Abstract

The demand for mobile communication has been growing day by day. Resource flexibility is one of the most important issues in the coming generation of mobile communication. Different techniques are required to increase the efficiency & flexibility of the network to deal with new services and to adopt the new traffic profiles and characteristics. This paper proposes a distributed dynamic channel allocation scheme using intelligent agents to provide more efficiency & flexibility to a network. This scheme of channel allocation will lead to an efficient solution under moderate and heavy load conditions. The agent architecture adopted provides greater autonomy to the base stations and a method for allowing co-operation and negotiation.
between them; this autonomy and co-operation allows an increase in flexibility to deal with new traffic situations and an increase of the robustness of the network as a whole. The performance of the Distributed FCA & DCA schemes are compared and the we found that the average call dropping probability of FCA scheme is 96% to 98% and the average call dropping probability of DCA is 26% to 28% in different conditions, so the distributed DCA scheme is efficient than the FCA scheme.

References


Index Terms

Computer Science Mobile Communication
Keywords
Efficiency  Intelligent Agent  Mobile Communication  Resource Flexibility  Traffic Profiles