

## Telecom Sector Profile

### 1. Background

Indian telecom is more than 165 years old, beginning with the commissioning of the first telegraph line between Kolkata and Diamond Harbour in 1839. In 1948, India had 0.1 million telephone connections with a telephone density of about 0.02 telephone per hundred population. As of June 2007, there were 225.21 million telephone (including cellular mobile) connections in the country with a telephone density of 19.86 telephones per hundred population. Out of total 225.21 million telephone connections, 185.13 million (nearly 82 percent) connections pertained to wireless and mobile phones.

Some administrative and functional aspects of the telecom sector in India are discussed below:

### 2. Administration and Control

The Telecom Commission set up in April 1989 has the administrative and financial powers of the Government of India to deal with various aspects of telecommunications. The Commission and the Department of Telecommunications (DoT) are responsible, *inter alia*, for policy formulation, licensing, wireless spectrum management, administrative monitoring and control of the Public Sector Undertakings (PSUs) engaged in telecommunication services, research and development, standardization/validation of equipment, and international relations.

The Centre for Development of Telematics (C-DOT) is an autonomous body established in 1984 with the objective of developing a new generation of digital switching items. It has developed a wide range of switching and transmission products both for rural and urban applications.

Two important wings of DoT are the Telecom Engineering Centre (TEC) and the Wireless Planning and Coordination (WPC) wing. TEC is devoted to product validation and standardization for user agencies. It also provides technical and engineering support to the Telecom Commission and the field units.

The Wireless Planning and Coordination wing deals with the policies of spectrum management, wireless licensing, frequency assignments, international coordination for spectrum management and administration of Indian Telegraph Act, 1885 for radio communication systems and Indian Wireless Telegraphy Act, 1933. In order to administer the use of radio frequencies, the licences/renewals for use of wireless equipment and the frequencies are authorised by WPC. The licences are granted for specific periods on payment of prescribed licence fees and royalty in advance and are renewed on expiry of the validity periods.

### **3. Regulatory control**

The entry of private service providers in 1992 brought with it the inevitable need for independent regulation. The Telecom Regulatory Authority of India (TRAI) was thus established with effect from 20 February 1997 by an Act of Parliament, called the Telecom Regulatory Authority of India Act, 1997, to regulate telecom services, including fixation/revision of tariffs for telecom services, which were earlier vested in the DoT. The TRAI Act was amended by an ordinance, effective from 24 January 2000, establishing a Telecommunications Dispute Settlement and Appellate Tribunal (TDSAT) to take over the adjudicatory and disputes functions from TRAI. TDSAT was set up to adjudicate any dispute between a licensor and a licensee, between two or more service providers, between a service provider and a group of consumers, and to hear and dispose of appeals against any direction, decision or order of TRAI.

### **4. Telecom Policies**

The first National Telecom Policy was announced in 1994 with a major thrust on universal service and qualitative improvement in telecom services; and starting of private sector participation in basic telephone services. The New Telecom Policy 1999 (NTP-99) allowed private operators to migrate from the fixed licence fee regime to a revenue-sharing regime. Other provisions of NTP-99 included permitting of interconnectivity and sharing of infrastructure among various service providers within the same areas of operations; separation of the policy and licensing functions of DoT from the service provision function; opening of National Long Distance (NLD) and International Long Distance (ILD) services to competition; and carrying of both voice and data traffic by service providers.

NTP-99 laid emphasis on universal service and sought to achieve telephone on demand and increase in rural tele-density. In pursuance of these objectives, a fund named Universal Service Obligation Fund (USO Fund) was established in April 2002 under the administrative control of DoT, to exclusively meet the universal service obligations. The resources for implementation of USO are raised through a Universal Service Levy which has presently been fixed at 5 *per cent* of the Adjusted Gross Revenue of all telecom service providers except the pure value added service providers like internet, Voice Mail, and E-Mail service providers.

As of 31 March 2002, unrestricted entry was allowed in basic services on a revenue-sharing basis. All telecom services were opened up for private sector participation: national and international data connectivity were opened to all; and internet services were also opened up without any restriction on the number of entrants and without any entry fee.

A National Frequency Allocation Plan (NFAP-2002) was evolved in line with the Radio Regulations of the International Telecom Union (ITU) to cater to the conflicting demands on the spectrum.

## 5. Government PSUs in the Telecom Sector

There are six Public Sector Undertakings in the Telecom Sector. Mahanagar Telephone Nigam Limited (MTNL) and Bharat Sanchar Nigam Limited (BSNL) are basically in the business of providing telecommunication services in the country and were incorporated in 1986 and 2000, respectively. MTNL provides telecommunication services in Mumbai and Delhi and rest of the country is covered by BSNL. Besides these two, other public sector undertakings in the telecom sector are Indian Telephone Industries Limited (ITI), Telecommunications Consultants India Limited (TCIL), Intelligent Communication Systems India Limited (ICSIL) and Millennium Telecom Limited (MTL). ITI Limited was established in 1948 for manufacturing a wide range of equipment, which included electronic switching equipment, transmission equipment and telephone instruments of various types. TCIL was established in 1978 for providing know-how in all fields of telecommunications at the global level. The core competence of TCIL is in communications network projects, software support, switching and transmission systems, cellular services, rural telecommunications, and optical fibre based backbone network. ICSIL was established in April 1987 for manufacturing computer based communication systems and equipment to meet the growing demand in communication and information technology sector. However, the company ceased its manufacturing activities and surrendered its manufacturing license. At present, the company is engaged in trading of computers and other telecommunication system. It also provides engineering, technical and management consultancy services for computers and communication systems in India and abroad. MTL was established in February 2000 as a wholly owned subsidiary of MTNL for providing internet services in the country. The company is handling a project for laying submarine cable from India to south East Asia and Middle East with the ultimate intent to extend it eventually to the USA and Europe.

## 6. Financial performance of PSUs in the Telecom Sector

Some of the important financial performance indicators of the telecom PSUs, for the year ended 31 March 2007, were as follows:

PSU	Investment in shares by Government			Govt. Loans	Total income earned	Dividend paid on Govt. investment	Capital employed	Profit before tax (PBT)	Percentage of PBT to capital employed
	Equity shares	Preference shares	Total						
(Rupees in crore)									%
BSNL	5000.00	7500.00	12500.00	3720	39715.11	1175.00	86805.98	8153.81	9.39
MTNL	354.37	-----	354.37	----	5582.85	141.75	10464.17	792.68	7.58
ITI	267.47	-----	267.47	100	1873.98	----	3003.49	(404.70)	(13.47)
TCIL	28.80	-----	28.80	----	410.61	----	273.43	5.94	2.17
ICSIL	---	---	---	---	5.60	---	0.80	0.06	7.50
MTL	-----*	-----	-----	-----	0.22	-----	5.06	0.04	0.79
<b>Total</b>	<b>5650.64</b>	<b>7500.00</b>	<b>13150.64</b>	<b>3820</b>	<b>47588.37</b>	<b>1316.75</b>	<b>100552.93</b>	<b>8547.83</b>	<b>8.50</b>

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\* Rs 2.88 crore of equity share capital of MTL was fully subscribed by MTNL.

As may be seen from the above table, on capital investment of Rs 13,150.64 crore in these six telecom PSUs, the Government received dividend of Rs 1,316.75 crore, which worked out to 10.01 *per cent*. The total income and the profit before tax earned by the six telecom PSUs during the year were Rs 47,588.37 crore and Rs 8,547.83 crore, respectively. On the total capital employed of Rs 1,00,552.93 crore in the above PSUs, the overall percentage of profit before tax worked out to 8.50 *per cent*.