

عنوان مقاله:

A Novel Multicast Tree Construction Algorithm for Multi-Radio Multi Channel Wireless Mesh Networks

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خلاصه مقاله:

Many appealing multicast services such as on-demand TV, teleconference, online games and etc. can benefit from high available bandwidth in multi-radio multi-channel wireless mesh networks. When multiple simultaneous transmissions use a similar channel to transmit data packets, network performance degrades to a large extent. Designing a good multicast tree to route data packets could enhance the performance of the multicast services in such networks. In this paper we want to address the problem of multicast routing in multi-radio multi-channel wireless mesh networks aiming at minimizing intermediate nodes. It is assumed that channel assignment is known at prior and channels are assigned to the links in advance. Aiming at constructing multicast tree with minimum number of intermediate nodes and minimum number of interfered nodes we propose a heuristic algorithm called Maximum Multicast Group Nodes (MMGN). Simulation results demonstrated that our proposed method outperforms LC-MRMC algorithm in terms of throughput and packet delivery ratio.

کلمات کلیدی:

Wireless Mesh Networks, Multicast, Multi Radio Multi Channel, Channel assignment

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