

## ABSTRACT

On a cellular communication business radio network stability is needed to support the best services to their subscribers. The network has to be monitored so if the stability problems occur are either caused by broken equipments or power supply damage will be known sooner and be repaired so fast. All the problems in radio network have been integrated in a server called OMC (*Operation and Maintenance Centre*) server. Information from the server are always monitored by an OMC engineer and further report the information to field engineer if needed for repairing onsite.

In reality OMC engineers are monitoring the network by OMC server shifted and continuously for 24 hours a day and 7 days a week. Since, all the activities have to be done in office and shifted caused field engineers were limited. In addition to report the damages occur or alarm to the field engineers by phone is inefficient.

In this final assignment is made a monitoring system based on Web and SMS (*Short Message Service*) to increase the network stability especially radio network.

SMS (*Short Message Service*) and website furthermore can be expected to accelerate giving information or alarm on certain level to field engineers by SMS. Afterwards monitoring pass through the website will show all the problems or alarms had been occurred, so the information can be used to make damages or alarms log report even on statistic. The other way to know the last status from the certain site can use SMS request from the engineer cell phone number or the manager which has been listed so the application will send the last status information from requested site.