

## ABSTRACT

The number of user in second generation (2G) mobile network is rapidly increasing. At the same time there is an increasing demand for high-speed data transfer and multi-media. Even if 3G network are emerging there is a continuous need for more capacity. But, this capacity need is not uniformly distributed, but varies as a function of time and location. The MGIS is used to develop methods to increase performance of 2G and 3G system by utilizing its data.

The Mobile Network Geographic Information System (MGIS), which is a storage facility for various kinds of network performance information tagged with location information. The MGIS is access by several applications taking advantage of network performance data. The performance data include cell-level information (e.g. data from the network OMC) and terminal level information (data obtained from terminal measurement). An interesting feature is that the MGIS approach is that the MGIS approach can be extend to cover several networks event of several operators. This final project will utilize a Hand phone's NetMonitor facility to support MGIS data.

**Keyword :** Storage facility, performance, location information, cell-level, terminal level, operator, NetMonitor.