CHAPTER III

BHARAT SANCHAR NIGAM LIMITED: A PROFILE

Introduction

Bharat Sanchar Nigam Ltd. (henceforth BSNL) formed in October, 2000, is World's 7th largest Telecommunications Company providing comprehensive range of telecom services in India: Wire line, CDMA mobile, GSM Mobile, Internet, Broadband, Carrier service, MPLS-VPN, VSAT, VoIP services, IN Services etc. Presently it is one of the largest & leading public sector units in India.

The BSNL has installed Quality Telecom Network in the country and now focusing on improving it, expanding the network, introducing new telecom services with ICT applications in villages and wining customer's confidence. Today, it has about 46 million line basic telephone capacity, 8 million WLL capacity, 52 Million GSM Capacity, more than 38302 fixed exchanges, 46565 BTS, 3895 Node B (3G BTS), 287 Satellite Stations, 614755 Rkm of OFC Cable, 50430 Rkm of Microwave Network connecting 602 Districts, 7330 cities/towns and 5.6 Lakhs villages.

The BSNL is the only service provider, making focused efforts and planned initiatives to bridge the Rural-Urban Digital Divide ICT sector. In fact there is no telecom operator in the country to beat its reach with its wide network giving services in every nook & corner of country and operates across India except Delhi & Mumbai.
Whether it is inaccessible areas of Siachen glacier and North-eastern region of the country. The BSNL serves its customers with its wide bouquet of telecom services.

The BSNL is numerous uno operator of India in all services in its license area. The company offers vide ranging & most transparent tariff schemes designed to suite every customer. It has set up a world class multi-gigabit, multi-protocol convergent IP infrastructure that provides convergent services like voice, data and video through the same Backbone and Broadband Access Network. At present there are 0.6 million Data One broadband customers.

The company has vast experience in Planning, Installation, network integration and Maintenance of Switching & Transmission Networks and also has a world class ISO 9000 certified Telecom Training Institute. Scaling new heights of success, the present turnover of BSNL is more than Rs.351,820 million (US $ 8 billion) with net profit to the tune of Rs.99,390 million (US $ 2.26 billion) for last financial year (2008-09). The infrastructure asset on telephone alone is worth about Rs.630,000 million (US $ 14.37 billion).

The turnover, nationwide coverage, reach, comprehensive range of telecom services and the desire to excel has made BSNL the No. 1 Telecom Company of India.

**Induction of High Technology:**

Due to the inherent limitations of crossbar equipment in call handling capacity and restrictions in directions of routes, constant R&D efforts were made globally and electronic switching equipment using the computer technology were developed.
In Chennai Telephones, the first electronic exchange of E-10B technology was installed at FLOWER BAZAAR exchange building in December 1985. Apart from handling high traffic, these exchanges are capable of providing many additional phone plus facilities like dynamic STD baring, morning alarm call, call transfer, call waiting etc. In addition, these exchanges can support a number of remote exchanges connected through PCM links. Subsequently many exchanges of this type were commissioned.

In view of the inherent advantages of the E-10B system, the Chennai telephones planned to replace all the electro mechanical exchanges in Chennai. Due to this effort, the percentage of electro mechanical exchange capacity to that of electronic exchange capacity came down from 91% in 1985 to 11% in 1997.

Advanced type electronic switching equipment named OCB 283 was introduced in Chennai in 1996. These exchanges are capable of handling very high traffic with higher system stability.

**Modernization of External Plant:**

Chennai Telephones has also modernized the external plant to reap the total benefit of modern internal plants by embarking on the following projects.

1. Pressurization of junction cables & local cables to avoid water entering the cable through pin holes due to some fault or damage.
2. Ducting of cables both junction & local to avoid total damage to the cables due to digging and other activities by us or other agencies.
3. Connecting the exchanges through PCM links for stability and compatibility in junction working.

4. Providing microwave links between exchanges wherever feasible.

5. Providing optical fibre cable links between exchanges.

The electronic era in telecom switching has opened up many facilities like Dynamic STD locking, abbreviated dialing, call transfer, morning alarm and hot line facilities. Facilities like ISDN (Integrated Switched Data Transmission) and I-NET are also available.

The electronic switching technology is also introduced to handle the national and the inter national subscribers trunk dialing by opening up of an ND-10 Analog SPC TAX(Trunk Automatic Exchange) of 4000 lines capacity which was and supplemented by an advanced version of E-10B digital tax to handle the STD/ISD calls.

The trunk manual exchange was also replaced by a modern computerized digital trunk manual exchange called CD TMX which employs computers with high technology. This system totally avoids the manual booking of calls and putting through of calls by an operator... The trunk calls are handled by a central processor on First-Come First Served Basis as per the type of call booked, namely urgent, ordinary etc. One more unique advantage of this system is that the subscriber can know the call charges immediately after finishing the call.