2 COMPANY PROFILE
(Bharat Sanchar Nigam Limited)

2.1 Telecom industry across the world

Telecommunication is such a process that reduces human effort, and now people can easily communicate with others through this technology. It started as a source of communication across two different entities across the world through voice which branched into data communication which has further expanded into Broadband, ICT and Mobile broadband access. This can be evidently clear by the Fig 2.1 showing the global trend in subscriptions of various services starting from Fixed telephone connections to mobile subscriptions including Internet Subscriptions (ITU Geneva, 2013). The Universe is becoming more and more interconnected reducing the distance across individuals, organizations and communities. This has become not only a resource of interconnection but also a source of economic and social development. As a result, broadband networks are being deployed and rolled out at an increasing pace across the world. The Continents and Countries across the world are competing with each other to demonstrate their strength through multiple deployments and implementation of various telecom services.

The telecom forms an integral part of the economy and social development. Last few years have seen a remarkable change in the Global Telecom market scenario. The benefits and opportunities for Telecommunication are on the Network Space and is directly delivering the social development, health care, education and many more.
These are a few samples that exhibit the potential opportunities and benefits that can be established on Telecommunication Infrastructure.

2.2  Telecom industry across the country

Telecom service plays a critical role in nation development. It is an efficient tool in terms of social and economic development. It is considered to be a major support service required for revamping the developmental aspects of the country. There has been significant policy reforms drive in the Indian Telecom Sector, which has brought a lot of transformation to the country and its services. This includes Liberalization through National Economic Policy in July 1991, National Telecom Policy 1999, National Telecom Policy 2004, National Telecom Policy 2012, etc.
The Telecom services for India are provided by the Ministry of Communications through its Department of Telecommunications. This Department was to take care of various responsibilities including defining the policies, monitoring the performance of various operators, Management of wireless spectrum, R & D in telecom and to keep relationship with other countries in terms of extending the telecom connectivity. This was successfully accomplished by the Department through its wings that are:

- Telecom Engineering Centre – a body to formulate standards and to ensure the testing and validation of the compliance of the equipment to those standards.
- Public Sector Units to take care of the Research & Development, Production of equipment for providing various services through the indigenous efforts.
- The telecom operations of the country was managed by the Department of Telecommunications which established
  - VSNL – for handling the Overseas communication of the country
  - MTNL – Mahanagar Telephone Nigam Limited to take care of the services of the two major metro Districts of the country which includes Mumbai and Delhi.
  - TCIL – Telecommunication Consultants of India Limited, which is responsible for handling all the major projects across the country and abroad.
  - ITI – Indian Telephone Industries Limited to take care of the manufacturing of telecom equipments.
  - CDOT – Centre for Development of Telematics, which is responsible for the research and development of indigenous telecom products including the telecom Exchanges.
Over a period, as the telecom trends world over has been changing, the Department and the Ministry has adopted reforms in the Indian telecom sector by establishing a Telecom Commission with specific objectives and vision for the improvement of Telecom Services across the country. The Establishment of a regulatory body named TRAI – Telecom Regulatory Authority of India, TDSAT – Telecom Disputes Settlement and Appellate Tribunal to have more control and governance in the Telecommunication space. Apart from the establishment of Bodies, the focus on Tariff and the reduction / abolishment of ADC also resulted in the increase of Telecom Players in the country.

2.3 The formation of BSNL & MTNL

The important milestone in the reforms includes the formation of a Public Sector Company named Bharat Sanchar Nigam Limited to provide all the telecom services across the country except two major metro districts Mumbai and Delhi which is taken care by Mahanagar Telephone Nigam Limited (MTNL). The Government started its Unified Access Service Licenses for basic and cellular Services across the country after the formation of its own Public Sector Unit. Since then, Indian Telecom Industry has seen unprecedented customer growth crossing 940 million connections. Department of Telecommunications, Ministry of Communication & Information Technology in India has expanded its wings by including Two Major verticals namely TERM – Telecom Enforcement and Resource Monitoring Cell, TCOE- Telecom Centre of Excellence, USOF – Universal Service Obligation Fund apart from TEC and WPC. With these reforms India started providing land line connections, Mobile connections, Broadband Connections, Value Added Services, Internet services, broadband services and other managed Services for the customers across the country.
India stands in the fourth position by the size of a telecom market after China, Japan and South Korea.

