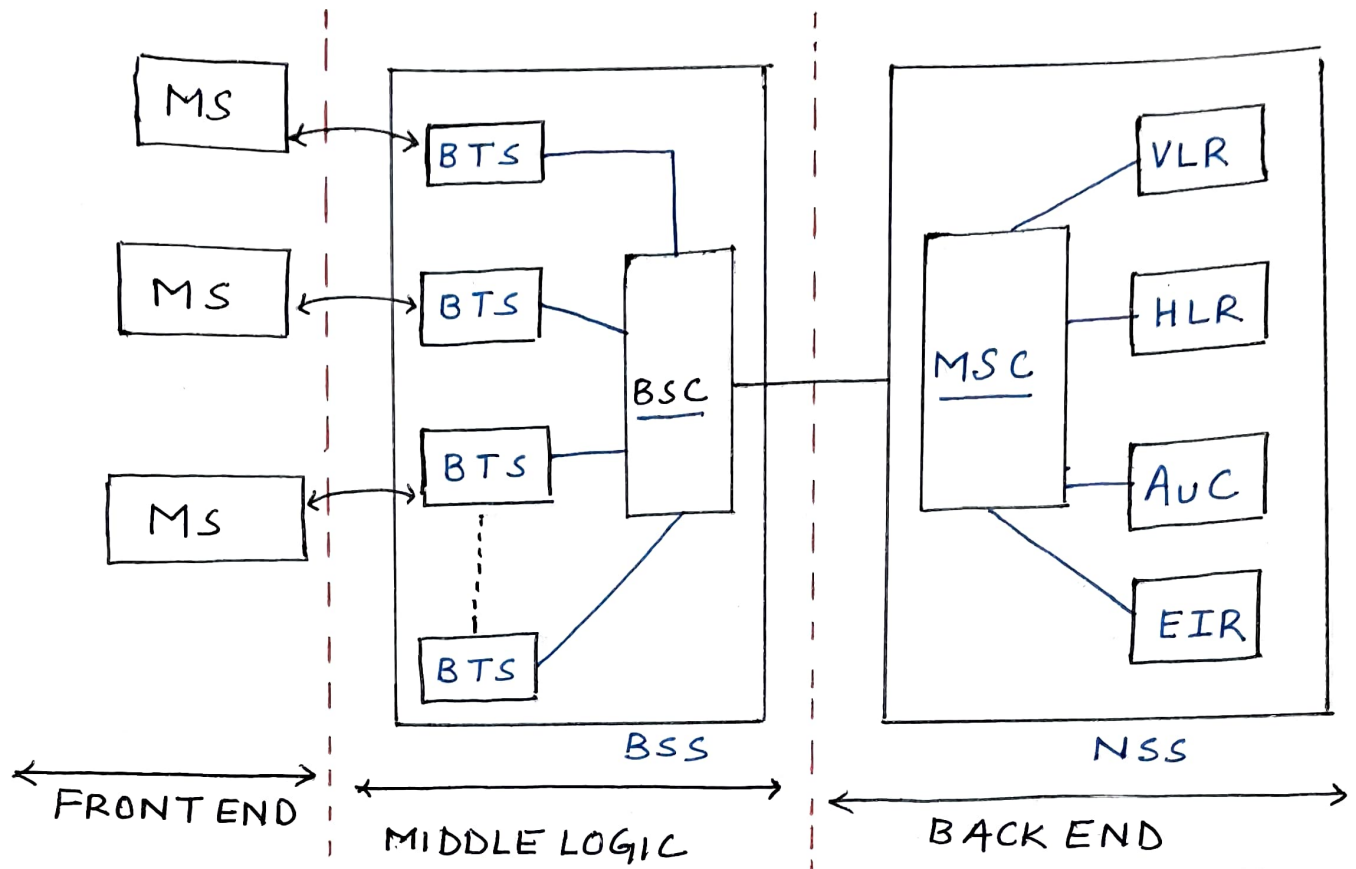


GSM Architecture :- It stands for Global System for Mobile Communication.



1. Front End :- MS stands for mobile stations. Mobile stations are nothing but mobile users.

* MS :- Mobile station

* BTS :- Base transceiver station

* BSC :- Base station controller

* BSS :- Base station subsystem

* MSC :- Mobile switching centre

* NSS :- Network switching subsystem

* VLR :- Visitor Location Register

* HLR :- Home Location Register

* AUC :- Authentication Centre

* EIR :- Equipment Identity Register

2. Middle Logic:- It includes BSS which comprises of BTS & BSC.

(a) BTS:- * It is a Component of BSS.

* It stands for base transceiver station which transmits as well as receives the signal.

* BTS provides signal to our mobiles.

* BTS & MS are interfaced with each other.

(b) BSC:- * BSC stands for base station Controller.

* BSC is used to maintain, coordinate & control all the BTS.

* If traffic is more on a particular BTS, then BSC diverts the traffic to some other BTS to avoid congestion.

* BTS & BSC are interfaced with each other.

3. Back End:- * It includes NSS which comprises of MSC & Registers namely VLR, HLR, AUC & EIR.

(a) MSC:- * MSC stands for mobile switching Centre.

* It is a Component of NSS

* It is used to perform call switching function.

* Many BSC are connected to MSC.

* MSC is used to Control, Coordinate & maintain all BSC.

(b) VLR:- * It stands for Visitor location register.

* It is used to store the temporary information of users. If the user's device is not within the coverage area of the same cell tower, the HLR provides information on the user's current location.

(c) HLR:- * It stands for Home Location Register.

* It is used to store the permanent information of the users like profile, location, subscription pack etc.

(d) AUC:- * It stands for Authentication Centre.

* It is a secured database which has secret key which is used to authenticate the user.

(e) EIR:- It is used to store identity of equipment (IMEI).

* It stands for Equipment Identity Register.

* It stores the information of all valid & invalid phones.
