Abstract

Today, there are various methods available for increasing the throughput of a multichannel wireless mesh network. These can be either static allocation or dynamic allocation. In this study, a hybrid multichannel wireless mesh networking architecture is proposed and every mesh node has both static and dynamic interfaces. Static-Dynamic Combined Channel Allocation protocol (SCCA) is an algorithm proposed, considering both throughput and delay in the channel assignment. SCCA gives advantages of both static and dynamic allocation methods. Interference and Congestion Free Routing (ICFR) is included to further improve the throughput of the wireless mesh network. Simulation results indicate that ICFR decreases the packet delay considerably without affecting the network throughput.

References

- M. Alicherry, R. Bhatia, and L. Li, "Joint Channel Assignment and Routing for..."


- Y. Ding, K. Pongaliur, and L. Xiao, "Channel allocation and Routing in Hybrid multichannel multiradio Wireless Mesh Networks,"

**Index Terms**

Computer Science
Wireless

**Keywords**

Wireless mesh network, hybrid channel allocation, multichannel, routing.