The Indian telecommunications network was considered as the third largest in the world during 2010 with 621 million connections (as on March 2010) which have now grown beyond 932 million. In recent years, 45% of growth witnessed in the Indian telecommunication sector, this growth is possible because of the proactive policy decisions of the Government and the active participation of the Private and Public Sectors in the field of Telecom.

2.4 Indian Broadband scenario

Internet service was started through the educational institutions and thereon by the Department of Telecommunication as a service to the common man through the Packet Switch Public Data Networks. These PSPDNs then branched into Internet Nodes and started serving the country. The growth of data trend and its huge market brought lot of private operators to take part in providing the Data / Internet Services across the country. Private participation was encouraged in 1998 to drive the growth of Internet and to increase its penetration.

Government of India announced its Broadband Policy 2004 exclusively to focus on the broadband services and to increase its penetration. It is because of the impact the broadband service has made in terms of GDP and the quality of life through social development across countries. Broadband services were conceived to be launched through various technologies including Asymmetric Digital Subscriber Lines (ADSL), Cable TV network, DTH and Optical Fibre. Broadband services are considered to be Always ON and with the minimum speed of 256 Kbps.
2.5 Profile of the Company- Bharat Sanchar Nigam Limited

Department of Telecommunications began its state-owned Public sector Company namely Bharat Sanchar Nigam Limited on 15th September 2000 to take over the operations from former Department of Telecommunication (DoT). BSNL is the market leader in broadband, land Line and National Transmission Network. BSNL has been started with the great goal of becoming the leader in the telecom services with global reach, the company also had a vision of providing customer centric services with world class customer care, sales and marketing and to use the technology in its full potential for offering the services to the customers of India.

Apart from the above points, its mission included providing a conducive work environment with strong focus on performance and establishing efficient business processes enabled by IT. It has the pride of being a leading public sector unit which provides a complete range of telecommunication services across India.

2.5.1 Services of BSNL

BSNL is the only service provider with the highest level of Service Orientation, which is much higher than the Corporate Social Responsibility and is aimed at bridging the digital divide in the ICT Sector across the country. BSNL provides a wide bouquet of telecom services to its customers including “Wireline, CDMA mobile, GSM mobile, Internet, Broadband, Carrier service, MPLS-VPN, VSAT, VoIP, IN Services & FTTH”.

BSNL offers a varied range of services with most transparent tariff structure which is exclusively designed to suit every customer. In basic services, BSNL is very much ahead of its rivals with 24.58 million wireline customer base, i.e., around 71.93% share of Wireline Subscriber base. It has around 95.15 million mobile customer which includes 90.09 cellular / GSM customers and 5.06 million WLL Customers.
2.5.2 BSNL Initiatives

BSNL is the organization that has a lot of FIRST of its KIND projects to its credit. This includes the First Packet Switched Public Data Network, First Internet Nodes across the country, First of its kind National Internet Backbone Network for the country aimed at providing services to customers, platform for the ISPs to interconnect and to be bridge to connect International Gateways, First of its kind MPLS (Multi-protocol Label Switching Network) to provide VPN connectivity to Customers apart from interconnecting various Intra and Internet Networks, First of its kind Broadband networks across the country exclusively to provide Broadband Services to the customers, First of its kind CDMA Network, First to launch the Synchronous Digital Hierarchy Networks, DWDM Networks and Optical Fibre Networks etc.

BSNL has set up a world class IP infrastructure to provide convergence services and to support the Broadband Network. Currently, BSNL has 8.09 Million Broadband customers available all over India.

2.5.3 BSNL infrastructure capacity

BSNL is having the capacity of 43.74 million Basic Telephones, 8.83 million WLL, 125.20 million mobile, 37885 fixed line exchanges, 68162 GSM BTSs, 12071 CDMA towers and 197 Satellite Stations. It also owns 6,86,644 route kilo meters of OFC, 50430 Route Kilo Meters of microwave network connecting 623 districts, 7330 cities/towns and 5.8 Lakhs villages. The company has got immense experience in terms of installing and commissioning large networks, which includes switching and transmission system. From the training point of view, the organisation capable of training people in the latest communication technologies and it owns the ISO 9000 certified best in class Telecom Training Institutes. BSNL Assets worth is valuing
more than ₹ 71,333 Crores and it is in the form of Land, Building, Cables, Plants and Apparatus, etc.

