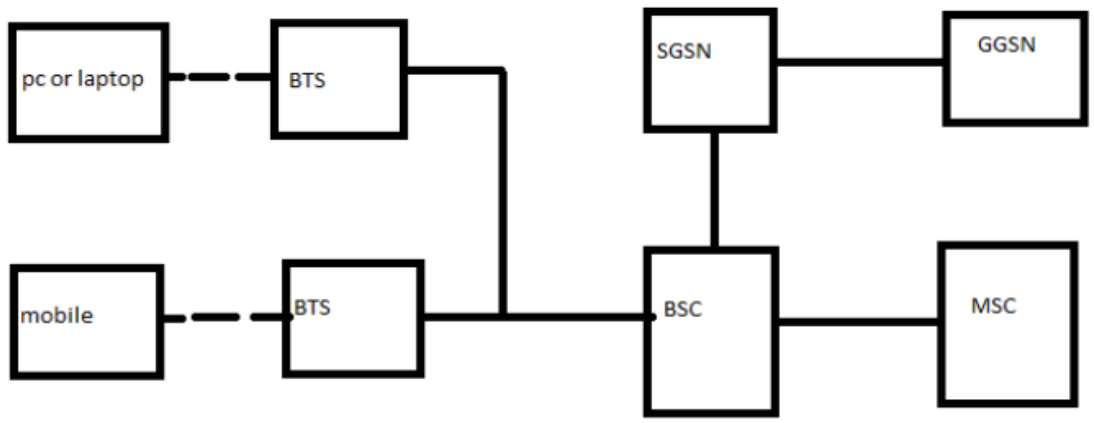
Enhanced Data Rate for GSM Evolution

EDGE (Enhanced Data Rate For GSM Evolution) provides a higher rate of data transmission than normal GSM. It uses a backward-compatible extension of GSM of digital mobile technology. EDGE has a pre-3G radio technology and uses part of ITU's 3G definition. It can work on any network deployed with GPRS (with necessary upgrades).

In order to increase data transmission speed, EDGE was deployed on the GSM network in 2003 by Cingular in the USA.

Working

It uses 8PSK modulation in order to achieve a higher data transmission rate. The modulation format is changed to 8PSK from GMSK. This provides an advantage as it is able to convey 3 bits per symbol, and increases the maximum data rate. However, this upgrade required a change in the base station.



EDGE In GSM Network

Features

- It provides an evolutionary migration path from GPRS to UMTS.
- It is standardized by 3GPP.
- EDGE is used for any packet switched application, like an Internet connection.
- EDGE delivers higher bit-rates per radio channel and it increase the capacity and performance.

Advantage

- It has higher speed.
- It is an “always-on” connection
- It is more reliable and efficient
- It is cost efficient

Disadvantage

- It consumes more battery.
- Hardware needs upgradation.