ABSTRACT

Along with technological growth of telecommunication which rise these days, such as voice or data. In voice, we recognize about fixed telephone and cellular. Cellular technology growth with CDMA and EDGE technology, but it's not meaning that the GSM technology has died. Most of cellular users is using the GSM technology. Number of GSM users has growth from year to year.

Sometimes, demand of channel will reach the top position and exceed the capabilities of channel that available. This situation will cause the call cannot be served. At certain value, number of failure still can accept but the rest are need solution for this trouble-shooting such as channel optimalization. This channel optimalization expected to reach small GOS and the using number channel is growth.

There's a lot of method that use for channel optimalization, one of them is dynamic channel assignment. Dynamic channel assignment that used in this experiment is borrowing channel assignment. The word dinamic means the changing according to traffic condition in some cell. Generally, this method can rise the channel capacity that available. Dynamic channel assignment is using genetic algorithms. Genetic algorithms is a simple searching algorithms and optimation, but has a power to rise the capabilities of problem solving. With genetic algorithms, the best way to solve the problem of channel optimalization can get with simultans.

The ability of genetic algorithms in dynamic channel assignment is used to produce channel optimalization. The optimalization that result from genetic algorithms process in dynamic channel assignment expected to give the best solution. The genetic references that used will influence the best searching of channel optimalization. Comparing GOS system that produce from channel optimalization with GOS system that use nowadays.we expected to get smaller GOS system