2.5.4 BSNL’s new projects

BSNL has been continuously growing and is one of the largest & leading public sector units in India, providing a bunch of telecom services having a customer base of 121.65 million as on 31st March, 2013 and further plans to increase it to 189 million with 165.47 million wireless customers by March, 2017.

It provides Broadband Services and has covered more than 1.69 Lakh villages. The Customer base of BSNL has reached 10.13 million customers in March 2013 and is steadily increasing. It also provides VAS (Value Added Services) including FTTH (Fibre to the Home), Mobility in WLL, Virtual Private Networks apart from the few significant projects under implementation as mentioned below:

- BSNL GSM Network is under expansion activity, through which 15 Million additional lines are going to be added in the network.
- 3.2 Million Broadband connection capacity is added.
- Augmentation of Optical Fiber network.
- BSNL is building a huge Network for the Defense service from the DoT order
- BSNL supports the plan to cover all village panchayat through High speed Broadband Network

It is an active member of various International Projects to enable International Communications through Undersea cable projects which includes Bharat Lanka Cable System, Europe India Gateway (EIG) Cable System, Millennium Cable System (East, West and UAE), SEAMEWE4 projects, BSNL as an organization committed to the people of India in providing affordable and quality telecom services. BSNL is always
in line with the Government policies including NTP 1999, Broadband Policy 2004, NTP 2012 etc.

BSNL executes various projects, deploying multiple networks and provides a list of services to its customers through its Telecom Circles and Districts (SSAs- Secondary Switching Areas). All the Circle Units get themselves aligned to the business goals of the HQ and are always striving hard to provide better services to the customers across the country. The Circle Units are aligned with that of States, and the SSA Units are aligned with the Districts under the particular State. Their performance is weighed and monitored by the Corporate Office based on the services delivery, revenue generation, etc.

2.6 Profile of BSNL - Bangalore Telecom District (BGTD)

The Telecom Service operations are executed through Circle Bodies that are further supported by Telecom District bodies called as SSAs. The country is divided into states, and Karnataka Telecom Circle is one such Circle Body that provides the telecom services across the state of Karnataka. Bangalore Telecom District is one of the SSAs of the Karnataka Telecom Circle.

2.6.1 Infrastructure and Network capacity of BGTD

Bangalore Telecom District is the 5th largest Telecom District in the country covering a total area of 8029 Sq.Kms. Including Urban and the rural areas of Bangalore District. This has got 286 telephone Electronic exchanges and has a network that is entirely digital as it predominantly has the latest technology exchanges. Bangalore Telecom District serves its customers through the Exchanges that have an equipped capacity of 13 Lakhs and with 10 Lakhs working connections.
Bangalore Telecom District, in addition to Basic and Mobile Telephone Services, is also providing Value Added services like ISDN, IN, VPN, Internet, Inet, Data one, MPLS-VPN services and a number of Phone Plus facilities including CLIP. The limited mobile (WLL) service is being offered.

Bangalore is called as the Silicon Valley of India and is a growing IT City of this country. BSNL Bangalore stands first in the country to have provided the maximum number of Broadband connections. All the Broadband connections under any plan (except the unlimited download/upload Plan) have recently been upgraded to avail speed upto2MBps without seeking any extra payment / request. BSNL is providing speeds up to 8 mbps. BSNL has launched IPTV, i.e., television on phone line, at affordable price to enable the subscribers to view video/programs on demand at a world class quality.3G service was introduced in Bangalore Telecom District on 19-02-2010 to enable the subscribers, a new generation value added services.

