ABSTRACT

The growth of cellular technology especially GSM, made the operator to increase the services. In order to meet the call setup and SMS application demand which one of the most GSM subscriber used and GSM network availability for that services, the operator have to anticipate, especially at certain event where at time of traffic load is increasing significantly. Planning capacity is urgently required for this condition.

Limited resource makes the operator used more SDCCH channel (Signalling, call setup, SMS) to decrease the blocking of SDCCH and to increase the successful of SDCCH channel occupation which is being measured by SDSR (SDCCH Successful Rate). Therefore, the proper and efficient solution is necessary to solve this problems.

One of the solution is by using the dynamic SDCCH (TCH_SD) method. This work's method is to allocate a new channel type known as TCH_SD, which can be used either for TCH or SDCCH channel dynamically and flexibly, depends on the call condition.

By using this method, will be able to decrease the blocking of SDCCH without impact of increasing TCH blocking with flexible and dynamic channel dimension.