available time assignment for distributed relay networks which includes multiple source nodes and relay nodes.
- Driven by various communication requirements, source nodes search for relay nodes to improve the quality of transmission.
- Due to the interaction relationship, source nodes have to compete for channels and time resource of relay nodes with other source devices.
- To promote the satisfaction performance among source nodes, we divide the optimization problems of channel access and relay selection into two sub problems, respectively.

EXISTING SYSTEM

- Relay technology is seen as a promising technology to meet the increasing demands of wireless network capacity and has been adopted in such as Long-Term Evolution Advanced systems and Internet of Things networks.
- Relay nodes receive the transmitted data from source nodes and retransfer them to the destination nodes so as to achieve spatial diversity and increase data rates of communication.
- Due to the diverse deployments, only suitable selection strategies can optimize the transmission, or else the strategies may lead to negative influence.

PROPOSED SYSTEM

- Then the distributed hierarchical game models are constructed, in which the problem of channel access is modeled as a congestion game model, and relay selection jointing time assignment is modeled as a matching model with dynamic quotas.
- Combining two game models, a distributed hierarchical scheme is designed, which is shown to reach a stable result and the properties are studied.
- The simulation and experimental results show that the proposed distributed QoS-aware method has obvious performance improvement in terms of satisfaction, fairness and convergence.

HARDWARE REQUIREMENTS

- Processor - Pentium –III
- Speed - 1.1 Ghz
- RAM - 256 MB(min)
- Hard Disk - 20 GB
- Floppy Drive - 1.44 MB
- Key Board - Standard Windows Keyboard
- Mouse - Two or Three Button Mouse
- Monitor - SVGA

SOFTWARE REQUIREMENTS

- Operating System : Windows 8
- Front End : Java /DOTNET
- Database : Mysql/HEIDISQL

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