Abstract

Cooperative communication can be considered as a promising technology to significantly increase the transmission rate along with the coverage area of a wireless network which aims to achieve spatial diversity via the cooperation of user terminals in transmission without requiring installation of multiple transceiver antennas. The user terminals which can be used for this purpose can be termed as relay nodes. However, most of the existing solutions on relay node assignment problem with multiple source-destination pairs are limited to assign each single pair at most one cooperative relay node. Therefore, this paper studies the cooperative relay node assignment problem in a network environment, where multiple source-destination pairs compete for the same pool of cooperative relay nodes and each pair can be allotted multiple cooperative relay nodes for cooperative communication to maximize the transmission rate and hence improves the performance among all communicating pairs. Without requiring multiple antennas on the same device, spatial diversity is achieved by exploiting the antennas on other nodes, i.e., relay nodes, in the network. Therefore, the selection of relay nodes has a significant impact on the achieved total capacity.
A Survey on Relay Selection Strategies in Cooperative Wireless Network for Capacity Enhancement

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Index Terms

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Keywords

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