

ABSTRACT

Allocation of frequencies in a limited wireless network requires channel allocation techniques are effective and efficient. One of the channel allocation techniques in micro CDMA2000-1x cells that can be used is Dynamic Channel Assignment (DCA). With the allocation of channels by using DCA, then each channel in the cell can be used during a temporary communication links. The main variation of the DCA scheme of Distributed and Centralized.

This final task of analyzing the optimum capacity can be achieved in modeling the channel by using Distributed DCA on an empty channel micro CDMA2000-1x cell. This empty channel is distributed uniformly in the channel call set-up and canal to accept the handover of the observation cell. Cells was observed that the cell radius is 1440 meters in the middle of the cell clusters with a uniform 7.

From the simulation results using Matlab 7.1 software get the channel on optimalisai scenario I is 87.8%, in scenario II for 95.12%, and the third scenario of 100%. The end result of this simulation is to determine the ability of DDCA increase the number of users that can be served by a cell and the quality of received signal users to communicate (at least 7,38 dB).

Keywords: Distributed Dynamic Channel Assignment, CDMA2000-1x, Channel Capacity