Various services provided by Bangalore Telecom District are as follows:

- BASIC TELEPHONE SERVICE
- ISDN (Integrated Services Digital Network)
- CENTREX
- COUNTRYWIDE CELLULAR SERVICE [Prepaid & Postpaid]
- IN (Intelligent Network) Services
- LEASED CIRCUITS
- MPLS based Data Virtual Private Network:
- WLL (Wireless in Local Loop) SERVICE
- INTERNET NetOne
- Broadband Services
- IPTV
- Web

### 2.6.2 Service statistics of BGTD

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<tr>
<th>S.No</th>
<th>Item</th>
<th>Total</th>
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<td>1</td>
<td>AREA COVERED</td>
<td>8,029 SQ.KMS</td>
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<td>2</td>
<td>POPULATION SERVED</td>
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<td>3</td>
<td>NO. OF TELEPHONE EXCHANGES</td>
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<td>WORKING CONNECTIONS</td>
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<td>NO. OF STATIONS ACCESSIBLE THROUGH STD</td>
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<td>7</td>
<td>NO. OF STATIONS ACCESSIBLE THROUGH ISD</td>
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<td>NO. OF MOBILE CONNECTIONS IN KARNATAKA</td>
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<td>13</td>
<td>NO. OF CUSTOMER SERVICE CENTRES ( + ONE CTO )</td>
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<td>NO. OF INTERNET CONNECTIONS (SANCHARNET) (PSTN-838 &amp; ISDN-1)</td>
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<td>NO. OF INTERNET CONNECTIONS (NETONE)</td>
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<td>NO OF DATAONE BROADBAND CONNECTIONS</td>
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<td>NO. OF MLLN (LEASED) CIRCUITS</td>
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<td>20</td>
<td>NO. OF NON-MLLN (LEASED) CIRCUITS</td>
<td>1,638</td>
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(Source: www.bangaloretelendistrict.com)

Table 2.1 Service Statistics of Bangalore Telecom District

2.6.3 Services offered by BGTD

Broadband services are provided with two categorizations namely Home Plans and Business Plans. The broadband internet service can be availed on the existing BSNL landline. The speed ranges from 256 kbps to 12 mbps depending upon the plan opted by the customer. As the technology has got matured, in Broadband even at the minimum speed of 256 kbps, the connection is 4.5 times faster than dial-up, and there is no hassle of redialing and disconnection.

Already about 3, 35,351 customers have been provided with broadband services, and the demand from the customers of BSNL is very encouraging. BSNL Bangalore intends to expand the broadband services during the current financial year by augmenting the capacity and launching a variety of services. 3G service was
introduced in Bangalore Telecom District very recently and is provided through 632 numbers of towers that are upgraded for 3G services. Bangalore telecom is upgrading the rest of the towers with 3G services in a phased manner. Wireless PCOs, Fixed Line Pre-paid (FLPP), PCOs with additional Line are also provided apart from the list provided above.

2.6.4 Customer care initiatives at Bangalore Telecom District

There are lots of customer care measures implemented by Bangalore Telecom District which includes the establishment of Customer Service Centers (CSCs) across the District which will entertain and provide services to the needy customers of the district. Bangalore Telecom District has got an online website www.bangaloretelecom.com through which information can be obtained by the customers and public. Customers can also make use of this website for posting their grievances. BSNL’s main website in New Delhi www.bsnl.co.in can also be accessed for getting more information about BSNL’s services/tariff of various services.

Payment of Bills, Selection of various services, Plans, Offerings and to provide all sorts of assistance is the job of the CSC representative.

To ensure that the Customer Experience is highly enjoyed by the customers of Bangalore, there is a complaint cell to which the complaints are booked. The escalated cases fall into the Public Grievance Cell. They conduct Open House Sessions and Telephone Adalats to grant justice to the customers.

Customer care measures and improving the Business Efficiency has led Bangalore Telecom District and BSNL to launch the Computerization of its resources. Almost all activities of BSNL in Bangalore have been computerized, viz., Commercial activities like Booking New Connections, Shifts etc., Billing, Operation &
Management. BSNL Bangalore has been using the Information technology to the best possible ways for inter connecting the various activities.

This research is about enhancing the Customer Experience of BSNL Broadband Customers for which the survey is conducted at Bangalore Telecom District which is one of the divisions of BSNL’s Karnataka Telecom Circle.