

IMT 2000 - 3G

- First commercial launch of WCDMA 3G mobile network was by NTT DoCoMo in Japan on 1 October 2001.
- The first network to go commercially live was by SK Telecom in South Korea on the CDMA-based 1xEV-DO technology in January 2002.
- In India, on 11 December 2008, the first 3G mobile and internet services were launched by a state owned company Mahanagar Telecom Nigam Limited (MTNL) in the cities of Delhi and Mumbai

✓ TTS L

IMT-D5

✓
NTT
docomo

SK telecom



I Charging of IN calls

- Two types of Charging
 1. Network Charging
 2. Service charging
- **Network Charging** : Charging for transportation of the Telephone call. It only covers the usage of Telephone Network by the call.
- **Service Charging** : Used to manage one or more specific services.

Definitions in IN services :

- **Network Operator** : Provides the network operating elements and resources for the execution on IN services. Includes IN network components.
- **Service Provider** : Offers service for subscription.
May be a Bank or Account card company or
Network operator
Commercially manages the service and billing.
- **Service Subscriber** : A Person or legal entity having contractual relationship with the service provider on behalf of one or more service users.
The service subscriber is responsible for payment to the Service provider.
- **Service User** : The person or entity who can access the service.

- **Free Phone Service** : 1800XXYYYY

- Reverse charging
- Service subscriber will have one logical number against more than one PSTN Number distributed all over the network.
- can have his own routing plan using TDR,ODR.

- **Virtual private network** :

- Enables subscribers to establish a private network using PSTN
- Lines connected to different network switches constitutes a Virtual Private Automatic Branch exchange.
- subscriber can define his own dialling and routing plan between all his destination locations as if they were on a PABX.
- can make/receive call to other members of the group/external public numbers.
- VPN call is charged to service subscriber's account.

