

# GSM - User Services

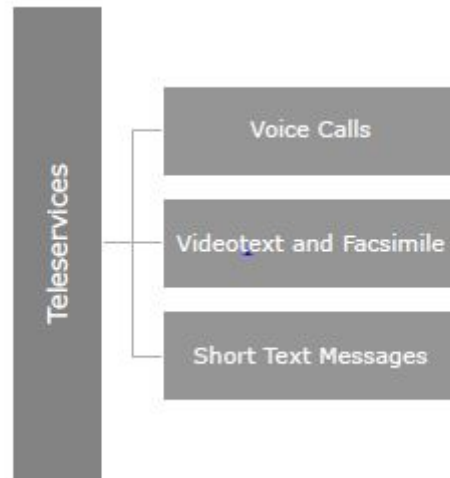
GSM offers much more than just voice telephony. Contact your local GSM network operator to the specific services that you can avail.

GSM offers three basic types of services –

- Telephony services or teleservices
- Data services or bearer services
- Supplementary services

## Teleservices

The abilities of a Bearer Service are used by a Teleservice to transport data. These services are further transited in the following ways –



## Voice Calls

The most basic Teleservice supported by GSM is telephony. This includes full-rate speech at 13 kbps and emergency calls, where the nearest emergency-service provider is notified by dialing three digits.

## Videotext and Facsimile

Another group of teleservices includes Videotext access, Teletex transmission, Facsimile alternate speech and Facsimile Group 3, Automatic Facsimile Group, 3 etc.

## Short Text Messages

Short Messaging Service (SMS) service is a text messaging service that allows sending and receiving text messages on your GSM mobile phone. In addition to simple text messages, other text data including news, sports, financial, language, and location-based data can also be transmitted.

# Bearer Services

Data services or Bearer Services are used through a GSM phone. to receive and send data is the essential building block leading to widespread mobile Internet access and mobile data transfer. GSM currently has a data transfer rate of 9.6k. New developments that will push up data transfer rates for GSM users are HSCSD (high speed circuit switched data) and GPRS (general packet radio service) are now available.

# Supplementary Services

Supplementary services are additional services that are provided in addition to teleservices and bearer services. These services include caller identification, call forwarding, call waiting, multi-party conversations, and barring of outgoing (international) calls, among others. A brief description of supplementary services is given here –

- **Conferencing** – It allows a mobile subscriber to establish a multiparty conversation, i.e., a simultaneous conversation between three or more subscribers to setup a conference call. This service is only applicable to normal telephony.
- **Call Waiting** – This service notifies a mobile subscriber of an incoming call during a conversation. The subscriber can answer, reject, or ignore the incoming call.
- **Call Hold** – This service allows a subscriber to put an incoming call on hold and resume after a while. The call hold service is applicable to normal telephony.
- **Call Forwarding** – Call Forwarding is used to divert calls from the original recipient to another number. It is normally set up by the subscriber himself. It can be used by the subscriber to divert calls from the Mobile Station when the subscriber is not available, and so to ensure that calls are not lost.

- **Call Barring** – Call Barring is useful to restrict certain types of outgoing calls such as ISD or stop incoming calls from undesired numbers. Call barring is a flexible service that enables the subscriber to conditionally bar calls.
- **Number Identification** – There are following supplementary services related to number identification –
  - **Calling Line Identification Presentation** – This service displays the telephone number of the calling party on your screen.
  - **Calling Line Identification Restriction** – A person not wishing their number to be presented to others subscribes to this service.
  - **Connected Line Identification Presentation** – This service is provided to give the calling party the telephone number of the person to whom they are connected. This service is useful in situations such as forwarding's where the number connected is not the number dialed.
  - **Connected Line Identification Restriction** – There are times when the person called does not wish to have their number presented and so they would subscribe to this person. Normally, this overrides the presentation service.
  - **Malicious Call Identification** – The malicious call identification service was provided to combat the spread of obscene or annoying calls. The victim should subscribe to this service, and then they could cause known malicious calls to be identified in the GSM network, using a simple command.
- **Advice of Charge (AoC)** – This service was designed to give the subscriber an indication of the cost of the services as they are used. Furthermore, those service providers who wish to offer rental services to subscribers without their own SIM can also utilize this

service in a slightly different form. AoC for data calls is provided on the basis of time measurements.

- **Closed User Groups (CUGs)** – This service is meant for groups of subscribers who wish to call only each other and no one else.
- **Unstructured supplementary services data (USSD)** – This allows operator-defined individual services.